

# **European Scientific Journal, *ESJ***

*November 2020*

**European Scientific Institute, ESI**

*The content is peer reviewed*

**ESJ Social Sciences**

*November 2020 edition vol. 16, No. 31*

The content of this journal do not necessarily reflect the opinion or position of the European Scientific Institute. Neither the European Scientific Institute nor any person acting on its behalf is responsible for the use of the information contained in this publication.

ISSN: 1857-7431 (Online)

ISSN: 1857-7881 (Print)

---

## *About the Journal*

The “European Scientific Journal”, ESJ is a peer-reviewed and open access journal, which publishes research articles and literature reviews in English, French or Spanish. This monthly issued publication of the European Scientific Institute, ESI embraces a wide range of academic disciplines. Submissions in the area of social sciences, humanities, life sciences, medical and natural sciences are welcome.

Founded in 2010, on European soil, ESJ strives to become a venue for academic attainments from all around the globe. On its way to scientifically sound publications, it connects reviewers and authors from different countries and academic titles, providing knowledge transfer and sharing of best practices. In the past 10 years over 28.000 researchers have published their papers with ESJ.

ESJ supports the researchers in overcoming contemporary barriers. Our effort is to provide decency through a realistic amount of publication charges; Fairness by cutting the timeframe for reviewer selection and first decision; Agility through permanent communication with the authors and reviewers; professionalism through a constant promotion of academic ethics and international impact through support of open science and interdisciplinary research.

*Sincerely,*

***Jovan Shopovski, PhD***

*European Scientific Journal (ESJ)*

*Managing Editor*

---

# International Editorial Board

**Jose Noronha Rodrigues,**  
University of the Azores, Portugal

**Nino Kemertelidze,**  
Grigol Robakidze University, Georgia

**Jacques de Vos Malan,**  
University of Melbourne, Australia

**Franz-Rudolf Herber,**  
University of Saarland, Germany

**Annalisa Zanola,**  
University of Brescia, Italy

**Vayia Karaïskou,**  
Open University of Cyprus

**Robert Szucs,**  
Szolnok University College, Hungary

**Dragica Vujadinovic,**  
University of Belgrade, Serbia

**Pawel Rozga,**  
Technical University of Lodz, Poland

**Mahmoud Sabri Al-Asal,**  
Jadara University, Irbid-Jordan

**Rashmirekha Sahoo,**  
Melaka-Manipal Medical College, Malaysia

**Daniel Barredo,**  
University Laica Eloy Alfaro de Manabi, Ecuador

**Georgios Vousinas,**  
University of Athens, Greece

**Asif Jamil,**  
Gomal University DIKhan, KPK, Pakistan

**Jowati binti Juhary,**  
National Defense University of Malaysia, Kuala Lumpur, Malaysia

**Faranak Seyyedi,**  
Azad University of Arak, Iran

**Abe N'Doumy Noel,**  
International University of Social Sciences Hampate-Ba (IUSS-HB) Abidjan RCI, Ivory  
Coast

**John Kamau Gathiaka,**  
University of Nairobi, Kenya

**Majid Said Al Busafi,**  
Sultan Qaboos University- Sultanate of Oman

**Nguyen Thi Hoai Phuong,**  
Ho Chi Minh City University of Law, Vietnam

**Chaudhry Zahid Javid,**  
Taif University, Saudi Arabia

**Dejan Marolov,**  
European Scientific Institute, ESI

**Gloria Esteban de la Rosa,**  
University of Jaen, Spain

**Noor Alam,**  
Universiti Sains Malaysia, Malaysia

**Rashad A. Al-Jawfi,**  
Ibb University, Yemen

**Muntean Edward Ioan,**  
University of Agricultural Sciences and Veterinary Medicine (USAMV) Cluj-Napoca,  
Romania

**Hans W. Giessen,**  
Saarland University, Saarbrucken, Germany

**Naheed Vaida,**  
University of Kashmir, India

**Frank Bezzina,**  
University of Malta, Malta

**Monika Bolek,**  
University of Lodz, Poland

**Michele Minor-Corriveau,**  
Laurantian University, Canada

**Robert N. Diotalevi,**  
Florida Gulf Coast University, USA

**Daiva Jureviciene,**  
Vilnius Gediminas Technical University, Lithuania

**Mariangela Giusti,**  
University of Milan - Bicocca, Italy

**Anita Lidaka,**  
Liepaja University, Latvia

**Rania Zayed,**  
Cairo University, Egypt

**Louis Valentin Mballa,**  
Autonomous University of San Luis Potosi, Mexico

**Ziad Said,**  
College of the North Atlantic, Qatar

**Lydia Ferrara,**  
University of Naples, Italy

**Byron A Brown,**  
Botswana Accountancy College, Botswana

**Grazia Angeloni,**  
University "G. d'Annunzio" in Chieti, Italy

**Chandrasekhar Putcha,**  
California State University, Fullerton, CA, USA

**Mona Kassem,**  
National Research Centre, Egypt

**Cinaria Tarik Albadri,**  
Trinity College Dublin University, Ireland

**Mahammad A. Nurmamedov,**  
State Pedagogical University, Azerbaijan

**Thomas Fenzl,**  
Alps-Adria University of Klagenfurt, Austria

**Henryk J. Barton,**  
Jagiellonian University, Poland

**Stefanos Spaneas,**  
University of Nicosia, Cyprus

**Assem El-Shazly,**  
Zagazig University, Egypt

**Wei Hao,**  
Beijing Normal University, China

**Saltanat Meiramova,**  
S.Seifullin AgroTechnical University, Kazakhstan

**Rajasekhar Kali Venkata,**  
University of Hyderabad, India

**Nishan Rafi Havandjian,**  
California Polytechnic State University, USA

**Ruzica Loncaric,**  
Josip Juraj Strossmayer University of Osijek, Croatia

**Stefan Vladutescu,**  
University of Craiova, Romania

**Anna Zelenkova,**  
Matej Bel University, Slovakia

**Kevin B. O'Connor,**  
McGill University, Canada

**Billy Adamsen,**  
University of Southern Denmark, Denmark

**Nawab Ali Khan,**  
Aligarh Muslim University, India

**Marinella Lorinzi,**  
University of Cagliari, Italy

**Arfan Yousaf,**  
Pir Mehr Ali Shah Arid Agriculture University, Pakistan

**Bianca Gioia Marino,**  
University of Naples Federico II, Italy

**Franko Milost,**  
Faculty of Management, Koper, Slovenia

**Giuseppe Cataldi,**  
University of Naples “L’Orientale”, Italy

**Daniel Velasco,**  
Chicago School of Professional Psychology, USA

**N. K. Rathee,**  
Delaware State University, USA

**Michael Ba Banutu-Gomez,**  
Rowan University, USA

**Adil Jamil,**  
Amman University, Jordan

**Habib Kazzi,**  
Lebanese University, Lebanon

**Valentina Manoiu,**  
University of Bucharest, Romania

**Henry J. Grubb,**  
University of Dubuque, USA

**Daniela Brevenikova,**  
University of Economics, Slovakia

**Genute Gedviliene,**  
Vytautas Magnus University, Lithuania

**Vasilika Kume,**  
University of Tirana, Albania

**Mohammed Kerbouche,**  
University of Mascara, Algeria

**Adriana Gherbon,**  
University of Medicine and Pharmacy Timisoara, Romania

**Pablo Alejandro Olavegogeochea,**  
National University of Comahue, Argentina

**Raul Rocha Romero,**  
Autonomous National University of Mexico, Mexico

**Oihab Allal-Cherif,**  
KEDGE Business School, France

**Izabela Dembinska,**  
University of Szczecin, Poland

**Driss Bouyahya,**  
University Moulay Ismail, Morocco

**William P. Fox,**  
Naval Postgraduate School, USA

**Rania Mohamed Hassan,**  
University of Montreal, Canada

**Tirso Javier Hernandez Gracia,**  
Autonomous University of Hidalgo State, Mexico

**Alicia Marchant Rivera,**  
University of Malaga, Spain

**Lucia D'Ambrosi,**  
University of Macerata, Italy

**Tilahun Achaw Messaria,**  
Addis Ababa University, Ethiopia

**George Chiladze,**  
University of Georgia, Georgia

**Elisa Rancati,**  
University of Milano-Bicocca, Italy

**Alessandro Merendino,**  
University of Ferrara, Italy

**David L. la Red Martinez,**  
Northeastern National University, Argentina

**Anastassios Gentzoglani,**  
University of Sherbrooke, Canada

**Awoniyi Samuel Adebayo,**  
Solusi University, Zimbabwe

**Milan Radosevic,**  
Faculty Of Technical Sciences, Novi Sad, Serbia

**Berenyi Laszlo,**  
University of Miskolc, Hungary

**Hisham S Ibrahim Al-Shaikhli,**  
Auckland University of Technology, New Zeland

**Omar Arturo Dominguez Ramirez,**  
Hidalgo State University, Mexico

**Francesco Lenci,**  
Institute of Biophysics, Italy

**Hafiz Muhammad Iqbal,**  
University of the Punjab, Pakistan

**Bupinder Zutshi,**  
Jawaharlal Nehru University, India

**Pavel Krpalek,**  
University of Economics in Prague, Czech Republic

**Mondira Dutta,**  
Jawaharlal Nehru University, India

**Evelio Velis,**  
Barry University, USA

**Asma Zaidi,**  
Kansas City University of Medicine and Biosciences, USA

**Mahbubul Haque,**  
Daffodil International University, Bangladesh

**Diego Enrique Baez Zarabanda,**  
Autonomous University of Bucaramanga, Colombia

**Juan Antonio Lopez Nunez,**  
University of Granada, Spain

**Nouh Ibrahim Saleh Alguzo,**  
Imam Muhammad Ibn Saud Islamic University, Saudi Arabia

**Ashgar Ali Ali Mohamed,**  
International Islamic University, Malaysia

**A. Zahoor Khan,**  
International Islamic University Islamabad, Pakistan

**Valentina Manoiu,**  
University of Bucharest, Romania

**Fabio Pizzutilo,**  
University of Bari "Aldo Moro", Italy

**Andrzej Palinski,**  
AGH University of Science and Technology, Poland

**Munawar Salahuddin,**  
National University of Science Technology, Pakistan

**Jose Carlos Teixeira,**  
University of British Columbia Okanagan, Canada

**Horst Hanke,**  
Technical University Darmstadt, Germany

**Elpiniki I. Papageorgiou,**  
Technological Educational Institute of Central Greece, Greece

**Enkeleint - Aggelos Mechili,**  
National and Kapodistrian University of Athens, Greece

**Irina Matijosaitiene,**  
Kaunas University of Technology, Lithuania

**Anita Auzina,**  
Latvia University of Agriculture, Latvia

**Martin Gomez-Ullate,**  
University of Extremadura, Spain

**Nicholas Samaras,**  
Technological Educational Institute of Larissa, Greece

**Emrah Cengiz,**  
Istanbul University, Turkey

**Michel Lesne,**  
University of Louvain, Belgium

**Andre Ozer,**  
University of Liege, Belgium

**Francisco Raso Sanchez,**  
University of Granada, Spain

**Simone T. Hashiguti,**  
Federal University of Uberlandia, Brazil

**Tayeb Boutbouqalt,**  
University, Abdelmalek Essaadi, Morocco

**Maurizio Di Paolo Emilio,**  
University of L'Aquila, Italy

**Ismail Ipek,**  
Istanbul Aydin University, Turkey

**Olena Kovalchuk,**  
National Technical University of Ukraine, Ukraine

**Oscar Garcia Gaitero,**  
University of La Rioja, Spain

**Alfonso Conde,**  
University of Granada, Spain

**Mohsen Hanif,**  
Kharazmi University, Iran

**Jose Antonio Pineda-Alfonso,**  
University of Sevilla, Spain

**Jingshun Zhang,**  
Florida Gulf Coast University, USA

**Rodrigue V. Cao Diogo,**  
University of Parakou, Benin

**Salem Marzougui,**  
ElKef, Tunisia

**Tunjica Petrusevic,**  
Josip Juraj Strossmayer University of Osijek, Croatia

**Olena Ivanova,**  
Kharkiv National University, Ukraine

**Marco Mele,,**  
Unint University, Italy

**Okyay Ucan,,**  
Omer Halisdemir University, Turkey

**Arun N. Ghosh,,**  
West Texas A&M University, USA

**Matti Raudjarv,,**  
University of Tartu, Estonia

**Cosimo Magazzino,**  
Roma Tre University, Italy

**Susana Sousa Machado,**  
Polytechnic Institute of Porto, Portugal

**Jelena Zascerinska,**  
University of Latvia, Latvia

**Umman Tugba Simsek Gursoy,**  
Istanbul University, Turkey

**Zoltan Veres,**  
University of Pannonia, Hungary

**Vera Komarova,**  
Daugavpils University, Latvia

**Cosmin Stefan Dogaru,**  
University of Bucharest, Romania

**Tiffany T. Boury,**  
Franciscan University of Steubenville, USA

**Salloom A. Al-Juboori,**  
Muta'h University, Jordan

**Stephane Zingue,**  
University of Maroua, Cameroon

**Jawed Iqbal,**  
National University of Sciences & Technology, Pakistan

**Tanzer Celikturk,**  
Pamukkale University, Turkey

**Ruth Erika Lerchster,**  
Alpen-Adria University Klagenfurt, Austria

**Pierluigi Passaro,**  
University of Bari Aldo Moro, Italy

**Georges Kpazai,**  
Laurentian University, Canada

**Claus W. Turtur,**  
University of Applied Sciences Ostfalia, Germany

**Natalia Sizochenko,**  
Dartmouth College, USA

**Michele Russo,**  
G. D'Annunzio" University of Pescara, Italy

**Nikolett Deutsch,**  
Corvinus University of Budapest, Hungary

**Andrea Baranovska,**  
University of st. Cyrill and Methodius Trnava, Slovakia

**Brian Sloboda,**  
University of Maryland, USA

**Murtaz Kvirkaia,**  
Grigol Robakidze University, Georgia

**Enrique Jerez Abajo,**  
University of Zaragoza, Spain

**Yassen Al Foteih,**  
Canadian University Dubai, UAE

**Marisa Cecilia Tumino,**  
Adventista del Plata University, Argentina

**Luca Scaini,**  
Al Akhawayn University, Morocco

**Aelita Skarbaliene,**  
Klaipeda University, Lithuania

**Efthymios Papatzikis,**  
Canadian University, Dubai, UAE

**Oxana Bayer,**  
Dnipropetrovsk Oles Honchar University, Ukraine

**Onyeka Uche Ofili,**  
International School of Management, France

**Aurela Saliq,**  
University of Vlora, Albania

**Maria Garbelli,**  
Milano Bicocca University, Italy

**Josephus van der Maesen,**  
Wageningen University, Netherlands

**Claudia M. Dellafiore,**  
National University of Rio Cuarto, Argentina

**Francisco Gonzalez Garcia,**  
University of Granada, Spain

**Mahgoub El-Tigani Mahmoud,**  
Tennessee State University, USA

**Hilal Yildirim Keser,**  
Bursa Technical University, Turkey

**Miriam Agreda Montoro,**  
University of La Rioja, Spain

**Claudio Tugnoli,**  
University of Trento, Italy

**Daniel Federico Morla,**  
National University of Rio Cuarto, Argentina

**Valeria Autran,**  
National University of Rio Cuarto, Argentina

**Muhammad Hasmi Abu Hassan Asaari,**  
Universiti Sains, Malaysia

**Angelo Viglianisi Ferraro,**  
Mediterranean University of Reggio Calabria, Italy

**Roberto Di Maria,**  
University of Palermo, Italy

**Delia Magherescu,**  
State University of Moldova, Moldova

**Sayeduzzafar Qazi,**  
University of Science and Technology, Saudi Arabia

**Jose Javier Romero Diaz de la Guardia,**  
University of Granada, Spain

**Paul Waithaka Mahinge,**  
Kenyatta University, Kenya

**Aicha El Alaoui,**  
Sultan My Slimane University, Morocco

**Marija Brajčić,**  
University of Split, Croatia

**Monica Monea,**  
University of Medicine and Pharmacy of Tirgu Mures, Romania

**Belen Martinez-Ferrer,**  
Univeristy Pablo Olavide, Spain

**Rachid Zammar,**  
University Mohammed 5, Morocco

**Manuel Ramon Gonzalez Herrera,**  
The Autonomous University of Ciudad Juarez, Mexico

**Fatma Koc,**  
Gazi University, Turkey

**Calina Nicoleta,**  
University of Craiova, Romania

**Shadaan Abid,**  
UT Southwestern Medical Center, USA

**Sadik Madani Alaoui,**  
Sidi Mohamed Ben Abdellah University, Morocco

**Patrizia Gazzola,**  
University of Insubria, Italy

**Krisztina Szegedi,**  
University of Miskolc, Hungary

**Liliana Esther Mayoral,**  
National University of Cuyo, Argentina

**Amarjit Singh,**  
Kurukshetra University, India

**Armando Carteni,**  
University of Naples Federico II, Italy

**Oscar Casanova Lopez,**  
University of Zaragoza, Spain

**Emina Jerkovic,**  
University of Josip Juraj Strossmayer, Croatia

**Carlos M. Azcoitia,**  
National Louis University, USA

**Rokia Sanogo,**  
University USTTB, Mali

**Bertrand Lemennicier,**  
University of Paris Sorbonne, France

**Lahcen Benaabidate,**  
University Sidi Mohamed Ben Abdellah, Morocco

**Janaka Jayawickrama,**  
University of York, United Kingdom

**Kiluba L. Nkulu,**  
University of Kentucky, USA

**Oscar Armando Esparza Del Villar,**  
University of Juarez City, Mexico

**Noralv Veggeland,**  
Inland Norway Univ. of Applied Sciences, Norway

**Leila Ghudushauri,**  
Tbilisi State University, Georgia

**George C. Katsadoros,**  
University of the Aegean, Greece

**Elena Gavrilova,**  
Plekhanov University of Economics, Russia

**Kira Trostina,**  
Plekhanov University of Economics, Russia

**Eyal Lewin,**  
Ariel University, Israel

**Szczepan Figiel,**  
University of Warmia, Poland

**Don Martin,**  
Youngstown State University, USA

**John B. Strait,**  
Sam Houston State University, USA

**Nirmal Kumar Betchoo,**  
University of Mascareignes, Mauritius

**Camilla Buzzacchi,**  
University Milano Bicocca, Italy

**EL Kandoussi Mohamed,**  
Moulay Ismai University, Morocco

**Marek Semela,**  
Brno University of Technology, Czech Republic

**Marie-Noelle Albert,**  
University of Quebec at Rimouski, Canada

**Susana Borrás Pentinat,**  
Rovira i Virgili University, Spain

**Jelena Kasap,**  
Josip J. Strossmayer University, Croatia

**Massimo Mariani,**  
Libera Università Mediterranea, Italy

**Rachid Sani,**  
University of Niamey, Niger

**Luis Aliaga,**  
University of Granada, Spain

**Robert McGee,**  
Fayetteville State University, USA

**Susan Poyo,**  
Franciscan University, USA

**Angel Urbina-Garcia,**  
University of Hull, United Kingdom

**Sivanadane Mandjiny,**  
University of N. Carolina at Pembroke, USA

**Marko Andonov,**  
American College, Republic of Macedonia

**Ayub Nabi Khan,**  
BGMEA University of Fashion & Technology, Bangladesh

**Leyla Yilmaz Findik,**  
Hacettepe University. Turkey

**Vlad Monescu,**  
Transilvania University of Brasov, Romania

**Virginia Pulcini,**  
University of Torino, Italy

**Stefano Amelio,**  
University of Unsubria, Italy

**Enida Pulaj,**  
University of Vlora, Albania

**Christian Cave,**  
University of Paris XI, France

**Julius Gathogo,**  
University of South Africa, South Africa

**Claudia Pisoschi,**  
University of Craiova, Romania

**Arianna Di Vittorio,**  
University of Bari "Aldo Moro", Italy

**Joseph Ntale,**  
Catholic University of Eastern Africa, Kenya

**Kate Litondo,**  
University of Nairobi, Kenya

**Maurice Gning,**  
Gaston Berger University, Senegal

**Katarina Marosevic,**  
J.J. Strossmayer University, Croatia

**Sherin Y. Elmahdy,**  
Florida A&M University, USA

**Syed Shadab,**  
Jazan University, Saudi Arabia

**Koffi Yao Blaise,**  
University Felix Houphouet Boigny, Ivory Coast

**Mario Adelfo Batista Zaldivar,**  
Technical University of Manabi, Ecuador

**Kalidou Seydou,**  
Gaston Berger University, Senegal

**Iveta Reinholde,**  
University of Latvia, Latvia

**Patrick Chanda,**  
The University of Zambia, Zambia

**Meryem Ait Ouali,**  
University IBN Tofail, Morocco

**Laid Benderradji,**  
Mohamed Boudiaf University of Msila, Algeria

**Amine Daoudi,**  
University Moulay Ismail, Morocco

**Claudio Fabian Guevara,**  
University of Guadalajara, Mexico

**Oruam Cadex Marichal Guevara,**  
University Maximo Gomes Baez, Cuba

**Vanya Katarska,**  
National Military University, Bulgaria

**Carmen Maria Zavala Arnal,**  
University of Zaragoza, Spain

**Francisco Gavi Reyes,**  
Postgraduate College, Mexico

**Aysegul Ozbebek Tunc,**  
Istanbul University, Turkey

**Iane Franceschet de Sousa,**  
Federal University S. Catarina, Brazil

**Mary Kathryn Mc Vey,**  
Franciscan University of Steubenville, USA

**Patricia Randrianavony,**  
University of Antananarivo, Madagascar

**Roque V. Mendez,**  
Texas State University, USA

**Kesbi Abdelaziz,**  
University Hassan II Mohammedia, Morocco

**Eugenio D'Angelo,**  
Pegaso Telematic University, Italy

**Whei-Mei Jean Shih,**  
Chang Gung University of Science and Technology, Taiwan

**Ilknur Bayram,**  
Ankara University, Turkey

**Elenica Pjero,**  
University Ismail Qemali, Albania

**Gokhan Ozer,**  
Fatih Sultan Mehmet Vakif University, Turkey

**Komina Amevoin,**  
University of Lome, Togo

**Veronica Flores Sanchez,**  
Technological University of Veracruz, Mexico

**Camille Habib,**  
Lebanese University, Lebanon

**Larisa Topka,**  
Irkutsk State University, Russia

**Paul M. Lipowski,**  
Creighton University, USA

**Jose Antonio Marin,**  
University of Granada, Spain

**Marie Line Karam,**  
Lebanese University, Lebanon

**Jorge Wozniak,**  
National University of Tres de Febrero, Argentina

**Sergio Scicchitano,**  
Research Center on Labour Economics (INAPP), Italy

**Mohamed Berradi,**  
Ibn Tofail University, Morocco

**Visnja Lachner,**  
Josip J. Strossmayer University, Croatia

**Sangne Yao Charles,**  
University Jean Lorougnon Guede, Ivory Coast

**Omar Boubker,**  
University Ibn Zohr, Morocco

**Judit Sole Resina,**  
Autonomous University of Barcelona, Spain

**Kouame Atta,**  
University Felix Houphouet Boigny, Ivory Coast

**Patience Mpanzu,**  
University of Kinshasa, Congo

**Angeles Aguilera Velasco,**  
University of Guadalajara, Mexico

**Rachid Hsissou,**  
Ibn Tofail University, Morocco

**Svetlana Melentijevic,**  
Complutense University of Madrid, Spain

**Devang Upadhyay,**  
University of North Carolina at Pembroke, USA

**Nyamador Wolali Seth,**  
University of Lome, Togo

**Akmele Meless Simeon,**  
Ouattara University, Ivory Coast

**Mohamed Sadiki,**  
IBN Tofail University, Morocco

**Paula E. Faulkner,**  
North Carolina Agricultural and Technical State University, USA

**Gamal Elgezeery,**  
Suez University, Egypt

**Manuel Gonzalez Perez,**  
Universidad Popular Autonoma del Estado de Puebla, Mexico

**Denis Pompidou Folefack,**  
Centre Africain de Recherche sur Bananiers et Plantains (CARBAP), Cameroon

**Seka Yapi Arsene Thierry,**  
Ecole Normale Supérieure Abidjan (ENS Ivory Coast)

**Dastagiri MB,**  
ICAR-National Academy of Agricultural Research Management, India

**Alla Manga,**  
University Cheikh Anta Diop, Senegal

**Lalla Aicha Lrhorfi,**  
University Ibn Tofail, Morocco

**Ruth Adunola Aderanti,**  
Babcock University, Nigeria

**Katica Kulavkova,**  
University of "Ss. Cyril and Methodius", Republic of Macedonia

**Aka Koffi Sosthene,**  
Research Center for Oceanology, Ivory Coast

**Forchap Ngang Justine,**  
University Institute of Science and Technology of Central Africa, Cameroon

**Toure Krouele,**  
Ecole Normale Supérieure d'Abidjan, Ivory Coast

**Sophia Barinova,**  
University of Haifa, Israel

**Leonidas Antonio Cerda Romero,**  
Escuela Superior Politécnica de Chimborazo, Ecuador

**T.M.S.P.K. Thennakoon,**  
University of Sri Jayewardenepura, Sri Lanka

**Aderewa Amontcha,**  
Universite d'Abomey-Calavi, Benin

**Khadija Kaid Rassou,**  
Centre Regional des Metiers de l'Education et de la Formation, Morocco

**Rene Mesias Villacres Borja,**  
Universidad Estatal De Bolivar, Ecuador

**Aaron Victor Reyes Rodriguez,**  
Autonomous University of Hidalgo State, Mexico

**Qamil Dika,**  
Sports University of Tirana, Albania

**Kouame Konan,**  
Peleforo Gon Coulibaly University of Korhogo, Ivory Coast

**Hariti Hakim,**  
University Alger 3, Algeria

**Emel Ceyhun Sabir,**  
University of Cukurova, Turkey

**Salomon Barrezueta Unda,**  
Universidad Tecnica de Machala, Ecuador

**Belkis Zervent Unal,**  
Cukurova University, Turkey

**Elena Krupa,**  
Kazakh Agency of Applied Ecology, Kazakhstan

**Carlos Angel Mendez Peon,**  
Universidad de Sonora, Mexico

**Antonio Solis Lima,**  
Apizaco Institute Technological, Mexico

**Roxana Matefi,**  
Transilvania University of Brasov, Romania

**Bouharati Saddek,**  
UFAS Setif1 University, Algeria

**Toleba Seidou Mamam,**  
Universite d'Abomey-Calavi (UAC), Benin

**Serigne Modou Sarr,**  
Universite Alioune DIOP de Bambey, Senegal

**Nina Stankous,**  
National University, USA

**Lovergine Saverio,**  
Tor Vergata University of Rome, Italy

**Fekadu Yehuwalashet Maru,**  
Jigjiga University, Ethiopia

**Karima Laamiri,**  
University of Moulay Ismail, Morocco

**Elena Hunt,**  
Laurentian University, Canada

**Sharad K. Soni,**  
Jawaharlal Nehru University, India

**Lucrezia Maria de Cosmo,**  
University of Bari "Aldo Moro", Italy

**Florence Kagendo Muindi,**  
University of Nairobi, Kenya

**Maximo Rossi Malan,**  
Universidad de la Republica, Uruguay

**Haggag Mohamed Haggag,**  
South Valley University, Egypt

**Simona Sarotar Zizek,**  
University of Maribor, Slovenia

**Olugbamila Omotayo Ben,**  
Obafemi Awolowo University, Ile-Ife, Nigeria

**Eveligh Cecilania Prado-Carpio,**  
Technical University of Machala, Ecuador

**Maria Clideana Cabral Maia,**  
Brazilian Company of Agricultural Research - EMBRAPA, Brazil

**Fernando Paulo Oliveira Magalhaes,**  
Polytechnic Institute of Leiria, Portugal

**Valeria Alejandra Santa,**  
Universidad Nacional de Río Cuarto, Córdoba, Argentina

**Stefan Cristian Gherghina,**  
Bucharest University of Economic Studies, Romania

**Goran Ilik,**  
"St. Kliment Ohridski" University, Republic of Macedonia

**Amir Mohammad Sohrabian,**  
International Information Technology University (IITU), Kazakhstan

**Aristide Yemmafouo,**  
University of Dschang, Cameroon

**Gabriel Anibal Monzón,**  
University of Moron, Argentina

**Robert Cobb Jr,**  
North Carolina Agricultural and Technical State University, USA

**Arburim Iseni,**  
State University of Tetovo, Republic of Macedonia

**Milad Reda Qelliny,**  
Minia University, Egypt

**Raoufou Pierre Radji,**  
University of Lome, Togo

**Dario Donnarumma,**  
University of Naples, Italy

**Juan Carlos Rodriguez Rodriguez,**  
Universidad de Almeria, Spain

**Mohammadreza Hadizadeh,**  
Central State University, USAa

**Mushtaq Ismael Hasan,**  
Thi-Qar University, Iraq

**Satoru Suzuki,**  
Panasonic Corporation, Japan

**Iulia-Cristina Muresan,**  
University of Agricultural Sciences and Veterinary Medicine, Romania

**Russell Kabir,**  
Anglia Ruskin University, UK

**Nasreen Khan,**  
SZABIST, Dubai

**Luisa Morales Maure,**  
University of Panama, Panama

**Abdelaaziz El Bakkali,**  
Sidi Mohamed Ben Abdelah University, Morocco

**Lipeng Xin,**  
Xi'an Jiaotong University, China

**Harja Maria,**  
Gheorghe Asachi Technical University of Iasi, Romania

**Adou Paul Venance,**  
University Alassane Ouattara, Cote d'Ivoire

**Nkwenka Geoffroy,**  
Ecole Superieure des Sciences et Techniques (ESSET), Cameroon

**Benie Aloh J. M. H.,**  
Felix Houphouet-Boigny University of Abidjan, Cote d'Ivoire

**Bertin Desire Soh Fostsing,**  
University of Dschang, Cameroon

**N'guessan Tenguel Sosthene,**  
Nangui Abrogoua University, Cote d'Ivoire

**Ackoundoun-Nguessan Kouame Sharll,**  
Ecole Normale Superieure (ENS), Cote d'Ivoire

**Ouedraogo Francois de Charles,**  
Josepk Ki-Zerbo University, Burkina Faso

**Abdelfettah Maouni,**  
Abdelmalek Essaadi University, Morocco

**Alina Stela Resceanu,**  
University of Craiova, Romania

**Alilouch Redouan,**  
University Abdelmalek Saadi, Morocco

**Gnamien Konan Bah Modeste,**  
Jean Lorougnon Guede University, Cote d'Ivoire

**Sufi Amin,**  
International Islamic University, Islambad Pakistan

**Sanja Milosevic Govedarovic,**  
University of Belgrade, Serbia

**Elham Mohammadi,**  
Curtin University, Australia

**Andrianarizaka Marc Tiana,**  
University of Antananarivo, Madagascar

**Ngakan Ketut Acwin Dwijendra,**  
Udayana University, Indonesia

**Yue Cao,**  
Southeast University, China

**Nishant Agrawal,**  
Nirma University, India

**Audrey Tolouian,**  
University of Texas, USA

**Alaa Abdulhady Jaber,**  
University of Technology, Iraq

**Asli Cazorla Milla,**  
American University in the Emirates, UAE

**Valentin Marian Antohi,**  
University Dunarea de Jos of Galati, Romania

**Tabou Talahatou,**  
University of Abomey-Calavi, Benin

**N. K. B. Raju,**  
Sri Venkateswara Veterinary University, India

**Hamidreza Izadi,**  
Chabahar Maritime University, Iran

**Idriss M'bouka Milandou Auguste Williams,**  
Marien Ngouabi University, Congo

**Elsa Kristo,**  
University of Tirana, Albania

**Hanaa Ouda Khadri Ahmed Ouda,**  
Ain Shams University, Egypt

**Rachid Ismaili,**  
Hassan 1 University, Morocco

**Bashar H. Malkawi,**  
University of Sharjah, UAE

**Tamar Ghutidze,**  
Ivane Javakhishvili Tbilisi State University, Georgia

**Emine Koca,**  
Ankara Haci Bayram Veli University, Turkey

**David Perez Jorge,**  
University of La Laguna, Spain

**Ousmane Tanor Dieng,**  
Cheikh Anta Diop University, Senegal

**Irma Guga,**  
European University of Tirana, Albania

**Ozgur Muhittin Esen,**  
Istanbul University, Turkey

**Saif Ur Rehman,**  
PMAS-Arid Agriculture University, Pakistan

**Jesus Gerardo Martínez del Castillo,**  
University of Almeria, Spain

**Mohammed Mouradi,**  
Sultan Moulay Slimane University, Morocco

**Marco Tulio Ceron Lopez,**  
Institute of University Studies, Mexico

**Mangambu Mokoso Jean De Dieu,**  
University of Bukavu, Congo

**Hadi Sutopo,**  
Kalbis Institute, Indonesia

**Priyantha W. Mudalige,**  
University of Kelaniya, Sri Lanka

**Emmanouil N. Choustoulakis,**  
University of Peloponnese, Greece

**Yasangi Anuradha Iddagoda,**  
Chartered Institute of Personal Management, Sri Lanka

**Pinnawala Sangasumana,**  
University of Sri Jayewardenepura, Sri Lanka

**Abdelali Kaaouachi,**  
Mohammed I University, Morocco

**Dimitrios Belias,**  
University of Thessaly, Greece

**Kahi Oulai Honore,**  
University of Bouake, Cote d'Ivoire

**Ma'moun Ahmad Habiballah,**  
Al Hussein Bin Talal University, Jordan

**Amaya Epelde Larranaga,**  
University of Granada, Spain

**Franca Daniele,**  
"G. d'Annunzio" University, Chieti-Pescara, Italy

**Youssef Babakhouya,**  
Inje University, South Korea

**Saly Sambou,**  
Cheikh Anta Diop University, Senegal

**Daniela Di Berardino,**  
University of Chieti-Pescara, Italy

**Dorjana Klosi,**  
University of Vlore "Ismail Qemali, Albania

**Abu Hamja,**  
Aalborg University, Denmark

**Stankovska Gordana,**  
University of Tetova, Republic of Macedonia

**Kazimierz Albin Klosinski,**  
John Paul II Catholic University of Lublin, Poland

**Maria Leticia Bautista Diaz,**  
National Autonomous University, Mexico

**Bruno Augusto Sampaio Fuga,**  
North Parana University, Brazil

**Anouar Alami,**  
Sidi Mohammed Ben Abdellah University, Morocco

**Vincenzo Riso,**  
University of Ferrara, Italy

**Janhavi Nagwekar,**  
St. Michael's Hospital, Canada

**Jose Grillo Evangelista,**  
Egas Moniz Higher Institute of Health Science, Portugal

**Xi Chen,**  
University of Kentucky, USA

**Nawaz Ahmad,**  
Institute of Business Management, Pakistan

**Varij Nayan,**  
Central Institute for Research on Buffaloes, India

**Fateh Mebarek-Oudina,**  
Skikda University, Algeria

**Nadia Mansour,**  
University of Sousse, Tunisia

**Jestoni Dulva Maniago,**  
Majmaah University, Saudi Arabia

**Daniel B. Hier,**  
Missouri University of Science and Technology, USA

**S. Sendil Velan,**  
Dr. M.G.R. Educational and Research Institute, India

**Enriko Ceko,**  
Wisdom University, Albania

**Laura Fischer,**  
National Autonomous University of Mexico, Mexico

**Mauro Berumen,**  
University of East Cancun, Mexico

**Jonida Lesha,**  
University of Tirana, Albania

**Sara I. Abdelsalam,**  
The British University in Egypt, Egypt

**Hanif Qureshi,**  
University of Cincinnati, USA

**Maria Carlota,**  
Autonomous University of Queretaro, Mexico

**H.A. Nishantha Hettiarachchi,**  
University of Sri Jayewardenepura, Sri Lanka

**Bhupendra Karki,**  
University of Louisville, Louisville, USA

**Evens Emmanuel,**  
University of Quisqueya, Haiti

**Iresha Madhavi Lakshman,**  
University of Colombo, Sri Lanka

**Francesco Scotognella,**  
Polytechnic University of Milan, Italy

**Zayde Ayvaz,**  
Canakkale Onsekiz Mart University, Turkey

**Kamal Niaz,**  
Cholistan University of Veterinary & Animal Sciences, Pakistan

**Rawaa Qasha,**  
University of Mosul, Iraq

**Amal Talib Al-Sa'ady,**  
Babylon University, Iraq

**Hani Nasser Abdelhamid,**  
Assiut University, Egypt

**Pablo Ezequiel Flores-Kanter,**  
University Siglo 21, Argentina

**Mihnea-Alexandru Gaman,**  
University of Medicine and Pharmacy, Romania

**Daniela-Maria Cretu,**  
Lucian Blaga University of Sibiu, Romania

**Ilenia Farina,**  
University of Naples "Parthenope, Italy

**Luisa Zanolla,**  
Azienda Ospedaliera Universitaria Verona, Italy

**Jonas Kwabla Fiadzawoo,**  
University for Development Studies (UDS), Ghana

**Adriana Burlea-Schiopoiu,**  
University of Craiova, Romania

**Alejandro Palafox-Munoz,**  
University of Quintana Roo, Mexico

**Fernando Espinoza Lopez,**  
Hofstra University, USA

**Ammar B. Altemimi,**  
University of Basrah, Iraq

**Monica Butnariu,**  
University of Agricultural Sciences and Veterinary Medicine "King Michael I, Romania

**Davide Calandra,**  
University of Turin, Italy

**Nicola Varrone,**  
University of Campania Luigi Vanvitelli, Italy

**Luis Angel Medina Juarez,**  
University of Sonora, Mexico

**Francesco D. d'Ovidio,**  
University of Bari "Aldo Moro", Italy

**Sameer Algburi,**  
Al-Kitab University, Iraq

**Braione Pietro,**  
University of Milano-Bicocca, Italy

# Table of Contents:

**Assessing the Need for Ecotourism Cluster Establishment in Georgia:  
Ways to Increase the Country's Competitiveness.....1**

*Tamar Khakhishvili*

**Looking into the Governance of a Public Service Organization in  
Malta.....19**

*Karen Cacciattolo*

**Experiencias formativas de uso didáctico con plataforma virtual para el  
aprendizaje de idioma inglés en estudiantes de la carrera mecánica  
industrial.....40**

*Francisco Hilario Cedeño Troya*

*Sindy Verónica Astudillo Monrroy*

*Tatiana Gabriela Pineda Guzmán*

*María Teresa Albán Defilippi*

**Proceso Formativo de Docentes Universitarios para la Inclusión de  
Estudiantes con Discapacidad.....61**

*M.A.P.E. Pamela Franco Díaz*

*Rigoberto Marín Uribe*

*Yunuen Soccorro Rangel Ledezma*

*Ma. Concepción Soto Valenzuela*

**Evaluación de la Virtualización del Aprendizaje y los Desafíos en la Educación Superior en el Instituto Superior Tecnológico Juan Bautista Aguirre.....81**

*Marcel Oswaldo Méndez Mantuano*

*Mariuxi Yomaira Olvera Moran*

*Ana Patricia Cabrera Sanmartín*

*Jorge Enrique Ordoñez García*

*Daniel Iván Buendía García*

*Mónica Alexandra Guilcapi Villacrés*

**The Effect of Risk-Based Capital on Investment Returns of Insurance Companies in Kenya.....111**

*Willys Obuba Chache*

*Cyrus Iraya Mwangi*

*Winnie Nyamute*

*Caren Angima*

**Comment Enseigner L'art Dans Les Instituts Supérieurs Des Beaux-Arts Et/Ou D'arts Et Métiers : Le Concept « École - Atelier » Entre Approche Pédagogique Et Forme Evenementielle.....128**

*Ghada Bouzguenda*

**Examining the Effect of Organizational Culture on the Relationship between Supply Chain Quality Management Practices Adoption and Performance of Private Hospitals in Kenya.....147**

*Tobias Okoth Ondiek*

*Stephen Odock*

*James Muranga Njihia*

*Peter K'Obonyo*

**CoViD-19, capital humain et crise économique en Afrique subsaharienne  
: une analyse prospective.....162**

*Nkwenka Nyanda Patrick Geoffroy*

*Ngassa Nya Yve Daniel*

*Sonwa Dongue Ghislain Hervé*

*Temomo Wamba Romuald*

*Gachilie Ladifatou*

**Influence of ICT integration on content preparation by ICT and Non-ICT  
trained teachers in secondary schools in Machakos County,  
Kenya.....187**

*Rose Mwikali Kithungu*

*Daniel Komo Gakunga*

*Musembi Nungu*

**Psychotherapeutic Effect of Using Songs and Music for the Promotion of  
Basic Education Among Adult Learners: An Analysis.....210**

*Adeshina Abideen Olojede*

**Risk-Based Capital and Investment Returns of Insurance Companies in  
Kenya: Moderating Effect of Firm Size.....227**

*Willys Obuba Chache*

*Cyrus Iraya Mwangi*

*Winnie Nyamute*

*Caren Angima*

**Education pour la paix et le développement: stratégies pour son  
intégration dans le système éducatif malien.....245**

*Traore Oumar*

**Impact of Tobacco Expenditure on Household Spending Patterns in Kenya.....260**

*Peter Magati*

*Leopold Mureithi*

*Wilfred Nyangena*

**China's Belt and Road Initiative: Global Politics and Implications.....279**

*Md Mahmudul Hoque*

*Riffat Ara Zannat Tama*

**Monitoring and Evaluation Practices and Performance of livelihood ventures: Focus; Nairobi youths conservation projects, Kenya.....300**

*Nderitu B. Wanjiru*

*Dorothy Ndunge Kyalo*

*Angeline Sabina Mulwa*

*John Mbugua*

**Residential Mortgage Default Risk and Market Returns of Public Mortgage Originator Firms in Kenya.....319**

*Mwikamba Tumaini Mutugi*

*Willy M. Muturi*

*Oluoch J. Oluoch*

**Rôle des évaluations continues dans la prédiction des performances des élèves au secondaire collégial.....332**

*Marya Bouanis*

*Aafaf Essedaoui*

*Aziz Boukhair*

*Abdelali Bitar*

**The Successor Training as a Success Factor in the Management and  
Continuity of the Family Business.....345**

*Luz del Carmen García Arroyo*

*Montserrat Gómez-Márquez*

*Martha Patricia Quintero-Fuentes*

*Manuel González-Pérez*



ESJ Social Sciences

**Tamar Khakhishvili**

School of Business Administration,  
Grigol Robakidze University, Georgia

---

Submitted: 11 June 2020

Accepted: 23 November 2020

Published: 30 November 2020

Corresponding author:

*Mariam Sulashvili*

DOI: 10.19044/esj.2020.v16n31p1

 Copyright 2020 Tamar Khakhishvili  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## Assessing the Need for Ecotourism Cluster Establishment in Georgia: Ways to Increase the Country's Competitiveness

---

### Abstract

Georgia is famous for wine, hospitality, culture, and history at the international level. Before now, tourism in Georgia was only related to wine tourism and sea resorts, but in recent years, the country is positioning itself as an emerging destination for adventurous tourism. Industry potential is not fully utilized and it has more hidden possibilities to attract more visitors. This paper focuses on assessing the need for ecotourism cluster establishment in Georgia. In fulfilling this objective, a survey was conducted. Questionnaires were distributed to ecotourism service providers of the country. 54 managers of national parks and other protected areas (Lagodekhi Protected Areas, Kazbegi National Park, Martvili Canyon Natural Monument, Borjomi-Kharagauli National Park and Machakhela National Park) were chosen for the survey. The selected respondents are the managers of the most popular ecotourism destinations among Georgian and foreign ecotourists. Due to the various locations in different parts of Georgia, it took about two weeks to conduct the survey. The results of the survey showed that ecotourism industry representatives agree on the need of cluster establishment for more development of the field. The paper also demonstrated that building promising ecotourism industry through strong cluster development is directly related to increasing the country's competitiveness.

---

**Subject:** Business, Ecotourism

**Keywords:** Ecotourism, business, cluster, competitiveness

## **Introduction**

Building competitiveness is an objective of every business and emerging nation (Porter, 2008). Every organization strives to find its key strengths. Organizations try to foster their abilities and transform them into competitive advantage. Thereafter, the organizations can begin to position rightly and gradually increase their coverage of the market.

The same can be said for countries as well. Firstly, countries intend to identify their strengths, enforce them, and only afterwards win over competitors (Porter, 2008). However, what is the strength of the country? Is it so easy to figure out? Many countries make mistakes in naming their major strengths. Therefore, this leads to incorrect country priorities and inaccurate development strategies.

Tourism in Georgia has always been recognized as promising and there have always been signs of future success in this field (Gavasheli, 2018). It is derived from reality that the country is famous for being hospitable and provides visitors with friendly environment, wonderful wine, and delicious cuisine. On the other hand, Georgia is an emerging ecotourism destination with amazing landscapes, wetlands and rainforests<sup>1</sup> (Europarc Federation, 2019), high-mountain waterfalls, and semi-arid regions that can be visited within few hours drive (Gogelia, 2013).

According to Hector Ceballos-Lascurain (2008), Ecotourism is not only visitation to relatively undisturbed natural areas, but it also supports local population. Martha Honey (1991) also described ecotourism as the tool for educating travelers, which directly benefits economic development and empowerment of local communities. The thought that ecotourism encourages socio-economic involvement of local people and improves their living conditions is also expressed by International Union for Conservation of Nature (1996). IUCN ensures that tourism generates the full range of benefits for locals. Thus, ecotourism has become very important for potentially reconciling conservation and economic considerations (Drumm, 2005).

On the other hand, this paper underlines one of the most important ideas related to the country's competitiveness theory known as "Clusters". Clusters represent a prominent feature on the landscape of every economy, especially for developed countries (Porter, 2008). Michael Porter stresses that cluster formation is an essential ingredient of economic development. There is an idea that once a cluster is formed, the whole group of industries become mutually supporting (Porter, 2008).

## **Objectives**

---

<sup>1</sup>Colchic Rainforests and wetlands – located in Georgia, along the warm-temperate and extremely humid eastern coast of the Black Sea. Colchic Rainforests and wetlands are nominated for inscription on the UNESCO World Heritage list (Europarc Federation, 2019).

Since clusters occupy an important position in the strategies of developed countries, this paper focuses on assessing the country's potential to create cluster in one of the most developing field known as ecotourism. This paper also highlights the perspectives of developing Georgian ecotourism cluster through consideration of theoretical framework and collecting opinions of relevant representatives of the field.

## **Methods**

After analyzing the data and scientific papers about ecotourism and clusters in Georgia, it was decided that conducting a survey would be the most relevant method for the study. The study was carried out in 5 most popular Protected Areas Administrations<sup>2</sup> in Georgia (Lagodekhi, Kazbegi, Martvili, Borjomi-Kharagauli, and Machakhela). Questionnaires were distributed to 54 representatives of the administrations, including directors of the administrations, heads of Park Protection Divisions, as well as Administrative Divisions, Rangers, and Visitor Service Specialists. These administrations were selected for the study due to the fact that they host the majority of ecotourists in the country. Also, most of the ecotourism businesses are located in the surroundings of these areas. Since the administrations cooperate with them, they have a lot of information about their needs and potentials for development.

The questionnaire contained 12 items. The questions were selected with the specific principle. This was done so that the answers could give essential information to assess the readiness and willingness of ecotourism businesses, local population, and visitors to create ecotourism cluster in Georgia.

## **Theoretical Framework**

### **Why Clusters Matters**

The fact that businesses are slowly developing in Georgia poses a new problem. According to different researches, there are several reasons for it such as lack of finances, unfriendly business environment, competition, no funds for start-ups, etc (Sepashvili, 2014). In this situation, like many other countries, the lack of cooperation between businesses still remains a challenge (Porter, 2008). Since many international organizations work hard to encourage clusters' development in Georgia, the concept is still new in the country. The development of the concept started late in Georgia. This fact is explained by the negative impact of the soviet era and hardship period of 1990s in the scientific field (Gagnidze, 2012). At the same time, clusters represent tools for

---

<sup>2</sup>Protected Areas are managed by Administrations which are governmental structures under the Agency of Protected Areas, Ministry of Environmental Protection and Agriculture of Georgia.

competition exacerbation and building cooperation (Porter, 2008). Once competition and cooperation within the industry can coexist, cluster can enhance the competitiveness. Porter (2008) calls clusters a “driving force” which aid in increasing exports and magnets foreign investments. In his book on competition, Porter (2008, p. 215) states that: “They [clusters] constitute a forum in which new types of dialogue can, and must, take place among firms, government agencies, and institutions (such as schools, universities and public utilities).”

In the article “How Economic Clusters Drive Globalization”, Julia Hanna (2017) talks about clusters and stresses that they have wider impact on world economics than generally recognized. She mentions the words of Harvard Fellow, Valeria Giacomini, who refers to clusters as “the building blocks of the global economy.” In the working paper “A Historical Approach to Clustering in Emerging Economies”, Giacomini (2017) notes that clusters have been around long before they had a name, showing up in the development of colonial-era industries and even earlier. However, Giacomini believes that clusters became platforms for development, which have present-day implications for corporations, governments, and individual actors, especially in emerging economies.

Quite often, companies are beginning to ask questions about clusters. This is because they are not always sure whether joining clusters is a good idea or not. Therefore, why should companies start clustering? European experience shows that cooperation and synergy between companies can make  $1+1=3$ . European Cluster Panorama Factsheet 2016 provides information about the benefits of European clusters. It reveals updated perspectives on clusters and emerging industries. This is drawn on a new firm-level data set on entrepreneurship and re-industrialization (Ketels & Protsiv, 2017). Cluster Panorama Factsheet shows how important clusters are for economic activities throughout Europe. The mapping tool identifies 3000 strong clusters ranking in the top 20% of regions in their respective field of related industries. The data is really impressive. It shows that, through these clusters, more than 54 million jobs are created and 45% of all traded industries’ wages are incorporated within (23% of the overall economy). The figures also prove that fast growing new businesses (i.e., gazelles) account for 40% of the cluster. The Panorama Factsheet also stressed that organizations which are within the clusters pay higher wages than the same industries elsewhere. Also, they have stayed resilient throughout the crisis, slightly increasing their share of economic activity between 2008 and 2014.

The information of European Cluster Panorama Factsheet 2016 is also presented in the paper “The power of business clusters” by Paul Hackett (2019). Hackett underlines the importance of cooperation within the clusters and stressed that huddling together can derive benefits such as cutting supply

chain costs or hiring qualified specialists easily. It can also lead to increased innovation, collaboration, and productivity.

### Ecotourism in Georgia

Clusters have proven to be effective tools for cooperation, and building cooperation makes even more sense once it occurs in high potential sectors (Giacomin, 2017). In Georgia, the advantages and existing strengths have continuously been explored within the years. There is no doubt that wine and tourism industries are considered as growth industries and they experience higher-than-average growth rates compared to other sectors (Baratashvili, Kurashvili & Makharashvili, 2018). Nowadays, Georgia needs to find more promising fields that could be a flagship industry for economic development.

Tourism has been recognized as the sector that shows the light at the end of the tunnel. After all the problems encountered during the Post-Soviet period, Georgia started increasing awareness internationally as an emerging tourism destination (Sekhniashvili, 2016). Rapid growth was recorded after 2010 especially as the impact of 2008 world financial crisis was conquered. According to the statistical data (Georgian National Tourism Administration, 2020), Georgia hosted more than 9 million international visitors in 2019. Taking into consideration that the population of the country is just 3.7 Million (National Statistics Office of Georgia, 2020), the number of visitors is quite impressive.

**Table 1.** Number of International Visitors of Georgia, 2008-2019

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1,290,108	1,500,049	2,031,717	3,115,527	4,741,346	5,734,898	5,888,709	6,305,635	6,719,975	7,902,509	8,679,544	9,357,964

*Source: Georgian National Tourism Administration*

If wine has been the main reason for visiting Georgia, recreational tourism has become more popular for travelers in the recent years (Sekhniashvili, 2016). However, Georgia's recreational potential is not yet fully developed (Chigogidze, 2016). The area of Georgia is 69,700 km<sup>2</sup> (National Statistics Office of Georgia, 2020). In spite of the small area, the country is famous for unique and diverse ecosystems such as forests, wetlands, lakes, rivers, waterfalls, glaciers, canyons, and deserts (Ministry of Environment and Natural Resources Protection of Georgia, 2014). The uniqueness of the forests is also derived from the location. Colchic Rainforests, located in West Georgia, have survived from the tertiary period and are characterized with relict species (Ministry of Environmental Protection and Agriculture of Georgia, 2019). Thus, the country has a lot to share to the rest of the world.

It is worthy to note that the ecotourism potential of the country is collected within protected areas of the country. Protected areas of Georgia cover more than 9.5% of the whole country incorporating strict nature reserves, national parks, managed reserves, natural monuments, and protected landscape (Agency of Protected Areas, n.d.). All these areas create wonderful opportunities for visitors. The prospects of protected areas are widely discussed by Merab Diasamidze in his research (2015). He stresses that businesses working in the sector should unite their efforts to address the challenge if they strive to reach their greatest potential.

Furthermore, protected areas of Georgia are the most visited ecotourism destinations in the country. Ecotourism at protected areas is developing and hosting more than one million visitors per year (Agency of Protected Areas, n.d.).

**Table 2.** Number of visitors of protected areas of Georgia, 2012-2019

2012	2014	2016	2017	2018	2019
298 910	420 166	734 874	954 692	1 108 503	1 199 011

*Source: Agency of Protected Areas*

There is no important benefit in increasing visitation at protected areas unless this is not happening in parallel with increasing benefits of ecotourism businesses and local population (Ceballos-Lascurain, 2008). Georgian National Tourism Administration does not present data of the revenues generated by local population through ecotourism services. Therefore, in the process of the research, it was only possible to obtain information about the revenues generated by protected areas of Georgia.

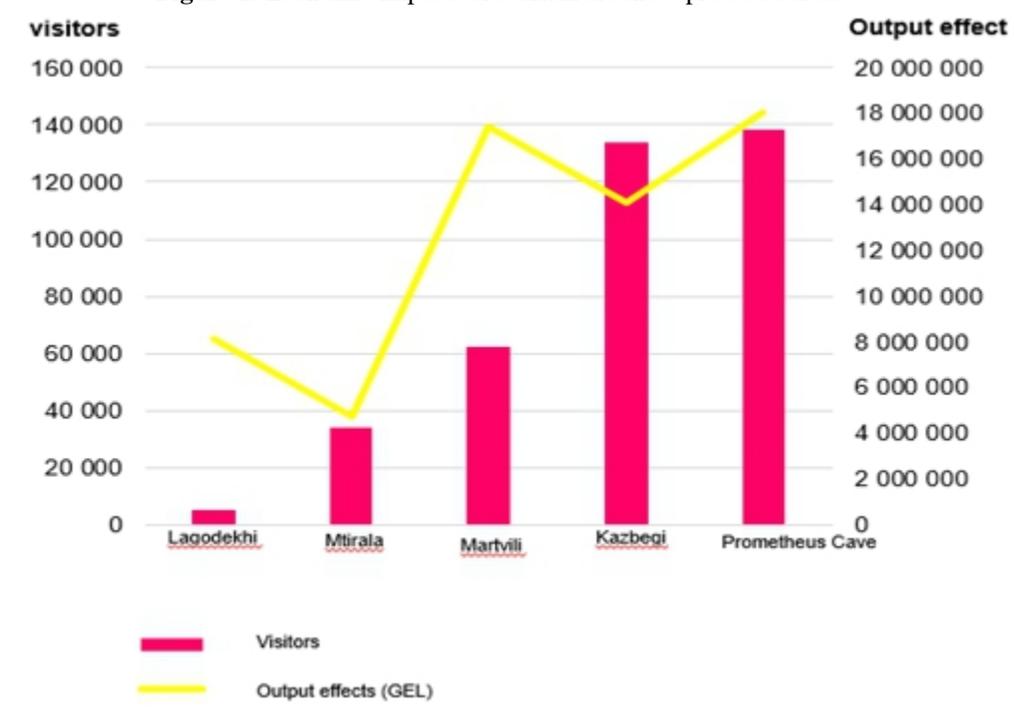
**Table 3.** Revenues generated from ecotourism services at protected areas of Georgia (in GEL)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
56 026	84 962	118	420	737	982	1 320	1 589	2 313	4 504	8 436	more than 11 mln
		387	189	122	869	793	757	697	472	125	

*Source: Agency of Protected Areas*

Important information about the revenues generated by the local population has been considered based on the report of Dr. Julius Arnegger, which was conducted in March 2018. The report “Economic impacts of tourism in Georgian Protected Areas” is the first study in Georgia that analyzes economic impacts of tourism around five protected areas and shows the benefits of local communities living there. The report also illustrates economic output of local communities as well as the employment effect of ecotourism in these villages for 2018. The result of the study revealed that in 2018, economic output effect of more than 80 mln Gel (approximately USD 30 mln) was created from ecotourism services (in the surrounding villages of five protected areas only).

**Figure 1.** Economic impacts of tourism around 5 protected areas



## Survey

This section presents the survey applied to the managers of Protected Areas of Georgia. Respondents from 5 most popular Protected Areas were selected to collect information about the opinion of the local population living adjacent to protected areas. The selected respondents are the ones who have the closest contact with tour operators, agencies, visitor centers, and local guesthouses. This means that they provide service to hundreds of people daily and are aware of the requirements of tourists. The questionnaires were developed in the way that they could elicit information on various topics related to the needs and readiness for ecotourism cluster establishment in Georgia.

The selected protected areas were Lagodekhi Protected Areas (PA), Kazbegi National Park (NP), Martvili Canyon Natural Monument (NM), Borjomi-Kharagauli National Park (NP), and Machakhela National Park (NP). Protected Areas are managed by Territorial Administrations.

Questionnaires were distributed to 54 representatives of the administrations:

- Lagodekhi Protected Areas – 7 representatives
- Kazbegi National Park – 10 representatives
- Martvili Canyon Natural Monument – 8 representatives

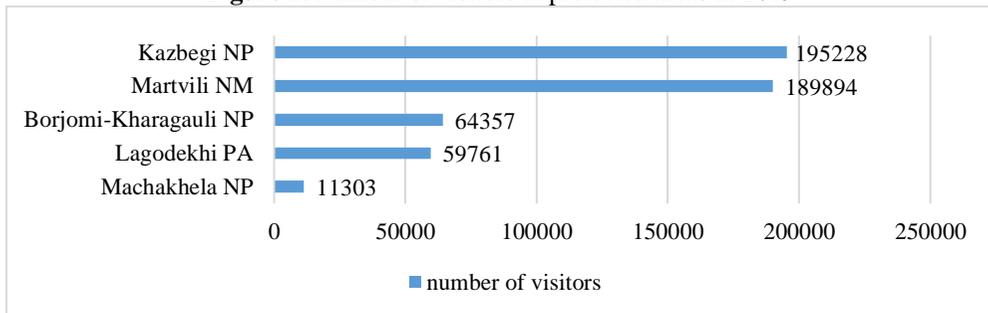
- Borjomi-Kharagauli National Park – 21 representatives
- Machakhela National Park – 8 representatives

Protected areas managers were asked 12 questions. 5 questions were asked to each administration and they had to give one joint answer, while 7 questions required personal answers.

## Questions for Administrations

### 1) How many tourists visited the administration in 2019?

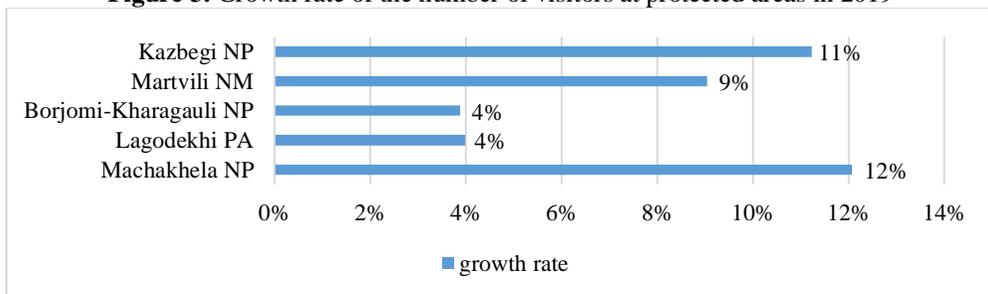
Figure 2. Number of visitors at protected areas in 2019



It is worthy to note that the selected protected areas were visited by 520, 543 tourists in 2019, while the total number of visitors at protected areas was 1, 199, 011. Thus, the percentage of the total visitors is 43%. This implies that most of the ecotourism potential of the country is gathered in these areas.

### 2) What is the growth rate of the number of tourists at the protected area (in comparison with 2018)?

Figure 3. Growth rate of the number of visitors at protected areas in 2019



**3) What is the percentage of the number of tourists increase in the last three years?**

**Figure 4.** Growth rate of the number of visitors at protected areas in 2016-2019

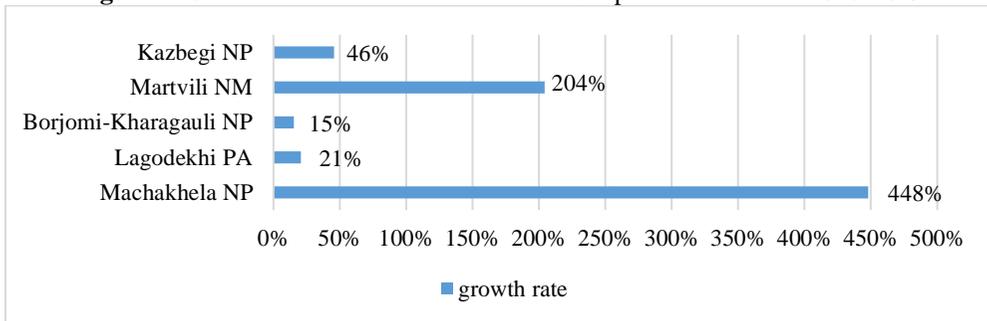
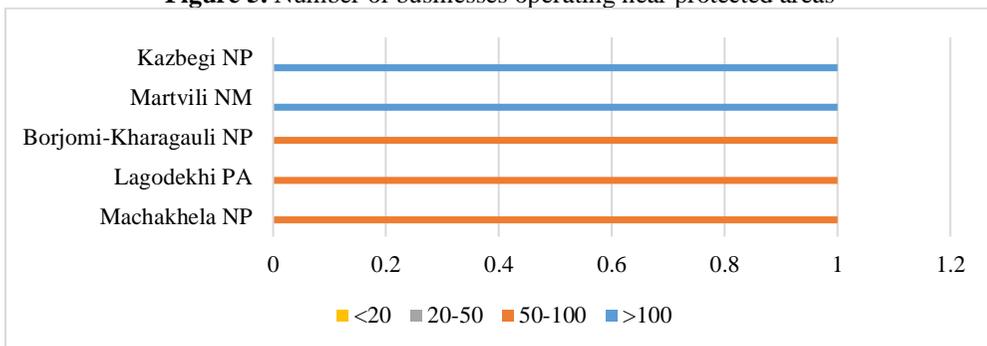


Figure 3 and Figure 4 shows that each protected area has positive growth rate in terms of visitors. There was about 8% average growth rate in 2019, and it increased to about 150% within 3 years period. The responses indicate that the number of tourists grows annually. This means that the attractiveness of protected areas of Georgia is gradually increasing.

**4) Approximately how many ecotourism businesses (guesthouses, cafes, adventurous tour operators, etc.) operate near the protected area?**

**Figure 5.** Number of businesses operating near protected areas



The administrations were also asked about the number of ecotourism businesses near protected areas. Machakhela NP, Lagodekhi PA, and Borjomi-Kharagauli NP administrations opined that there are 50-100 ecotourism businesses operating. It is logical that the responses show more business units in the case of Kazbegi NP and Martvili NP. This is because they are more developed, they have more visitors and, consequently, more people are involved in ecotourism industry.

### 5) What ecotourism services are in demand at protected areas?

**Table 4.** Demanded ecotourism services at protected areas

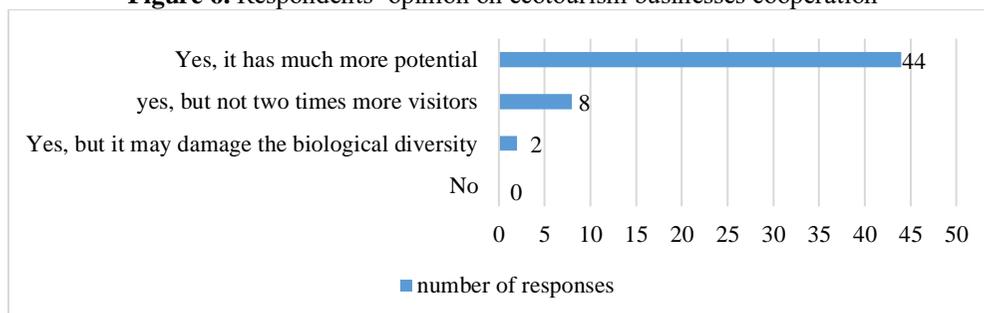
	<b>Lagodekhi PA</b>	<b>Borjomi-Kharagauli NP</b>	<b>Machakhela NP</b>	<b>Martvili NM</b>	<b>Kazbegi NP</b>
<b>Hiking</b>	X	X	X		X
<b>Horse Riding</b>	X	X			X
<b>picnics</b>		X	X		
<b>Overnight in eco-lodges</b>	X	X			
<b>camping</b>	X		X		X
<b>Visiting canyon</b>				X	
<b>Visiting waterfalls</b>				X	
<b>Boating</b>				X	
<b>Zip-line</b>				X	

The table above illustrates the diversity of services that are provided at protected areas. This reveals that each protected area has potential and people have the opportunity to start their own ecotourism business, serve tourists, and earn revenues.

### Individual Questions

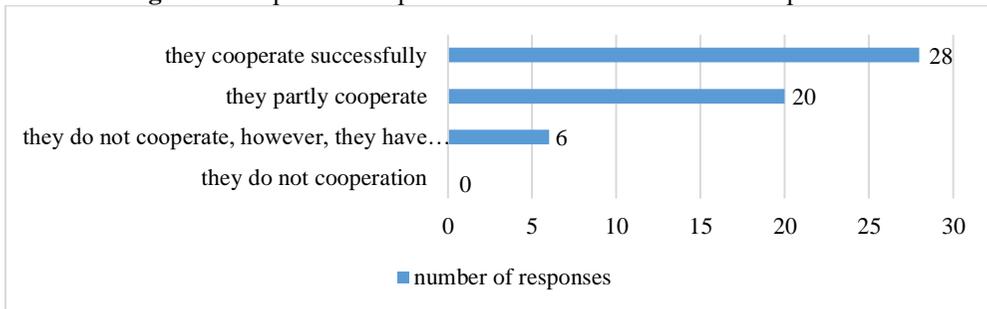
#### 6) Does the protected area have the potential to host more visitors?

**Figure 6.** Respondents' opinion on ecotourism businesses cooperation



### 7) Do ecotourism businesses (guesthouses, cafes, adventurous tour operators, etc.) cooperate with each other?

Figure 7. Respondents' opinion on ecotourism businesses cooperation



When asked this question “Do you think ecotourism businesses cooperate with each other”, 52% of Protected Areas managers responded that they do. Additional 37% of respondents evaluated the cooperation as partial. The rest 11% fixed their positions that *they do not cooperate, however, they have an intention, just that they do not know how to do that.*

### 8) What do you think is the maximum revenue generated from all ecotourism businesses around the protected areas throughout the year?

Figure 8. Respondents' opinion on the amount of revenue ecotourism businesses generate throughout the year

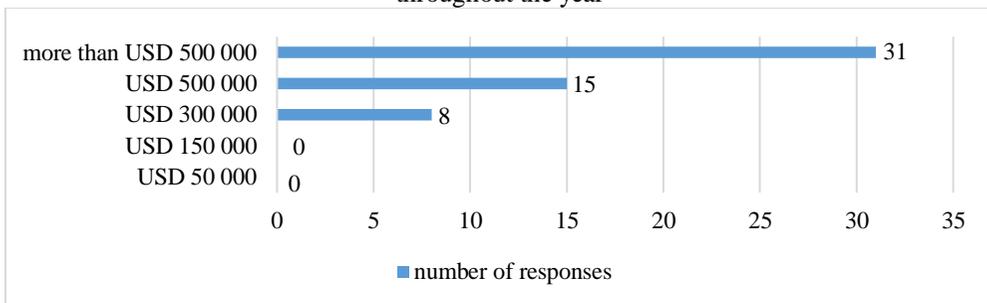


Figure 8 illustrates the approximate revenues of local communities generated through ecotourism services. Majority of respondents indicated the maximum amount in the proposed answers. 57.4% are of the opinion that revenues of local people exceed USD 500 000.

### 9) What percentage of nearby living population is involved in ecotourism businesses?

**Figure 9.** Respondents' opinion on the size of population involved in ecotourism businesses

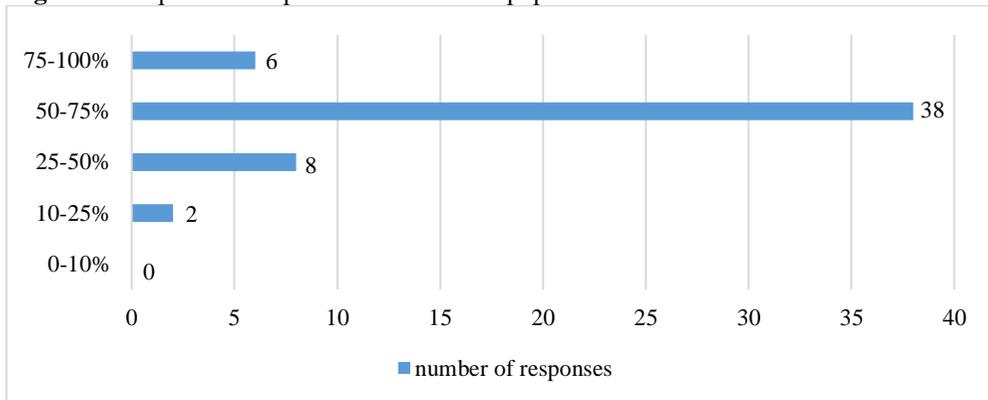
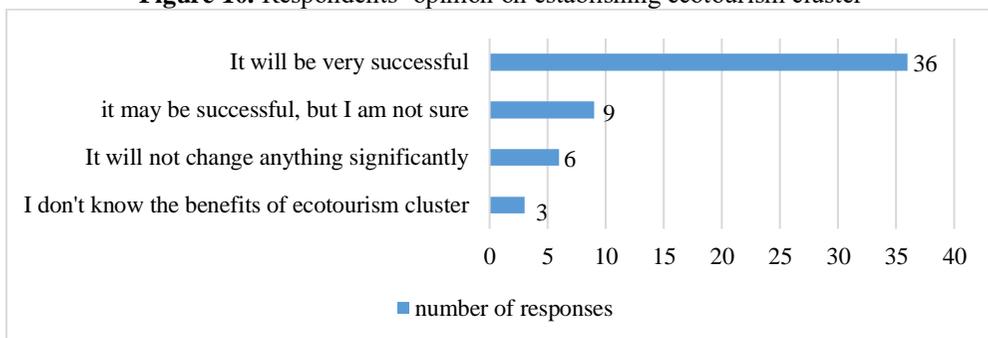


Figure 9 shows the opinion of the respondents about the approximate percentage of local communities involved in ecotourism activities. Majority (70%) of the respondents stated that 50-75% of the population is engaged in businesses. This also points to the importance of the industry on the local economy.

### 10) Is it reasonable to establish an ecotourism cluster in Georgia?

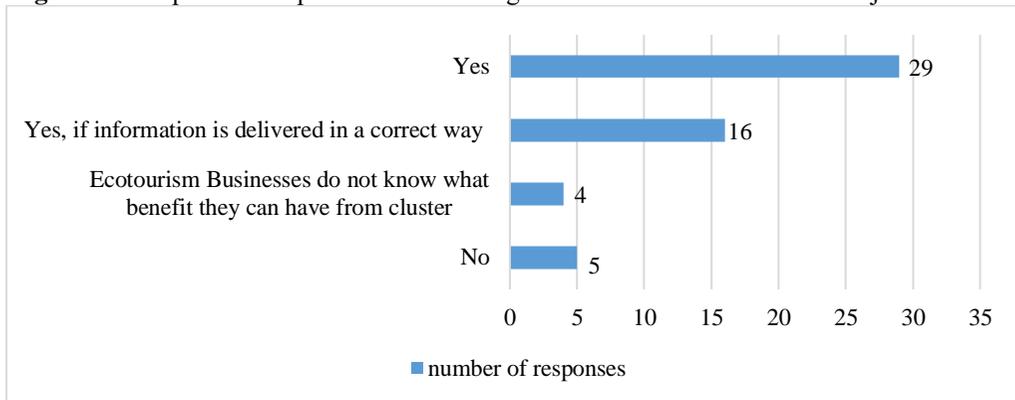
**Figure 10.** Respondents' opinion on establishing ecotourism cluster



When asked this question “Do you think it would be reasonable to establish an ecotourism cluster”, 67% of the respondents answered that *it would be successful*. They realized that in ecotourism, cluster businesses will cooperate. Also, with mutual efforts, more economic benefits will be created.

### 11) Do you think that companies providing ecotourism services are willing to join ecotourism cluster?

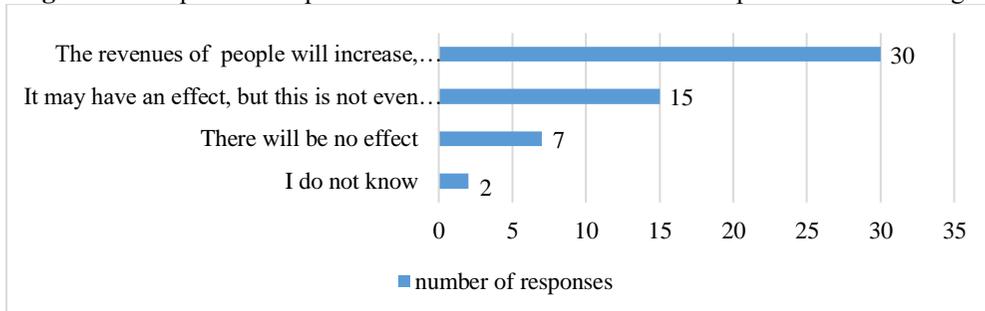
Figure 11. Respondents' opinion on the willingness of ecotourism businesses to join cluster



When asked whether companies providing ecotourism services are willing to join ecotourism cluster, 54% responded positively. Conversely, 9% of participants gave a negative response.

### 12) What will be the effect of ecotourism cluster on the competitiveness of the country?

Figure 12. Respondents' opinion about the effect of cluster on competitiveness of Georgia



The last question was related to the competitiveness of Georgia. Respondents were asked whether ecotourism cluster could affect the competitiveness of the country. 30 respondents out of 54 are of the opinion that establishing ecotourism cluster can affect the socio-economic situation in the country. They indicated their positions which revealed that through ecotourism cluster *the revenues of people would increase, economic prosperity would be created and, accordingly, the country's competitiveness would be raised.*

## Results

The representatives of the protected areas were asked questions on important aspects, and the following conclusions were drawn:

- Selected protected areas are important enough to consider them relevant for the survey (Q1-Q6, Q8, Q9)
- Ecotourism businesses partly cooperate with each other and have the intention to join ecotourism cluster (Q7, Q10, Q11)
- Ecotourism cluster will improve the socio-economic conditions of the local population (Q6, Q10; Q11)
- Ecotourism cluster will have an effect on the competitiveness of Georgia (Q12)

There are 87 protected areas in Georgia (Agency of Protected Areas, n.d.), and 14 of them are strict nature reserves. There are only about 20 protected areas out of the remaining 73 where tourists usually visit (Agency of Protected Areas, n.d.). The survey has been carried out in 5 of them, which covers 25% of the areas where ecotourists prefer to spend time.

The analysis of the data has revealed that in 2019, Protected Areas of Georgia generated more than 11 million GEL (about USD 5 mln) from tourism related services. Most ecotourism services that visitors enjoy are camping, picnic sites, overnight in tourist shelter and bungalows, overnight in tents, mountain biking, panton, cater, kayak, boat services, horse riding, zip lines, rope parks, fly fishing, diving, etc. The income generated from the services is still reinvested in the development of protected areas and creation of more comfortable environment for visitors' enhanced satisfaction.

After analyzing the data of the number of visitors and the revenues, the potential of ecotourism can be clearly seen. The table below shows that in 2019, the number of visitors at protected areas increased by 8.2%. On the other hand, the revenues generated through different services increased by more than 30%.

**Table 5.** Comparison of the number of visitors and revenues of protected areas in 2018 and 2019

	2018	2019	increase	Increase in %
<b>Number of visitors</b>	1108503	1199011	90508	8.2%
<b>Revenues (GEL)</b>	8436125	More than 11 mln	More than 2563875	More than 30.4%

The table above is an excellent evidence of the role of ecotourism in the economy. The study of Dr. Julius Arnegger (2018) on the "Economic Impacts of Tourism in Georgian Protected Areas" also points to significant paybacks from ecotourism. Every ecotourist brings huge contribution to the country's economy. Georgia has unique biodiversity and huge potential to host millions of tourists. Against the backdrop of the situation, ecotourism offers

wonderful opportunities for development. Table 5 points out that as soon as the number of visitors increased by 8.2%, revenues for locals increased by 30.4%. The following result definitely underlines the huge economic benefit that could be achieved once it is developed in a sustainable way.

## **Conclusion**

In the scientific assessments, Michael Porter proves that clusters foster the process of creating economic prosperity. Within the cluster, cooperation is more fruitful and this brings more benefit to the participants. They find it easy to access information, start a business, find partners, and offer services to the target market.

The results of the study showed the need of ecotourism cluster development in Georgia. Country has a huge potential of hosting 2-3 times more international visitors at the same time, and this potential needs to be entirely utilized to create more economic benefits. The results of the survey also identified that ecotourism businesses partly cooperate with each other. Furthermore, in order to maximize returns from ecotourism industry, businesses should cooperate. Frequent and easy ways of exchanging information, interchanging resources, and sharing knowledge and practice can subsequently form strong networks and encourage the achievement of the 1+1=3 effect. It was a positive remark that businesses which engaged in ecotourism industry expressed the willingness to join the cluster and obviously consider it reasonable to initiate its establishment.

Undoubtedly, the benefit of cluster and the added value it brings to the country's economy is significant. Effective operation of ecotourism cluster contributes to increasing productivity in the country. Productivity is the main factor driving economic growth. In the long run, it has the ability to improve the standard of living and cover all aspects of prosperity. This includes not only economic but also environmental and social considerations. Prosperity within the country is a vital tool to grow more sustainable and inclusive industries. This is closely linked to fostering the country's competitiveness.

Another interesting fact that was revealed after the study is that the respondents noted the influence of ecotourism development in enhancing the country's image at the international level. As a result of the study, it can be stated that ecotourism development can have a significant impact on the competitiveness of Georgia and also affect the country's positions in Global Competitiveness Report.

Furthermore, the country's competitiveness at the regional level is quite high. On the one hand, Armenia and Azerbaijan are both part of South Caucasus region and the positions of Georgia in terms of ecotourism is incomparable. Also, the number of international visitors in Armenia has never exceeded 2 million. On the other hand, Azerbaijan is positioning more as a

MICE tourism<sup>3</sup> destination rather than as a recreational tourism. Georgia, being located at the crossroad of Asia and Europe, is surrounded with high mountains and situated in the middle of two seas. This in addition to its unique culture and ancient history creates an outstanding destination for adventurous tourism.

### References:

1. Agency of Protected Areas (n.d.). Statistics. Retrieved April 29, 2020, from <https://apa.gov.ge/en/saagento/saagentos-misia>
2. Arnegger, J. (2018). Economic impacts of tourism in Georgian Protected Areas. *“Ecoregional Nature Protection Programme in the southern Caucasus Region – Support Programme for PAs in the Caucasus – Georgia”*.
3. Baratashvili, E., Kurashvili, G., & Makharashvili, G. (2018). Competitive management in establishing a cluster of Georgian winemaking. *The challenges of globalization in economics and business*. p. 51-53.
4. Bliadze, M. (2015). What is Ecotourism. [Weblog]. Retrieved from <http://mastsavlebeli.ge/?p=1084>
5. Ceballos-Lascuráin, H. (2008). The ECOCLUB Interview with the 'Architect of Ecotourism'. Retrieved October 15, 2020, from <https://ecoclub.com/news/085/interview.html>
6. Chigogidze, Kh. (2016). Ecotourism - unique perspective of Georgia. *Gza*. Retrieved from <http://gza.kvirispalitra.ge/qveyana/4066-ekoturizmi-saqarthvelos-unikaluri-perspeqtiva.html>
7. Colchis RainForests and Wetlands nominated as UNESCO World Heritage List (2019). [Weblog]. Retrieved from <http://www.ghn.ge/news/220379>
8. Darsavelidze, D. (2014). *Mechanisms of Local Economic Development (on the example of tourist clusters of Thessaloniki, Napa Valley and Tbilisi)*. (Doctoral dissertation). Retrieved from [http://www.press.tsu.ge/data/image\\_db\\_innova/Disertaciebi\\_economics/davit\\_darsvelidze.pdf](http://www.press.tsu.ge/data/image_db_innova/Disertaciebi_economics/davit_darsvelidze.pdf)
9. Diasamidze, M. (2015). *Formation of clusters in the tourism industry and increase of competitiveness of the regional tourism market*. (Doctoral dissertation). Retrieved from [https://www.bsu.edu.ge/text\\_files/ge\\_file\\_5470\\_1.pdf](https://www.bsu.edu.ge/text_files/ge_file_5470_1.pdf)
10. Drumm, A. & Moore, A. (2005). Ecotourism Development - A Manual for Conservation Planners and Managers. *Volume I - An Introduction to Ecotourism Planning*

---

<sup>3</sup>MICE tourism - Meetings, incentives, conferences, exhibitions

11. Gagnidze, I. (2012). Country Competitiveness and Clusters: History and Nowadays. *Publishing House "Universal"*. p. 73-118.
12. Gavasheli, M. (2018). Tourism and its impact on the development of the regional economy. Retrieved from <http://dl.sangu.edu.ge/pdf/dissertacia/mgavasheli.pdf>
13. Georgia's Colchic Rainforests and Wetlands nominated as UNESCO World Natural Heritage Site (2019). [Weblog]. Retrieved from <https://www.europarc.org/news/2019/12/georgias-colchic-rainforests-and-wetlands-nominated-as-unesco-world-natural-heritage-site/>
14. Georgian National Tourism Administration (2018). Georgian Tourism in Figures: Structure & Industry Data. Retrieved from <https://gnta.ge/wp-content/uploads/2019/06/2018-ENG.pdf>
15. Georgian National Tourism Administration (n.d.). Research. Retrieved November 7, 2020, from <https://gnta.ge/statistics/>
16. Giacomini, V. (2017). A Historical Approach to Clustering in Emerging Economies. *Working Paper 18-018*. Retrieved from [https://www.hbs.edu/faculty/Publication%20Files/18-018\\_0dfb3cfb-f397-4aeb-9e40-532e174981cf.pdf](https://www.hbs.edu/faculty/Publication%20Files/18-018_0dfb3cfb-f397-4aeb-9e40-532e174981cf.pdf)
17. Gogelia, M. (2013). *Formation of ecological tourism development strategies*. (Doctoral dissertation). Retrieved from [https://www.bsu.edu.ge/text\\_files/ge\\_file\\_3292\\_1.pdf](https://www.bsu.edu.ge/text_files/ge_file_3292_1.pdf)
18. Government of Georgia (1996). Law on the System of Protected Areas (003, 07/03/1996). Tbilisi: Legislative Herald of Georgia N136.
19. Hackett, P. (2019). The power of business clusters. [Weblog]. Retrieved from <https://www.euronews.com/2019/05/17/the-power-of-business-clusters>
20. Hanna, J. (2017). How Economic Clusters Drive Globalization. *Harvard Business School*. Retrieved from <https://hbswk.hbs.edu/item/how-economic-clusters-drive-globalization>
21. Ketels, C. & Protsiv, S. (2017). European Cluster Panorama 2016. Retrieved from <http://ec.europa.eu/DocsRoom/documents/20381>
22. Ministry of Environment and Natural Resources Protection of Georgia (n.d.). Georgia's Fifth National Report to the Convention on Biological Diversity. Retrieved from <https://www.cbd.int/doc/world/ge/ge-nr-05-en.pdf>
23. Ministry of Environmental Protection and Agriculture of Georgia (n.d.). Colchic Rainforests and Wetlands. Retrieved from <https://drive.google.com/file/d/1G4VrcKHv4AF9uIuiGphbsRI3JDzsSr1O/view>
24. National Statistics Office of Georgia (n.d.). Statistical information. Retrieved February 02, 2020, from <https://www.geostat.ge/>

25. Porter, M. (1990). *The Competitive Advantage of Nations*. New York: The Free Press
26. Porter, M. (2008). *On Competition*. Harvard Business School Publishing
27. Sekhniashvili, M. (2016). Development of Ecotourism in Georgia. [Weblog]. Retrieved from <http://mastsavlebeli.ge/?p=9919>
28. Sepashvili, E. (2014). The role of clusters in increasing the competitiveness of the country. Retrieved from <http://eprints.tsu.ge/837/1/The%20Role%20of%20Clusters%20in%20Rising%20the%20Global%20Competitiveness%20of%20the%20Country.pdf>



ESJ Social Sciences

**Karen Cacciattolo**

D.Soc.Sci (Leic.), M.Sc. (Trng & HRM) (Leic.)  
University of Malta, Malta

---

Submitted: 30 July 2020

Accepted: 24 November 2020

Published: 30 November 2020

Corresponding author:

*Karen Cacciattolo*

DOI: 10.19044/esj.2020.v16n31p19

 Copyright 2020 Karen Cacciattolo  
Distributed under Creative Commons  
BY-NC-ND 4.0  
*OPEN ACCESS*

---

## Looking into the Governance of a Public Service Organization in Malta

---

### Abstract

The study presented in this paper identified the type of synergy and relationship that exists between the employees and other stakeholders of a public service organization in Malta entrusted with cultural and artistic activities. Evidence was gained from in-depth interviews and a total of sixty participants took part in the study, which employed a qualitative research design. A methodology based on an inductivist approach was used to explore the participants' experiences, thoughts and opinions. Collected data, which was transcribed and converted to text, was analyzed by using the N-VIVO Qualitative Data Analysis software. In general, the governance as it stands today seems to be 'righteous'. Employees are satisfied with their job and stakeholders are proud to be working for the organization. However, no one knows what the mission statement of the organization is or whether it exists and thus, the mission needs to be clearly and continuously communicated to all. In addition, even though everyone seems to know what the organization stands for, no one knows the exact goals and objectives, and thus, these are required to be rephrased and communicated more to all. With regards to the relationship, synergy and communication between all parties, in general it seems to be good: the weekly meetings between the management and subordinates are of benefit, and there is a cordial relationship between all parties. However, there needs to be more communication with the team of the creative director. Also, more information on the team of the creative director needs to be made visible to the Management Team and the public alike. As regards to the Board of Directors, employees and stakeholders are questioning the

suitability and necessity of some of the directors acting in their own capacity since from the study it transpired that they do not seem to be contributing much.

**Keywords:** Governance, Public Service organization, organizational communication, Board of Directors

---

**Subject:** Business Management

## Introduction

Governance can be assumed to be those processes that are based on the active co-involvement of groups and interests (Cheng, 2019: 192; Vangen *et al*, 2015: 1244), and the analytical attention of research is often on the forms of relationship among different individuals who go through similar challenges (Nemeth, 2015: 3). According to Garcia & Cox (2013), governance is one of the dominant areas of discussion, hence its importance for research (2013: 3). Möll and Hitzler (2011) argue that organizations involved in cultural and artistic activities may apply either a pluralist model or a one-tier model, which models are the result of specific theoretical considerations, but have different goals and objectives. In addition, Nemeth (2015) states that most of the literature of the last decade has emphasized the change from municipal focused governance to a more society focused one, in which the network of members is sinuous and casual (2015: 3). This means that the network is developed on the basis that the individuals have to depend on each other, which forces individuals to intermingle and discuss, in order to achieve their personal and mutual goals. As such, in the process, formal and informal rules and relationship patterns are created for future interactions (Cheng, 2019: 192; Nemeth, 2015: 3). Sorensen & Torfing (2009) postulate that the execution of governance systems in non-profit organizations is subject to the public environment, the strategy of the organization, and the politics that regulate their system and performance (2009: 235). Moreover, Sorensen & Torfing (2009) assert that it is the responsibility of both the politicians and the civil managers to ‘release’ the prospect of networks within governance (2009: 235).

According to Sorensen & Torfing (2009), organizations such as the World Bank, the European Union (EU), multinational corporations, as well as national governments, are inclined to practice and endorse strategic coalitions, partnerships and inter-organizational systems of networks in view of their preemptive and supple style of governance (2009: 236). Similarly, Chen (2019) and Kahler (2015) affirm that governments may choose to negotiate with networks as a new means of collaboration, however this does not mean that there may not be conflicts (2015: 3; 2019: 194). There is still the ‘knowledge gap’, and issues still remain about the difficulty of recruiting people with the right skills (Tonks, 2020: 192), issues with the strength of the team and the relationship management, particularly in creating the right equilibrium between political support and interfering, as well as issues with

the relationship with the stakeholders (Garcia & Cox, 2013: 172). Thus, the qualitative research illustrated in this paper took place to address this gap and the subsequent issues mentioned above.

Rotberg (2014) stipulates that most of the work to measure governance has focused on inputs rather than outputs, and this was usually done by assessing the budgets, the financial management style and the indefinable feature of the government (2014: 512). Rotberg (2014) adds that by measuring governance in terms of outcomes, one can determine whether results are being achieved, thus indicating 'good governance' (2014: 517). Sorensen & Torfing (2009) affirm that the standards summoned by stakeholders in evaluating the effectiveness of particular governance networks can be studied through a qualitative bottom-up analysis based on interviews and documents (2009: 241). As such, the study presented in this paper applied a qualitative method and collected data via in-depth interviews.

The above introduction and literature review illustrated the goals and scope of the research, and explained the broader social context within which the study of governance took place. The introduction makes reference to the academic and other literature about the area of governance in various organizations. This part of the study delineates the contents of the remaining Sections: The methodology section describes how a methodology appropriate to the research was chosen and developed. An in-depth interview guide was designed and used to produce the questions for the data collection for this research. The guide was structured in such a way that the researcher could identify what type of relationship exists between the participants and the organization. The analysis and discussions section follows, which includes analysis and deliberations of the inductively surfaced categories relating to the relationship, synergy and communication between the participants. The categories surfaced from the reading, coding and analysis of the data, and the analysis and discussions are split into the following five main categories, namely the analysis of the organisational model, the effectiveness of internal departments, the stakeholder relationship, the relationship with the board of governors, and the recruitment process. The final section presents the future direction that the research study may take over the years. Changes that might take place in the research process within the foreseeable future are also outlined.

### **Research Methodology & Strategy**

The study analyzing the governance of the public service organization in question aimed to explore the relationship between the Management Team, Board of Directors, and various other stakeholders. These relationships are directed by social phenomena and behavioural processes that are accessible through the examination of linguistic and humanistic symbols (Mennell, 1989:

181). Thus, this study is of a qualitative nature and used an inductivist approach, since it involves obtaining a thorough understanding of social processes and behaviours. The research design took the form of a qualitative case study and the data was collected via a total of sixty in-depth interviews.

The following methodologies were used after defining and selecting a target research population:

- a. Obtaining secondary data and/or further documentation - including organizational charts, policies and procedures, and statistics for certain indicators used to formulate the interview guide;
- b. Obtaining primary data by organizing and conducting interviews; and
- c. Answering the main research questions by assembling, coding and analyzing the replies.

### **Targeted Participants & Sampling**

The target participants for this study were involved with and/or linked to the activities carried out by the organization, namely the employees of the Management Team, the Board of Directors, the Creative Director Team, and other persons involved with the organization on an ad hoc basis. All the participants' details were obtained from the Management Team of the same organization and a purposive sampling was conducted. This kind of sampling is planned and aims at setting up a connection between the research questions and sampling (Bryman, 2012: 416).

### **Data Type, Collection & Management**

The primary data for this study was collected through the in-depth interviews that took place with the employees of the organization, Directors and other stakeholders. The data collected for this research started by identifying the relevant employees and stakeholders who are involved in the organization's activities. The participants' details were stored in a spreadsheet, to which only the researcher had access. The topics and questions corresponded with the indicators mentioned in the introduction of this paper, and the questions were used in a flexible way (Boeije, 2010: 67). Participants were introduced to the study initially by email and then in person, in the early stages of detecting and building up the target population. Prior permission in writing was sought from the individual that took part in the study before the interview session took place. The participants were all asked to sign a consent form. A total of sixty interviews took place. The researcher took the 'saturation point' approach when interviewing stakeholders, in order to determine the time when no more interviews were required when no new themes were being identified (Bernard & Ryan, 2010: 71; Boeije, 2010: 84). Even though this approach emerges from a grounded theory perspective, the researcher found it applicable to this study, since the analysis process involved

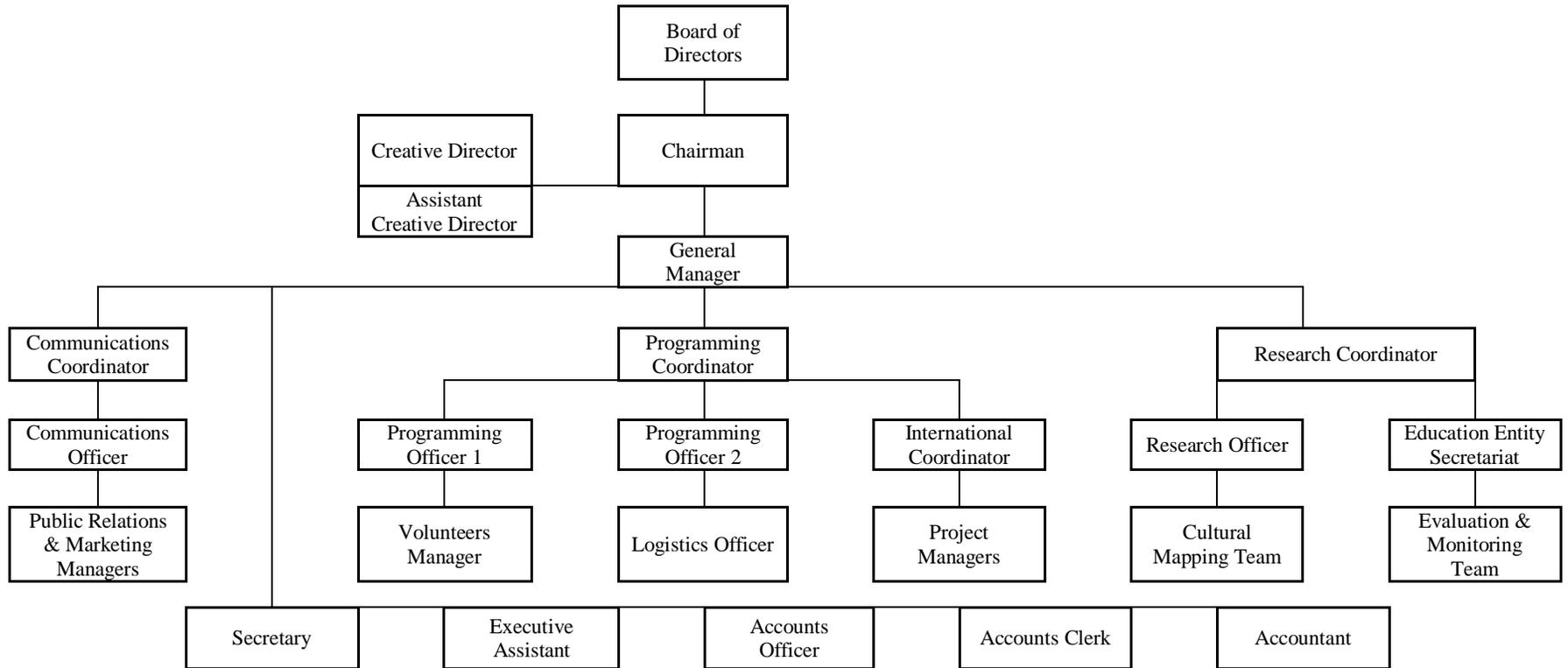
a supple and unpredictable coding framework, rather than a firm and unyielding one.

The maximum length of the interviews was of one hour and interviews were recorded, where permitted by the interviewees. Detailed notes were taken during the interviews where audio recording was not the preferred option by the participants. In order to give confidence to participants and persuade them to ‘tell their own story’, a semi-structured interview approach was considered preferable to a fully structured approach. A phased-assertion probing technique was often used during the interviews. This technique allows the researcher to demonstrate a degree of prior knowledge of their experiences, thus encouraging the interviewees to disclose more information (Bernard & Ryan, 2010: 33).

N-Vivo was used as the data management software. This programme aids in the consistency and regularity of processing the data, and enables the identification, comparison and grouping of common elements in the collected texts by using nodes (Beoije, 2010: 144; Bryman, 2012: 609).

## **Results & Analysis**

The framework for analysis of the organization was based on Mintzberg’s ‘Basic Parts Concept’, which includes the following three-level structure, namely (i) analyzing the basic parts of the organization; (ii) analyzing how activities are coordinated and how they are grouped together; and (iii) analyzing the hierarchy: the division of responsibilities & powers (Shafritz *et al*, 2015). The organizational chart (Figure 1) was used to structure interviews with the organization’s Management Team and Board of Directors.



**Figure 1:** The Organizational Chart

### Basic Parts of the Public Service Organization

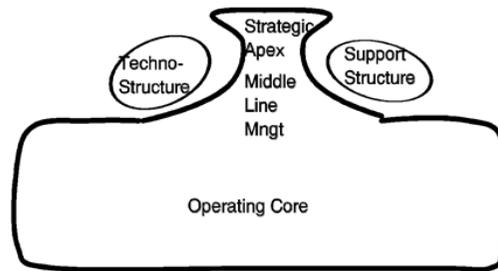
The organization operates through a dominant operating core, whereby staff work rather independently and their relative weight in the organization is visible (Table 1). At the time of this study, the Creative Direction team fell under the Techno Structure area of the organization.

The Basic Parts of the Organisation	Job Titles within the Organisation
<b>Operating Core:</b> Individuals involved in transforming inputs into outputs.	General Manager; Coordinator of the Units; Officers of the Units; Educational Entity Secretariat; Assistant Manager; Secretary, Admin Unit; Accounts Unit; Regional Coordinators; Project Managers, Researchers and other individuals employed sporadically for specific projects.
<b>Strategic Apex:</b> Individuals entrusted with ensuring that the organization serves its mission by conveying and monitoring the relevant policies and procedures.	Board of Directors; Chairman; General Manager.
<b>Middle Line Management:</b> Individuals involved in joining the Strategic Apex to the Operating Core by feeding information and by coordinating the tasks.	Coordinators of the Units; General Manager.
<b>Support Staff:</b> Individuals that are not directly linked to the primary activity, but they provide operational support to this activity.	Assistant Manager; Secretary, Admin Unit; Accounts Unit; Educational Entity Secretariat.
<b>Techno structure:</b> Individuals involved in the maintenance and development of the efficiency and effectiveness of primary and support activities, including the development, standardization, monitoring and evaluation of events and actions.	Board of Directors; Evaluation and Monitoring Steering Committee; Chairman; General Manager; Creative Director; Vice Creative Director.

**Table 1:** The Basic Parts of the Organization<sup>1</sup>

Table 1 illustrates that some individuals carry out activities in more than one basic part: one example is the General Manager, who is involved in all areas except for the Support Staff area. Therefore, based on Mintzberg's concept of Basic Parts, the organization's structure is depicted in Figure 2:

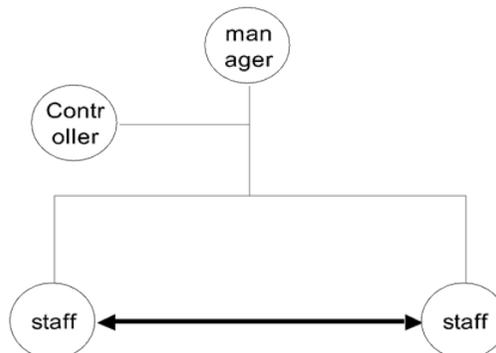
<sup>1</sup> Source: Mintzberg, H. (1979), Shafritz, J., *et al* (2015: 171)



**Figure 2:** Dominant Operating Core<sup>2</sup>

**Coordination of Activities**

Most of the units within the organization consist of a coordinator, who is in charge of the unit, and officers, who respond to the coordinator. Other people engaged on ad hoc basis, such as project managers and researchers, also respond to unit coordinators. All coordinators report directly to the General Manager, who in turn reports to the Chairman. The officers are also encouraged to respond directly to the General Manager where necessary, and sometimes even to the Chairman. From the data it transpired that the General Manager adopts an “open door policy” and is easily accessible to all employees of the Management Team and to other stakeholders. The unit coordinators are a channel of communication between the officers, the people engaged on ad hoc basis, and the General Manager and are responsible to take the necessary decisions within their units. Mintzberg’s (1979) ‘mutual adjustment’ mechanism, which refers to people who depend on each other’s work and thus communicate regularly with each other to get the desired results, applies for certain tasks. Therefore, the organization’s coordination mechanisms fall between Mintzberg’s (1979) ‘direct supervision’, wherein the head of unit coordinates between people directly under his/her responsibility, and ‘mutual adjustment’, as per Figures 3 and 4.



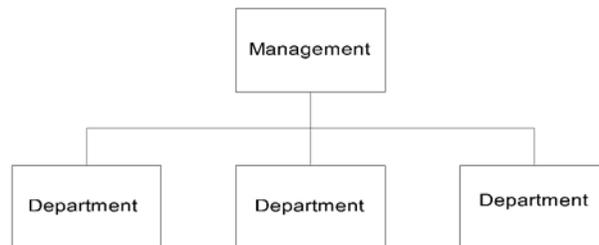
**Figure 3:** Mutual adjustment mechanism<sup>3</sup>

<sup>2</sup> Source: Mintzberg, H. (1979), Hofstede, G. et al (2015)

<sup>3</sup> Source: Mintzberg, H. (1979), Shaftriz, J. et al (2015)

### ***The Organization's Hierarchy: Division of Responsibilities & Powers***

The organization adopts a traditional hierarchical structure similar to Mintzberg's (1979) 'line organization', which consists of a simple hierarchy with one or more layers of management, with emphasis on direct supervision as per Figure 5.



**Figure 5: A Line Organization Structure<sup>4</sup>**

According to Sahin & Gozubenli (2014), good governance structure is important for organizations in order for them to be able to jointly make decisions for the benefit of the same organization (2014: 414). Palmer *et al* (2011) argue that a key governance challenge includes the lack of strength within the team (2011: 27-8) whilst Mohamed *et al* (2016) stipulate that employees should be held accountable for their actions (2016: 442). Garcia & Cox (2013) illustrate that some changes in the top level positions of the team may be suitable in order to meet the different demands related to various stages of the activities (2013: 173). The public service organization of the study in question saw one major change after a year of its inception, which is that of the Chairmanship. In addition, its structure had changed, whilst retaining the majority of its staff. The designation of the Project Coordinator was changed to General Manager to reflect a greater responsibility over the projects and the Management Team. Furthermore, two of the coordinators remained on board and their respective units were created. On the other hand, there was a change within the Creative Direction team and its structure.

### ***The Role of the Creative Director***

There are different approaches on how to appoint a Creative Director. In the case of the public service organization in question, the first Creative Director was appointed in Year 1. The Creative Direction team changed and the present Creative Direction team took up the post in Year 3. Interviews reveal that there is still a lack of clarity on the role of the new Creative Direction team. Moreover, the autonomy of the Creative Director at the organization is not without a few challenges, especially with regards to liaising

---

<sup>4</sup> Source: Mintzberg, H. (1979), Shaftriz, J. *et al* (2015)

with the organization in financial and administrative matters. It is important to note that the office of the Creative Direction team is geographically far from the office of the Management Team. As featured in the organization chart (Figure 1) used for the interviews held, the team of the Creative Director is working rather independently from the rest of the organization's team, in view that they are responsible for different events.

From the data it transpired that the 'distance' creates misunderstandings with regards to communication. Similar to the team of the Creative Director, other employees who are geographically distant from the main premises, or are not always present at the office, in view of their working arrangements or type of employment, feel a sense of discomfort. Similar instances have been observed by Garcia & Cox (2013) wherein an organization was spatially dispersed over five locations, creating issues with communication, motivation and transparency within management (2013: 177).

### **Effectiveness of Internal Departments**

Individuals and units behave differently in different situations. The impact that the employees can have on the processes is dependent on their relationship to the organization itself (Friedman & Miles, 2006; Tonks, 2020: 388-9). Questions for the in-depth interviews in this regard revolved around the mission, goals and objectives of the organization, the forms of synergies between each department and those that are geographically away from the premises, as well as the communication between all parties and any training and development that is required. After all, proper internal management structures, systems and policies enhance the performance of organizations (Kinyua-Njuguna, 2014).

### ***The Mission Statement of the Organisation***

The employees of the Management Team and the Board of Directors of the organisation were asked questions about the mission statement of the organisation, namely whether it is clear and understood by the employees and Directors of the organisation. From the data it transpired that only 46% are aware that a mission statement exists, though they are not sure of what it states. A few of the Directors commented that the most important factor is that the employees and the Board are aware of what the organisation stands for. The participants who confirmed that a mission statement exists were also asked about the clarity of the said mission statement. Approximately 90% commented that the mission statement is not clear.

### ***Goals and Objectives of the Organization***

All employees were asked questions about whether they are aware of the goals and objectives. Though they do not know them word for word, they are aware of what the organization stands for. Participants were also asked to comment about the clarity and transparency of the goals and objectives. The replies were that the goals are either clear or not clear enough. As regards to whether the organization is managing to achieve the results and thus its objectives, such as reaching out to the general public, all employees commented that there is a lot more work that needs to be done in this area. Nemeth (2015) argues that an organization with artistic activities is a prospective opportunity to reach and muster various parts of the society (2015: 5), and thus work in this area is of utmost importance.

### ***The Communication, Synergy and Relationship within the Management Team***

The communication effectiveness between colleagues within the units, between the various units, and between the units and the top management was also discussed with the employees of the Management Team. It transpired that the communication is good across the board. In addition the whole team confirmed that one to one meetings with the General Manager are a normality at the organisation when the need arises. Weekly meetings are also held between the units and the General Manager and a bi-annual meeting is held for the whole team.

Participants within the organization stressed that there is a hefty amount of work to be done, however they feel good and are very content with their job. Albeit the positive feedback provided and listed in the previous sections, a few participants from the Management Team showed concerns on certain managerial ways of doing things, especially in dealing with the media. Participants stated that the management prefers not to deal with such matters. Participants added that perhaps such matters are ignored in view that the management is aware that certain opinionates will never change their way of thinking.

### ***Training & Development***

All employees were asked whether they feel the need to attend some training programmes that is relevant to their role within the organization. From all the employees, 45% commented that they require training in various areas. The remaining 55% of employees commented that they already had some training and also they already had the experience prior to joining the organization and therefore they do not require training at this stage. From the interviews it also transpired that a few employees within the organization are

pursuing a Master's degree or a PhD, and they are encouraged by the management to enhance their education at their own initiative.

### **Stakeholder Relationship**

There are formalized governance relationships involving members of the local arts and cultural sector who are an integral part of the processes of the organization. For the purpose of the study in question these members are referred to as the 'stakeholders'. According to Friedman & Miles (2006) and Tonks (2020), stakeholder management is fundamentally stakeholder relationship management since it is the relationship and not the actual stakeholder groups or individuals that are managed. In addition, Mihanovic, & Pepur (2015) argue that the organizational effectiveness is increased with the development of adequate organizational and management systems that are orientated towards the stakeholders (2015: 35). The questions formulated revolved around the type and channels of communication, the effectiveness of the organization's efforts to create a good relationship, the efficiency and effectiveness of the Management Team, as well as the advantages and disadvantages of being involved with the organization.

### ***Effectiveness of the Organization to Create a Relationship with the Stakeholders***

All of the participants affirmed that the Management Team is very professional and committed to the goals and objectives of the organization. Many of the participants suggested that the whole process is a learning curve for everyone involved. One of the participants added that the relationship between them was initially uncertain. When participants were asked whether they had experienced conflicts with the Management Team, all of them affirmed that they never really had any serious conflicts, and it is very unlikely that they will ever have, though there were debates on certain aspects of some projects.

### ***General Comments about the Efficiency & Effectiveness of the Organization***

Participants expressed their concern that the Management Team of the organization may lack the necessary human resources. On the other hand other stakeholders commented that the whole of the Management Team give a lot of importance to their job, and they seem to be working very hard to achieve the organization's goals. It also transpired that various stakeholders like the direction that the Management Team is taking and the way the work is carried out. Various stakeholders added that they perceive the Management Team as a very well organized team even though they do not like the apparent bureaucracy that is involved. Some of the stakeholders suggested that the team

is required to change its accessibility in order to be more visible and accessible. Moreover, participants from the stakeholders commented that the priorities for organizing events might not be right.

### ***Advantages of Being Involved with the Public Service Organization***

Participants were asked whether they see personal and professional advantages for them to be involved with the organization. The most common advantages are listed in Table 2 below. The list also includes the percentage<sup>5</sup> of the participants who perceive the advantage:

<b>Advantage</b>	<b>Percentage of Participants</b>
Increase in network	42%
More exposure	26%
Enhance my cultural knowledge	21%
I am given the opportunity to be involved in other projects	21%
It enhances my experience of working on cultural activities	16%
It gives more weight to my CV	16%

**Table 2:** List of Advantages

### ***Potential Disadvantages of Being Involved with the Organization***

A number of stakeholders showed their concern about being involved with the organization at that moment in time, in view of the political sensitivity of certain individuals. Participants mentioned issues of trying to involve people who support the party that is not presently in government. Other similar concerns include the fear of being associated with one political party and not the other, in view of the organization or individuals being involved with the organization at a time where one political party is in government. Some stakeholders who are concerned about being involved with the organization think that if the organization becomes very controversial and something bad happens, they might be associated with it.

### ***The Interference of Politicians***

A few participants during the in-depth interviews commended that the organization would benefit from some amount of involvement on the part of political leaders. Likewise, literature shows that managers and observers have underlined that there should not be a complete political disengagement (Garcia & Cox, 2013: 175). Garcia & Cox (2013) argue that managing the relationship between the politicians and the artistic independence is a key task of organizing an event (2013: 100). In addition, Garcia & Cox (2013) commented that political leaders may not give attention and importance to cultural subjects, and may be under the perception that culture can happen without

---

<sup>5</sup> Though the percentages represent the number of participants who mentioned the advantage, one participant may be included in the other percentages in view that he or she has mentioned more than one advantage.

much dedicated resources or support (Garcia & Cox, 2013: 175). A few of the participants made similar comments in terms of this perception of political leaders. On the other hand, participants also feel that having politicians intervene in the organisation's processes will hinder the activities and opportunities might be lost. When probed further about similar negative comments such as the above, participants indicated that politicians tend to view culture as something secondary and that it benefits only a minority of the population.

### **Relationship with the Board**

Until the early 2000s, the governance of organizations did not attract a lot of attention from practitioners and academics, and it was always assumed that what matters most in an organization is the way it is managed (Comforth, 2003: 2). According to Comforth (2003), governance that is problematic stems from the fact that no boundaries are set between the board of an organization and the management of the staff (Comforth, 2003: 127). As such, Tricker (2015) argues that 'governance' has a different meaning than 'management'. Even though usually the board is not featured in an organization chart, and management has been more the focus of how organizations do the business, the board has its due importance. Early in the 21<sup>st</sup> Century, the importance of good governance started to be recognized (Tricker, 2015: 15). Tricker (2015) and Tonks (2020) argue that governance manages risk whilst creating business value and the whole responsibility ultimately remains with the board (2015: 21, 2020: 44).

This section tackles the analysis of the relationship between the Management Team and the Board of Directors. The questions were formulated from the works of Friedman & Miles (2006). Questions to analyses the relationship between the Board of Directors and the Management Team revolved around the structure, role and effectiveness of the board, as well the type of communication and relationship that exists between the Directors and the Management Team.

### ***The Structure of the Board***

Initially the Board consisted of six Directors, stemming from other governmental entities including a mayor from a major city. Following the change in the Chairmanship, the Statute was revised to include an additional four Directors from other governmental entities, and three Directors in their personal capacity.

Participants from the Board of Directors and the Management Team were asked questions about their perception on the set-up of the Board. Their comments are in line with the suggestion that the added value of having mayors of the local councils involved may result in increased support and

interest in a cultural programme (European Parliament 2013: 175). On the other hand, a few of the participants commented that the involvement of the mayor had diminished in view of the fact that the organisation's funding does not come from the mayor's local council, but from Central Government.

### ***The Role of the Board***

Though the Board of Directors is a non-executive Board, it is responsible for setting up the policy direction and supervising the organization's operations. The Board of Directors must review, understand and approve the organization's mission, vision, values and strategic objectives. It must also exercise strict oversight of the organization's programmes and projects to ensure that they are consistent with these documents. It must also ensure that the management is pursuing the mission and vision of the organization and acts in accordance with the organization's values and interests. The Board of Directors must review, understand and approve systems for measuring results, including the organization's social impact and the way that the organization's financial accounts are presented. It is also responsible for approving and checking the implementation of the organization's long-term strategic plans, annual operational plans and yearly budgets. In this regard, the Directors were asked a few questions about their time dedicated to the organization. A few of the participants suggested that if the Directors had sub-committees they would require more time because they would be more involved. Participants understand that the decision of creating sub-committees stands with the Chairman of the organization.

### ***The Effectiveness of the Board of Directors***

When stakeholders were asked about the role and effectiveness of the Board, almost all of them indicated that they have no idea about their input. Despite these concerns, other stakeholders commented that the Directors are not required to actuate anything and that they are there to monitor the organization's process. Participants from the Board of Directors and the Management Team forwarded their own perspective on the Board's effectiveness. These commented that every Board has various types of personalities and there are individuals who are a little laid back, however, on the whole the Board is always forthright. Other participants commented that the Board is not effective. Participants from the Management Team commented that the Directors tend to be more reactive than proactive. One reason provided from the participants is that in view of the Chairman's energetic personality, the Directors tend to take a back seat and leave everything in his hands. Participants added that issues that are supposed to be dealt between one meeting and another are not tended to, and thus much of the work of the organization falls on the Management Team.

### ***Communication and Relationship with the Management Team***

The Directors were asked to provide feedback on their communication and relationship with the Management Team. In general, the feedback was very positive. Other comments forwarded by the Directors illustrate that there may be lack of communication between the Directors and the Management Team. Reasons put forward by the participants about the lack of communication include that either the Director does not attend the meetings regularly or the information from the Management Team does not reach the Directors in good time.

### **Recruitment**

As regards to the full-time employees of the organization, an assessment was carried out initially by the researcher to evaluate the following five areas of the organization's recruitment, namely policies and procedures, recruitment strategy, training on recruitment, and the hiring and selection process. The assessment was in line with the work of Portolese Dias (2012) and has been carried out by interviewing the people who are involved and responsible for the recruitment of staff within the organization. Other data was obtained from the organization's documents and government websites.

### ***The Recruitment Policies & Procedures of the Organization***

The organization's recruitment policies and procedures are in line with the 'Manual of Resourcing Policies and Procedures' of the public service. The organisation thoroughly documents the recruitment, assessment and selection processes, and the policies and procedures are also accessible and understood by the Management Team of the organization and others involved in the hiring process.

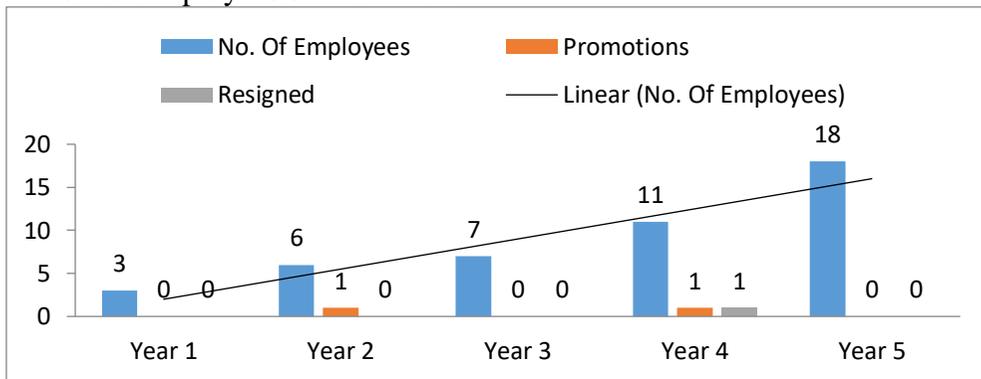
### ***Training on Recruitment***

The three members of staff involved in the hiring process had received on the job training on the organization's full recruitment process and thoroughly understand the proper interview and selection techniques. In fact, from the data it transpired that the administrative side of the whole process - from shortlisting to issuing the criteria and scores for the interviews - is computed by the administrative staff, which is then double-checked by the General Manager.

### ***The Organisation's Recruitment Strategy***

The organization has a recruitment strategy in place to meet the needs for the specific positions and the organization's goals, as well as to attract potential applicants. A few employees hail from another government entity, some were employed from the governmental recruitment agency and the rest

were employed through an open call for applications advertised on the newspaper. All employees are recruited on a definite contract. The chart below represents the organization’s recruitment of the Management Team from its first inception. Initially, the organization consisted of three employees; presently it has eighteen, out of which two work on part-time basis. The chart illustrates that there was a hefty increase of 84% in the number of employees since Year 1.



Albeit the increase in the number of employees within the Management Team throughout the years, the data from the in-depth interviews suggests that there is lack of human resources compared with the amount of work involved. A few of the participants have suggested that the organization requires a business development manager on a full-time basis. Others suggested that the employees are not fulfilling their full potential.

### ***The Hiring and Selection Process***

From discussions with the Management Team, it transpired that, over the years from the organization’s first inception, the hiring and selection process of the organization ranged between four months to one and a half years to complete, in view of the recruitment procedure which is in line with the Manual on Resourcing Policies and Procedures, wherein the calls are first issued internally for the public officers working within a governmental entity. The manual indicates that if no applications are successful the call is then referred to the governmental recruitment agency, and if still no applicants are successful, the call is advertised on the newspapers. The skills and qualifications required for a post are usually determined by the Chairman and the General Manager. However, at interview stage, the respective Unit Coordinator is usually involved in the selection process. In view that the hiring and selection process is carried out in line with that of the public sector, the interviewing board should always include a high governmental official. The records for the whole process will be kept in line with general Government

guidelines in view that there might be parliamentary questions during the hosting process and beyond.

### ***Other Expertise & Support***

The organization also engaged dedicated project managers who are appointed for each activity and event, which, according to Quinn & O'Halloran (2006), brings experience and knowledge in the area covered by the project. There is also a large number of members who are engaged through a contract for service. These include the team of the Creative Director, and other people in areas such as law, communications, health and safety, information technology, public relations, social media, etc. Apart from providing a picture of what type of human resources the organization is utilizing, one may refer to this section as a thought for the legacy of the expertise that is being utilized for the organization's activities.

### **Conclusion**

The study examined a number of indicators relating to the discipline of Governance, namely the analysis of organisational models, the effectiveness of internal departments, the stakeholder and Board of Directors' relationship with the organization, and the recruitment process. Overall, the study assessed and provided feedback on all of the above indicators. The study has uncovered the state of governance within the organization.

Following is a summary of the main findings:

- € The organization adopts a traditional hierarchical structure similar to a 'line organization'. Its structure reflects a dominant operating core, wherein staff in the operating core work rather independently and their relative weight in the organization is visible. The coordination mechanisms fall between 'direct supervision', wherein the head of unit coordinates between people directly under his/her responsibility, and 'mutual adjustment' wherein people between units depend on each other's work;
- € The organization seems to adopt good governance - Employees are satisfied with their job and other stakeholders are proud to be working for the organization. The relationship, synergy and communication between all parties, seems to be good, though the communication between the Creative Director Team and the Management Team seems to require improvement;
- € There seems to be lack of knowledge about the mission statement of the organization and the exact goals and objectives seem to be unclear to the participants. Employees and stakeholders alike are also questioning the suitability and necessity of some of the Directors on

board. Participants expressed the need to have more detailed information about the role of the Board of Directors;

- € An interest in exchange programmes with foreign artistic organizations has transpired. Similar exchanges have already occurred in the past years, and stakeholders stressed that it would be important and motivating to participate in similar exchanges in the coming years;
- € The human resources of the organization's Management Team have increased extensively in the last few years from 3 employees in Year 1 to 18 employees by the end of December of Year 5. This indicates a heavy amount of work that is being actuated.

In view of the above findings, it is being suggested that the mission statement, goals and objectives are to be clearly and continuously communicated to all by the top management. The communication with the team of the Creative Director also needs to be enhanced and promoted by the top management. Moreover, more information on the team of the Creative Director is required to be made visible to the Management Team and the public alike.

Whilst all employees and other stakeholders feel proud to be involved in the organization's activities, some expressed concern that the general public might perceive them as being attached to the organization at a particular time in view of the type of government managing the country. Perhaps, more transparency on how people are recruited or engaged with the organization is required to be made available to the general public.

### References:

1. Bernard, H. & Ryan, G. (2010) *Analyzing Qualitative Data*, Thousand Oaks: Sage.
2. Boeije, H. (2010) *Analysis in Qualitative Research*, London: Sage.
3. Bryman, A. (2012) *Social research methods*, Oxford University Press.
4. Cheng, (Daniel) Y. (2019) Governing Government-Nonprofit Partnerships: Linking Governance Mechanisms to Collaboration Stages, *Public Performance & Management Review*, 42(1), pp. 190-212.
5. Comforth, C. (Ed.). (2003) *The governance of public and non-profit organizations*, Routledge.
6. Crosby, Benjamin L. (1992) Stakeholder Analysis: A Vital Tool for Strategic Managers, Technical Notes, No. 2. *Implementing Policy Change Project*, USAID. Washington, DC.
7. European Parliament (2013) *Draft report on the proposal for a decision of the European Parliament and of the Council establishing a Union action for the European Capitals of Culture for the years 2020*

- to 2033, COM (2012).
8. Friedman, L. and Miles, S. (2006) *Stakeholders Theory and Practice*, Oxford University Press.
  9. García, B., & Cox, T. (2013) *European Capitals of Culture: Success Strategies and Long-Term Effects*, Directorate General For Internal Policies, Policy Department B: Structural and Cohesion Policies. Retrieved from: [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/513985/IPOLCULT\\_ET%282013%29513985\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/513985/IPOLCULT_ET%282013%29513985_EN.pdf) accessed June 2020.
  10. Hofstede, G., *et al* (2015) *Cultures and Organizations: Pyramids, Machines, Markets, and Families: Organizing Across Nations. Classics of Organization Theory*, 314.
  11. Kahler, M. (Ed.) (2015) *Networked politics: agency, power, and governance*, Cornell University Press.
  12. Kinyua-Njuguna, J. W., Munyoki, J., & Kibera, F. (2014) INFLUENCE OF INTERNAL ORGANIZATION ALENVIRONMENT ON PERFORMANCE OF COMMUNITY-BASED HIV AND AIDS ORGANIZATIONS IN NAIROBI COUNTY. *European Scientific Journal*, *ESJ*, 10(1). <https://doi.org/10.19044/esj.2014.v10n1p>, accessed August 2020.
  13. Manual on Resourcing Policies and Procedures: [https://publicservice.gov.mt/en/Documents/Public%20Service%20Management%20Code/PSMC%20Manuals/Manual\\_on\\_Resourcing\\_Policies\\_and\\_Procedures.PDF](https://publicservice.gov.mt/en/Documents/Public%20Service%20Management%20Code/PSMC%20Manuals/Manual_on_Resourcing_Policies_and_Procedures.PDF) accessed June 2020.
  14. Mihanovic, Z., & Pepur, M. (2015) INFLUENCE OF STAKEHOLDER ORIENTATION ON FUNDRAISING OF PUBLIC SERVICE ORGANISATIONS. *European Scientific Journal*, *ESJ*, 11(31). Retrieved from <http://eujournal.org/index.php/esj/article/view/6597> accessed August 2020.
  15. Mintzberg, H. (1979) *The structuring of organizations*, Englewood Cliffs, NJ: Prentice Hall.
  16. Mohamed, A., Youssef, E. W., Malika, S., & Hafsa, L. (2016) The Ethical Dimension in the New Public Management: Revisiting the Theory of Accountability, the Case of Public Finances in Morocco. *European Scientific Journal*, *ESJ*, 12(31), 440. <https://doi.org/10.19044/esj.2016.v12n31p440> accessed August 2020.
  17. Möll G. & Hitzler R. (2011) Organisationsprobleme der kulturgetriebenen Transformation moderner Urbanität. Das Beispiel der europäischen Kulturhauptstadt RUHR.2010. In: G. Betz, R. Hitzler, M. Pfadenhauer (editors), *Urbane Events*, VS Verlag für

- Sozialwissenschaften Wiesbaden*, pp. 335-350.
18. Németh, Á. (2015) European Capitals of Culture–Digging Deeper into the Governance of the Mega-Event, *Territory, Politics, Governance*, DOI: 10.1080/21622671.2014.992804, pp.1-23.
  19. Palmer, R. et al (2011) *European cultural capital report 3*. Association for Tourism and Leisure Education, Arnheim.
  20. Portolese Dias, L. (2012) *Beginning Management of Human Resources*, <http://2012books.lardbucket.org/pdfs/beginning-management-of-human-resources.pdf>, accessed June 2020.
  21. Quinn, B. & O’Halloran, E. (2006) *Cork 2005: An analysis of emerging cultural legacies*. Dublin Institute of Technology, [http://ECoC-docathens.eu/attachments/998\\_CORK%202005-%20AN%20ANALYSIS%20OF%20EMERGING%20CULTURAL.pdf](http://ECoC-docathens.eu/attachments/998_CORK%202005-%20AN%20ANALYSIS%20OF%20EMERGING%20CULTURAL.pdf) accessed June 2020.
  22. Rotberg, R. I. (2014) Good governance means performance and results, *Governance*, 27(3), pp. 511-518.
  - Sahin, I., & Gozubenli, M. (2014) CROSS-SECTORAL GOVERNANCE: EXAMINING THE FLORIDA INTEGRATED NETWORK FOR DATA EXCHANGE AND RETRIEVAL (FINDER). *European Scientific Journal, ESJ*, 10(2). <https://doi.org/10.19044/esj.2014.v10n2p%p> accessed August 2020.
  23. Shafritz, J., et al (2015) *Classics of organization theory*, Cengage Learning.
  24. Sorensen, E. & Torfing, J. (2009) Making governance networks effective and democratic through Metagovernance, *Public Administration*, 87(2), pp.234–258.
  25. Tonks, A. (2020) *The A to Z of Arts Management: Reflections on Theory and Reality*, 2<sup>nd</sup> Edition, Routledge, New York.
  26. Tricker, R. I. (2015) *Corporate governance: Principles, policies, and practices*, Oxford University Press, USA.
  27. Vangen, S., Hayes, J. P., & Cornforth, C. (2015). Governing cross-sector, inter-organizational collaborations. *Public Management Review*, 17(9), pp. 1237–1260.



ESJ Social Sciences

### **Francisco Hilario Cedeño Troya**

Ingeniero en Sistemas Administrativos  
Computarizado, Magíster en Sistemas de  
Información General Decano (e) - Universidad  
Tecnológica Empresarial de Guayaquil

### **Sindy Verónica Astudillo**

#### **Monrroy**

Licenciada en Lengua Inglesa Mención en  
Enseñanza y Administración de Sistemas  
Educativos en TEFL Docente - Instituto Superior  
Tecnológico Enrique Noboa Arizaga

### **Tatiana Gabriela Pineda**

#### **Guzmán**

Licenciada en Ciencias de la Educación  
Especialización Inglés y Magister en Pedagogía de  
los Idiomas Nacionales y Extranjeros con Mención  
en Inglés Docente - Colegio de bachillerato  
Machala

### **María Teresa Albán Defilippi**

Licenciada en Ciencias de la Educación Mención  
Lengua Inglesa y Lingüística y Magister en  
Pedagogía de los Idiomas Nacionales y Extranjeros  
Mención en Enseñanza de Inglés Docente -  
Universidad de Guayaquil

---

Submitted: 12 August 2020  
Accepted: 26 October 2020  
Published: 30 November 2020

Corresponding author:

*Francisco Hilario Cedeño Troya*

DOI: 10.19044/esj.2020.v16n31p40



Copyright 2020 Troya et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
OPEN ACCESS

---

## **Experiencias formativas de uso didáctico con plataforma virtual para el aprendizaje de idioma inglés en estudiantes de la carrera mecánica industrial**

### **Resumen**

El presente estudio describe experiencias formativas en la educación superior inclinadas hacia la formación en el uso didáctico de Plataformas Virtuales para el aprendizaje del idioma inglés dedicado a estudiantes de la carrera de Mecánica Industrial. Estas experiencias formativas demostrarán como las plataformas virtuales han ganado espacio significativo en las instituciones de educación superior, como uso didáctico de transferencia de conocimiento, que facilita la adquisición, asimilación y construcción del conocimiento. Estas experiencias se han desarrollado con una serie de estudiantes a través de seminarios formativos de dos horas en la asignatura del Idioma Inglés durante el curso académico 2019-2020, y que en la mayoría tienen notas menores al promedio mínimo. Los objetivos de este estudio están orientados hacia la descripción de la perspectiva de los estudiantes y las experiencias sobre el uso de plataformas virtuales en función del desarrollo de actitudes positivas, como también de nuevas técnicas de aprendizaje. Así mismo, como el docente, la implementación de esta tecnología y la adquisición de competencias de uso de estos recursos desde un punto de vista didáctico, ejercerán de manera prospectiva en el docente una labor más creativa y eficiente.

Por medio de un estudio con enfoque cualitativo, de alcance descriptivo se obtuvieron resultados que manifiestan que la aplicación de tecnología basada en las plataformas virtuales es vista como un recurso reforzador, amplificador y enriquecedor para crear nuevos formatos de escenarios de aprendizaje adaptados a

### **How to cite this article**

Troya, F., (2020). Experiencias formativas de uso didáctico con plataforma virtual para el aprendizaje de idioma inglés en estudiantes de la carrera mecánica industrial. *European Scientific Journal, ESJ*, 16(31), 19. <https://doi.org/10.19044/esj.2020.v16n31p40>

las características y demandas del estudiantado diverso, y de la situación actual con respecto a la tecnología educativa desde una perspectiva inclusiva.

**Palabras claves:** Plataformas Virtuales, Educación Superior, innovación educativa, uso didáctico y conocimiento

---

## **Training Experiences of Didactic use with a Virtual Platform for Learning the English Language in Students of the Industrial Mechanical Career**

***Francisco Hilario Cedeño Troya,***

Ingeniero en Sistemas Administrativos Computarizado, Magíster en Sistemas de Información General

Decano (e) - Universidad Tecnológica Empresarial de Guayaquil

***Sindy Verónica Astudillo Monrroy,***

Licenciada en Lengua Inglesa Mención en Enseñanza y Administración de Sistemas Educativos en TEFL

Docente - Instituto Superior Tecnológico Enrique Noboa Arízaga

***Tatiana Gabriela Pineda Guzmán,***

Licenciada en Ciencias de la Educación Especialización Inglés y Magister en Pedagogía de los Idiomas Nacionales y Extranjeros con Mención en Inglés

Docente - Colegio de bachillerato Machala

***María Teresa Albán Defilippi,***

Licenciada en Ciencias de la Educación Mención Lengua Inglesa y Lingüística y Magister en Pedagogía de los Idiomas Nacionales y Extranjeros Mención en Enseñanza de Inglés

Docente - Universidad de Guayaquil

---

### **Abstract**

This study describes training experiences in higher education inclined towards training in the didactic use of Virtual Platforms for learning the English language dedicated to students of the Industrial Mechanics career. These training experiences will demonstrate how virtual platforms have gained significant space in higher education institutions, as a didactic use of knowledge transfer, which facilitates the acquisition, assimilation and construction of knowledge. These experiences have been developed with a series of students through two-hour training seminars on the subject of English Language during the 2019-2020 academic year, and most of them have grades

below the minimum average. The objectives of this study are oriented towards the description of the students' perspective and experiences on the use of virtual platforms based on the development of positive attitudes, as well as new learning techniques. Likewise, as the teacher and the implementation of this technology and the acquisition of skills to use these resources from a didactic point of view for implementation with a prospective nature and in which they will exercise a more creative and efficient teaching work. Through a study with a qualitative approach, of descriptive scope, results were obtained that show that the application of technology based on virtual platforms is seen as a reinforcing, amplifying and enriching resource to create new formats of learning scenarios adapted to the characteristics and demands of the diverse student body, and the current situation with respect to educational technology from an inclusive perspective.

---

**Keywords:** Virtual Platforms, Higher Education, educational innovation, didactic use and knowledge

## **Introduction**

En el siglo XXI, la incorporación de los medios digitales ha implicado una transformación a nivel mundial en diferentes ámbitos: educativo, económico, social, político y cultural (Organización para la Cooperación y el Desarrollo Económicos, OCDE., 2015). La ubicuidad de las tecnologías de la información y de la comunicación (TIC) en prácticamente todos los aspectos de la actividad de las personas multiplica las posibilidades y los contextos de aprendizaje más allá del escenario formal (Cabero, 2017).

En el seno de estos cambios facilitados por las TIC, las prácticas educativas buscan replantear sus principios o fundamentos para satisfacer las necesidades de la sociedad (Cabero, 2017). Para los docentes formadores es fundamental incorporar el uso de las TIC para impactar en el aprendizaje y favorecer en la formación, adquisición de competencias, contribución a la transformación de la enseñanza y mejora de los aprendizajes. Además que la potencialidad mediadora de las TIC solo se actualiza y se hace efectiva cuando estas tecnologías son utilizadas por docentes y estudiantes para dar guía, regular, crear planificaciones para las actividades propias y ajenas, integrando modificaciones relevantes en los procesos de aprendizaje y educación (Coll, 2018).

Debido a esto, las TIC generan nuevos ambientes y escenarios para la formación inicial docente en la enseñanza didáctica, guía y tutorización, borrando las brechas existentes espacio-temporales, facilitando la labor de colaboración y la elasticidad en el aprendizaje. Diversos artículos de investigación están enfocados a comprender las potencialidades del uso de las TIC en la recepción de retroalimentación formativa y de esta manera darse

apoyo (Remesal, 2017), conjuntamente los estudiantes realizan trabajos de forma colaborativa para entender los nuevos escenarios creados por las TIC, beneficiando la adaptabilidad de estas herramientas en el proceso de educación de calidad.

En concordancia, recientemente la educación superior da prioridad al potencial didáctico de los ambientes virtuales de aprendizaje (AVA), lo que limita el uso, en muchos casos, a un simple repositorio virtual de objetos de aprendizaje (López, López, & y Prieto, 2018). Incluso la mayoría de los docentes emplean las plataformas para transmitir contenidos e información y, en menor medida, para desenvolver, desarrollar la creatividad y crear prácticas innovadoras para la educación superior en los institutos (Del Prete, 2015). La prueba evidente de esto lo provee el informe ECAR Study of Undergraduate Students and Information Technology 2017 (Brooks, 2017), el cual afirma que el 75% del profesorado recurre a los sistemas de gestión del aprendizaje para talleres y tareas, como subir la planificación del curso, subir lista de material, informar notas, solicitar y revisar talleres y tareas en plataformas virtuales. Por lo tanto, esto conlleva a la necesidad de que los profesores adquieran habilidades específicas en dichas actividades y conseguir una acción de formación educativa eficiente.

A causa de la necesidad de que los docentes de la universidad de Guayaquil adquieran nuevas habilidades específicas en este ámbito y la ausencia de las herramientas de plataforma virtual para el aprendizaje del idioma inglés en estudiantes surge una cuestión, ¿En qué medida el uso de una Plataforma virtual influye en la mejora de las capacidades de Producción oral y escrita en el área de inglés de los estudiantes del Segundo Idiomas paralelo 1 y 2 de la facultad de Ingeniería Mecánica? Para resolver esta problemática es indispensable identificar las características e información de las plataformas virtuales para la mejora de las capacidades de Producción oral y escrita del área de inglés, determinar el nivel de logro de las capacidades del área de inglés de los estudiantes de educación superior. Sin embargo, proponer una alternativa de solución a la problemática abordada es conveniente.

Es importante considerar que una plataforma virtual permite al docente captar los temarios en los que los estudiantes presentan una deficiencia notoria, mediante esto existe la posibilidad de que el docente refuerce los temas de forma oportuna. El aporte académico y social está dado por el dato de que los estudiantes pueden, una vez completadas las competencias del curso, estar preparados de mejor manera para poder ingresar al material en inglés en las diferentes áreas de trabajo enviado por los docentes y de los intereses de los estudiantes, como también poder a futuro postular a conseguir certificados más avanzados, posibilidades de becas u otras oportunidades que hoy ofrece el Ministerio de Educación del Ecuador.

Así mismo, se describe que las TIC han abierto perspectivas de enfoques ricos e innovadores para abordar problemas educativos y proporcionar soluciones a las crecientes demandas de recursos de aprendizaje. En esta sección, se presenta una revisión de los antecedentes a nivel internacional, latinoamericano, y local.

Por su parte el artículo publicado por Adriana Teodorescu (2015) presenta un estudio en la Universidad de Rumania en la Facultad de Turismo y Gestión Comercial, en el cual se efectuó a 100 alumnos en el primer año de estudios. La investigación tuvo como objetivo determinar la efectividad del aprendizaje móvil y el impacto en el aprendizaje del idioma inglés. Tomando en cuenta las opciones que las tecnologías digitales ofrecen actualmente, en un intento por pluralizar y mejorar el aprendizaje, la autora integra de manera notable el uso del aprendizaje móvil en la enseñanza del inglés y así estimular a los alumnos para que integren el estudio autodidacta.

Además, el estudio mencionado se llevó a cabo durante el curso académico 2013-2014 sujeta a una hipótesis que menciona que las estrategias de enseñanza/aprendizaje deben adaptarse constantemente y de manera permanentemente a las exigencias por parte de los alumnos. Analizando de manera detallada el resultado de la investigación mostró que las estrategias encontraron el camino hacia una mejora eficiente de las habilidades de inglés en sus estudiantes. Debido a esto, se mostró que el m-learning incorporado en el proceso de enseñanza/aprendizaje refuerza, complementa y enriquece los métodos de aprendizaje, hacen que el aprendizaje sea más didáctico, accesible y flexible, y mejora la autonomía de los estudiantes y el desempeño académico (Teodorescu, 2015).

A nivel de Latinoamérica, los investigadores han descubierto experiencias significativas. Banados (2016) expone la experiencia de la Universidad de Concepción en Chile, que ante la necesidad de enseñar inglés a un gran número de estudiantes, ha creado un programa que utiliza las TIC implementando un modelo en pedagogía de aprendizaje mixto (b-learning) que incluye: el trabajo de los alumnos con un software concebido como la columna vertebral de todo el programa de inglés con monitoreo en línea, clases presenciales y talleres virtuales.

Este estudio resalta que el software en línea como las plataformas virtuales son un ambiente multimedia interactivo que contiene muchos beneficios que alberga todos los materiales y las herramientas TIC que los estudiantes necesitan. Algunos de los conceptos centrales que son latentes en los diseños de plataformas virtuales son: proveer información precisa para cada estudiante, sociedad e interacción (persona-computadora, humano-humano, e intrapersonal) a través de equipos de cómputo, talleres de aprendizaje, colaborativos e individuales, así como un entorno más humano. Han mostrado a través de los resultados que hay una mejora sustancial en las

habilidades lingüísticas de los estudiantes, así como complacencia en altos niveles, con el programa de inglés comunicativo completo. Los resultados dan prueba existente que el éxito del modelo b-Learning se basa en la capacitación presencial, además de que permite a los profesores estar en contacto directo con los alumnos, facilita la interacción en el mundo físico entre los estudiantes y es una efectiva herramienta para transmitir conocimientos (Banados, 2016).

Por lo tanto, la Universidad de Concepción en Chile efectuó un análisis a la utilización de los recursos educativos abiertos (REA) como innovación educativa para desarrollar la habilidad oral del idioma inglés en un ambiente b-learning. Esta plataforma virtual fue analizada con el uso de una metodología de tipo cualitativo, con estudio de casos en un grupo de quince estudiantes que utilizaron el programa SpeakApps para integrar la habilidad oral. Aquellos aplicaron entrevistas a estudiantes, las cuales permitieron conocer las interpretaciones sobre la utilización de los REA y el desenvolvimiento de la competencia oral del inglés (Rico Yate, 2016).

Posteriormente los hallazgos obtenidos indican que la competencia oral de los estudiantes en un curso de inglés en b-learning obtiene beneficios con el uso de los REA al usarse estrategias didácticas con tareas de vital importancia para la educación del estudiante, ya que se abren las posibilidades de extensión de la práctica del idioma en la interacción y producción. Teniendo en cuenta la problemática de este estudio plantearon la pregunta; ¿cómo contribuye el uso de los REA al desarrollo de la competencia oral en un curso de inglés de nivel básico en un ambiente b-Learning?, los autores encontraron mediante el análisis de resultados que se puede propiciar la interacción y la producción oral en un ambiente b-learning por medio de un REA específico, para esto los docentes utilizan estrategias didácticas activas que le permiten al estudiante practicar el idioma en línea y adquirir competencia comunicativa. (Rico Yate, 2016).

En cuanto al uso de un LMS (Learning Management System) para aumentar el nivel de conocimiento en el área de inglés en instituciones de educación superior desde el primer nivel hasta el último, existe un problema debido a la falta de docentes especializados y a la poca intensidad horaria que proveen las instituciones normalmente a este idioma. Edmodo, una plataforma de formación LMS que es muy popular en la comunidad educativa ha sido usada por los investigadores, los cuales han buscado reforzar lo aprendido en un ambiente de aprendizaje tradicional con actividades virtuales como: compartir, organizar y almacenar recursos, contenido o apuntes en línea para contar con un acceso 24 horas, realizar cuestionarios, exámenes, ejercicios y trabajos en línea pudiendo gestionar más rápida y cómodamente notas y correcciones gracias al cuaderno de calificaciones, comunicación directa con padres y alumnos a través de los mensajes internos, todo esto con la meta de mejorar y facilitar la enseñanza de este idioma (Hernández E., 2016).

La LMS mencionada por aquellos investigadores cuenta con actividades sincrónicas y asincrónicas. Allí encuentran videos, explicaciones de refuerzo del tema que están analizando según la planificación del docente, sopas de letras, match, crucigramas; todo esto tiene un protocolo para determinar si se están logrando las metas propuestas. Resultado de dicha implementación, y con la realización de estas actividades se ha logrado mejorar el nivel de inglés de los estudiantes. (Hernández E., 2016)

En los antecedentes descritos previamente se puede notar las herramientas y beneficios del uso de las tecnologías de la información en sus diferentes modalidades, se resalta el uso de la metodología B-Learning y Edmodo como propuesta en muchos de ellos. A continuación, se describen términos básicos que es necesario saber:

**Plataforma Virtual:** Es de uso para la creación y desarrollo de cursos o módulos didácticos en la red tecnológica que se usan de manera más amplia en la Web para mejorar el proceso de enseñanza/aprendizaje permitiendo una enseñanza no presencial (e-learning) y/o una enseñanza mixta (b-learning) (Management, 2018).

**Learning Management Systems (LMS):** en español llamado sistemas de gestión de aprendizaje. Son plataformas virtuales educativas cuya finalidad primordial es proveer a los estudiantes un entorno de auto-aprendizaje donde se pueda también interactuar en eventos dinámicos, eficientes e intuitivos. (Management, 2018)

**Competencia:** Ribes (2011) describe que para ser competente se determina que el dominio técnico sobre algo que se traduce en resultados u objetivos completados, y se relaciona con habilidades, conocimiento y actitudes.

**Enseñanza del Inglés:** Es considerada fundamental y prioritaria en la globalización, lo que implica nuevos retos y oportunidades en el ámbito educativo. La enseñanza y aprendizaje son un solo proceso colaborativo que tiene como fin la formación del estudiante (Castillo, 2015).

**Producción de Textos:** La comunicación escrita, a diferencia de la oral, está sometida a leyes gramaticales. La interacción entre el emisor y el receptor no es inmediata e incluso puede llegar a no producirse nunca, y aquello escrito quedará permanentemente (Castillo, 2015).

**Producción Oral:** Es complejo y global del que la educación es solo un pequeño complemento y el lenguaje verbal, uno de sus componentes, aunque quizás el más importante para el ser humano (Castillo, 2015).

**Plataforma e-Learning:** Conocida por muchos investigadores como Entorno Virtual de Enseñanza y Aprendizaje (EVEA) es una aplicación web que incluye un conjunto de herramientas para la educación didáctica en línea (Clark, 2016).

## Herramientas de las plataformas

Boneu (2017), da una explicación en la que menciona que las plataformas de e-learning y b-learning ofrecen muchas funcionalidades, siendo las principales, las orientadas al aprendizaje:

- Los foros de discusión son un ídem que permiten el intercambio de mensajes durante el tiempo que dure un curso. Los foros pueden estar organizados por temas de conversación, cronología y permitir o no adjuntar archivos al mensaje.
- Los buscadores de foros son un ídem que crea un fácil uso de la selección y localización de los mensajes, entre todos los temas de debate que incluyan el patrón de búsqueda indicado por el usuario.
- El portafolio electrónico, es un ídem que permite hacer el seguimiento del aprendizaje de los participantes, también tienen acceso a tareas y talleres realizados en sus actividades formativas. Los trabajos pueden estar en diferentes formatos tales como imágenes, PDF, entre otros.
- Las utilidades de intercambio de archivos son para que los usuarios puedan subir archivos desde sus computadoras y compartir estos archivos con los profesores u otros estudiantes.
- También ofrece soporte a múltiples formatos de archivos, como por ejemplo PDF, HTML, Word, Excel, Acrobat, entre otros.
- Herramientas de comunicación síncrona para el intercambio de mensajes entre los participantes este puede ser mediante un chat público.
- Herramienta de comunicación asíncrona es referido a un correo electrónico el cual puede ser leído o enviado desde un curso. Las herramientas de correo permiten leer y redactar mensajes desde un chat interno del curso, o alternativamente habilitan la posibilidad de trabajar con direcciones de correo externas como Gmail, Outlook, u otra.
- Los servicios multimedia se refieren al uso de videoconferencia o video llamada entre el sistema y el usuario que lo necesite, o a la comunicación entre dos usuarios cualesquiera. Las pizarras electrónicas son utilizadas por el docente con los estudiantes en una clase virtual; Un servicio de comunicación síncrona entre profesores y estudiantes, tal y como puede ser también la de chat o llamada.
- Los Blogs son una herramienta que permite a los estudiantes y profesores efectuar anotaciones en un diario, según investigadores es aplicable en su aspecto más educativo a través de los edublogs, consisten en blogs educativos.
- Wikis son herramientas que dan un fácil uso a la elaboración de documentos en línea de forma colaborativa. Por medio de estos el

conocimiento ya no se apoya sólo en las fuentes clásicas, sino que es posiblemente encontrará una diversa amplia de matices.

### **Riesgos en las plataformas virtuales**

Los estudios realizados por Young (2018), han demostrado que los factores más importantes que pueden poner en riesgo el uso de las plataformas virtuales en una institución están dados por: la negativa a adoptar un modelo de plataforma por parte de los profesores/capacitadores/instructores y los estudiantes.

Probablemente las inquietudes de los estudiantes giran en torno a la dudas que puedan tener sobre cómo usar la tecnología incluida, la falta de voluntad para ser controlados remotamente, la falta de oportunidad de conectarse a la plataforma con personas que puedan brindarles apoyo continuo y, por supuesto, el aburrimiento o falta de didáctica por parte de los docentes si se les presenta demasiada información en un formato en línea común, esto pone en riesgo el uso de plataformas virtuales y el aprendizaje didáctico en el idioma inglés.

En relación a lo anterior, los investigadores tras aplicar la estrategia de la Gamificación en plataformas virtuales, pudo evidenciar resultados casi inmediatos, lo que superó incluso las expectativas que se tenían antes de su implementación. El aumento de participación y la generación de intercambios entre los usuarios fueron impulsados por la estrategia implementada, pero es indispensable explorar aún más tanto la implementación como los objetivos a ser alcanzados (Valda Sanchez, 2015).

Por tanto, la gamificación puede ser un arma de doble filo sino no se estudia adecuadamente tanto los objetivos, el público meta, como las mecánicas y dinámicas que se utilizarán. Los investigadores han llegado a la conclusión de que las personas responden de manera diferente en contextos diferentes, por lo que es importante pensar la estrategia en un marco interdisciplinario, así es más probable que las distintas formas de abordar los objetivos permitan una mayor probabilidad de éxito de una plataforma virtual (Valda Sanchez, 2015).

Por otro lado, la implementación realizada del programa WISE-SABIO provee datos analizados que permitieron identificar algunos obstáculos y dificultades encontrados a lo largo de su desarrollo. El principal inconveniente encontrado fue el de la falta de conectividad en las escuelas, condición previa indispensable para la implementación efectiva del programa, lo que también se convierte en un riesgo latente a la negación de que se implemente una plataforma virtual para el aprendizaje del idioma inglés (Rizzi Iribarren, 2014).

Además, muchos docentes no cuentan con conocimientos suficientes para el manejo de sistemas informáticos como es el ejemplo de la institución

Educativa Luis López de Mesa, lo cual se convierte en un riesgo al momento de querer implementar una plataforma virtual, por eso es de vital importancia que los docentes se muestren receptivos y dinámicos en las capacitaciones acerca del manejo de la plataforma, deben tener como objetivo continuar con el uso de la plataforma como una herramienta al impartir su enseñanza en este área (Grisales Pérez, 2013).

### **Enseñanza y aprendizaje del idioma inglés**

Esta enseñanza se fundamenta en enfoques, en el idioma inglés se dividen en tres niveles de conceptualización: el enfoque, el método y la técnica (Richards & Rodgers, 2011). El enfoque se determina como una serie conjunta de supuestos que se ocupan de la naturaleza del aprendizaje de un idioma (Richards & Rodgers, 2011). Una definición complementaria implica que el enfoque que demuestra cómo es utilizado y cómo sus partes constituyentes se correlacionan, es decir, al ofrecer un modelo de competencia del idioma les permitirá determinar las condiciones que promoverán el aprendizaje exitoso y el cumplimiento de objetivos de dicho idioma (Harmer, 2011).

En el caso del método constituye al plan general para la presentación ordenada del material de aprendizaje de un idioma. En general este plan se basa en un enfoque ya establecido de antemano (Richards & Rodgers, 2011). Algunos métodos son: el método de gramática y traducción, junto con el método directo o inductivo, el método audio lingual o audio oral, y el método comunicativo (Mato, 2011). en el caso de las técnicas hablan sobre un conjunto de actividades que se dan en el aula para conseguir un objetivo preestablecido.

Existen dos tipos de enfoques para la enseñanza del idioma inglés:

El enfoque de lenguaje auditivo basa la metodología en el modelo conductista del aprendizaje, que enfatiza la asociación entre el estímulo, la respuesta y los efectos del reforzamiento (DiFino & Lombardino, 2014). El audio-lingüismo está fuertemente enlazado a la repetición para formar buenos hábitos en los comienzos de aprendizaje de un idioma extranjero. El estudio menciona que entre las desventajas se encuentra la descontextualización del idioma lo que hace que se restrinja la función comunicativa del mismo.

El enfoque comunicativo según lo expuesto por Hymes (2011), la meta colaborativa y general de la enseñanza de idiomas debe ser el desarrollo de la competencia comunicativa. La competencia comunicativa tiene cuatro dimensiones fundamentales, la primera se refiere específicamente a la gramatical o de conocimientos lingüísticos, en segunda mención está la sociolingüística, relacionada con las condiciones socio-culturales de una lengua, como tercer dimensión está la discursiva, referida a la capacidad de ensamblar enunciados coherentes con el texto o discurso, y por último la estratégica, referida a los recursos propios de la comunicación como la autoobservación, corrección, mejora, adaptación y redirección.

El aprendizaje del idioma inglés está estrechamente vinculado con la adquisición de desarrollo de habilidades. En el ámbito de las competencias (Ribes, El concepto de competencia: la pertinencia en el desarrollo psicológico y la educación., 2016) define que ser competente implica el dominio técnico.

La adquisición de un idioma está asociada con tres competencias (Durán, 2016):

La primera competencia menciona a la producción oral, que agrupa habilidades como hablar, escuchar y reportar. En específico se refiere a las pragmáticas están referidas al uso funcional de los recursos lingüísticos. La segunda competencia mencionada está vinculada al socio-lingüística que son las condiciones socio-culturales del uso de un idioma.

En la tercera competencia demostraron 2 puntos fundamentales la lectura, es decir la selección de información, lectura crítica, evaluación y toma de una posición frente a la información. Y luego la producción escrita que es redactar lógicamente, elaborar reportes, artículos, síntesis o ensayos.

Sopesando en los antecedentes y lineamientos teóricos expuestos previamente por los autores, esta investigación tuvo como objetivo describir tanto las experiencias formativas a nivel global y la implementación de herramientas virtuales como las ventajas y desventajas para que futuras instituciones vean como modelo de enseñanza y aprendizaje del idioma inglés a las plataformas virtuales.

## **Metodología**

El enfoque de investigación se aborda desde un punto de vista cualitativo con una metodología descriptiva, para esto diseñamos una encuesta estructurada, sometida a información precisa, con la que se corroboró la fiabilidad de este contenido.

Además, se desarrolló para este estudio un diseño no experimental debido a que la manipulación de las variables en la investigación por parte de los investigadores fue nula ya que el objetivo fue cuantificar y analizar las experiencias formativas con las Plataformas Virtuales las cuales ya establecen los procesos determinados y que fueron evaluados según los requerimientos de los estudiantes y maestros por lo que los investigadores solo fueron guías del protocolo de recolección de información.

Las metas de la investigación fueron analizar la percepción de los estudiantes de la carrera de mecánica industrial respecto del uso de las tecnologías como herramientas que apoyan el aprendizaje del idioma inglés, identificar los factores que ellos consideran que pueden beneficiarlo y conocer cuáles son las tecnologías o herramientas más utilizadas por el docente y cuáles de ellas motivan el aprendizaje de este idioma.

Cabe recalcar que el alcance de esta investigación es de tipo descriptiva, es decir, está destinado a identificar las relaciones existentes entre

la relación entre los factores, los actores y las variables. También en estudiar y analizar los datos que han sido recolectados por medio de la metodología de investigación.

Por último, como unidad de análisis se determinará a la totalidad de la población que cursa esta carrera de mecánica industrial, al momento de la validación del instrumento, únicamente consideramos aquellos que habían contestado el 100% de las preguntas, que fueron en total 252 encuestados; de estos, 129 son mujeres y 123, hombres. En cuanto al semestre, el número de encuestados se distribuyó de la manera en que se presenta en la tabla.

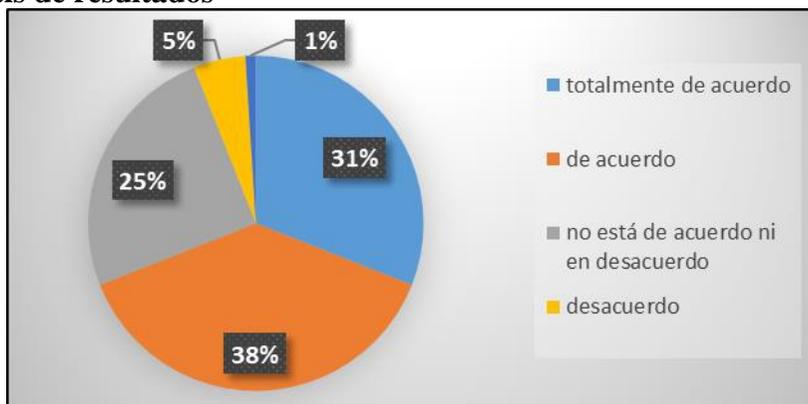
**Tabla 1:** Cantidad de estudiantes por semestre

SEMESTRE	CANT. DE ESTUDIANTES	PORCENTAJE VÁLIDO
4°	59	10.2
5°	53	12.2
6°	50	13.5
7°	36	26.6
8°	29	10.9
9°	25	26.6
<b>total</b>	<b>252</b>	<b>100</b>

Fuente: tabulación de encuesta  
Elaborado por: Autores

Diseñamos un instrumento de acuerdo con los objetivos de la investigación y el contexto en el que se aplicó. Consta de 15 ítems en formato tipo Likert, con cinco puntos de rango, dos en cada polaridad y uno intermedio; se puntúan de 1 (totalmente en desacuerdo) a 5 (totalmente de acuerdo). Estos fueron redactados concernientes a la percepción de los encuestados sobre el uso de las plataformas virtuales en el aprendizaje del idioma inglés.

### Análisis de resultados



**Figura 1:** Recepción de los estudiantes respecto del uso de las TIC en el aprendizaje del inglés.  
Elaborado por: Autores

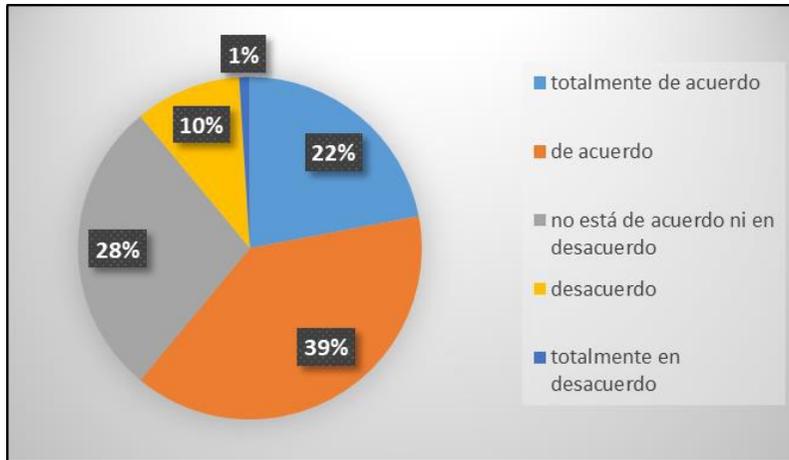
En primera instancia la figura 1 muestra el análisis de los datos del cuestionario aplicado a los estudiantes, destaca que 31% de los encuestados está totalmente de acuerdo y 38% dice estar de acuerdo con que utilizar tecnologías en la clase de inglés puede ayudar en el aprendizaje, lo que significa que 69% de los estudiantes acepta que la tecnología sí apoya en el proceso educativo; sin embargo, 25% no tiene una postura clara, pues no está de acuerdo ni en desacuerdo, solo 5% dice estar en desacuerdo y 1% totalmente en desacuerdo. Al correlacionar los datos respecto a la edad y la percepción sobre el empleo de tecnologías, existe significatividad entre los estudiantes que tienen mayor edad, pues piensan respecto al uso de las TIC en el aprendizaje del idioma inglés que practicar fuera del aula es necesario para aprender con mayor facilidad el mencionado idioma.



**Figura 2:** Aceptación de estudiantes sobre si el uso de herramientas colaborativas apoya el aprendizaje en el idioma inglés.

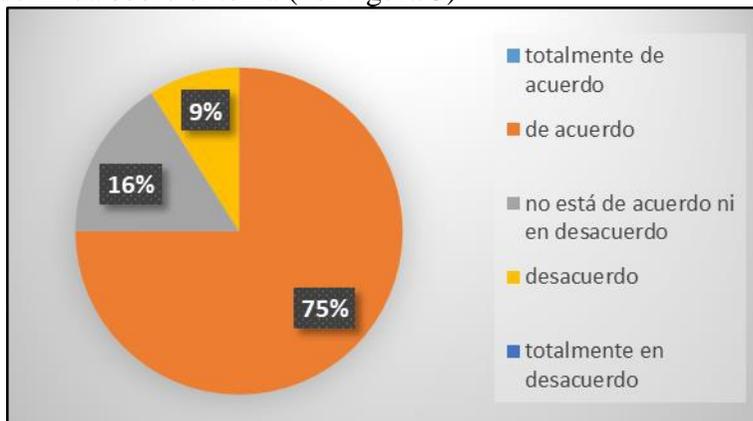
Elaborado por: Autores

En cuanto a la pregunta de si se considera que el uso de herramientas colaborativas como Prezi, CmapTools, Google Docs, OneDrive, entre otras, pueden ayudar al aprendizaje del inglés, la mayoría se inclinó por responder que están en desacuerdo (ver figura 2).



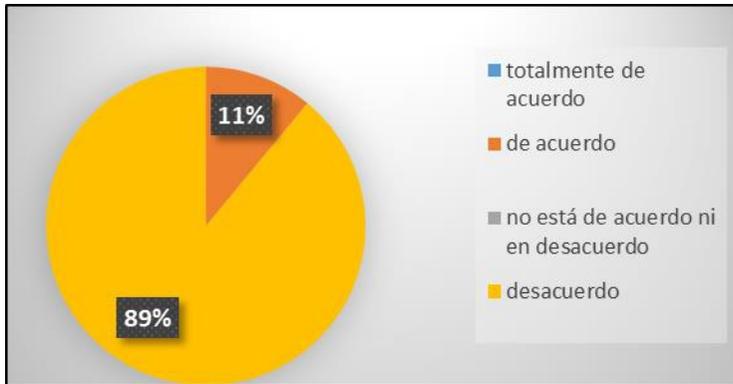
**Figura 3:** Aceptación de los estudiantes sobre si los recursos  
Elaborado por: Autores

En la tercera pregunta, entre los resultados destaca que 22% de los encuestados está totalmente de acuerdo y 39% dice estar de acuerdo en que utilizar los recursos tecnológicos ofrecidos por el docente para reforzar el idioma inglés les ayuda en el aprendizaje; solo 10% no está de acuerdo y 1%, totalmente en desacuerdo; el resto, que corresponde a 28% no presenta una opinión definida sobre el tema (ver figura 3).



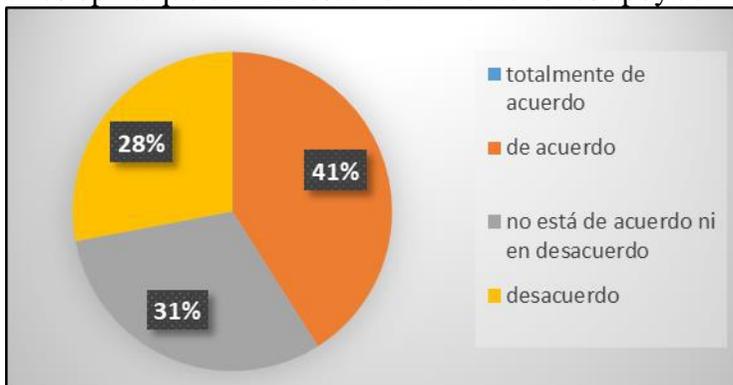
**Figura 4:** Aceptación de los estudiantes sobre si el uso de las redes sociales ayuda en su aprendizaje del idioma inglés.  
Elaborado por: Autores

Al preguntar si el uso de las redes sociales podría apoyar aprendizaje en inglés, de acuerdo con la figura 4, las respuestas se tornaron contundentes: 75% está de acuerdo en que utilizar estas herramientas puede ayudarles a mejorar su aprendizaje, mientras que 16%, no está de acuerdo ni en desacuerdo, y solo 9% señala que no.



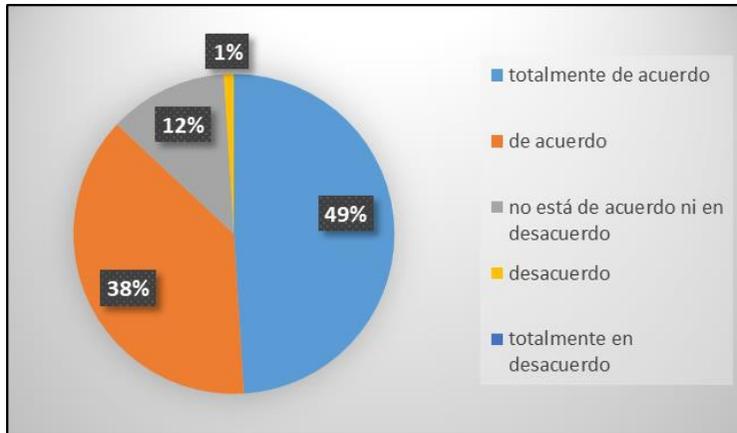
**Figura 5:** Aceptación de los estudiantes respecto al uso del blog como apoyo en el aprendizaje del idioma inglés.  
Elaborado por: Autores

En la siguiente figura llama la atención las respuestas contundentes acerca del uso del blog como apoyo en el aprendizaje del inglés, pues 89% de los estudiantes opina que utilizar esta herramienta no les apoya en el proceso.



**Figura 6:** Aceptación de los estudiantes respecto al uso del video como apoyo en el aprendizaje del idioma inglés.  
Elaborador por: autores

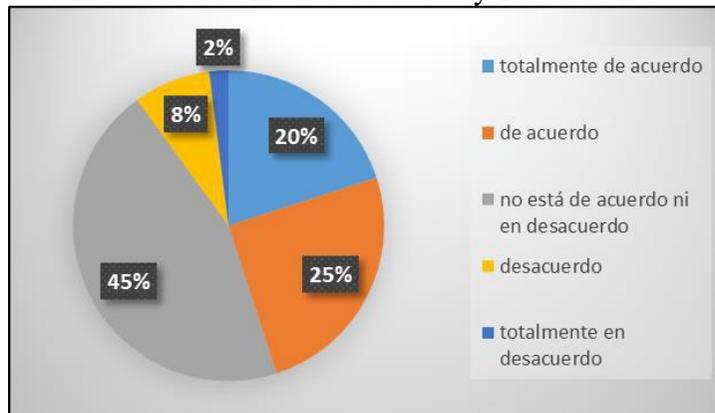
En el uso de videos para aprender inglés hay una opinión dividida, pues 41% de los estudiantes encuestados aseguran que están de acuerdo en que, utilizando esta herramienta, pueden aprender mejor, pero 28% de ellos están en desacuerdo y 31% no ofrecen una respuesta definida (ver figura 6).



**Figura 7:** Opinión de los estudiantes respecto a si consideran que utilizar las plataformas virtuales les facilita la comprensión del idioma inglés.

Elaborado por: autores

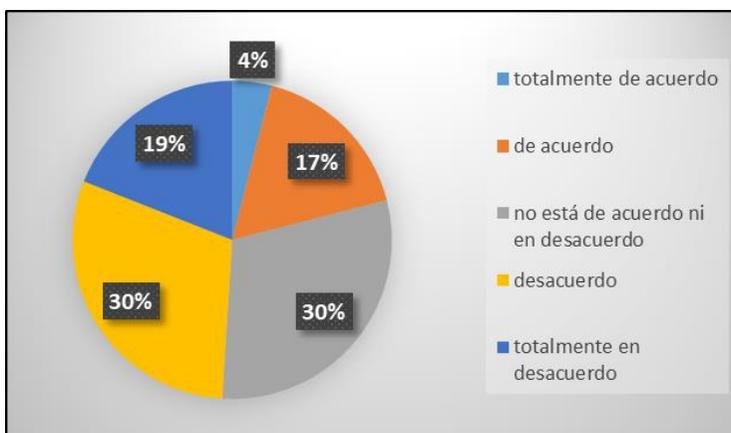
En relación con la aceptación de los estudiantes sobre si consideran que utilizar las plataformas virtuales les facilita la comprensión del idioma, según se muestra en la figura 7, 49% de los encuestados indica estar totalmente de acuerdo y 38%, de acuerdo; 12% no manifiesta una postura clara, pues señaló no estar ni de acuerdo ni en desacuerdo y 1% está en desacuerdo.



**Figura 8:** Opinión de los estudiantes respecto a si consideran que el uso de las plataformas virtuales por parte de los docentes ayuda a mejorar el aprovechamiento y generar aprendizaje en el idioma inglés.

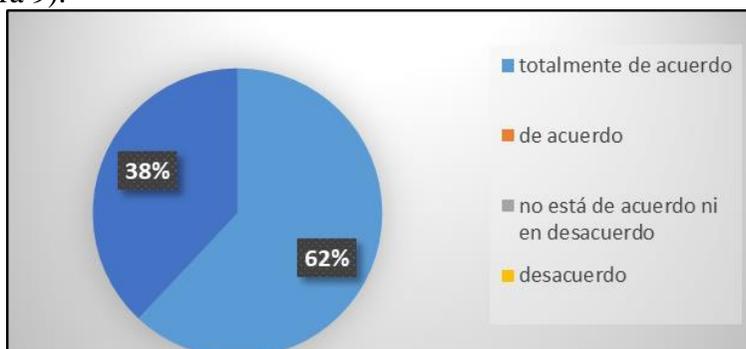
Elaborado por: autores

Asimismo, se preguntó a los encuestados si consideran que los profesores de inglés fomentan el uso de plataformas virtuales adecuadamente para mejorar su aprovechamiento y generar aprendizaje; 20% alumnos están totalmente de acuerdo y 25% están de acuerdo, 45% no expresan una postura definida, 8% están en desacuerdo y 2% están totalmente en desacuerdo (ver figura 8).



**Figura 9:** Aceptación de los alumnos con relación a si consideran que las plataformas virtuales son una herramienta que apoya el aprendizaje del idioma inglés  
Elaborado por: autores

Los resultados respecto al uso de plataformas virtuales, el 19% de los encuestados señala estar totalmente en desacuerdo y 30% está en desacuerdo respecto a que estas plataformas pueden ayudar en su aprendizaje, lo que significa que casi 50% considera que no son de utilidad; 30% no está de acuerdo ni en desacuerdo; solo 17% percibe que la tecnología apoya su aprendizaje del inglés, pues está de acuerdo y 4% está totalmente de acuerdo (ver figura 9).



**Figura 10:** Opinión de los estudiantes sobre si consideran que el uso de software educativo fomenta el aprendizaje del inglés.  
Elaborado por: autores

En la última pregunta de la encuesta sobre utilizar un software especializado para aprender inglés, la mayoría de los encuestados, que corresponde a 62%, indica que sí; aunque 38% se manifestó negativamente (ver figura 10).

Estos resultados también muestran las diferencias de opinión entre estudiantes de los semestres avanzados y los que inician, pues estos últimos aseguran que no es necesario utilizar tecnologías fuera del aula para reforzar

su aprendizaje del inglés, mientras que quienes estudian en semestres avanzados afirman que es indispensable emplearlas tanto dentro como fuera del salón de clases, ya que consideran que las tecnologías pueden ayudar al desarrollo de habilidades como escuchar, hablar, leer y comprender el idioma.

## **Discusión**

Los resultados muestran la aceptación que los estudiantes manifiestan respecto del uso de las tecnologías para aprender inglés, en general es buena, pues la frecuencia indica que más del 60% conviene en que utilizarlas fortalece el aprendizaje del idioma inglés. Esto está en armonía con los trabajos presentados por (Ponce Anchundia & Moran Delgado, 2017), (Tena Cortés, 2017) y (Morales Capilla, Trujillo Torres, & Raso Sánchez, 2015), quienes mencionan que las tecnologías potencian el aprendizaje de los idiomas y apoyan al desarrollo de sus habilidades prácticas; sin embargo, cabe recalcar que otro número de estudiantes encuestados no asume una postura clara sobre si realmente beneficia su aprendizaje, y esto puede tener varias razones; la principal, según los resultados de las preguntas subsecuentes, es que los docentes no emplean tecnologías que los motiven a aprender, es decir, además de usarlas en clase, que también sean aprovechadas de manera pedagógica con un enfoque en el aprendizaje del idioma inglés.

En relación a lo anterior, la coincidencia en la indecisión de los estudiantes, quienes se mostraron dudosos respecto de si el uso de videos y aplicaciones como Prezi, Cmaps, Google Drive y software educativos apoyan el aprendizaje del inglés; se debe a que los alumnos y profesores no conocen el uso pedagógico que se les puede dar en el área del idioma inglés, sobre todo porque no se ha logrado incorporarlas a todo el proceso de enseñanza-aprendizaje, lo que coincide con lo expuesto por (Martínez Cárdenas, Villareal Domínguez, & Dávila Valdez, 2016), quienes mencionan la urgente y constante formación a la que deben estar sometidos los profesores para que desarrollen competencias digitales y pedagógicas con la intención de que incorporen las plataformas virtuales a su práctica docente y, con ello, motivar a los estudiantes para un mejor desenvolvimiento en el idioma inglés.

De la misma manera, con este trabajo de investigación y recolección de datos constatamos la insuficiente información que existe en la Universidad de Guayaquil y sus docentes en relación al uso de las plataformas virtuales para el aprendizaje del idioma inglés. Por esta razón, es necesario seguir profundizando sobre la relación que guardan las tecnologías respecto al aprendizaje de los estudiantes, hablando específicamente de un segundo idioma en este caso, el inglés. De lo anterior se derivan retos para la adopción de estas tecnologías, ya que los profesores no las utilizan como herramientas de apoyo para generar aprendizajes significativos en los estudiantes, situación

que debe considerarse como un motivo de alerta para las instituciones de educación superior en general.

Es fundamental, en consecuencia, incentivar estudios que aborden la significatividad que tiene utilizar tecnologías para aprender inglés y, a su vez, proceder a efectuar estudios comparativos entre las clases tradicionales y aquellas en las que se empleen de manera efectiva las plataformas virtuales.

## **Conclusión**

Con base a los resultados obtenidos en este trabajo, los estudiantes están bien informados sobre las tecnologías y para ellos nuestro estudio aporta información sobre cómo, hasta qué punto y en qué circunstancias y condiciones estas herramientas se convierten en recursos didácticos para incorporarlas con efectividad en las aulas representan un apoyo importante en su aprendizaje; también son conscientes de cómo estas herramientas pueden ayudarlos a adquirir habilidades para dominar un segundo idioma, estas herramientas permitirán un aporte académico importante al proceso de enseñanza/aprendizaje para la enseñanza de idioma inglés en la Universidad de Guayaquil.

Estos resultados y experiencias formativas demuestran que las plataformas virtuales permiten mejorar las tres dimensiones de las capacidades del área de inglés hablando de los enfoques pedagógicos tradicionales. Aquí, el diseño de las actividades se centra en el estudiante, esto requiere por parte del docente, además de la preparación de las clases teóricas, trabajo adicional en la selección de videos adecuados que motiven al curso. La Plataforma además permite al docente detectar los temas en los que los alumnos presentan mayor dificultad. Esto posibilita que el docente pueda reforzar dichos temas de forma oportuna.

Es relevante reconocer que aún no han logrado interiorizar el uso de las plataformas virtuales, principalmente las dirigidas exclusivamente al proceso educativo en el idioma inglés; muestra de ello es el número de respuestas en las que los estudiantes expresan indecisión o señalan que no tienen una postura definida. Estos estudiantes tienen presente que aprender inglés con tecnologías sí es posible, pero consideran que sus profesores aún no utilizan la estrategia didáctica adecuada para vincular las herramientas y los contenidos, pues las tecnologías por sí solas no contribuyen a obtener aprendizajes significativos, pero sí los contenidos (saberes y conocimientos) que se enseñan con apoyo en estas.

Los resultados de la investigación también muestra que es conveniente continuar innovando y utilizar con mayor frecuencia las redes sociales, los videos, los juegos y software con los que los alumnos ya están familiarizados y combinarlos con actividades y estrategias de enseñanza establecidas por el profesor, ya que esto fomenta en realidad la práctica y la obtención de

destrezas en el aprendizaje del inglés. De igual modo, es relevante considerar el uso de las plataformas y convertirlas en espacios dinámicos que faciliten la participación de los estudiantes en la administración y configuración.

Por último, concluimos que exprimir el potencial de los medios tecnológicos para aprender no es suficiente; los docentes deben ser interactivos y permitir la participación de los estudiantes para que los motiven a seguir aprendiendo. También es de notar que aplicar las plataformas virtuales para la enseñanza del idioma inglés no es una tarea sencilla y que se requiere actualización rigurosa, dirigida al desarrollo intelectual del estudiante. Es un hecho que las tecnologías cada vez tendrán mayor presencia, pero solo un sentido didáctico de uso podrá fortalecer el empleo en el aprendizaje y la formación de los alumnos.

### References:

1. Banados, E. (2016). A blended-learning pedagogical model for teaching and learning EFL successfully through an online interactive multimedia environment. *CALICO journal*, 533-550.
2. Boneu, J. M. (2017). Plataformas abiertas de e-learning para el soporte de contenidos educativos abiertos. *International journal of educational technology in higher education (ETHE)*, 4.
3. Brooks, D. C. (2017). ECAR Study of Undergraduate Students and Information Technology. *Louisville*, 1.
4. Cabero, J. (2017). La formación en la era digital: ambientes enriquecidos por la tecnología. *Journal of Innovation*, 4.
5. Canabal, C. y. (2017). Retroalimentación, clave para orientar el aprendizaje. *Revista de*, 149-170.
6. Castillo, D. P. (2015). La comunicación en la educación. *La Crujía.*, 1.
7. Clark, R. C. (2016). E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning. *John Wiley & Sons.*, 1.
8. Coll, C. M. (2018). La utilización de las TIC en la educación: del diseño tecno-pedagógico a las. *Psicología de la educación virtual. Enseñar y aprender con las*, 74-104.
9. Del Prete, A. y.-H. (2015). Formación inicial del profesorado de educación básica en Chile: reflexiones y análisis sobre las orientaciones curriculares en TIC. *Revista de Pedagogía*, 91-108.
10. DiFino, S., & Lombardino, L. (2014). Language learning disabilities: the ultimate foreign language challenge. *Foreign Language Annals*, 390 – 400.

11. Durán, R. (2016). Developing productive and receptive skills in the EFL classroom. En House, S. (Ed). *Didáctica del Inglés: Classroom Practice. Ministerio de Educación de España: Editorial Graó.* , 1.
12. Harmer, J. (2011). *The practice of English language teaching. Third Edition. UK: Longman Publishing.*, 1.
13. Hernández E., & I. (2016). Estrategias para mejorar el aprendizaje de una lengua extranjera (inglés) con la utilización de las TIC en el grado 6º a jornada de la mañana de la ied lorencita villegas de santos, del banco magdalena. *Bogotá Colombia.* , 1.
14. Hymes, D. (2011). On communicative competence. *sociolinguistics*, 269-293.
15. López, L., López, B., & y Prieto, E. (2018). Tendencias innovadoras en la formación on-line. *Revista de Medios*, 1-15.
16. Management, P. R. (2018). Studies in the Context of the E-learning Initiative: Virtual Models of European Universities . *Draft Final Report to the EU Commission, DG Education y Culture*, 1.
17. Mato, N. (2011). Principales métodos de enseñanza de lenguas extranjeras en Alemania. *Revista de Lingüística y Lenguas Aplicadas*, 9-24.
18. Organización para la Cooperación y el Desarrollo Económicos, OCDE. (2015). Estudios Económicos de la OCDE. *OCDE*, 4.
19. Reid-Young, A. (2018). The key to successful e-learning is b-learning. HCI, *Journal of Information Development. First Quarter*, 1.
20. Remesal, A. C. (2017). Uso de cuestionarios online con feedback automático. *Comunicar*, 51-60.
21. Ribes, E. (2011). El concepto de competencia: su pertinencia en el desarrollo psicológico y la educación. *Bordón Revista de pedagogía*, 33-45.
22. Ribes, E. (2016). El concepto de competencia: su pertinencia en el desarrollo psicológico y la educación. *Bordón Revista de pedagogía*, 33-45.
23. Richards, J., & Rodgers, T. (2011). *Approaches and Methods in Language Teaching. Second Edition. Cambridge: Cambridge University Press.*, 1.
24. Rico Yate, J. P. (2016). Desarrollo de la competencia oral del inglés mediante recursos educativos abiertos. *Apertura (Guadalajara, Jal.)*, 1.
25. Teodorescu, A. (2015). Mobile learning and its impact on business English learning. *Procedia-Social and Behavioral Sciences*, 1535-1540.



ESJ Social Sciences

**M.A.P.E. Pamela Franco Díaz**

Universidad Autónoma de Chihuahua, México

**Rigoberto Marín Uribe**

Universidad Autónoma de Chihuahua, México

**Yunuen Soccorro Rangel**

**Ledezma**

Universidad Autónoma de Chihuahua, México

**Ma. Concepción Soto**

**Valenzuela**

Universidad Autónoma de Chihuahua, México

Submitted: 22 September 2020

Accepted: 02 November 2020

Published: 30 November 2020

Corresponding author:

*Ma. Concepción Connie*

DOI: 10.19044/esj.2020.v16n31p61

 Copyright 2020 Ma. Concepción Connie et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
**OPEN ACCESS**

## **Proceso Formativo de Docentes Universitarios para la Inclusión de Estudiantes con Discapacidad**

### **Resumen**

Las prácticas educativas en el nivel superior exigen calidad dirigida a la diversidad e inclusión, por lo cual, cada vez es mayor la tendencia de estudiantes en la universidad en búsqueda de oportunidades de formación profesional para integrarse a la vida laboral. La inclusión de estudiantes con alguna discapacidad a las aulas universitarias ha tomado por sorpresa a profesores debido las necesidades de estos alumnos, por la existencia de la escasa preparación adecuada para hacer frente al reto, de formar personas dentro de una educación inclusiva. El objetivo de este trabajo es narrar las experiencias vividas, con un grupo de profesores, durante un programa de formación docente orientado al desarrollo de prácticas educativas inclusivas. El estudio es con un enfoque de investigación-acción utilizando la narrativa para la recolección de datos. El programa plantea formar profesores universitarios en la atención a alumnos con discapacidad, con una educación para todos, atención a las diferencias. Participaron diez docentes que imparten clases en grupos que tienen estudiantes con discapacidad (visual y motriz). Los resultados arrojados son: 1) Diseño del programa de formación en el cual se presenta la versión final de los contenidos y ejes de programa y 2) secuencias didácticas (SD) como guía del proceso formativo, donde se muestran las matrices y experiencias de validación de las SD y narrativas de las experiencias del docente. Se concluye que la formación docente constituye un desafío para la universidad al destacar una necesidad profesional de liderar las acciones educativas, relacionadas con la diversidad desde la inclusión.

### **How to cite this article**

Ma. Concepción, C. et al, (2020). Proceso Formativo de Docentes Universitarios para la Inclusión de Estudiantes con Discapacidad. *European Scientific Journal, ESJ*, 16(31), 61. <https://doi.org/10.19044/esj.2020.v16n31p61>

**Palabras claves:** Formación docente,  
inclusión, persona con discapacidad,  
secuencia didáctica

---

## **Training Process of University Teachers for the Inclusion of Students with Disability**

*M.A.P.E. Pamela Franco Díaz,  
Dr. Rigoberto Marín Uribe,  
Dra. Yunuen Soccorro Rangel Ledezma,  
Dra. Ma. Concepción Soto Valenzuela,*  
Universidad Autónoma de Chihuahua, México

---

### **Abstract**

Educational practices at the higher level require quality aimed at diversity and inclusion. As a result, the rate at which students in the university search for professional training opportunities to integrate into their work life is increasing. The inclusion of students with a disability into university classrooms has taken teachers by surprise due to the needs of these students. It is also attributed to the lack of adequate preparation to face the challenge of training people in an inclusive education. This paper focuses on narrating the experience lived, with a group of teachers, during a teacher training program aimed at developing inclusive educational practices. The study was performed with an action-research approach using a narrative for data collection. The program proposes to train university professors to pay attention to students with disabilities, through education for all, and also focus on their differences. Ten (10) teachers who taught group of students with disabilities (visual and motor) participated in the study. The results obtained are: 1) Design of the training program in which the final version of the contents and program axes is presented and 2) didactic sequences (SD) as a guide to the training process, where the matrices and validation experiences are shown by the SD and narratives of the teacher's experiences. In conclusion, teacher training constitutes a challenge for the university by highlighting a professional need to lead educational actions that is related to diversity from inclusion.

---

**Keywords:** Teacher training, inclusion, person with disability, didactic sequence

## **Introduction**

La educación es un fenómeno social que permite el progreso de sociedades y contribuye a la generación de conocimiento, una de las instituciones que es señalada como un lugar en que se crea y recrea de manera permanente el conocimiento es la universidad, debido a la generación de teorías, modelos educativos, competencias, pedagogías y desarrollo profesional, pero, sobre todo de ellas debe surgir innovación (Delors, 1996). Lo anterior, señala la idea de que la educación universitaria debe aportar calidad y con ello, cumplir con el propósito crear y formar profesionistas que favorezcan al desarrollo de la sociedad, cultura, ciencia y artes; por lo cual, se resalta la función del docente, debido a que en él recae fomentar competencias, mediante la generación de prácticas educativas innovadoras, con la finalidad de una educación para todos que atiendan las diferencias de los estudiantes (Márquez-Domínguez, Gutiérrez-Barroso & González-Herrera, 2018; Moreira, Romero & Torres, 2019; Sagastizábal, 2000).

De tal manera este trabajo busca la innovación en prácticas educativas, a través de la formación docente y desarrollo de competencias necesarias en la búsqueda de una mejor respuesta educativa a los estudiantes. Por ello, se orientó al diseño de estrategias educativas para la atención de estudiantes con discapacidad en la universidad a través de SD basadas en El Modelo para el Desarrollo y Evaluación de Competencias Académicas (M-DECA), el docente vivió un proceso de formación que incluyó dicho modelo y aspectos relevantes sobre inclusión educativa.

El programa de formación se basó en M-DECA de Guzmán, Marín e Inciarte (2014), en el cual se plantea, que ante la necesidad educativa, de afrontar adecuadamente los retos derivados de la sociedad del conocimiento y las reformas educativas en términos de competencias relevantes para el individuo; este modelo busca el diseño, intervención en el aula, análisis, y evaluación de propuestas educativas vinculadas, entre otros, con procesos de formación y evaluación de profesores (Marín, Guzmán, Márquez & Peña, 2013).

El M-DECA, plantea dentro de los anhelos pedagógicos la búsqueda permanente una docencia transformada y transformadora, para incidir eficazmente en la promoción del cambio y la mejora sustantiva de las situaciones de vida de las personas que se forman; desde esta perspectiva, resulta comprensible la propensión a adoptar propuestas viables o potencial para concretar los propósitos (Guzmán et al., 2014). Lo anterior, puede ser considerado para formar a docentes competentes en atender a la diversidad estudiantil.

Uno de los aspectos que retoma el M-DECA es la generación de SD que permiten generar un andamiaje en el estudiante, es decir, reconoce establecer una estructura y organización en el manejo de la información

presentada por el docente, siendo esta una estrategia pedagógica fundamental del este modelo. Tal como lo menciona Díaz-Barriga (2013), la SD es una tarea importante para organizar situaciones de aprendizaje que se desarrollarán en el trabajo de los estudiantes para establecer un clima de aprendizaje. También lo señalan Tobón, Pimienta y Garcia (2010, p. 23):

*“Las secuencias didácticas son, sencillamente, conjuntos articulados de actividades de aprendizaje y evaluación que, con la mediación de un docente, buscan el logro de determinadas metas educativas, considerando una serie de recursos. En la práctica, esto implica mejoras sustanciales de los procesos de formación de los estudiantes, ya que la educación se vuelve menos fragmentada y se enfoca en metas”.*

En este ámbito referencial, el trabajo se orienta a aplicar una estrategia pedagógica, sustentada en los procesos de formación y se generan andamios cognitivos, una vez construidos también pueden ser aplicados en los momentos áulicos con estudiantes.

### **Formación docente**

En el marco de esta investigación se asume el concepto de formación docente como proceso integral con el uso constante de practica reflexivas, estas consisten en la tendencia a la construcción y apropiación crítica de las herramientas conceptuales y metodológicas para el desempeño profesional; es decir, la formación docente consiste en un proceso permanente y continuo, el cual abarca no sólo las experiencias escolares, sino también la totalidad de la trayectoria de vida de los sujetos que en ella participan (Leiva & Jiménez, 2012; Soto, 2015); por ello la importancia de contar con elementos necesarios como la atención a la diversidad y la atención a estudiantes con alguna discapacidad (Murillo, Ramos & Sotelo, 2020).

A propósito de ello Corona (2020), plantea desarrollar nuevos modelos, fortalecer los procesos de formación en los docentes y revisar la pertinencia de su oferta, así como cumplir con la necesidad de formarlos en una cultura de diversidad que fundamente la educación inclusiva, su concepción y sus prácticas didácticas. Ante la diversidad, han de trasladarse del alumno al contexto; en lugar de fijarse en las peculiaridades del alumno, para que el centro educativo sea capaz de responder a las necesidades de los estudiantes (Arnaiz & Caballero, 2020; Durán & Giné, 2011). Este cambio de paradigma requiere de un esfuerzo notable.

Lo anterior, es uno de los desafíos que hoy enfrenta el docente universitario, es decir, llevar a la práctica la inclusión educativa, implica la realidad compleja que va desde la encrucijada de la segregación encubierta del alumnado con necesidades educativas especiales, hasta la falta de profesionales especializados, así como la escasa formación en educación

inclusiva de todo el profesorado y la comunidad educativa (Leiva & Jiménez, 2012). En el ámbito de la educación superior, implica un sinnúmero de cuestiones a atender dentro de la práctica, tales como: la planificación de la enseñanza, la interacción educativa dentro del aula, y la evaluación; acompañado de una actividad dinámica y reflexiva.

Un buen profesor no sólo requiere el dominio de los contenidos de la materia, sino desarrollar habilidades pedagógicas, una capacidad perceptiva y de atención sistemática sobre los avances de sus alumnos para averiguar si están aprendiendo o no y el por qué; qué es lo que les ayuda a aprender (Zambrano, 2005). Para poder atender esta tendencia hacia la inclusión educativa en beneficio de los alumnos, hace falta tener una mayor formación pedagógica y dominio de competencias docentes.

Guzmán et al. (2014), mencionan que el docente universitario es un intelectual capaz de analizar el proyecto institucional; y, en función de ellos, realiza una transposición didáctica, esto es reconocido como un intelectual transformativo, que analiza su práctica educativa, con el fin de crear espacios donde todos tengan las mismas posibilidades, tanto dentro de la escuela como fuera de ella.

Las prácticas educativas que el docente puede utilizar para eficientar el proceso de enseñanza, la incorporación de los principios de la pedagogía de la integración y la construcción que se hace de SD, es parte de esta noción donde desarrollan situaciones problema para movilizar saberes y tener una guía formativa que le permite visualizar las intenciones formativas, la utilización de dispositivos de formación, donde se pueda plasmar las competencias a desarrollar; es la SD, el conjunto de actividades de aprendizaje organizadas, estructuradas y articuladas con base en situaciones de integración que las desencadenan y que presentan evidencias de los desempeños de los estudiantes como una forma de facilitar la evaluación de competencias tanto por los profesores como por los estudiantes (Guzmán et al., 2014; Roegiers, 2010), he aquí el desafío que la escuela inclusiva propone a la formación de los docentes.

### **Inclusión de estudiantes con discapacidad**

La incursión de estudiantes con alguna discapacidad a las aulas universitarias ha tomado por sorpresa a la institución, pues profesores que deben atender a estos alumnos, muchas veces no cuentan con la preparación adecuada o las herramientas teóricas y metodológicas para hacer frente al reto de formar personas con las características que demanda hoy la educación inclusiva (Moreira et al., 2019).

Las actuales transformaciones en las universidades son importantes en la atención socioeducativa recibida por las personas con discapacidad. En el ámbito universitario, la presencia de estudiantes con discapacidad en las aulas ha aumentado de manera considerable, en el caso de la Universidad Autónoma

de Chihuahua (UACH), se cuenta con una población con discapacidad de 222 estudiantes de pregrado y 9 de grado, ante esta necesidad, se asume como el principal reto la formación docente ante una transformación de las políticas, prácticas y cultura que logren la participación e inclusión educativa dentro los modelos educativos universitarios en México (UACH, 2016).

Hablar de inclusión educativa trasciende el ámbito de la atención a poblaciones con discapacidades, pasando por una diversidad cultural, ideológica, con ello se amplía la esfera de acción a sectores tradicionalmente alejados de la educación, en nivel superior no sólo se limita a crear las condiciones para atender a estudiantes con ciertas discapacidades sino ampliar el abanico de posibilidades que promuevan la incorporación de estudiantes de diversos sectores, su permanencia en los estudios, su egreso y lo más importante abonar a su futuro profesional (Leiva & Jiménez, 2012; Valenciano, 2009).

Por lo tanto, el acceso a los estudios superiores debería estar basados en: la capacidad, los esfuerzos, la perseverancia, la determinación de los aspirantes y en la perspectiva de la educación a lo largo de toda la vida, tomando debidamente en cuenta las competencias adquiridas anteriormente. En consecuencia, en el acceso a la educación superior no se puede admitir ninguna discriminación fundada en la raza, el sexo, el idioma, la religión, ni en consideraciones económicas, culturales o sociales, ni en incapacidades físicas y brindar una adecuada equiparación de oportunidades (González-González, Gutiérrez-Barroso, González-Herrera & Márquez-Domínguez, 2017).

La Convención sobre los Derechos de las Personas con Discapacidad, la Organización de Naciones Unidas (2006), apuntó la obligación de asegurar que las personas con discapacidad accedan –sin discriminación y en igualdad de condiciones al resto– a la educación superior, a la formación profesional, a la educación para adultos y al aprendizaje a lo largo de la vida (artículo 24.5, bajo el título Educación).

De igual forma, mejorar el acceso, la promoción y el egreso académico de colectivos vulnerables en entornos de riesgo de exclusión social en la región, se sitúa en este marco contextual, ha servido para analizar el contexto de referencia identificar aquellos colectivos que presentan necesidades específicas y analizar los programas y medidas adoptadas por las instituciones iberoamericanas de educación superior para asegurar su acceso y permanencia (Hernández & Valcárcel-Resalt, 2016). Así como se establece en el Artículo 12 del capítulo III sobre Educación de la Ley General para la Inclusión de las Personas con Discapacidad, el impulsar la inclusión de las personas con discapacidad en todos los niveles del sistema educativo nacional y promover el derecho a la educación de las personas con discapacidad, prohibiendo cualquier discriminación en planteles, centros educativos, guarderías o del

personal docente o administrativo del Sistema Educativo Nacional (Diario Oficial de la Federación, 2018).

Por lo anterior, en esta investigación se orienta a la formación del docente, para desarrollar prácticas educativas que favorezcan los procesos de inclusión educativa; esto implica que el estudiante logre acceder a los aprendizajes, elementos y saberes al igual que cualquier otro alumno (Garrote, Jiménez & Palomares, 2015). Así como el sentirse parte de la comunidad estudiantil; esto exige a los docentes desempeñen múltiples funciones, una de ellas, es el diseño de estrategias didácticas innovadoras, prácticas reflexivas y nuevos mecanismos de formación que elimine las barreras de participación y aprendizaje (Chávez, Balderrama & Figueroa, 2015; Paz-Maldonado, 2020).

## **Método**

### **Participantes**

Participaron diez docentes que imparten clase en grupos que tienen estudiantes con discapacidad (visual y motriz); a los cuales se les formó con un programa formativo, con el objetivo de valorar las experiencias vividas, en proceso de formación docente orientado al desarrollo de prácticas educativas inclusivas.

El estudio adopta un enfoque metodológico donde se sitúan de manera concreta varias tradiciones metodológicas pertenecientes al paradigma cualitativo: la primera se refiere al estudio de casos (Stake, 2010; Yin, 1994), la segunda se ubica como una investigación-acción participativa (Díez-Gutiérrez, 2020; Elliott, 1990; Kemmis & McTaggart, 1988). La investigación-acción participativa es un proceso crítico. Esta metodología de formación docente debe ser guiada por procesos reflexivos que busca transformaciones críticas y éticas (Barba, 2019).

Se utilizan diversas técnicas e instrumentos para la recolección de la información, prevaleciendo los grupos de discusión, diálogos reflexivos y se plasma los criterios de validación y revisión de secuencias.

### **Unidades de análisis**

*Programa de formación docente:* conjunto de actividades didácticas y pedagógicas basadas en el M-DECA, denominado “Intervenir e investigar en el aula” la atención de alumnos con discapacidad, el cual permitió instruir a los docentes participantes.

### **Unidades de observación**

*Experiencias vividas en la formación docentes:* son aquellas narrativas reflexivas que permite analizar y comprender situaciones referentes al proceso de enseñanza, detecta situaciones en las cuales puede contribuir e intervenir de manera oportuna para la mejorar en la enseñanza.

## **Herramientas/Instrumentos**

*Observación participativa:* cuyo propósito es la obtención de datos acerca de la conducta a través de un contacto directo y en términos de situaciones específicas en las cuales sea mínima la distorsión producida en los resultados a causa de la implicación del observador; se trata de una observación participativa dado que el observador forma parte del contexto comprometiéndose en las actividades que empieza a observar (Gutiérrez, 2006; Sánchez, 2009).

*Videograbación de la práctica:* es un instrumento que permite al investigador acercarse a los acontecimientos de la vida real tal como ocurren naturalmente, es decir, sin presencia del investigador, se puede observar la misma situación en varias ocasiones incluso se pueden observar.

*Diálogo reflexivo mediante el trabajo de tríadas:* se trabaja de manera participativa; privilegiándose el trabajo colaborativo y de práctica reflexiva, que se maneja en tres modalidades: la reflexión personal, en “díadas” y en “tríadas”; esta organización del trabajo grupal resulta importante en la construcción del “proyecto formativo” que los docentes diseñarán y aplicarán en su intervención (Guzmán et al., 2014).

## **Procedimiento**

Se inició la revisión de literatura para poder integrar el M-DECA y las competencias de programa formativo, así como todo lo concerniente a la inclusión de estudiantes con discapacidad al proceso de diseño, posteriormente el desarrollo los módulos y la validación del programa formativo para docentes denominado intervenir e investigar en el aula: alumnos con discapacidad, seguido se convocó a los docentes para su participación de forma voluntaria, una vez finalizada la formación se documentaron las experiencias de este proceso formativo.

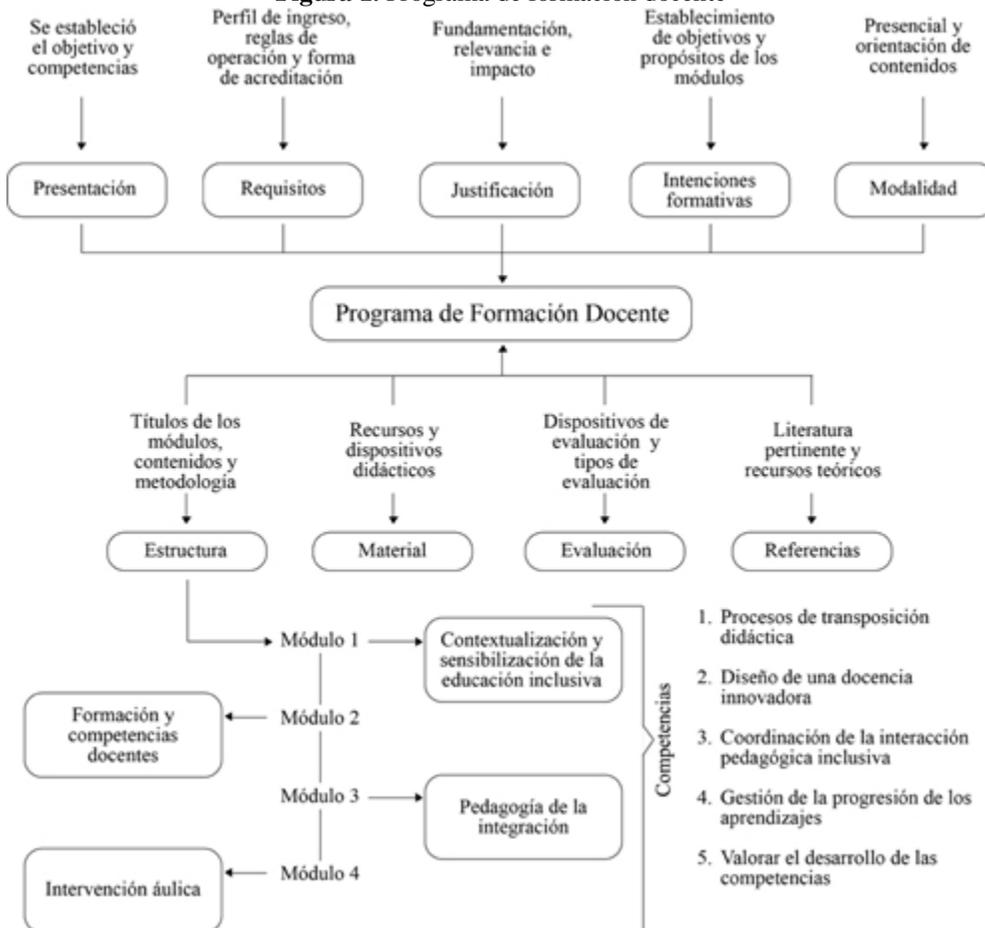
## **Resultados**

Se muestran resultados relevantes referentes a la formación docente para el diseño y contenidos del programa de formación de profesores, a través de las experiencias y narrativas generadas por diálogos reflexivos. El proceso de formación docente forjó proyectos formativos inclusivos, como una estrategia pedagógica que contribuye a la formación integral.

Para ofertar este programa de formación docente se obtuvo la validación académica por las instancias directivas de la UACH; por ello, el programa fue diseñado bajo la modalidad de diplomado comprendiendo 100 horas de dedicación distribuidas en cuatro módulos. Dicha elaboración fue basada en el M-DECA, que busca el diseño, intervención en el aula, análisis y evaluación de propuestas educativas vinculadas, entre otros, con procesos de formación y evaluación de profesores.

El programa de formación fue construido para el desarrollo de competencias docentes orientadas a una práctica docente incluyente que los lleve a planificar y diseñar alternativas innovadoras tendientes al establecimiento de mejores prácticas en la escuela. Las competencias que conforman el perfil competencial universitario en la UACH y que fueron desarrolladas: *Procesos de transposición didáctica; Diseño de una docencia innovadora; Coordinación de la interacción pedagógica inclusiva; Gestión de la progresión de los aprendizajes; y, Valorar el desarrollo de las competencias.*

**Figura 1.** Programa de formación docente



En la *Figura 1*, se muestra en la parte superior y media los requisitos que se tuvieron que contemplar para la validación académica; además, en la parte inferior se presenta la estructura y los elementos del programa de formación docente, así como los nombres de los módulos del contenido y las

competencias a desarrollar en cada uno. Resultado de la implementación de estos módulos se presentan los momentos relevantes en la formación y de las experiencias vividas por los docentes participantes:

### **Resultados del proceso de formación docente**

Se observó en el *primer momento* del programa de formación, que los docentes fueron participativos y receptivos ante la formación y el gran interés por ofrecer alternativas inclusivas para los estudiantes; quienes ya tenían experiencia con alumnos con discapacidad se distinguían confiados e interesados, contrario a una de las docentes quien nunca había tenido alumno con discapacidad, se mostró renuente y callada en cuanto e incluso ella comenta que si pudiera no escogería tener un alumno con estas condiciones.

Se planteó al grupo una situación problema mediante el siguiente cuestionamiento: *¿Por qué estamos en este programa? ¿Acaso sabes tú porque estás aquí? ¿He sido excluido o he excluido? ¿Qué es la discapacidad? ¿Cuento con las competencias para trabajar con alumnos con discapacidad?* al responder estos cuestionamientos surgieron más cometarios acerca de la necesidad de formación a los docentes universitarios sobre las prácticas inclusivas. La mayoría de los participantes expresaron no tener ni idea de cómo trabajar con alumnos con discapacidad y los que han trabajado, su experiencia ha sido complicada, el poderlos integrar en las clases sin estar preparados para esta situación. Mientras tanto, un docente con experiencia, en el ámbito de la discapacidad enfatizó:

*...cada alumno presenta características distintas y por lo tanto aprenden a diferentes ritmos, lo cual nos obliga a modificar o adecuar la metodología tradicional, en ocasiones los objetivos, los instrumentos de evaluación, incluso contenidos, tenemos que utilizar más herramientas y medios para eliminar esas barreras que impiden regularizar ese ritmo de aprendizaje, algo curioso es que aún existen ciertas costumbres en maestros que se resisten a estos cambios, desde mi punto de vista se requiere más trabajo en la concientización y preparación; sobre todo un buen inicio es el cambio de actitud hacia estos alumnos... (Docente 1).*

Se asintió que en las actividades diarias, de manera consciente o inconsciente, se presenta la exclusión; expresado en una historia de vida en el plano personal de una docente al ser sensibilizada, señaló:

*... dentro mi historia de vida en la que puedo relacionar el tema de cómo he vivido la exclusión o la inclusión, tiene que ver con la siguiente historia fui excluida por las niñas de la colonia de mi edad, por cómo era o fui educada y cómo me dirigía a los demás. En ocasiones me integraban al juego y en otras no, simplemente porque*

*no querían que jugara, eso me hizo sentir mal el no ser parte de algunos juegos o actividades solo porque ellas me percibían diferente a ellas... el recordar esto me hace reflexionar sobre cómo podría sentirse un estudiante o cualquier persona con discapacidad al no sentirse integrado... (Docente 3).*

En el *segundo momento* de la formación docente, consistió en desarrollar el Módulo 2, donde se trabajó los modelos de formación y las competencias docentes, en las cuales se pretendió reflexionar sobre su práctica educativa y su postura epistemológica sobre la trasposición de los saberes, donde se mostró que los docentes no conocen prácticas educativas tendientes a la inclusión y que ellos pensaban de manera generalizada; que había que adecuaciones curriculares y que era complicado pues ellos no sabían como adecuar la clase según la discapacidad, solo dos de los docentes, quienes si tenían experiencia de haber trabajado con alumnos con discapacidad, comentaban alternativas para el trabajo con ellos y que los cambios no tenían que ser significativos.

El que se trabajara de manera colaborativa, en comunidades de practica y a través de tríadas, en donde los participantes tuvieran asignado un rol dentro de ella; resultó ser algo que a los docentes se les quedó muy presente del programa de formación docente. Una de las actividades de aprendizaje fueron las comparaciones sobre las prácticas educativas que favorecen la inclusión y el abordaje de competencias docentes; las cuales fueron elaboradas tomando en cuenta aspectos inclusivos en cada dominio. Este ejercicio permitió generar una opinión homogénea sobre la necesidad de desarrollar competencias docentes, como se muestra en la figura 2.

**Figura 2.** Principales respuestas de los docentes sobre las competencias



Para el *tercer momento* del proceso de formación los docentes entregaron evidencias de desempeño, donde el papel que juega el *aprendizaje colaborativo* como mecanismo, para generar inclusión dentro aula es indispensable. Las premisas reflexionadas sobre ello, aporta para la inclusión, la interacción entre los pares; construcción activa y conjunta de los conocimientos; estudiantes y docentes mediadores; andamios o ayudas a las necesidades de otros estudiantes; el énfasis en el intercambio de experiencias; y, generación de saberes compartidos.

*El ver el aprendizaje colaborativo, como un generador de sistemas educativos inclusivos, que favorece y promueve el diálogo, la convivencia, los de apoyos entre los propios estudiantes a fin de alcanzar una meta en común... (Docente 2) ...permite la convivencia, las de tareas compartidas y la empatía pues al compartir experiencias y condiciones de vida son cosas indispensables para caminar hacia una educación más inclusiva... (Docente 4).*

Una de las evidencias de desempeño, posterior a la transposición de las competencias docentes; fue el diseño del proyecto formativo constituido por SD, de acuerdo con el M-DECA que permean el análisis de la práctica educativa transitando comparativamente del momento del diseño de la docencia al de la intervención en el aula. Estos diseños fueron valorados por el autor de dicho modelo. Se mostraron proyectos formativos a los que no fue necesario hacer ningún cambio, como en el caso de “*Síndromes y trastornos*” al tomar en cuenta una discapacidad motriz (amputación de brazo). Para este proyecto, se le indicó:

*La situación problema, es innovadora pues al ser solo una imagen promueve en el alumno pueda imaginar y hacer inferencia sobre el tema que se va a desarrollar, antes de que el docente explique de qué se trata. Muy bien las actividades, las evidencias están de acuerdo con las actividades de aprendizaje...*

En otro caso, la situación problema consistió en un video sobre una entrevista de una persona con burnout; las sugerencias fueron que se convirtiera en audio, ya que lo que importaba era lo que se decía y no lo que se veía y aunque el alumno con discapacidad visual si podía entender el video, porque tenía sonido se comentó que el presentar mejor un audio sería una actividad inclusiva para él, en igualdad de condiciones que para los demás compañeros del grupo. Para otro proyecto, se recomendó incorporar la tríada, herramienta metodológica para el trabajo en grupo, dónde el alumno con discapacidad estuviese con compañeros proactivos y sociales, así de esta manera el alumno con discapacidad podría impulsar su desenvolvimiento aún con Asperger. Además, el experto señaló:

*...recuerden que las situaciones problema poseen una importancia medular y están centradas en motivar y captar la atención del alumno...*

Por último, el proyecto donde se abordarían los riesgos de la actividad física; se le sugirió presentar un caso real, donde puedan todos los alumnos reconocer y analizar el riesgo de un paciente/cliente desarrolle un problema durante la práctica de una sesión de ejercicio físico y poner en marcha pautas para minimizar los riesgos y la necesidad de un plan escrito organizado que profile cómo se puedan manejar diferentes niveles de problemas relacionados con el ejercicio físico en un centro deportivo. Además, se le recomendó, el trabajo en tríadas para la identificación de las características del alumno con discapacidad visual y ver cuál papel de la tríada podría realizar con su desempeño, destacando las fortalezas con el rol de presentador, pues se le facilitaba exponer y hablar.

Estas son algunas de las observaciones que permitieron a los docentes mejorar sus SD e incluir otras actividades fundamentadas por el M-DECA y hacia la inclusión educativa. Después de la revisión de las SD, se adaptaron las recomendaciones para la versión final y así realizar la implementación.

### **Resultados de las experiencias de los participantes**

La implementación de los diálogos reflexivos y el trabajo de tríadas; se generó las narrativas de experiencias docentes al planteamiento de dos preguntas generadoras. La primer sobre la apreciación del programa de formación:

*... mucha información, aprendí cosas nuevas e interesantes y pues la experiencia de la discapacidad me gusto, pero me hubiera gustado que nos dieran más estrategias para trabajar con los alumnos... (Docente 4).*

*... en general creo que el aprender usar el andamio ayuda mucho a organizar las clases. También el haber trabajado en tríadas me agrado, aunque creo que eso les quito un poco de responsabilidad a otros compañeros que no tenían experiencia en discapacidad y a la vez creo que la mía les facilito el trabajo... (Docente 2).*

*...Considero que el programa de formación estuvo bien, mucha información y buena experiencia, el conocer cómo se sentían algunos de los compañeros respecto a la discapacidad y sobre su conocimiento o desconocimiento me llamo la atención, pues yo en dos ocasiones ya había tendió alumno con discapacidad, por lo que buscaba ya estrategias para trabajar con él; en general me pareció bien... (Docente1).*

*...Me pareció bien en general, muchos temas debieron ser amas afondo, con la inclusión de los alumnos con discapacidad en la universidad, se visualizó un cambio de actitud primordial para empezar a dar una atención adecuada a estos alumnos y es verdad que no se vieron estrategias específicas para discapacidad, pues de los que se trata es generar estrategias para todos... (Docente 3).*

En cuanto a la segunda pregunta generadora de ¿cómo fue la experiencia de participar en esta investigación, con el reto de ser videograbado en la intervención del proyecto formativo diseñado en una clase?

*...Me dio pánico, fue un reto ante la posible critica, mi grupo se portó muy bien sin hablar, de echo se portaron mejor y todo fluyo, pero definitivamente el ser observados por otro compañero, no es sencillo y más si vas a probar cosas que no has hecho antes... (Docente 8).*

*...El que voy a hacer, preparar algo diferente donde integra al alumno, el que hay ciertas cosas que se pueden hacer, adecuar para incluirlo y sentí que fue un reto y enfrentarme a un miedo, que aún lo tengo un poco, pero fue una grata experiencia. Estrategia de intervención innovadora, con una función esencial en mi organización didáctica, que me mis alumnos lo conozcan cómo está estructurada la sesión, ser mi propio observador de mi docencia o sistematizar, autoevaluarme... (Docente 2).*

*...Concientización hacer consiente. El ser observador ayuda a mejorar nuestro desempeño, además de profundizar más en ciertos temas y actividades, funciones de la triada como aprendizaje. No hay un libro sino la actitud, se me queda el aprendizaje... (Docente 1).*

## **Resultados de vivir mi experiencia**

Por último, comparto los resultados de *vivir mi experiencia*; puesto que al realizar una investigación acción participativa, durante del desarrollo de este estudio, tuve una participación *sui generis*, al jugar tres roles: 1) *como investigadora*, 2) *como diseñadora y formadora del programa*, 3) *como parte de un proceso formativo participé como “estudiante”*, como producto de los tres módulos de formación, logré construir mi “proyecto formativo” para desarrollar y evaluar competencias en mis estudiantes:

*...Durante la experiencia en el proceso de formación, fueron un sinnúmero de aprendizajes los que viví durante la aplicación de los módulos del programa, el que compañeros docentes se convirtieran en mis estudiantes y al mismo tiempo yo formarme dentro de ese mismo programa de formación, al presenciar las participaciones de los otros miembros del equipo de formación, quienes lograron realizar una transposición didáctica invaluable para asimilación del M-DECA y*

*las competencias docentes propuestas para este dispositivo de formación...*

*...Fue una experiencia significativa, puesto que había docentes con nula experiencia en la atención a la inclusión y discapacidad y otros con mayor acercamiento y experiencia en ello. Por ello, me permitió que las prácticas de los más experimentados enriquecieran los conocimientos de los otros...*

## **Discusiones y conclusiones**

Dentro del objetivo de este trabajo fue presentar las narraciones de las experiencias resultadas de la generación de un programa formativo para docentes, el cual pretendió buscar en el docente prácticas reflexivas y colaborativas que se vieran plasmadas en el diseño de las SD, para fomentar estrategias y prácticas educativas inclusivas para estudiantes con discapacidad, lo cual permitió visualizar en los resultados que los docentes lograron formarse a través de la reflexión que realizan sobre su práctica, aspecto primordial en el proceso de formación docente, se apreciaron las experiencias que promovieron la participación y reflexión crítica, consiguieron comprender criterios del M-DECA y adoptarlos en sus estrategias, estos descritos en las matrices donde se constata los elementos que el docente incluyó en la SD; al igual que en el intercambio de experiencias que promueven reflexión y análisis; espacios donde se favorece la deconstrucción de las prácticas docentes, tal como lo señala Agreda y Pérez (2020).

De igual forma, cabe resaltar que el programa fomentó la participación activa del docente plasmando en las SD, el manejo del trabajo colaborativo entre estudiantes con y sin discapacidad, como en el estudio de Guerra, Rodríguez y Artilles (2019), quienes señalan que el rol del docente debe promover una función de guía y gestor de aprendizaje, para fomentar la colaboración e integración entre iguales que favorezcan el proceso de aprendizaje, exige de una buena programación docente. Para ello, el profesorado debe crear un escenario donde se fomente tanto el aprendizaje personal como el aprendizaje de equipo; aparte, con la finalidad de dotar a sus estudiantes de los recursos y los medios necesarios para el logro de los objetivos de aprendizaje, y esto se pudo apreciar en los resultados presentados ya que en los criterios de las secuencias y en proceso de formación del programa están establecidos para que se lleven a cabo para la aplicación de los docentes.

Además, de que la integración a las prácticas educativas, dentro de las SD se vio reflejada la perspectiva de inclusión, en las cuales notan aspectos que les permiten hacer ajustes, incluir situaciones problema, utilizar dispositivos de evaluación más eficientes y sobre todo el promover el trabajo colaborativo; así como visualizar las características de los estudiantes con y

sin discapacidad. Pues el aprendizaje cooperativo constituye una metodología eficaz para desarrollar el sentido crítico y de tolerancia, trascendiendo lo estrictamente académico y facilitando la práctica de hábitos de cooperación, solidaridad y trabajo en grupo y se caracteriza por el principio de igualdad (León del Barco & Latas, 2019).

Todo esto con un acercamiento a la inclusión de estudiantes en el ámbito universitario contribuyendo a la exigencia de mirar a la diversidad respetando las diferencias y garantizando la plena participación en todos los procesos educativos (Benet-Gil, 2020).

Diversos estudios previos, señalan que los modelos de inclusión en la educación superior, analizando las diferentes actuaciones a favor de los estudiantes con alguna discapacidad desde implantación de accesos adaptados, adecuaciones a procesos de ingreso y permanencia, campañas de sensibilización y claramente prácticas educativas inclusivas (Cruz & Casillas, 2017; Díez-Rodríguez, 2020; Flores, García & Romero, 2017).

En la actualidad se observan cambios relevantes en la configuración de las instituciones educativas y los participantes de estos. Un gran número de personas tradicionalmente excluidas del sistema educativo regular, han ingresado a éste, contradiciendo a la idea de que las aulas estaban constituidas por un grupo homogéneo de alumnos en cuanto a sus habilidades, raza, género, lenguaje, estructura familiar y discapacidad, entre otros. Por lo tanto, esta nueva configuración de las instituciones educativas implica una diversidad en los sujetos que las habitan. Una de las respuestas a esta diversidad ha sido un llamado desde organismos internacionales y estamentos gubernamentales a transformar las escuelas en comunidades más inclusivas (Infante, 2010).

Se puede concluir que los programas de formación como éste, el cual implica una vasta revisión de literatura en relación con la formación docente en temáticas sobre la sensibilización ante la discapacidad, estrategias tendientes a la inclusión educativa; busca mejorar las prácticas de una universidad que requiere atender de manera pertinente y oportuna la diversidad de sus estudiantes.

Esto observó una participación activa de los docentes, los cuales en su experiencia de formación comentan la utilidad y la reflexión que les proporcionó el programa, es decir, se sensibilizaron en el tema de la inclusión, primer paso hacia la transformación de las prácticas educativas. Además, las SD, permiten concretar contenidos adecuados y actualizados que sirvan de guía al docente para su propia generación de dispositivos de formación en el aula, en la atención de las necesidades de los alumnos que presentan una discapacidad, adquiriendo las competencias docentes necesarias para que se practique una docencia que le permita construir un proyecto formativo inclusivo en el desarrollo de sus estudiantes.

Siendo así, que la formación docente constituye un desafío para las instituciones de educación superior destacando la necesidad profesional que lidere las acciones educativas relacionadas con la diversidad desde la inclusión y desde abrir espacios de discusión teórica con una mirada crítica a los cursos de formación docente.

### References:

1. Agreda, A. & Pérez, M. (2020). Relación entre acompañamiento pedagógico y práctica reflexiva. Espacios en Blanco. *Revista de Educación*, 2(30), 219-232.
2. Arnaiz, P. & Caballero, C.M. (2020). Estudio de las aulas abiertas especializadas como medida específica de atención a la diversidad. *Revista Internacional de Educación para la Justicia Social*, 9(1), 191-210. <https://doi.org/10.15366/riejs2020.9.1.009>
3. Barba, M. (2019). La investigación-acción participativa desde la mirada de las maestras participantes en un proceso de formación permanente del profesorado sobre educación inclusiva. (Tesis doctoral publicada).
4. Benet-Gil, A. (2020). Desarrollo de políticas inclusivas en la educación superior. *Convergencia Revista de Ciencias Sociales*, [S.l.], 27, 1-31. <https://doi.org/10.29101/crcs.v27i82.11120>
5. Chávez, J.A., Balderrama, J.A. & Figueroa, S. (2015). Análisis de necesidades de formación docente para la inclusión educativa en el Nivel Superior. *Memorias del Encuentro Internacional de Educación a Distancia*, 4(4), 1-15.
6. Corona, M.M. (2020). Formación docente en la educación superior privada. Reflexiones desde tres dimensiones de tensión: la social, una técnica y la formativa-mística *Revista sinergias educativas*. 5(1), 412-432. doi: <https://doi.org/10.37954/se.v5i1.75>
7. Cruz, R. & Casillas, M.A. (2017). Las instituciones de educación superior y los estudiantes con discapacidad en México. *Revista de la Educación Superior*, 41(181), 37-53. <https://doi.org/10.1016/j.resu.2016.11.002>
8. Delors, J. (1996). *La Educación encierra un tesoro*. España: UNESCO.
9. Diario Oficial de la Federación (2018). *Ley General para la inclusión de las personas con discapacidad*. México: SEP. [http://www.diputados.gob.mx/LeyesBiblio/pdf/LGIPD\\_120718.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/LGIPD_120718.pdf)
10. Díaz-Barriga, A. (2013). Secuencias de aprendizaje. ¿Un problema del enfoque por competencias o un reencuentro con perspectivas didácticas? *Revista de Curriculum y formación del profesorado*. 17 (3) 11-33. <https://recyt.fecyt.es/index.php/profesorado/article/view/41685>

11. Díez-Gutiérrez, E.J. (2020). Otra investigación educativa posible: investigación-acción participativa dialógica e inclusiva. *Márgenes, Revista de Educación de la Universidad de Málaga*, 1 (1), 115-128. doi: <http://dx.doi.org/10.24310/mgnmar.v1i1.7154>
12. Durán, D. & Giné, C. (2011). La formación del profesorado para la educación inclusiva: Un proceso de desarrollo profesional y de mejora de los centros para atender la diversidad. *Revista Latinoamericana de Educación Inclusiva*, 5(2), 153-170.
13. Elliott, J. (1990). *La Investigación-Acción en Educación*. España: Morata.
14. Flores, V., García, I. & Romero, S. (2017). Identificación de prácticas inclusivas de docentes formadores de docentes. *Liberabit*, 23(1), 39-56. <https://10.24265/liberabit.2017.v23n1.03>
15. Garrote, D., Jiménez, S. & Palomares, A. (2015). Análisis de las dificultades de aprendizaje en estudiantes con discapacidad intelectual. *European Scientific Journal, ESJ*, 11(25), 1-16. <http://eujournal.org/index.php/esj/article/view/6199>
16. González-González, D., Gutiérrez-Barroso, J., González-Herrera, A.I. & Márquez-Domínguez, Y. (2017). Inserción Laboral De Personas Con Discapacidad. *European Scientific Journal, ESJ*, 13(29), 109. <https://doi.org/10.19044/esj.2017.v13n29p109>
17. Guerra, M., Rodríguez, J. & Artilés, J. (2019). Collaborative learning: innovative experience with university students. *Revista de estudios y experiencias en educación*, 18(36), 269-281. doi.org/10.21703/rexe.20191836guerra5
18. Gutiérrez, R. (2006). Los estudios de casos una opción metodológica para investigar la educación artística. En Martín, R. (2006). *Investigación en educación artística*. Granada: Universidades de Granada y de Sevilla.
19. Guzmán, I., Marín, R. & Inciarte, A. (2014). *Innovar para Transformar la Docencia Universitaria. Modelo para la Formación Competencias*. Venezuela: Universidad del Zulia.
20. Hernández, M.Á. & Valcárcel-Resalt, T. (2016). Éxito académico de colectivos vulnerables en entornos de riesgo en Latinoamérica. *Revista Latinoamericana* 15(45), 252.
21. Infante, M. (2010). Desafíos a la formación docente: Inclusión educativa. Pontificia Universidad Católica de Chile. *Estudios Pedagógicos* 36(1), 287-297. <http://mingaonline.uach.cl/pdf/estped/v36n1/art16.pdf>
22. Kemmis, S. & McTaggart, R. (1988). *Cómo Planificar la Investigación-Acción* (R. G. Salcedo, Trad.). Laertes.

23. Leiva, J.J. & Jiménez, A. (2012). La educación inclusiva en la universidad del siglo XXI: Un proceso permanente de cambio. *Investigación y Docencia* (8), 41-62. <http://www.revistareid.net/revista/n8/REID8art3.pdf>
24. León del Barco, B. & Latas, C. (2007). La formación en técnicas de aprendizaje cooperativo del profesor universitario en el contexto de la convergencia europea. *Revista de Psicodidáctica*, 12(2), 269-277. <https://ojs.ehu.es/index.php/psicodidactica/article/viewFile/224/220>
25. Marín, R., Guzmán, I., Márquez, A. & Peña, M. (2013). La evaluación de competencias docentes en el modelo DECA: anclajes teóricos. *Formación universitaria* 6(6), 41-54. Doi:10.4067/S0718-50062013000600005
26. Márquez-Domínguez, Y., Gutiérrez-Barroso, J. & González-Herrera, A.I. (2018). La Formación Docente: La Metáfora De La Caja Del Formador. *European Scientific Journal, ESJ*, 14(7), 20. <https://doi.org/10.19044/esj.2018.v14n7p20>
27. Moreira, T., Romero, S. & Torres, I. (2019). Intervención del trabajador social en el sistema educativo en personas con discapacidad, *Revista Contribuciones a las Ciencias Sociales*.
28. Murillo, L.D., Ramos, D., García, I. & Sotelo, A. (2020). Estrategias educativas inclusivas y su relación con la autoeficacia de docentes en formación. *Revista Actualidades Investigativas en Educación*, 20(1), 1-25. doi. 10.15517/aie.v20i1.40060. <https://revistas.ucr.ac.cr/index.php/aie/article/view/40060/40671>
29. Organización de las Naciones Unidas (2006). Convención Internacional sobre los derechos de las personas con discapacidad. [https://www.ohchr.org/Documents/Publications/AdvocacyTool\\_sp.pdf](https://www.ohchr.org/Documents/Publications/AdvocacyTool_sp.pdf)
30. Paz-Maldonado, E. (2020). Inclusión educativa del alumnado en situación de discapacidad en la educación superior una revisión sistemática. *Revista Teoría de la educación*, 32(1), 123-146. DOI: 10.14201/teri.20266
31. Roegiers, X. (2010). Pedagogía de la integración. Competencias e integración de los conocimientos en la enseñanza. México: Fondo de Cultura Económica.
32. Sagastizábal, P. (2000). Un Secreto para Julia. Sudamericana.
33. Sánchez, J.F. (2009). *Análisis del clima de aula en educación física. Un estudio de casos.* (Disertación doctoral). <http://www.biblioteca.uma.es/bblloc/tesisuma/17677907.pdf>
34. Soto, M.C. (2015). *Experiencias docentes en intervención psicomotriz para el logro de competencias en preescolar.* (Tesis Doctoral). Facultad de Ciencias de la Cultura Física, Universidad Autónoma de

- Chihuahua, Chihuahua, México.  
<http://doctorado.fccf.uach.mx/estudiantes/4.%20MA.%20CONCEPCION%20SOTO%20VALENZUELA.pdf>
35. Stake, R. (2010). *La investigación con Estudio de Casos*. Morata.
  36. Tobón, T., Pimienta, J. & Garcia, J. (2010). *Secuencias Didácticas: Aprendizaje y evaluación de competencias*. Pearson.
  37. Universidad Autónoma de Chihuahua (2019). Estadística básica.UACH.  
[https://uach.mx/assets/media/publications/2017/10/143\\_agenda-estadistica/estadistica-basica-2018-2019.pdf](https://uach.mx/assets/media/publications/2017/10/143_agenda-estadistica/estadistica-basica-2018-2019.pdf)
  38. Valenciano, G. (2009). Construyendo un concepto de educación inclusiva: Una experiencia compartida. En Sarto, M.P. y Venegas, M.E. *Aspectos clave de la educación inclusiva*. (pp.13-24). Publicaciones del INICO. Salamanca, España. Colección Investigación. <http://sid.usal.es/idocs/F8/FDO22224/educacion-inclusiva>.
  39. Yin, R. (1994). *Case Study Research: Design and Methods* (2<sup>a</sup> ed.). SAGE. Thousand Oaks, CA.
  40. Zambrano, A. (2005). Conocimiento, saber y pensamiento: una aproximación a la didáctica de las matemáticas. *Equis Angulo* 1(1), 1-6.



ESJ Social Sciences

### **Marcel Oswaldo Méndez- Mantuano**

Investigadores del Instituto Superior Tecnológico  
Juan Bautista Aguirre, Ecuador

### **Mariuxi Yomaira Olvera Moran**

Investigadores del Instituto Superior Tecnológico  
Juan Bautista Aguirre, Ecuador

### **Ana Patricia Cabrera Sanmartín**

Investigadores del Instituto Superior Tecnológico  
Juan Bautista Aguirre, Ecuador

### **Jorge Enrique Ordoñez García**

Investigador de la Universidad de Guayaquil,  
Ecuador

### **Daniel Iván Buendía García**

Investigador de la Dirección de Educación y  
Seguridad Vial – Agencia de Tránsito Municipal,  
Ecuador

### **Mónica Alexandra Guilcapi Villacrés**

Investigadora de la Universidad de las Fuerzas  
Armadas, Ecuador

---

Submitted: 08 September 2020

Accepted: 23 November 2020

Published: 30 November 2020

Corresponding author:

*Marcel Méndez*

DOI: 10.19044/esj.2020.v16n31p81



Copyright 2020 Ma. Concepción Connie et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## **Evaluación de la Virtualización del Aprendizaje y los Desafíos en la Educación Superior en el Instituto Superior Tecnológico Juan Bautista Aguirre**

---

### **Resumen**

La presente investigación analiza la evaluación temprana sobre el nivel de aceptación por la virtualización de la enseñanza, realizada en un instituto de educación superior del cantón Daule en la provincia del Guayas (Ecuador), la cual fue implementada para precautelar la salud de la comunidad educativa por la pandemia del Covid-19. Se realizó una encuesta a 98 docentes y 562 estudiantes, con un nivel de aceptación del 60,8 % y 42,9 % respectivamente. Entre los principales desafíos que presenta la educación virtual en las instituciones educativas son (de manera general): dotar de los recursos tecnológicos y de conectividad a los estudiantes que lo ameriten, diseñar políticas públicas para el desarrollo de la “economía del conocimiento”, realizar nuevas propuestas educativas virtuales y establecer procesos que permitan el desarrollo de la calidad con este tipo de metodologías.

---

**Palabras claves:** Covid-19, desafíos, educación superior, educación virtual, virtualización

### **How to cite this article**

Méndez, M. et al, (2020). Evaluación de la Virtualización del Aprendizaje y los Desafíos en la Educación Superior en el Instituto Superior Tecnológico Juan Bautista Aguirre. *European Scientific Journal, ESJ*, 16(31), 81. <https://doi.org/10.19044/esj.2020.v16n31p81>

# **Evaluation of the Virtualization of Learning and Challenges in Higher Education, at the Juan Bautista Aguirre Institute of Technology**

***Mgs. Marcel Oswaldo Méndez-Mantuano,***

***Mgs. Mariuxi Yomaira Olvera Moran,***

***Mgs. Ana Patricia Cabrera Sanmartín ,***

Investigadores del Instituto Superior Tecnológico Juan Bautista Aguirre,  
Ecuador

***Ing. Jorge Enrique Ordoñez García,***

Investigador de la Universidad de Guayaquil, Ecuador

***Ing. Daniel Iván Buendía García,***

Investigador de la Dirección de Educación y Seguridad Vial,  
Agencia de Tránsito Municipal, Ecuador

***Ing. Mónica Alexandra Guilcapí Villacrés,***

Investigadora de la Universidad de las Fuerzas Armadas, Ecuador

---

## **Abstract**

This research analyzes the early evaluation on the level of acceptance by the virtualization of teaching, carried out in a higher education institute of the Daule canton in the province of Guayas (Ecuador), which was implemented to protect the health of the educational community for the Covid-19 pandemic. A survey was conducted with 98 teachers and 562 students, with an acceptance level of 60,8 % and 42,9 % respectively. Among the main challenges that virtual education presents in educational institutions are (in general): providing technological and connectivity resources to students who deserve it, designing public policies for the development of the “knowledge economy”, carrying out new virtual educational proposals and establishing processes that allow the development of quality with this type of methodologies.

---

**Keywords:** Covid-19, challenges, higher education, virtual education, virtualization

## **Introduction**

Hasta hace poco se consideraba que los únicos cambios acelerados llegaban de mano de las innovaciones tecnológicas, sin embargo, desde enero

del 2020, el mundo se enfrenta a nuevas vertientes derivadas de la expansión del Covid-19 (el Comité Internacional para la Taxonomía de los Virus -ICTV- por sus siglas en inglés, ha denominado el CoV causante de la Covid-19 con el nombre científico SARS-CoV-2). El cual no solo ha traído devastación emocional por la muerte de cientos de miles de personas, o por las consecuencias económicas que aún no se perciben en su totalidad, sino por los grandes cambios en los hábitos de una sociedad globalizada, la cual cuestiona la conveniencia de la existencia de pocos países abastecedores de las demandas, algunas tan neurálgicas como las medicinas o los alimentos.

El golpe causado fue rápido y fulminante, los estragos severos y bajo las nubes de perspectivas negativas, amparados por paraguas exiguos provenientes de una taciturna clase política Latinoamericana. El mundo se cerró bajo las esperanzas de una rápida normalidad, pero dentro de dicha tormenta, las ideas evolucionaron y emergieron sobre una nueva realidad, que se asemeja a la anterior, pero con nuevos fundamentos que deberán hacer eco en las personas con premura, ya que podríamos crear falsas ilusiones de tranquilidad, que esconderían futuros colapsos de todo tipo (de salud, económicos, sociales, políticos, etc.). Con estos retos, aparece como eje integrador la educación, la cual debe concebirse como el medio para conseguir las proyecciones futuras de una sociedad más justa, más ecoamigable, más segura, con mejores accesos a los servicios y al trabajo bien remunerado, además con altos protocolos de respuestas frente a los acontecimientos que infrinjan los ideales globales.

La virtualización de la educación inició como un anhelo de parte de los Estados para garantizar la enseñanza de manera masiva e inclusiva a estudiantes que posean problemas de movilidad, con resultados muy diferentes en cada parte del mundo. El objetivo primordial es transmitir los conocimientos a través del acompañamiento de los recursos tecnológicos disponibles, para atender a sectores sociales aislados de la educación formal, evitando que merme la calidad en los aprendizajes (Fundación Universitaria Católica del Norte, 2005).

Los aprendizajes en los entornos virtuales se basan en plataformas LMS (por sus iniciales en inglés: *Learning Management Systems*, o Sistemas de Gestión del Aprendizaje en español), las cuales son un conjunto de herramientas asociadas con páginas web, que permiten la simulación de entornos didácticos y de comunicación para llevar a cabo la enseñanza-aprendizaje. Este tipo de enseñanzas se posicionan de manera fuerte en el mundo, por la alta movilidad de la sociedad que exige un dinamismo similar en los métodos de enseñanza, por lo cual, resulta útil para las personas la

virtualización, prescindiendo de la instrucción presencial (Fundación Universitaria Católica del Norte, 2005).

La diferencia principal entre la educación virtual y la presencial radica en las estrategias de interacción entre los docentes y estudiantes, ya que la primera consiente el uso de todos los recursos tecnológicos disponibles para mantener la distancia física, y a su vez recrear escenarios de conocimientos próximos a la persona. De tal manera que se logra optimizar recursos como el tiempo, donde la asistencia pedagógica se encuentra en una plataforma virtual, la misma que detalla de manera previa y ordenada los objetivos de aprendizajes, las actividades, los plazos, entre otros elementos. También existen detractores en este tipo de enseñanzas, quienes exponen que la comunicación personal, las interacciones sociales y las experiencias en los escenarios áulicos (talleres, laboratorios), son elementos fundamentales en la creación de las competencias, los cuales no deben permanecer aislados durante el proceso educativo (Areth, Castro-Martínez, & Rodríguez, 2015).

La virtualización de la enseñanza ha contribuido en la creación de las “globouniversidades” (instituciones de educación superior que buscan una enseñanza sin fronteras a través de las plataformas virtuales), las mismas que ofertan educación a través de recursos totalmente automatizados y sin la intervención directa del profesorado, donde se priorizan los objetivos abiertos de aprendizajes y los procesos de enseñanzas flexibles, centrados en los recursos tecnológicos. Entre las barreras presentes para este tipo de educación, se encuentra el financiamiento para el desarrollo y la validez de la certificación, ya que en este último aspecto no existen normativas claras al respecto en la mayoría de los países del mundo (Rama, 2013).

Adicionalmente a los roles tradicionales (responsable académico, autor de contenidos, dinamizador, tutor, evaluador, planificador, etc.), deben integrarse otras competencias en los docentes que utilicen metodologías virtuales, entre las que destacan las: cognitivas (conocimiento amplio en el área), meta cognitivas (reflexivo y autocrítico), comunicativas (usa el lenguaje científico y lo transmite por diferentes formas y medios), gerenciales (eficiencia en el uso de los recursos), sociales (liderazgo y cooperación en equipo) y afectivas (motivador y empático en el proceso). Esta integralidad permitirá la construcción personalizada de los conocimientos de parte de los estudiantes, fomenta la presentación no lineal de contenidos, de tal manera que se favorezca la creación propia del aprendizaje, consiente mayores niveles de interactividad entre estudiantes-docentes y permite la modificación de los entornos de enseñanza de acuerdo a las situaciones de estudio (Alonso & Blázquez, 2016).

Con 17 casos confirmados de coronavirus, desde el día viernes 13 de marzo del 2020, se suspendieron las clases presenciales a nivel nacional (Ecuador), con el objetivo de precautelar la integridad de las personas, dado que la enfermedad empezaba a propagarse con rapidez en todo el territorio; donde los ministerios responsables establecieron que los docentes y estudiantes interactuarían por medio de las plataformas virtuales disponibles (El Universo, 2020).

Este inesperado cambio, consintió la implementación de la educación virtual de manera masiva en el país, sin instrucciones previas y de forma adaptativa de parte de toda la sociedad. La virtualización transformó el paradigma educativo actual de la sociedad, la cual no se encontraba provisionada de los recursos tecnológicos necesarios para hacerle frente, sin embargo, con los escollos iniciales previsibles, se instauró. Dentro de este escenario, existen ciertas interrogantes que deben ser analizadas desde una perspectiva muy crítica y neutral, para lograr determinar si los resultados en el ámbito educativo fueron positivos o negativos durante los últimos meses. La presente investigación entabla una discusión temprana en este asunto, desde la visión de una institución educativa superior de la ciudad de Daule (Guayas – Ecuador), donde se trata de determinar el nivel de aceptación de la educación virtual impartida a los estudiantes del Instituto Superior Tecnológico Juan Bautista Aguirre, para posteriormente establecer cuáles son los desafíos que tienen las instituciones y docentes de educación superior para garantizar un aprendizaje de calidad a su estudiantado.

## **Metodología**

Para la efectiva realización de la investigación, se tuvo en consideración un enfoque mixto, pues los elementos cuantitativos fueron evidenciados en una encuesta aplicada a docentes y estudiantes de la institución objeto de estudio, para conocer el desarrollo educativo durante las clases virtuales. Mientras que la parte cualitativa se la justificó en la proyección analítica de los desafíos en este tipo de modalidad, que deberán sortear las instituciones de educación superior en los próximos años.

El diseño fue de campo por la aplicación de las encuestas, las cuales fueron realizadas a través de los “Formularios de Google” (ver anexos 1 y 2), a 98 docentes y 562 estudiantes de las tres jornadas (matutina, vespertina y nocturna). Cabe resaltar que las encuestas fueron realizadas a la totalidad de los docentes de la institución objeto de estudio y al 43 % de estudiantes de la misma (para ellos fue opcional), lo cual corresponde a un 99 % de confiabilidad. También se utilizaron componentes documentales, para la

estructuración de los desafíos que se presentan en la educación virtual y como esta debería desarrollarse en concordancia de las exigencias contemporáneas de la educación 4.0.

El alcance fue descriptivo, ya que se puntualizan los resultados de las encuestas que ayudan a establecer si la modalidad aplicada en el centro de estudios fue relevante tanto para docentes como para los estudiantes, además poseen elementos explicativos en ciertos datos, que ayudan a considerar las hipotéticas causas que ocasionan ciertos factores con sus respectivos efectos.

## **Resultados**

La metodología para la modalidad virtual aplicada en la institución, se basó en la “*Normativa transitoria para el desarrollo de actividades académicas en las Instituciones de Educación Superior, debido al estado de excepción decretado por la emergencia sanitaria ocasionada por la pandemia de COVID-19*”, expedida por el Consejo de Educación Superior (CES) el día 25 de marzo y reformada el 30 de abril y el 6 de mayo del 2020 (Consejo de Educación Superior, 2020). Esta normativa intenta garantizar los derechos fundamentales de los actores que pertenecen al sistema de educación superior, asimismo regula las actividades excepcionales de los docentes y estudiantes, además flexibiliza las disposiciones indicadas en el Reglamento de Régimen Académico (normativa de aplicación obligatoria para las instituciones de educación superior en el Ecuador).

La normativa transitoria incorpora una “*modalidad híbrida*” de enseñanza, la misma que prioriza el trabajo autónomo de los estudiantes bajo el acompañamiento a distancia de los docentes, con el objetivo de cumplir con las competencias determinadas en el plan regular de estudios, además de facilitar la conexión “asincrónica” y en tiempo real, a través de los recursos tecnológicos disponibles (teléfono inteligente, tableta, computadora portátil). Donde los docentes de las instituciones deben realizar el seguimiento periódico de los objetivos académicos y proporcionar a través de “guías de estudios” los contenidos que serán impartidos por los docentes, estos instrumentos deberán ser compartidos a todos los estudiantes (Consejo de Educación Superior, 2020).

Entre las principales disposiciones mencionadas en la normativa, se encuentran que:

- La modalidad híbrida combinará las modalidades semipresencial, en línea y a distancia. Además, los estudiantes deberán tener acceso abierto a una biblioteca virtual y a un repositorio digital de apoyo (artículo 4a)

- Los docentes deberán realizar guías de estudios por cada asignatura, para aquellos estudiantes que no puedan conectarse de manera regular a las clases, con ello se garantiza que posean los contenidos de la asignatura y puedan desarrollar las actividades mediante el aprendizaje autónomo. Estas guías deberán estar disponible al iniciar el período académico (o semestre) y reemplazan a los syllabus (artículo 4b)
- Las actividades de aprendizajes se realizarán mediante el uso de plataformas interactivas y entornos virtuales de aprendizajes, a través de plataformas digitales de libre acceso, medios telemáticos, redes sociales, etc. (artículo 5)
- Los estudiantes que justifiquen previamente que por fuerza mayor relacionados a la pandemia, no hubieran podido cursar la asignatura de manera regular, podrán acceder a la promoción de la asignatura mediante: parámetros alternativos de evaluación, examen de validación o promoción por favorabilidad (artículo 11a)
- No deberán estar contempladas sanciones para los estudiantes que no puedan conectarse a las clases virtuales o lo hagan con retrasos (artículo 12c)
- La carga horaria de los docentes aumenta con respecto a la normativa anterior (artículo 15)

Con este marco legal, el Instituto Superior Tecnológico Juan Bautista Aguirre a través del respectivo Órgano Colegiado Superior (OCS) diseña la “*Normativa para el proceso de enseñanza y aprendizaje en el ISTJBA*”, con fecha del 18 de junio del 2020. Donde se establece que las “horas sincrónicas” (interacción en tiempo real) se las realizará a través de plataformas virtuales de enseñanza y las “horas asincrónicas” (interacción en tiempo no real, sino diferido) se las desarrollará por medio de trabajos autónomos guiados por los docentes. Cada una de estas horas (sincrónicas y asincrónicas) representa el 50 % de la carga horaria establecida para la asignatura en la malla curricular (del Plan de Carrera).

Esta modalidad rige durante todo el primer período académico 2020 – 2021 (de junio a octubre); a la mitad del mismo se realiza la evaluación del primer parcial (cada período está compuesto de dos parciales). La semana previa al inicio de los exámenes, se aplicó la encuesta a 98 docentes y 562 estudiantes, que de manera voluntaria deseaban realizarla, para así contrastar las posturas de ambas visiones y con ello aproximar una valoración temprana para la modalidad virtual aplicada hasta la fecha en la institución objeto de análisis. Cabe mencionar que el 100 % de los docentes y el 43 % de los

estudiantes realizaron la misma, lo cual ayuda a interpolar de manera muy precisa las percepciones de cada uno de los grupos focales.

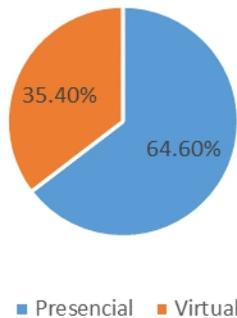
Las repuestas de los docentes en cada una de las preguntas son las siguientes:

Pregunta 1: Escoja la opción que considere más cercana a su opinión. El uso de las Tecnologías de Información y Comunicación (TIC's)



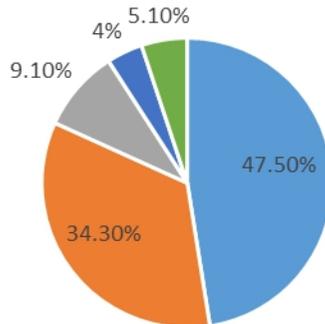
**Ilustración 1.** Pregunta 1 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 2: ¿Qué modalidad de enseñanza prefiere?



**Ilustración 2.** Pregunta 2 para docentes. Fuente: Encuesta realizada por los autores, 2020

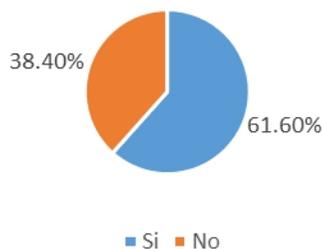
Pregunta 3: ¿Cuál ha sido el principal inconveniente que mencionan los estudiantes para poder conectarse a las clases virtuales?



- No poseer internet en el lugar donde recibo las clases virtuales
- No poseer recursos tecnológicos en el lugar donde recibo las clases virtuales (laptop, smartphone, tablet)
- Trabajar para ayudar en los gastos del hogar
- Desmotivación asociada a la pérdida de seres queridos durante la pandemia
- Desmotivación asociada al confinamiento
- Ningún inconveniente

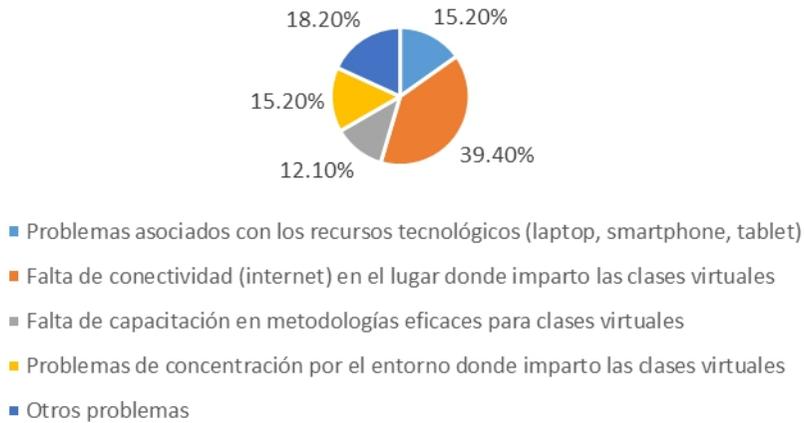
**Ilustración 3.** Pregunta 3 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 4: ¿Considera que los contenidos expuestos en las clases virtuales son mejor explicados por usted?



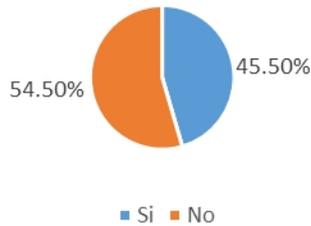
**Ilustración 4.** Pregunta 4 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 5: ¿Cuál ha sido el principal inconveniente (de forma general) para exponer de manera satisfactoria la mayoría de los contenidos?



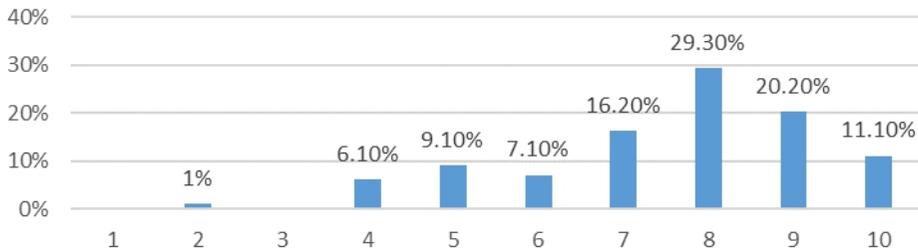
**Ilustración 5.** Pregunta 5 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 6: ¿Considera que la virtualización de la enseñanza ha disminuido la calidad educativa?



**Ilustración 6.** Pregunta 6 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 7: Califique del 1 al 10 su estado anímico (en promedio) durante las últimas semanas mientras imparte las clases virtuales, donde 1 es el nivel más bajo y 10 el más alto



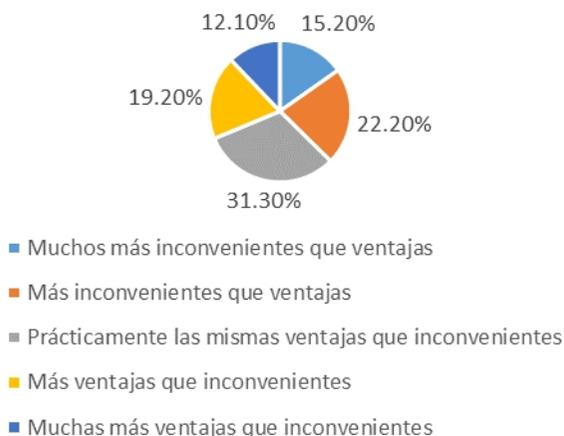
**Ilustración 7.** Pregunta 7 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 8: ¿Tu interés en la educación virtual ha aumentado?



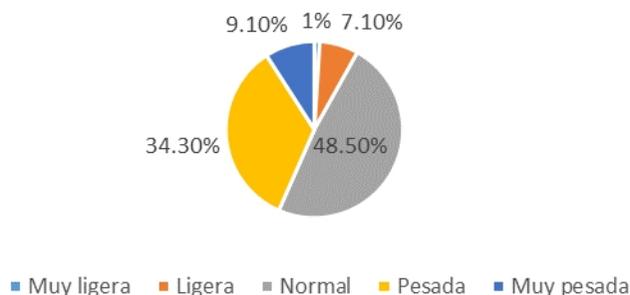
**Ilustración 8.** Pregunta 8 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 9: De manera general, en tu situación personal concreta, la metodología de enseñanza virtual implementada por la pandemia, tiene



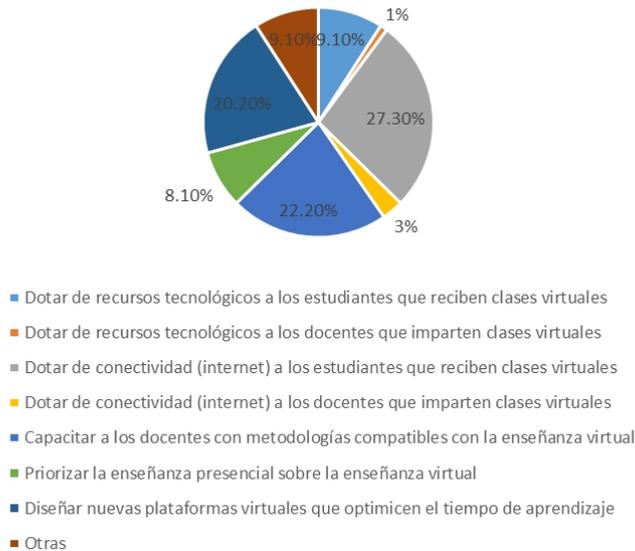
**Ilustración 9.** Pregunta 9 para docentes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 10: Consideras que la carga de trabajo en las actividades educativas (asignadas a los estudiantes) asociadas a la enseñanza virtual ha sido



**Ilustración 10.** Pregunta 10 para docentes. Fuente: Encuesta realizada por los autores, 2020

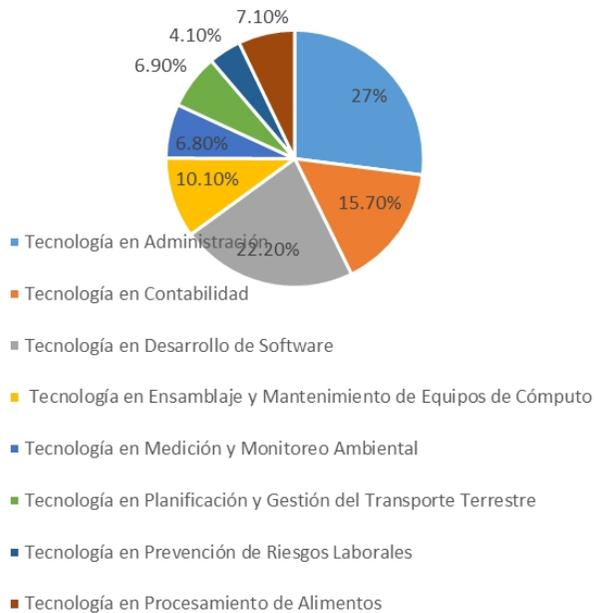
Pregunta 11: ¿Cuál de las siguientes opciones debe ser de atención prioritaria de parte de las autoridades educativas?



**Ilustración 11.** Pregunta 11 para docentes. Fuente: Encuesta realizada por los autores, 2020

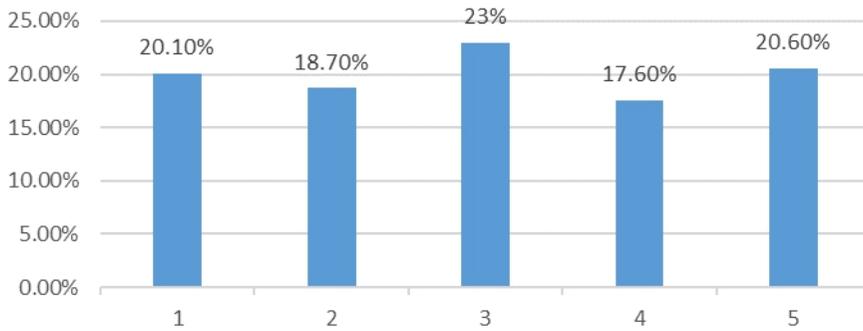
Las repuestas de los estudiantes en cada una de las preguntas son las siguientes:

Pregunta 1: Escoja la carrera a la que pertenece



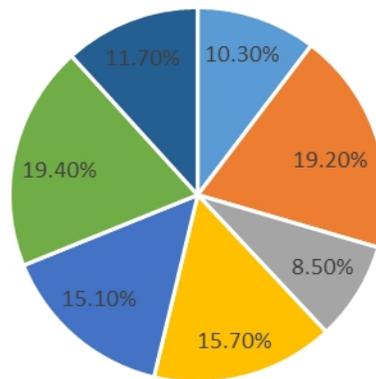
**Ilustración 12.** Pregunta 1 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

### Pregunta 2: Escoja el nivel de estudios



**Ilustración 13.** Pregunta 2 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

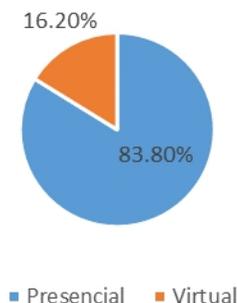
### Pregunta 3: Escoja la opción que considere más cercana a su opinión. El uso de las TIC's



- Facilitan el trabajo en grupo
- Motiva al aprendizaje
- Facilitan la retención de la información y refuerzan los contenidos
- Facilitan el autoaprendizaje e individualizan la enseñanza
- Propician nuevas relaciones entre el docente y el estudiante
- Permiten el acceso a mayor información
- Ofrece una mejor presentación de los contenidos

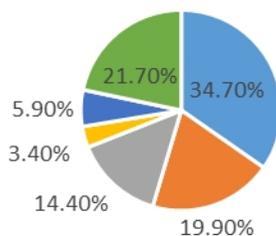
**Ilustración 14.** Pregunta 3 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

#### Pregunta 4: ¿Qué modalidad de enseñanza prefiere?



**Ilustración 15.** Pregunta 4 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

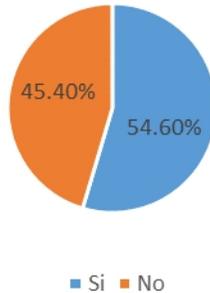
#### Pregunta 5: ¿Cuál ha sido el principal inconveniente para conectarse a las clases virtuales?



- No poseer internet en el lugar donde recibo las clases virtuales
- No poseer recursos tecnológicos en el lugar donde recibo las clases virtuales (laptop, smartphone, tablet)
- Trabajar para ayudar en los gastos del hogar
- Desmotivación asociada a la pérdida de seres queridos durante la pandemia
- Desmotivación asociada al confinamiento
- Ningún inconveniente

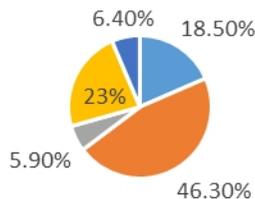
**Ilustración 16.** Pregunta 5 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 6: ¿Considera que los contenidos expuestos en las clases virtuales son mejor explicados por los docentes?



**Ilustración 17.** Pregunta 6 para estudiantes. Fuente: Encuesta elaborada por los autores, 2020

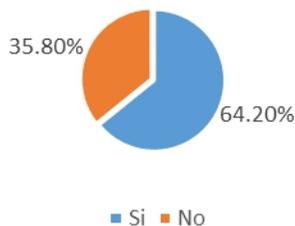
Pregunta 7: ¿Cuál ha sido el principal inconveniente (en general de todas las asignaturas) para comprender de manera satisfactoria la mayoría de los contenidos expuestos por los docentes?



- Problemas asociados con los recursos tecnológicos (laptop, smartphone, tablet)
- Falta de conectividad (internet) en el lugar donde recibo las clases virtuales
- Metodologías ineficaces de los docentes
- Problemas de concentración por el entorno donde recibo las clases virtuales
- Problemas propios de concentración

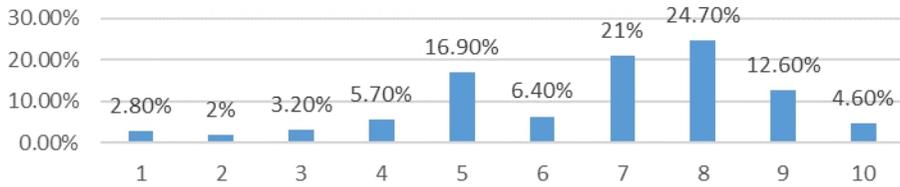
**Ilustración 18.** Pregunta 7 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 8: ¿Considera que la virtualización de la enseñanza ha disminuido la calidad educativa?



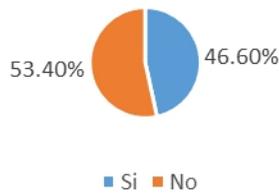
**Ilustración 19.** Pregunta 8 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 9: Califique del 1 al 10 su estado anímico (en promedio) durante las últimas semanas en las clases virtuales, donde 1 es el nivel más bajo y 10 el más alto



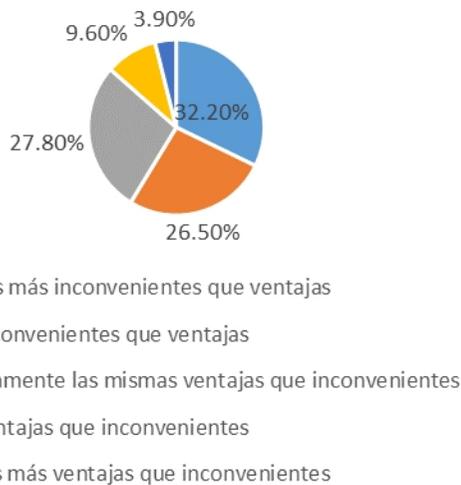
**Ilustración 20.** Pregunta 9 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 10: ¿Tu interés en la educación virtual ha aumentado?



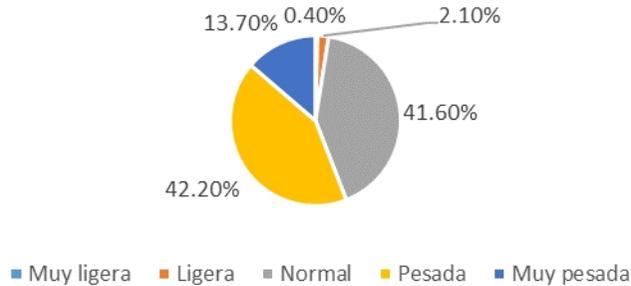
**Ilustración 21.** Pregunta 10 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 11: De manera general, en tu situación personal concreta, la metodología de enseñanza virtual implementada por la pandemia, tiene



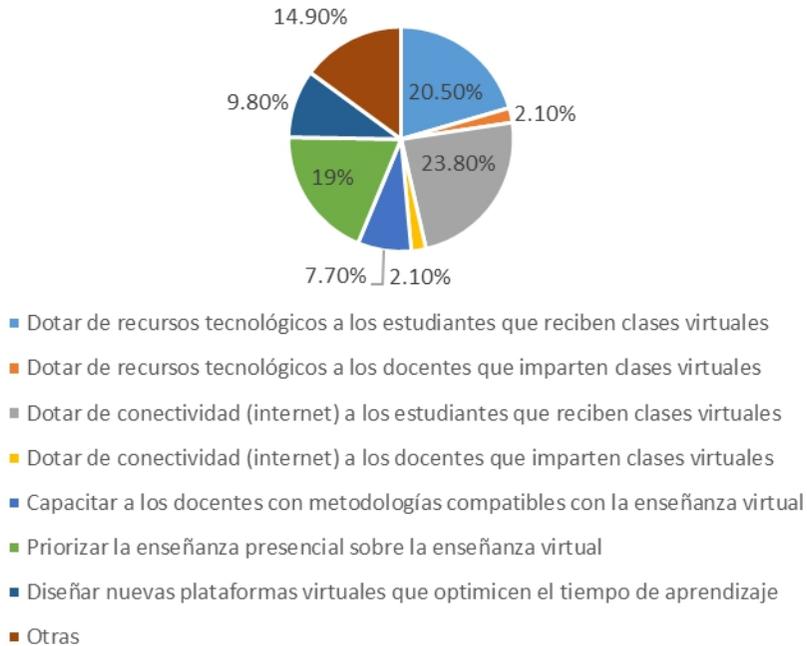
**Ilustración 22.** Pregunta 11 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 12: Consideras que la carga de trabajo en las actividades educativas asociadas a la enseñanza virtual ha sido



**Ilustración 23.** Pregunta 12 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

Pregunta 13: ¿Cuál de las siguientes opciones debe ser de atención prioritaria de parte de las autoridades educativas?



**Ilustración 24.** Pregunta 13 para estudiantes. Fuente: Encuesta realizada por los autores, 2020

### Nivel de aceptación

La implementación de la educación virtual fue la respuesta drástica de parte de las autoridades educativas para precautelar la salud de las personas que conforman el sistema de enseñanza, sin existir de manera previa una organización que contemple las particularidades de los docentes y estudiantes, los cuales se han adaptado al desarrollo de nuevas competencias, tanto en la enseñanza como en el aprendizaje. Ningún país del mundo se encontraba

preparado para afrontar la gran demanda de recursos que trajo consigo la virtualización de la enseñanza, sin embargo, es lógico asumir que en aquellas regiones donde preexistían componentes tecnológicos más desarrollados y personal cualificado, serían donde menos barreras se presentarían para cumplir con los objetivos de aprendizajes. Todo este escenario, convergió para que en cada país y región existiesen niveles de implementación diferentes, con resultados propios en cada uno de ellos, por lo cual, las premisas de la presente investigación serán a manera local y sin intentar dar aproximaciones que generalicen (a manera global) los hallazgos encontrados.

A partir de las siguientes líneas se ahondará en el análisis de los resultados de las encuestas realizadas a docentes y estudiantes, tratando de interpretar la correlación que presumiblemente existe entre ambos grupos y entre las preguntas realizadas.

El 23,2 % de los docentes consideran que las Tecnologías de Información y Comunicación (TIC's) permiten un mayor acceso a la información que se dispone en la red, un igual porcentaje de ellos piensan que también facilitan el autoaprendizaje (Ilustración 1); por otro lado, los estudiantes en un 19,4 % concuerdan con la primera opinión de los docentes y destacan que también las TIC's motivan al aprendizaje (Ilustración 14). Estas posturas resaltan el papel de las TIC's, las cuales han sido potenciadoras de la información en los últimos 20 años, ya que los estudiantes se ven acompañados de varios recursos tecnológicos que favorecen el aprendizaje.

El 64,6 % de los docentes y el 83,8 % de los estudiantes prefieren la modalidad presencial por encima de la virtual (Ilustraciones 2 y 15), probablemente porque el 55 % de los estudiantes tienen problemas en la conectividad (internet), además que no poseen los recursos tecnológicos para ello (Ilustración 16). Estos datos se aproximan a los del Instituto Nacional de Estadísticas y Censos (2019), quienes estimaron que el 45,5 % de los hogares tenían acceso a internet, el mismo informe estimó que en la parte rural únicamente el 21,6 % de los hogares poseían este servicio, mientras que aproximadamente el 50 % de los hogares poseen computadores de escritorio o portátiles (laptop). Según informes de la institución objeto de estudio, durante las semanas iniciales del período académico, el nivel de ausentismo se encontraba en un 50 %, posteriormente se estabilizó en un 25 %, lo cual apunta que en las primeras semanas los estudiantes no poseían los recursos y medios para acceder a las clases sincrónicas.

El 61,6 % de los docentes y el 54,6 % de los estudiantes considera que los contenidos expuestos dentro de las clases virtuales son mejor abordados con la aplicación de esta metodología de enseñanza (Ilustración 4 y 17). Lo cual parece contradictorio con la preferencia por la modalidad presencial, sin embargo, se puede interpretar que la resistencia a la modalidad virtual está dada por los niveles de conectividad y de tenencia de los equipos tecnológicos.

La percepción de la disminución en la calidad educativa por la virtualización de la enseñanza a causa de la pandemia, difiere de manera significativa entre los grupos de análisis, debido a que el 54,5 % de los docentes considera que no ha disminuido la calidad de la enseñanza, frente al 45,5 % que estima que si lo ha hecho. Este porcentaje aumenta del lado de los estudiantes, quienes consideran en un 64,2 % que la metodología aplicada disminuyó la calidad educativa (Ilustraciones 6 y 19). Aunque el concepto de calidad educativa es muy amplio y versátil, se tomó en consideración el desarrollado por Mortimer (1991) y citado por Lugo, Stincer & Campos (2013), quien expresó lo siguiente:

“Calidad educativa se refiere a aquellas instituciones que promueven el progreso de los estudiantes en una amplia gama de logros intelectuales, sociales, morales y emocionales, teniendo en cuenta su nivel socioeconómico, su medio familiar y su aprendizaje previo. Un sistema escolar eficaz es aquel que maximiza la capacidad de las escuelas para alcanzar esos resultados. Lo que supone adoptar la noción de valor añadido en la eficacia escolar”

Esta definición fue expuesta en una sección dentro de la encuesta realizada, con el objetivo de “estandarizar” el concepto de “calidad educativa”. Una explicación para el antagonismo en este punto, pudiera explicarse (nuevamente) por los niveles de disponibilidad de los recursos y medios que permiten y facilitan la conectividad. Debido a las características propias de la actividad, los docentes pudieron interactuar con mayor facilidad, mientras que numerosos estudiantes que pertenecen a segmentos sociales que no les permiten la adquisición o contratación de los bienes o servicios necesarios, se les dificultó la interacción.

La encuesta fue realizada dentro de las primeras 10 semanas de haberse implementado la virtualidad en el instituto, y hasta esa fecha, el estado anímico del 76,8 % de los docentes se encontraba en un rango entre 7 al 10, mientras que dentro del mismo rango, los estudiantes suman un 62,9 % (Ilustraciones 7 y 20). La diferencia de aproximadamente 14 puntos porcentuales, está conexas al desplazamiento que realizaron algunos estudiantes hacia vivienda de familiares o amigos, para lograr interactuar en las plataformas virtuales, dichos espacios no se encontraban cercanos a sus domicilios (en algunos casos).

Se puede inferir que el grado motivacional y la inclinación estudiantil por la modalidad presencial, influyó para que únicamente el 46,6 % de los estudiantes se encuentren interesados en recibir clases a través de las plataformas virtuales (Ilustración 21). Ergo, la interacción social en los jóvenes es un factor preponderante en el ejercicio educativo, esto se demuestra en los valores porcentuales en varias preguntas, las cuales enfatizan que el

dialogo, el encuentro y la negociación personal facilitan el aprendizaje (González, Rivera, & Tigueros, 2014). El 73,7 % de los docentes ha mostrado un ascenso en el interés por la educación virtual, debido a que la metodología permite realizar todas las labores docentes dentro de un círculo acogedor dentro de sus viviendas, donde se optimiza el tiempo que anteriormente era invertido en traslados hacia la institución, además de tener la posibilidad de preparar las clases a través de recursos tecnológicos que favorezcan la interacción y la visualización de los contenidos (Ilustración 8).

Los problemas suscitados por los estudiantes, convergen para que el 58,7 % de ellos perciba que existen “más” (y “mucho más”) inconvenientes que ventajas en la virtualización (Ilustración 22), sin embargo para el 62,6 % de los docentes, supone que existe un nivel equitativo entre las ventajas y desventajas (Ilustración 9). Esto indica que cada grupo focal, interpretó las ventajas o desventajas de acuerdo a las particularidades personales existentes, y no desde la contextualización global de la educación virtual.

Los resultados anteriormente expuestos, ayudaron a estimar el hipotético nivel de aceptación (hasta la fecha) del trabajo realizado por los directivos y docentes, en la virtualización de la enseñanza. Para ello, se separaron los “factores” representativos de cada una de las preguntas, posteriormente se separan los porcentajes tanto positivos (+) como negativos (-), los primeros representan los valores favorables hacia la educación virtual y aquellos considerados neutros; mientras que los negativos constituyen los valores considerados contrarios a este tipo de metodología. Esta valoración se la aplicó de manera diferenciada tanto para docentes como a estudiantes, finalmente se realizó una media entre ambos niveles de aceptación.

El nivel de aceptabilidad de la virtualización de la enseñanza de parte de los docentes fue:

**Tabla 1.** Nivel de aceptación de los docentes

Factor	Porcentaje de aceptación		En base a la pregunta (docentes)	Aclaración
	Positivo (+)	Negativo (-)		
Modalidad de enseñanza	35,4	64,6	2	Se consideró “+” a educación “virtual”
Exposición de los contenidos	61,6	38,4	4	
Calidad educativa	54,5	45,5	6	Se consideró “+” a los valores de “No”
Estado anímico (7 o mayor)	76,8	23,2	7	Se consideró “+” a los valores iguales y mayores de 7
Interés en la educación virtual	73,7	26,3	8	
Ventajas de la educación virtual	62,6	37,4	9	Los “+” incluyen los valores neutrales de:

				<i>“prácticamente las mismas ventajas que desventajas”</i>
<b>Suma</b>	<b>364,6</b>	<b>235,4</b>		
<b>Promedio</b>	<b>60,8</b>	<b>39,2</b>		
Se consideró positivo (+) aquellos porcentajes de las preguntas que tenga una relación favorable a la educación virtual y los negativos (-) aquellos porcentajes de las preguntas que se distancian de este tipo de educación				

El mismo ejercicio se realizó para determinar el nivel de aceptabilidad de la virtualización de la enseñanza de parte de los estudiantes, cuyos resultados son los siguientes:

**Tabla 2.** Nivel de aceptación de los estudiantes

Factor	Porcentaje de aceptación		En base a la pregunta (estudiantes)	Aclaración
	Positivo (+)	Negativo (-)		
Modalidad de enseñanza	16,2	83,8	4	Se consideró “+” a educación “virtual”
Exposición de los contenidos	54,6	45,4	6	
Calidad educativa	35,8	64,2	8	Se consideró “+” a los valores de “No”
Estado anímico (7 o mayor)	62,9	37,1	9	Se consideró “+” a los valores iguales y mayores de 7
Interés en la educación virtual	46,6	53,4	10	
Ventajas de la educación virtual	41,3	58,7	11	Los “+” incluyen los valores neutrales de: <i>“prácticamente las mismas ventajas que desventajas”</i>
<b>Suma</b>	<b>257,4</b>	<b>342,6</b>		
<b>Promedio</b>	<b>42,9</b>	<b>57,1</b>		
Se consideró positivo (+) aquellos porcentajes de las preguntas que tenga una relación favorable a la educación virtual y los negativos (-) aquellos porcentajes de las preguntas que se distancian de este tipo de educación				

Se evidencia que la modalidad virtual tiene una mayor acogida entre docentes equivalente al 60,8 %, mientras que en los estudiantes es de 42,9 %. Al realizarse una media de los porcentajes, existe una similitud entre los niveles factores positivos y negativos.

**Tabla 3.** Promedio general del nivel de aceptación

	Positivos (+)	Negativos (-)
<b>Docentes</b>	60,8	39,2
<b>Estudiantes</b>	42,9	57,1
<b>Promedio</b>	<b>51,85</b>	<b>48,15</b>

## **Desafíos para la educación superior**

Los resultados obtenidos en la investigación representan el contexto educativo del Instituto Superior Tecnológico Juan Bautista Aguirre, el mismo que se encuentra ubicado en una zona rural de la provincia del Guayas, consecuentemente, las pesquisas constituyen el reflejo de aquellas instituciones que compartan similitud en sus características estructurales y demográficas de la población estudiantil. Por lo tanto, la generalización de los resultados sería incorrecto e impreciso, debido a la existencia de particularidades únicas en los diferentes institutos del país. Sin embargo, existen retos comunes que comparten la mayoría de instituciones públicas de educación superior, las mismas que sirvieron para elaborar la subsiguiente esquematización de los desafíos.

Se pudo establecer que el 27,3 % de los docentes consideran que las autoridades educativas deben priorizar los esfuerzos para que los estudiantes posean internet en sus viviendas, así mismo, el 22,2 % estiman necesarias las capacitaciones relacionadas con la correcta aplicación de la metodología virtual, mientras que el 20,2 % cree conveniente el diseño de nuevas plataformas virtuales que permitan la optimización del tiempo (*Ilustración 11*). Los estudiantes con un 23,8 % coinciden con la premura de sus docentes en cuanto a la necesidad de dotarlos de conectividad; a partir de este punto las relevancias son discordantes, ya que el 20,5 % considera que los estudiantes deben ser provistos con equipos tecnológicos para acceder a las respectivas clases, y un 19 % manifestó que se debe priorizar y fortalecer la educación presencial sobre la virtual (*Ilustración 24*).

La pandemia desnudó muchos problemas de la sociedad en todos los ámbitos, entre ellos, que en una época de avances tecnológicos acelerados y con altos niveles de conectividad en el mundo, existen estudiantes de educación superior que se encuentran desprovistos de la tecnología necesaria para funciones básicas como la de enlazarse a internet con relativa facilidad. Es lógico inferir, que para una óptima aplicación de la metodología virtual, esta debe venir acompañada de los recursos que permitan la interacción docente-estudiante (conectividad y equipos tecnológicos), caso contrario, existirá una frustración de parte de los estudiantes para acceder a los conocimientos esperados.

Desde los espacios gubernamentales, debe existir la meta a corto plazo, que permita el “revestimiento de la educación”, la cual deberá integrar en mayor proporción a los elementos virtuales, ya que la tendencia del aumento de la interacción virtual de la educación, seguirá. Los Estados deben concebir dentro de las políticas internas, el desarrollo de la “economía del conocimiento”, la cual nos permitirá diseñar mejores estructuras sociales y estar preparados frente a los nuevos desafíos globales, entre ellos, nuevas pandemias que imposibiliten la movilidad de las personas. Se corre el riesgo

que a medida que se “normalizan” las actividades productivas, sociales y educativas, se olviden las desigualdades que conllevan a que no todos los estudiantes logren los mismos resultados educativos, por ello, el Estado debe garantizar que las personas menos favorecidas, dispongan de los medios necesarios para acceder a componentes tecnológicos mínimos, independientemente de la “regulación” de las actividades cotidianas, dado que de no cumplirse, se violaría el derecho universal de las personas a una educación de calidad, la misma que está migrando desde los centros tradicionales de enseñanza hasta los hogares.

La educación presencial tendrá una fuerte presencia en los próximos años, ya que la interacción entre personas en un aspecto relevante para las actuales generaciones, no obstante, a medida que las fuentes de trabajos se trasladan a través de diferentes zonas geográficas (reubicación) y los centros educativos se encuentran estáticos, además que la necesidad de educación crece en la población juvenil, existirá el aumento de la demanda de una educación que sea capaz de acortar la distancias y optimizar los tiempos. La educación virtual permitirá la obtención de certificaciones profesionales a personas de diferentes zonas planetarias, existiendo una verdadera globalización educativa, la cual, se encuentra nacionalizada por las barreras geopolíticas.

Por otro lado, la “educación virtual” deberá estar constituida por entornos de aprendizaje muy diferentes con relación a los entornos presenciales, una organización del trabajo eficiente (para todos los miembros de la comunidad educativa), y una categoría de docentes adaptativos que reinventen la experiencia de la clase, a medida que evoluciona su entorno. Esto únicamente será posible con estructuras de políticas educativas que sean flexibles y que permitan la innovación dentro de la pedagogía (Intel, 2014). La virtualización no excluye ni reemplaza al docente, solo le otorga nuevos instrumentos para reinventar la clase y hacer atractivo el aprendizaje, por ello, las autoridades deben estructurar estrategias conjuntas que permitan el fortalecimiento en “áreas docentes atípicas”, como las de las TIC’s.

La educación virtual tiene requerimientos técnicos y metodológicos mínimos que deben ser suplidos, para que la misma tenga un impacto positivo sobre los educandos, de tal manera que aporte de material didáctico que otorgue conocimientos (y no solo información), además de medios comunicacionales para la interacción docente-estudiante. Donde la calidad en la metodología virtual está determinada por los siguientes procesos (Trabaldo & Mendizábal, 2014).



**Ilustración 25.** Procesos relacionados con la calidad en la educación virtual. Fuente: Trabaldo & Mendizábal, 2014

El primer proceso hace referencia al servicio dado al “cliente”, donde se debe destacar elementos como la claridad en la descripción de los programas (cronogramas, herramientas, costos, etc.), la formación previa en las plataformas a utilizar, el seguimiento paulatino de las actividades, la determinación de los procedimientos claros y estandarizados, y asignación de personal para la solución de problemas. El segundo proceso se vincula con la calidad del diseño educativo, el que debe incorporar un equilibrio de los recursos para el aprendizaje, ayudas para el estudio, recursos consistentes, sistema de auto evaluación y evaluación, el uso adecuado de las herramientas sincrónicas y asincrónicas. El tercer proceso relaciona la plataforma con el nivel de interactividad, donde la adecuada selección de los recursos tecnológicos permitirá la retroalimentación entre el docente y el estudiante (Trabaldo & Mendizábal, 2014).

Conjuntamente, las personas que optan por una educación virtual, consideran como elementos preponderantes: la metodología con la cual se imparte, que la capacitación de los docentes sea congruente, que la institución tenga prestigio en este tipo de enseñanza, que los recursos didácticos sean comprensibles y que los tiempos de duración sean flexibles (Basantes, Naranjo, & Ojeda, 2018).

La fusión casa – escuela es el reto global que tiene la educación del siglo XXI, donde se busca vincular dos entornos tradicionalmente aislados, pues las plataformas virtuales permitirán la recreación de las “experiencias educativas”. Aunque la interacción directa de las partes será limitada, los docentes serán quienes se encuentren detrás del diseño de las metodologías óptimas que permitan alcanzar resultados de aprendizajes adaptables a los diferentes contextos.

## Conclusiones

El nivel de aceptabilidad en la virtualización de la enseñanza de parte de los docentes fue del 60,8 %, mientras que únicamente el 42,9 % de los

estudiantes mostró su conformidad. De manera general la aceptación de la modalidad virtual aplicada en la institución es del 51,85 %. Estos niveles servirán como línea base para futuros análisis de este tipo, ya que compararlos con los niveles de aceptación previos en este tipo de metodologías educativas sería impreciso, ya que la adaptación del ambiente educativo fue de manera rápida y forzada por la expansión del coronavirus en todo el mundo.

Las instituciones de educación superior tienen los siguientes desafíos para una eficiente articulación de la enseñanza virtual: dotar de los recursos tecnológicos y de conectividad a los estudiantes que no los posean, diseñar políticas nacionales para el desarrollo de la “economía del conocimiento”, entender que el fenómeno de la “reubicación” permite el desarrollo de nuevas propuestas educativas desde los espacios virtuales y establecer procesos que permitan el desarrollo de la calidad educativa.

Los docentes actuales interiorizan en la necesidad de reformular los modelos educativos de antaño, bajo los nuevos paradigmas de una sociedad híper conectada, es decir, se debe construir una educación que responda a las exigencias contemporáneas, y su principal aliado es la tecnología, la misma que evoluciona de forma rápida y constante; sin embargo, pareciera que la educación se mantiene estática e inconexa. De continuar por ese peligroso sendero, se corre el riesgo de que la humanidad surque por un nuevo oscurantismo intelectual, que limitará el desarrollo de nuevas ideas. La tecnología permite mejorar el entorno educativo, pero jamás reemplazará a los docentes creativos.

### References:

1. Alonso, L., & Blázquez, F. (2016). *El docente de la educación virtual. Guía básica: incluye orientaciones y ejemplos del uso educativo de Moodle*. Madrid: Narcea Ediciones.
2. Areth, J., Castro-Martínez, J., & Rodríguez, H. (2015). La educación virtual en Colombia: exposición de modelos de deserción. *Apertura*, 7(1), 1-10.
3. Basantes, A., Naranjo, M., & Ojeda, V. (2018). Metodología PACIE en la Educación Virtual: una experiencia en la Universidad Técnica del Norte. *Formación Universitaria*, 11(2), 35-44.
4. Consejo de Educación Superior. (8 de mayo de 2020). *CES reforma la normativa transitoria para el desarrollo de actividades académicas en las IES*. Obtenido de [https://www.ces.gob.ec/?te\\_announcements=ces-reforma-la-normativa-transitoria-para-el-desarrollo-de-actividades-academicas-en-las-ies-07-05-2020](https://www.ces.gob.ec/?te_announcements=ces-reforma-la-normativa-transitoria-para-el-desarrollo-de-actividades-academicas-en-las-ies-07-05-2020)

5. Consejo de Educación Superior. (6 de mayo de 2020). *Normativa transitoria para el desarrollo de actividades académicas en las Instituciones de Educación Superior, debido al estado de excepción decretado por la emergencia sanitaria ocasionada por la pandemia de COVID-19*. Obtenido de <https://www.ces.gob.ec/wp-content/uploads/2020/05/CODIFICADO-RPC-SE-03-No.046-2020.pdf>
6. El Universo. (12 de Marzo de 2020). *Coronavirus: Se suspenden clases en Ecuador, no se define fecha de retorno*. Obtenido de <https://www.eluniverso.com/noticias/2020/03/12/nota/7778478/coronavirus-suspension-clases-ministerio-educacion>
7. Fundación Universitaria Católica del Norte. (2005). *Educación Virtual. Reflexiones y Experiencias*. Medellín: Fundación Universitario Católica del Norte.
8. González, L., Rivera, E., & Tigueros, C. (2014). La interacción social en el contexto del aula de Educación Física. *Profesorado*, 18(2), 305-320.
9. Instituto Nacional de Estadísticas y Censos. (2019). *Encuesta multipropósito - TIC 2019*. Obtenido de [https://www.ecuadorencifras.gob.ec/documentos/web-inec/Estadisticas\\_Sociales/TIC/2019/201912\\_Principales\\_resultados\\_Multiproposito\\_TIC.pdf](https://www.ecuadorencifras.gob.ec/documentos/web-inec/Estadisticas_Sociales/TIC/2019/201912_Principales_resultados_Multiproposito_TIC.pdf)
10. Intel. (2014). *Cómo transformar la educación para la nueva generación*. Obtenido de <https://www.intel.la/content/dam/www/public/lar/xl/es/documents/guides/transforming-education-next-generation-guide-sp.pdf>
11. Lugo, M., Stincer, D., & Campos, R. (2013). *Calidad Educativa*. Tlalnepantla: Red Tercer Milenio.
12. Rama, C. (2013). *La educación a distancia y virtual en Ecuador*. Loja: Universidad Técnica Particular de Loja.
13. Trinaldo, S., & Mendizábal, V. (2014). *Modelo de calidad para propuestas de educación virtual*. Buenos Aires: Congreso Iberoamericano de Ciencia, Tecnología, Innovación y Educación.

### **Anexo 1:** Encuesta para docentes

Escoja la opción que considere más cercana a su opinión. El uso de las TICs:

- Facilitan el trabajo en grupo
- Motiva al aprendizaje
- Facilitan la retención de la información y refuerzan los contenidos
- Facilitan el autoaprendizaje e individualizan la enseñanza
- Propician nuevas relaciones entre el docente y el estudiante
- Permiten el acceso a mayor información
- Ofrece una mejor presentación de los contenidos

¿Qué modalidad de enseñanza prefiere?

- Presencial
- Virtual

¿Cuál ha sido el principal inconveniente que mencionan los estudiantes para poder conectarse a las clases virtuales?

- No poseer internet en el lugar donde recibo las clases virtuales
- No poseer recursos tecnológicos en el lugar donde recibo las clases virtuales (laptop, smartphone, tablet)
- Trabajar para ayudar en los gastos del hogar
- Desmotivación asociada a la pérdida de seres queridos durante la pandemia
- Desmotivación asociada al confinamiento
- Ningún inconveniente

¿Considera que los contenidos expuestos en las clases virtuales son mejor explicados por usted?

- Si
- No

¿Cuál ha sido el principal inconveniente (de forma general) para exponer de manera satisfactoria la mayoría de los contenidos?

- Problemas asociados con los recursos tecnológicos (laptop, smartphone, tablet)
- Falta de conectividad (internet) en el lugar donde imparto las clases virtuales
- Falta de capacitación en metodologías eficaces para clases virtuales
- Problemas de concentración por el entorno donde imparto las clases virtuales
- Otros problemas

¿Considera que la virtualización de la enseñanza ha disminuido la calidad educativa?

- Si
- No

Califique del 1 al 10 su estado anímico (en promedio) durante las últimas semanas mientras imparte las clases virtuales, donde 1 es el nivel más bajo y 10 el más alto.

¿Tu interés en la educación virtual ha aumentado?

- Sí
- No

De manera general, en tu situación personal concreta, la metodología de enseñanza virtual implementada por la pandemia, tiene:

- Muchos más inconvenientes que ventajas
- Más inconvenientes que ventajas
- Prácticamente las mismas ventajas que inconvenientes
- Más ventajas que inconvenientes
- Muchas más ventajas que inconvenientes

Consideras que la carga de trabajo en las actividades educativas (asignadas a los estudiantes) asociadas a la enseñanza virtual ha sido:

- Muy ligera
- Ligera
- Normal
- Pesada
- Muy pesada

¿Cuál de las siguientes opciones debe ser de atención prioritaria de parte de las autoridades educativas?

- Dotar de recursos tecnológicos a los estudiantes que reciben clases virtuales
- Dotar de recursos tecnológicos a los docentes que imparten clases virtuales
- Dotar de conectividad (internet) a los estudiantes que reciben clases virtuales
- Dotar de conectividad (internet) a los docentes que imparten clases virtuales
- Capacitar a los docentes con metodologías compatibles con la enseñanza virtual
- Priorizar la enseñanza presencial sobre la enseñanza virtual
- Diseñar nuevas plataformas virtuales que optimicen el tiempo de aprendizaje
- Otras

## **Anexo 2:** Encuesta para estudiantes

Escoja la carrera a la que pertenece:

- Tecnología en Administración
- Tecnología en Contabilidad

- Tecnología en Desarrollo de Software
- Tecnología en Ensamblaje y Mantenimiento de Equipos de Cómputo
- Tecnología en Medición y Monitoreo Ambiental
- Tecnología en Planificación y Gestión del Transporte Terrestre
- Tecnología en Prevención de Riesgos Laborales
- Tecnología en Procesamiento de Alimentos

Escoja el nivel de estudios:

Escoja la opción que considere más cercana a su opinión. El uso de las TICs:

- Facilitan el trabajo en grupo
- Motiva al aprendizaje
- Facilitan la retención de la información y refuerzan los contenidos
- Facilitan el autoaprendizaje e individualizan la enseñanza
- Propician nuevas relaciones entre el docente y el estudiante
- Permiten el acceso a mayor información
- Ofrece una mejor presentación de los contenidos

¿Qué modalidad de enseñanza prefiere?

- Presencial
- Virtual

¿Cuál ha sido el principal inconveniente para conectarse a las clases virtuales?

- No poseer internet en el lugar donde recibo las clases virtuales
- No poseer recursos tecnológicos en el lugar donde recibo las clases virtuales (laptop, smartphone, tablet)
- Trabajar para ayudar en los gastos del hogar
- Desmotivación asociada a la pérdida de seres queridos durante la pandemia
- Desmotivación asociada al confinamiento
- Ningún inconveniente

¿Considera que los contenidos expuestos en las clases virtuales son mejor explicados por los docentes?

- Si
- No

¿Cuál ha sido el principal inconveniente (en general de todas las asignaturas) para comprender de manera satisfactoria la mayoría de los contenidos expuestos por los docentes?

- Problemas asociados con los recursos tecnológicos (laptop, smartphone, tablet)
- Falta de conectividad (internet) en el lugar donde recibo las clases virtuales
- Metodologías ineficaces de los docentes

- Problemas de concentración por el entorno donde recibo las clases virtuales
- Problemas propios de concentración

¿Considera que la virtualización de la enseñanza ha disminuido la calidad educativa?

- Si
- No

Califique del 1 al 10 su estado anímico (en promedio) durante las últimas semanas en las clases virtuales, donde 1 es el nivel más bajo y 10 el más alto.

¿Tu interés en la educación virtual ha aumentado?

- Sí
- No

De manera general, en tu situación personal concreta, la metodología de enseñanza virtual implementada por la pandemia, tiene:

- Muchos más inconvenientes que ventajas
- Más inconvenientes que ventajas
- Prácticamente las mismas ventajas que inconvenientes
- Más ventajas que inconvenientes
- Muchas más ventajas que inconvenientes

Consideras que la carga de trabajo en las actividades educativas asociadas a la enseñanza virtual ha sido:

- Muy ligera
- Ligera
- Normal
- Pesada
- Muy pesada

¿Cuál de las siguientes opciones debe ser de atención prioritaria de parte de las autoridades educativas?

- Dotar de recursos tecnológicos a los estudiantes que reciben clases virtuales
- Dotar de recursos tecnológicos a los docentes que imparten clases virtuales
- Dotar de conectividad (internet) a los estudiantes que reciben clases virtuales
- Dotar de conectividad (internet) a los docentes que imparten clases virtuales
- Capacitar a los docentes con metodologías compatibles con la enseñanza virtual
- Priorizar la enseñanza presencial sobre la enseñanza virtual
- Diseñar nuevas plataformas virtuales que optimicen el tiempo de aprendizaje

- Otras



ESJ Social Sciences

### **Wilys Obuba Chache**

School of Business, University of Nairobi, Kenya

### **Cyrus Iraya Mwangi**

School of Business, University of Nairobi, Kenya

### **Winnie Nyamute**

School of Business, University of Nairobi, Kenya

### **Caren Angima**

School of Business, University of Nairobi, Kenya

---

Submitted: 05 October 2020

Accepted: 10 November 2020

Published: 30 November 2020

Corresponding author:

*Wilys Chache*

DOI: 10.19044/esj.2020.v16n31p111



Copyright 2020 Wilys Chache et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
OPEN ACCESS

---

## **The Effect of Risk-Based Capital on Investment Returns of Insurance Companies in Kenya**

### **Abstract**

This paper focuses on analyzing the effect of risk-based capital on investment returns of insurance companies in Kenya. The study population comprised of 63 insurance companies licensed by Insurance Regulatory Authority (IRA). A longitudinal (panel) design was used to describe the association amongst variables on the study duration. Moreover, secondary data was collected from the insurance companies' annual returns submitted to IRA for five-year duration (2014-2018), which yielded adequate data points for each insurance company deeming it viable. Risk-based capital was determined by the standard formulae as per the risk-based supervision model. It was a composition of operational risk charge, market risk charge, insurance risk charge, credit risk capital charge, and an adjustment which considered the loss-absorbing capacity of technical provisions and deferred taxes. Investment returns in insurance companies was calculated using the investment income ratio. Test of normality, linearity, multicollinearity, and independence were conducted and were found suitable for linear regression to be conducted. Linear regression was used to evaluate the nature of the relationship between the variables based on the hypothesis in the study and at a significance level of 5%. Coefficient of determination ( ) was derived to show how the model fits the data. The study findings revealed a positive and significant relationship between risk-based capital and investment returns, thus allowing investment portfolio managers in the insurance industry to justify their investments in high risk areas that may attract a high capital charge.

### **How to cite this article**

Chache, W. et al, (2020). The Effect of Risk-Based Capital on Investment Returns of Insurance Companies in Kenya. *European Scientific Journal, ESJ*, 16(31), 111. <https://doi.org/10.19044/esj.2020.v16n31p111>

---

**Subject:** Business, Investments

**Keywords:** Risk-Based Capital,  
Investment Returns, Investment Income  
Ratio, Linear regression analysis

## **Introduction**

Risk-based capital (RBC) of any insurance or Reinsurance Company is used as a measure of guaranteed solvability in case of any financial distress (Kochanski, 2010). An insurance company should have enough capital to withstand any harsh economic condition. This has been addressed by the development of risk-based supervision framework which is expected to oversee that all insurers and reinsurers incorporate all the risks they encounter when determining the capital to hold. RBC is derived from capital charges imposed to specific risks an insurance company faces on its underwriting business and on its investment portfolio. This has an influence on insurance companies' asset management thus informing asset allocation and the expected investment returns (Johansen, 2011). Insurers recognize how important it is to separate investment management and the core insurance business because investment returns act as a backing for their reserves and capital. Thus, it is of significant importance in maximizing these returns (Smith, 1989).

Investment returns are a financial measure used to monitor performance of a business entity by analyzing the cost of investment, amount invested, and the benefits accumulated from the nature of investment (Preuss, 2016). Risk-based capital looks at the entire balance sheet where the risks facing both assets and liabilities of insurers are considered when determining the solvency position (Bragt et al., 2010). Insurance companies usually collect premiums from policy holders and create a pool of funds for claims payment and investments. The concept of RBC imposes capital charges to the nature and type of insurance business underwritten. Some classes under the insurance business are deemed high risk compared to others, thus attracting a high capital charge. This will have an impact on the insurance risk capital charge and on the overall risk-based capital. Capital charges are further imposed on various types of investments depending on the perceived risks on the selection of investments. RBC influences insurance companies' asset management, since some investments are deemed risk free based on the investment vehicle, and in turn may influence the investment returns of a company. Insurance companies reflect invested income in premiums quoted to policy holders, thus emphasizing the importance of separating the management of the insurance business and the management of their investments which back up their capital and their reserves (Smith, 1989).

## **Statement of the Problem**

Proliferation of sophisticated financial assets within the insurance industry has spawned the emergence of complex risk management models. The concept of risk-based capital was introduced in the insurance industry so that stakeholders of insurers can have an all-inclusive analysis of all risks an insurance company faces on both its assets and liabilities. This concept is important in assisting insurance companies to determine adequately their capital based on the size, nature, and complexity of their business. It retracts from the compliance-based approach of holding a fixed amount of capital to a more informed decision on capital available in accordance to the risk exposure of the company. Portfolio managers face a challenge of trying to make the best investment decision without attracting high capital charges, and at the same time quantifying the differences in risk adjusted returns resulting from investments in various asset classes and potential adjusting of insurance company's portfolios as per the risk-based capitals (Majtanova & Marcinech, 2017).

The global financial crisis in the year 2008 raised serious questions on the stability of the insurance sector and effectiveness of financial regulations. One factor blamed as a potential source of this crisis was inadequate capitalization of companies to survive adverse crisis. Notably, most insurance companies tend to take greater risks by charging less premiums to attract more customers. This in turn has led to major losses thus affecting the capital available for the companies to operate efficiently (Afande & Maina, 2015). The recent wave of corporate failures across the globe such as collapse of AIG, and more importantly local insurance companies such as Invesco Insurance (2008), Standard Assurance (2009), Stallion Insurance (2009), Blue shield Insurance (2011) and Concord Insurance (2013) despite holding the minimum capital requirement as per the insurance act, have been declared insolvent. These companies were placed under statutory management by the regulator, while some of them are under liquidation. Other companies issued profit warnings such as CIC Insurance (2016), Sanlam (2016/8), and Britam (2017/8). Thus, this is due to the impairment of financial assets covering corporate bonds and the general performance of the stock market. This has triggered increased government regulation to avert further collapses of these corporations. This has also led to the adoption of RBC, where risks are identified in a timely manner and capital is injected early enough to prevent a company from collapsing (Hogan, Meredith & Pan, 2015).

The link between RBC and investment returns remains unclear due to divergence in findings. Mixed findings can be attributed to operationalization of study variables, selection of variables and control variables, and the choice of econometric models and contextual differences which give rise to conceptual, methodological, and contextual gaps. The choice of econometric

model, study timeframe, and sampling issues are the major sources of contradicting findings in RBC-investor relationship. Different empirical studies have adopted distinct models such as internal models, standard approach models as well as VaR models. Looking at the various empirical studies, there are differences in methodological approach of RBC when determining the investment returns. Disputes arise in the suitability of the 99.5% VaR in the model on the best estimate, minimum capital requirement, and risk margin. Scholars argue out that the proposed RBC model will have a deviation from the anticipated 99.5% confidence interval, thus not giving an assurance that the intended purpose will be met (Eling et al., 2007; Doff, 2008; Eling & Pankoke, 2014).

At contextual level, institutional and cultural differences across countries where research was carried out is another possible explanation of divergence in findings. Some of these studies were undertaken in a European and American context, other studies were conducted in Asian nations. Furthermore, other studies were undertaken in an African context. The intra-countries institutional differences partially explain the RBC-investor relationship inconclusive results. At the same time, it raises concern about whether the RBC-investor link which originated from industrialized countries is applicable in developing countries. Therefore, this gave rise to contextual gaps. Most studies, however, have been conducted in developed countries where RBC regulatory environment is different, and the results may not be generalized to a frontier market like Kenya. Furthermore, Lastra (2004) argues that developing countries differ widely among themselves based on sectorial or industry differences.

This study sought to answer the question: what is the effect of risk-based capital on investment returns of insurance companies in Kenya?

### **Research Objective**

The study's objective was to determine the effect of risk-based capital on investment returns of insurance companies in Kenya.

### **Literature Review**

#### **Theoretical Foundation**

Markowitz (1952) introduced the concept of modern portfolio theory (MPT) regarding portfolio selection to maximize returns. This theory focused on the rule that investors should maximize discounted anticipated returns. The approach means that the investor is considering the expected or anticipated return as what they desire and the variance of the return as an undesirable event, thus leading to the expected returns-variance of returns rule. It is expected that investors should fully diversify their portfolio to maximize anticipated returns. The law of large numbers is likely to ensure that the yield

of the returns that is received is almost the same as the expected yield. The concept of risk-based capital is to have an overview of all the possible risks an insurance company might be facing holistically on the balance sheet (both assets and liabilities). This affects the investment returns either positively or negatively, since a company must select an investment portfolio which offers maximum returns. At the same time, it considers the risk charges, which in turn affect the risk-based capital. This study focuses on how risk-based capital affects investment returns of insurance firms in Kenya. The risk charge imposed by RBC on investments such as in the securities exchange affect the expected return on investment with asset allocation as a contributing factor, thus making this theory viable for the study.

Sklar's theorem was introduced by Sklar (1959) stating that a multivariate cumulative distribution can be expressed and broken down in terms of its marginal and a copula. The copula describes the dependence part of the distribution. Ruschendorf (2009) further proved Sklar's theorem on the basis of distributional transformation of real random variables and its application. This process allowed for treatment of any general distributions, including the discrete parts, in the same manner as continuous distributions. The distributional transformation was further implemented in a stochastic ordering and it adequately defines the conditional value at risk measure. After successful implementation of the distributional transformation, the findings show that some consideration was not required on the discrete or mixed type distribution in comparison to the continuous distribution. This is in line with what is defined in Sklar's (1959) theorem. The concept of distributional transformation is currently applicable to risk measures. It is preferable in comparison to the conditional tail expectation (CTE), since CTE does not define coherent risk measure unless it is restricted to continuous distribution.

Using distributional transformation and defining the modified version as conditional value at risk, it allows one to use other distributions other than continuous distribution. The concept of RBC is used by the regulators to ensure that insurance companies are well capitalized and can survive the economic shocks that they may face in the future. This is the concept of stress testing of the company's balance sheet to create multiple what if scenarios thus being in tandem with the copula's theorem. Market risk capital charge, insurance risk capital charge, credit risk capital charge, and operational risk capital charge formulae adopted the copulas methodology. This risk charge was imposed while deriving the RBC as per the standard formulae. Through the aggregation of the risks, an insurance company can determine the capital allocation to cover the quantitative risks it may face (Tang & Valdez, 2006).

## **Empirical Review**

The concept of RBC gives an overview of the entire risks an insurance company is facing on both its assets and liabilities side of the balance sheet. This affects the investment returns either positively or negatively (Eling & Pankoke, 2014 a). Eling et al. (2007) outlined the approach in which the first pillar of RBS, which is the MCR and the RBC, was being developed. The researchers established that the methodology used is focused fully on the models which are already available. Despite it being evidential that models which are complex tend to be more successful, including aspects of dynamic cash-flow, it does not necessarily mean that complexity will yield value. The ultimate model choice should be reached at by considering the costs involved in development. Furthermore, it is suggested that future research should be done on how various solvency models can be used to measure financial distress. Their study did not look at the effect of RBC on investment returns of insurance companies.

Fare et al. (2004) looked at how profit efficiency in the banking industry is affected by risk-based capital. Their objective was to measure the profit efficiency using a new technique and also to see how risk-based capital affects this profit efficiency. The measure which was used concentrated on deviations from maximizing profits due to technical inefficiencies. These inefficiencies included failure in oversight by the managers and allocative inefficiencies caused by wrong inputs and outputs which are not optimal. The model used included both a risk weighted capital ratio and a leverage ratio, which led to the identification of how the constraints affect the banks' profits. The sampling was random for a period of three years for banks in the United States. Their findings confirmed that allocative inefficiencies are a major driver of profit or loss in comparison to technical inefficiencies, and that risk-based capital has a significant effect on the allocative inefficiencies. The study did not consider how risk-based capital specifically affects the investment returns.

Kochanski (2010) reviewed how RBC has an effect to unit linked products in the German insurance market. He argued that the defined RBC standard formulae only considered the traditional life insurance products and does not consider innovative life products. He further outlined the importance of lapse risk for innovative insurance products and gave out an alternative for calculating the net risk-based capital formulae. His findings show that the main risks that the German unit linked product faced were market risks and lapse risks, whereas mortality risk and expense risks were considered negligible. However, the study did not investigate how the new derived risk-based capital model will affect the investment returns of insurance companies.

Marlina and Puyarti (2013) conducted a study on how risk-based capital affects the profitability of a specific insurance company in Asia for a

five-year duration. Risk-based capital was calculated as a ratio of the level of solvability and the minimum level of solvability. Their focus on profitability was on return on asset and return on equity. The methodology adopted was simple linear regression and Pearson correlation with a 95 percent confidence level. In their findings, risk-based capital explained about 29% variation on return on equity and 10% variation on return on assets. The study did not look at how risk-based capital would affect the entire industry but was specific on one insurance company.

Cheng and Weiss (2013) looked at the relationship between risk-based capital and a firm's risk taking in property liability insurance for a fifteen-year duration. The study made a comparison between pre and post risk-based supervision regulation on capital adequacy. The methodology used three stage least square estimation to investigate how risk-based capital relates with underwriting risk and asset risk. The research findings established that risk and capital are positively related, that is, when risk-based capital increases, there is also a significant increase in underwriting and asset risk prior to the adoption of risk-based supervision model. After introduction of RBS, both marginally and undercapitalized insurers increased their investment risk ratios and underwriting risk ratios. The study did not look at how risk-based capital informs investment decisions, and it in turn affects the investment returns of insurance companies.

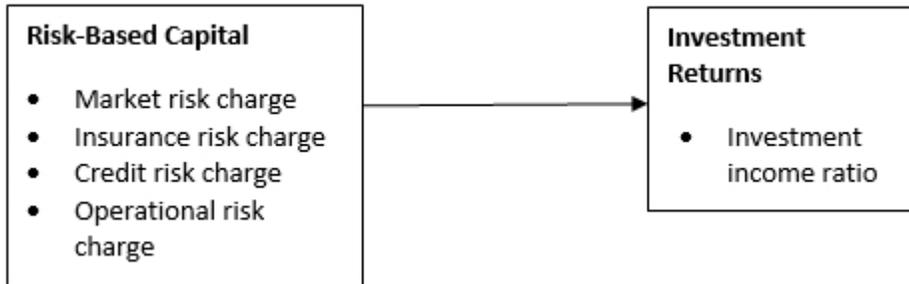
Bett and Wepukhulu (2019) analyzed how insurance companies' performance is affected by the risk-based supervision model under the Kenyan context. The indicators used under the RBS model were capital adequacy, actuarial valuations, and growth in investments while considering the concentration limits set by the IRA. Financial performance was measured by the return on assets, return on capital employed, and earnings. The study incorporated all the insurance companies licensed by IRA. The study conducted the Pearson moment correlation analysis and later undertook multiple regression analysis by looking at the relationship between capital adequacy and performance, actuarial valuation and performance, and investments and financial performance. The study findings show that capital adequacy and investments affected financial performance in a positively significant manner, and that actuarial valuation had a negative significant effect on financial performance. The study would have been improved if it would have analyzed the computed risk-based capital and its effects on investment returns, looking specifically at income from investment and not underwriting profit.

### **Conceptual Framework**

The study focused on the relationship between risk-based capital and investment returns of insurance companies. The dependent variable in the

study was investment returns which was measured by the Investment Income Ratio over time. The independent variable in this study was risk-based capital which was determined from the principles of the RBC standard formulae and various risk capital charges per class of business as required by various regulations.

**Figure 1.** Conceptual model



This study focuses on establishing the relationship between risk-based capital and investment returns. The null hypothesis that was tested in the study was as follows:

$H_1$ : The effect of risk-based capital on investment returns of insurance companies in Kenya is not significant.

### **Data and Methodology**

This study adopted a positivistic approach since it relied on evidence and statistics to determine the relationship among variables. As suggested by Miller and Salkind (2002), positivism is an ideal approach to investigate the nature of relationships in empirical investigations that have hypotheses. A longitudinal (panel) design was adopted to describe the relationship between variables over time. Secondary data was collected from the insurance companies' annual returns submitted to IRA for five-year duration (2014-2018), which was adequate in computing the risk-based capital and the investment returns. For risk-based capital, data on market risk capital charge, insurance risk capital charge, credit risk capital charge, and operational risk capital charge was collected and used to compute the composite score. The investment income and earned premiums data was collected in order to compute the investment income ratio as an indicator of investment returns.

The five-year period yielded adequate data points for each insurance company deeming it viable. Diagnostic tests such as normality, homoscedasticity, multicollinearity, and independence test were conducted. Descriptive statistics were calculated with the aim of presenting the quantitative description of the data. Measures of central tendency (the arithmetic mean, mode and median) was calculated. Test of normality was

conducted to ensure that the data is normal distributed and has homogeneity of variance. The relationship between the study variables, RBC and investment returns, was measured by correlation analysis. This established how suitable the data was for regression analysis to be performed. Linear regression was used to evaluate the nature of the relationship among various variables based on the hypothesis in the study and at a significance level of 5%.

Risk-based capital was determined by the standard formulae as per RBS model. It was a composition of operational risk, market risk, insurance risk, credit risk capital charges, and an adjustment which considered the loss-absorbing capacity of technical provisions and deferred taxes. It was computed as follows:

$$RBC = \sqrt{IRC^2 + MRC^2 + CRC^2} + \text{Operational Risk} \dots \text{Equation 1}$$

Under life insurance risk, other sub risk modules were calculated which included mortality risk, longevity risk, morbidity risk, expense risk, lapse risk, and catastrophe risk. Under general insurance risk, the risk sub modules calculated were premium reserves, claims reserves, lapse and catastrophe risks.

Investment returns in insurance companies was calculated using the investment income ratio. Thus, the ratio was calculated as follows:

*General Insurance Companies:*

$$\text{Investment Income Ratio} = \frac{\text{Net Investment Income}}{\text{Net Earned Premium}} \dots \text{Equation 2}$$

*Life Insurance Companies:*

$$\text{Investment Income Ratio} = \frac{\text{Net Investment Income}}{\text{Life Fund}} \dots \text{Equation 3}$$

To determine the relationship between risk-based capital and investment returns, linear regression model on the panel data was used. The model that was used is as follows:

$$IR_{it} = \beta_0 + \beta_1 RBC_{it} + \epsilon_{it} \dots \text{Equation 4}$$

Where:

IR is the investment income ratio during the period,

RBC is the Risk-based capital,

$\beta_0$  : The regression constant,

$\beta_1$  : The regression coefficient,

$\varepsilon_i$ : is the random error term.

Adjusted  $R^2$  was used to assess the outcome variable variation as a result of effects of the predictor variable. F- Test was conducted to assess the model fit by testing the significance of the model. Beta coefficient ( $\beta$ ) showed the effect of variation in the dependent variable as result of a unit change in the predictor variable. T-test was used to evaluate the significance of the beta coefficient of the independent variable at 95% significance level.

## Results and Discussions

A summary of descriptive analysis of the variables in the study is given in Table 1 below. Risk-based capital was calculated using the square root of the sum of squares of insurance risk capital charge, market risk capital charge credit risk capital charge, and operational risk capital charge. The results of the risk-based capital held are reflected in Table 1 below.

**Table 1.** Descriptive Statistics for Risk-Based Capital

Range (Kshs)	Frequency (No of Firms)	Percentage (%)
Up to 250 Million	17	27.0
Over 250 up to 500 Million	3	4.8
Over 500 up to 1 Billion	20	31.7
Over 1Billion up to 2 Billion	15	23.8
Over 2 Billion up to 3 Billion	3	4.8
Over 3 Billion up to 4 Billion	3	4.8
Over 4 Billion	2	3.2
Total Firms	63	100
Arithmetic Mean (Kshs)	1,041,247,909.204	
Std. Deviation (Kshs)	1,068,987,664.061	
Coefficient of Variation (ratio)	1.026	
Minimum (Kshs)	11,442,635.544	
Maximum (Kshs)	5,068,523,892.93	

Source: Research Data

Most of the insurance companies (27%) held a risk-based capital of up to 250 million, while 3.2% of the firms held a risk-based capital of over 4 billion. The average risk-based capital was 1.041 billion with a minimum of 11.4 million and a maximum of 5.06 billion on the 5-year period average.

The result for investment returns which was measured by investment income ratio is shown in Table 2 below. Investment income ratio is used as one of the measures of profitability of an Insurance Firm which gives a reflection of an insurer's income purely from investment activities without

incorporating operational income. Most of the insurance companies' investment income ratio ranges from -0.01 to 0.1, which accounts for 31.75% of the total firms under study. About 11.11% of insurance company under study have an average investment income ratio of over 0.5 with the highest having an average of 3.10 during the study period.

**Table 2.** Descriptive Statistics for Investment Income Ratio

Range (Investment Income Ratio)	Frequency	Percentage (%)
-0.01-0.05	20	31.75
0.05-0.1	9	14.29
0.11-0.2	9	14.29
0.021- 0.3	10	15.87
0.031-0.4	6	9.52
0.41-0.5	2	3.17
Above 0.5	7	11.11
Total Firms	63	100
Arithmetic Mean (Ratio)	0.302304	
Std. Deviation (Ratio)	0.377479	
Coefficient of Variation (Ratio)	1.248674	
Minimum (Ratio)	-0.225090	
Maximum (Ratio)	3.1027	

Source: Research Data

## Diagnostic Tests

### Normality

The study conducted normality test using Shapiro-Wilk test. Table 3 below illustrates the findings of the test.

**Table 3.** Test of Normality

Shapiro-Wilk			
	Statistic	df	Sig.
<b>RBC</b>	.966	249	.375
Dependent Variable: Investment Returns			
a.Lilliefors Significance Correction			

Source: Research Data

Table 3 above shows p value > 0.05 where RBC recorded a value of 0.375 thus indicating the data was normally distributed.

## Linearity

Linearity was tested using the Ramsey's RESET test as highlighted in Table 4 below. The table highlights that the variables have a significance level > 0.05 thus indicating that linearity exists among the variables.

**Table 4.** Test for Linearity

Model	Coefficients <sup>a</sup>			T	Sig.
	Unstandardized Coefficients	Standard Error	Standardized Coefficients		
(Constant)	B -20.323	Std. Error 17.118	Beta 1.080	-1.187	.236
RBC	2.064	1.741	1.080	1.185	.237
ram1	26.963	18.443	2.811	1.462	.145
ram2	-21.280	13.652	-1.678	-1.559	.120

Dependent Variable: Investment Returns

Source: Research Data

## Multicollinearity

This study implemented the variance inflation factor (VIF) to determine whether multicollinearity exists amongst the variables. If a VIF value is less than 10, then the level of multicollinearity can be tolerated. The VIF for risk-based capital was 3.970 with a tolerance level of 0.2518, thus indicating that the level of multicollinearity can be tolerated. This is shown in Table 5 below.

**Table 5.** Test of Multicollinearity

Variables	Variance Inflation Factor (VIF)	1/VIF
Risk-Based Capital	3.970	0.2518

a. Dependent Variable: Investment Returns

Source: Research Data

## Independence Test

This study adopted Durbin Watson test to confirm if the observations among the variables were independent. As per this test, the coefficient needs to be between 1.5 and 2.5 in order to confirm that the observations were independent. Table 6 below represents the independence test conducted in this study.

**Table 6.** Independence test

Variable	R <sup>2</sup>	Adjusted R <sup>2</sup>	S.E of the Estimate	Durbin-Watson
RBC	0.474292	0.465494	0.625171	1.961820
Investment income ratio	0.507624	0.505614	1.259701	2.000623

a. Predictors: (Constant), RBC,  
b. Dependent Variable: Investment Returns  
Source: Research Data

From Table 6 above, the coefficient observed as per the Durbin-Watson test for risk-based capital was 1.961820 and investment income ratio was 2.000623. Since the coefficients lie between 1.5 and 2.5, it is an indication that the observations made were serially independent.

### Results and Discussion

The study is focused on the establishment of the effect of risk-based capital on investment returns of insurance companies in Kenya. Panel data was used in establishing the investment returns which was measured by investment income ratio (net investment income/net earned premiums). Risk-based capital was calculated using the square root of the sum of squares of insurance risk capital charge, market risk capital charge credit risk capital charge, operational risk capital charge, and an adjustment which considered the loss-absorbing capacity of technical provisions and deferred taxes. The following hypothesis was developed:

Hypothesis 1: The effect of risk-based capital on investment returns of insurance companies in Kenya is not significant.

With investment returns as the dependent variable and risk-based capital as the independent variable, the results of the regression analysis are shown below in Table 7.

**Table 7.** Regression Analysis on Risk-Based Capital as the Independent Variable and Investment Returns as the Dependent Variable

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	S. E of the Estimate	
a. Predictors: (Constant), RBC	.669a	0.447	0.445	0.05072	
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.514	1	0.514	199.646	.000b
Residual	0.635	247	0.003		
Total	1.149	248			
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.231	0.043		5.383	0

RBC	0.069	0.005	0.669	14.13	0
a. Dependent Variable: Investment Returns					
b. Predictors: (Constant), RBC					

---

Table 7 above indicates an adjusted  $R^2 = 0.445$ , thus demonstrating that risk-based capital explains 44.5 % of the variance in investment returns. From the model coefficients, the results indicate a statistically significant model since the p value is 0.000 which is less than 0.05 level of significance. This finding therefore rejected the null hypothesis which implied that the effect of risk-based capital on investment returns of insurance companies in Kenya is significant. The regression model which explains the variation of the investment returns attributed to risk-based capital is shown below:

$$IR_{it} = 0.231 + 0.069RBC_{it} + \varepsilon_i$$

Where:

IR is the investment returns

RBC is the risk-based capital

### Summary and Conclusion

The objective of the study was to determine the effect of risk-based capital on investment returns of insurance companies in Kenya. The study hypothesis show that the relationship between risk-based capital and investment returns was insignificant. The relationship between risk-based capital and investment returns was found to be significant thus leading to the rejection of the null hypothesis ( $H_1$ ). The concept of risk-based capital is to ensure that all insurance companies are well capitalized in order to survive any harsh economic conditions. This means that insurers should hold assets in investments which can maximize their overall returns.

When determining the risk-based capital, capital charges are imposed on investments which are deemed risky while others attract a zero percent capital charge. Any insurer whose risk-based capital is high indicates that the firm is investing in highly volatile investments such as trading in the securities exchange or underwriting high volumes of premium. If an insurer invests in a high risk environment, it is expected that the return on investment would be high. At the same time, if a company underwrites more premium, it means it has more cash at hand for investments before claim payment. This explains why the relationship between risk-based capital and investment returns was found to be significant.

The above results are found to be consistent with previous empirical studies such as the study of Marlina and Puyarti (2013) which focused on how risk-based capital affect the profitability of some insurance companies in Asia

by adopting a linear regression model with a Pearson correlation of 95% confidence level. The study findings alluded that RBC explained the variations on return on equity and return on assets. Bett and Wepukhulu (2019) analyzed how the risk-based supervision model affects the financial performance of insurance companies in Kenya whose choice of indicators were capital adequacy, actuarial valuation, and growth in investment under the quantitative pillar of RBS. The capital adequacy ratio was derived as a component of total capital available and the risk-based capital or minimum capital requirement.

The calculation of risk-based capital entailed operational risk charge, market risk charge, insurance risk charge, credit risk charge, and an adjustment which considered the loss-absorbing capacity of technical provisions and deferred taxes. The study finding shows that the capital adequacy had a positive significant effect on financial performance which is similar to the study findings. Waweru and Kisaka (2012) established that effective risk management had a positive influence on the value of the firm. These findings are in line with the current study findings which established that RBC has a positive influence on investment returns, which is a component of firms' value. However, the study findings were also contradictory to that of Koshanski (2010), which established that some of the risks, such as mortality risk and expense risk, were considered negligible when looking at how risk-based capital affects the performance of German unit linked products.

The rejection of the null hypothesis  $H_1$  as per the study findings established that there is a significant relationship between risk-based capital and investment returns of insurance companies in Kenya. This implied that the greater the risk-based capital, the higher the investment returns. This is a reflection that firms which invest in assets, which are deemed high risk by the regulator, tend to maximize their investment returns in comparison to the conservative firms who invest in zero or low capital charge investments (government securities) in order to hold a lower risk-based capital.

## **Recommendations**

Due to a progressively complex financial service industry, all financial institutions are keen in managing their risks and holding enough capital in order to survive such crisis in the future. Most regulators in the insurance industry and banking sector across the globe have adopted risk-based supervision models, moving away from compliance-based capital requirements, and concentrating on a risk-based capital which is grounded on the size and complexity in operations of the financial institutions. This approach looks at both sides of the balance sheet (asset and liability) and imposes a percentage of capital charge to any investment or business operations as per a defined risk rating. The effect of risk-based capital on investment returns as illustrated in this study would help insurance companies'

portfolio managers when defining investment policies. Thus, this will help determine the area to invest and the amount of risk-based capital the company will be obligatory to hold.

### References:

1. Afande, F. O. & Maina, P. M. (2015). Capital requirements for Kenyan life insurance companies. *International Journal of African and Asian Studies*, 8(2), 26-49.
2. Bett, L. K. & Wepukhulu, J. M. (2019). Effect of adoption of risk-based supervision methodology on the performance of insurance companies in Kenya. *International Journal of Business Management and Finance*, 3(2), 139-165.
3. Bragt, D., Steehouwer, H., Waalwijk, B. & Possen, T. (2010). *Impact of the solvency II guidelines on asset liability matching for life insurers*. Amsterdam: Ortec Finance Research Center.
4. Cheng, J. & Weiss, M. (2013). Risk-based capital and firm risk taking in property-Liability insurance. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 38(2), 274-307.
5. Doff, R. (2008). A critical analysis of the solvency II proposals. *The Geneva papers*, 33(1), 193-206.
6. Eling, M. & Pankoke, D. (2014a). Systemic risk in the insurance sector: review and directions for future research. *Risk Management and Insurance Review*, 19(1), 249-284.
7. Eling, M., Schmeiser, H. & Schmit, J. (2007). The solvency II process: Overview and critical analysis. *Risk Management and Insurance Review*, 10(1), 69-85.
8. Fare, R., Grosskopf, S. & Weber, W. (2004). The effect of risk-based capital requirements on profit efficiency in banking. *Applied Economics*, 36(15), 1731-1743.
9. Hogan, T., Meredith, N. & Pan, X. (2015). Risk-based capital regulation. *Journal of financial regulation and compliance*, 23(2), 115-134.
10. Johansen, T.K. (2011). A critical analysis of solvency II from a regulatory perspective. *Unpublished PhD Thesis, Aarhus School of Business and Social Sciences*.
11. Kochanski, M. (2010). Solvency capital requirement for German unit linked insurance products. *German Risk and Insurance Review*, 6(2), 33-70.
12. Lastra, R.M. (2004). Risk-based capital requirements and their impact upon the banking industry: Basel II and CAD III. *Journal of financial regulation and compliance*, 12(3), 225-239.

13. Majtanova, A. & Marcinech, P. (2017). Rebalancing of investment portfolios of insurers under solvency II. *Economic Review*, 46(1), 25-44.
14. Markowitz, H. (1952). Portfolio selection theory. *Journal of Finance*, 7(1), 77-91.
15. Marlina, R. & Puryati, D. (2013). The influence of risk-based capital to profitability in Jansindo Insurance Company. *South East Asia Journal of Contemporary Business, Economics and Law*, 2(1), 8-16.
16. Miller, D. & Salkind, N. (2002). Handbook of research design & social measurement. (6th ed.). Thousand Oaks, CA: Sage.
17. Preuss, M. (2016). Return on investment and grants: A review of present understandings and recommendations for change. *Research Management Review*, 21(1), 1-26.
18. Ruschendorf, L. (2009). On the distributional transform, Sklar's theorem, and the empirical copula process. *Journal of Statistical Planning and Inference*, 139(11), 3921-3927.
19. Sklar, A. (1959). Distribution functions with n dimensions and their margins. *Publications of the Institute of Statistics of the University of Paris*, 9(1), 229-231.
20. Smith, M. (1989). Investment returns and yields to holders of insurance. *The Journal of Business*, University of Chicago Press, 62(1), 81-98.
21. Tang, A. & Valdez, E. (2006). *Economic capital and the aggregation of risks using copulas*. Sidney: University of South Wales.
22. Waweru, N. & Kisaka, E. (2012). The effect of enterprise risk management implementation on the value of companies listed in the Nairobi stock exchange. *International journal of business and commerce*, 3(6), 1-17.



ESJ Social Sciences

**Ghada Bouzguenda**

Institut Supérieur des Arts et Métiers de Sfax  
(ISAMS), Université de Sfax, 3029 Sfax –Tunisie

---

Submitted: 23 September 2020

Accepted: 23 November 2020

Published: 30 November 2020

Corresponding author:

*Ghada Bouzguenda*

DOI: 10.19044/esj.2020.v16n31p128

 Copyright 2020 Ghada Bouzguenda  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## **Comment Enseigner L’art Dans Les Instituts Supérieurs Des Beaux-Arts Et/Ou D’arts Et Métiers : Le Concept « École - Atelier » Entre Approche Pédagogique Et Forme Événementielle**

---

### **Résumé**

Cette étude se penche sur l’enseignement de l’art à l’université. Elle situe la problématique au niveau de la pédagogie spécifique à l’enseignement dans des établissements universitaires qui diffèrent des autres (comme les écoles de commerce, de santé, ...) du contenu, des objectifs et des approches puisqu’elle touche aussi bien du contenu scientifique que des pratiques artistiques. La méthode d’investigation repose sur une approche empirique issue dans un premier temps de l’analyse des discours des experts parlant de ce sujet à l’occasion d’un colloque international organisé en Tunisie en 2018 et des interviews avec des étudiants et des enseignants à l’occasion de visites professionnelles de deux écoles européennes de beaux-arts. De plus, le background de l’expérience personnelle dans l’enseignement aux écoles d’art a été utilisé pour décortiquer les paradigmes contemporains de l’enseignement universitaire au regard de l’organisation de l’école sous forme d’ateliers individualisés ou interconnectés ou l’organisation des ateliers sous forme de workshops au sein des écoles. Les résultats ont montré que le concept « école-atelier » pourra rassurer aussi bien la forme scolaire que la liberté artistique chez les apprenants autant que les ateliers ouverts avec leur aspect événementiel.

---

**Mots-clés:** Instituts des beaux-arts, pédagogie, école-atelier, ateliers ouverts, paradigme

### **How to cite this article**

Bouzguenda, G., (2020). Comment Enseigner L’art Dans Les Instituts Supérieurs Des Beaux-Arts Et/Ou D’arts Et Métiers : Le Concept « École-Atelier » Entre Approche Pédagogique Et Forme Événementielle. *European Scientific Journal, ESJ*, 16(31), 128. <https://doi.org/10.19044/esj.2020.v16n31p128>

# How to Teach Art in the Higher Institutes of Fine Arts and/or Arts and Crafts: The “School-Workshop” Concept Between Pedagogical Approach and Event Form

*Ghada Bouzguenda, PhD Student in Arts and Mediation*

Institut Supérieur des Arts et Métiers de Sfax (ISAMS),  
Université de Sfax, 3029 Sfax, Tunisie

---

## Abstract

This paper focuses on teaching art in universities. It situates the problem at the level of pedagogy, which is specific to teaching in the university. This differs from other types of schools (such as business, medicine, etc.) based on the objectives and methodology since it affects content which are more scientific than artistic practices. The investigative method is based on an empirical approach resulting initially from the analysis of the speeches of experts at an international conference organized in Tunisia in 2018. It was also obtained through interviews with students and teachers on the occasion of professional visits to two European schools of fine arts. In addition, the background of personal experience in teaching art in schools has been used to dissect contemporary paradigms of university teaching with regard to “the organization of the school” in the form of individualized or interconnected workshops, or “the organization of workshops” within schools. The results show that the “school-workshop” concept could reassure both the academic form and artistic freedom for students as well as open workshops with their event aspect.

---

**Keywords:** Fine-arts schools, pedagogy, school-workshop, open-workshop, paradigm

## Introduction

La pédagogie d’enseignement fait partie des sciences de l’éducation, dont l’enjeu est de répondre à une question majeure « comment apprendre? » (Dominique, 2006). Elle est également définie comme étant la théorie des stratégies et des méthodes d’instruction, d’éducation et d’évaluation qui instaure une relation entre trois pôles : « enseignant », « enseigné » et « matière d’enseignement » (Floriane, 2019;

Ghizlane et al., 2016). L'axe de recherche sur le développement de la pédagogie d'enseignement demeure un champ d'investigation et d'étude qui intéresse aussi bien les chercheurs que les pédagogues (Joëlle et Cathy, 2010 ; Zeitoun & Malek, 2018). En particulier, le mode d'enseignement dans les écoles supérieures des arts, ou également écoles des arts et métiers, ou encore écoles des beaux-arts est une question d'actualité (Jérémie, 2015; Ellen, 2004; Jérôme et al., 2019). En effet, les écoles de beaux-arts sont considérées comme des établissements d'enseignement supérieur bien distinctifs, nous guidant même à nous demander « si ce sont vraiment des écoles ? » (Gilles, 1994). La pédagogie qui y est mise en œuvre est relativement spécifique en comparaison avec les écoles de santé, ou technologiques ou encore les facultés des sciences juridiques et économiques, du fait qu'on ne peut pas considérer l'école d'art comme un lieu d'apprentissage uniquement, mais aussi comme un milieu collectif où les étudiants peuvent forger leurs talents, l'autonomie, l'émancipation, et la liberté de création tout en exploitant des procédés techniques et du partage d'outils et de matériels (Annie, 2020). En effet, Bonnéry (2013) considère que l'enseignement aux écoles d'art est un croisement entre la sociologie de l'éducation et celle des pratiques artistiques et culturelles. Il affirme que « la transmission des savoir-faire, même si elle a encore sa place aux beaux-arts, ne peut plus être l'objectif principal de la formation »<sup>1</sup>. Galodé et Michaut (2003) caractérisent les études artistiques par « trois absences, en comparaison avec les autres filières : l'absence de corpus de connaissances arrêté, l'absence d'ordre structurant de l'apprentissage et l'absence de référentialité académique »<sup>2</sup>. De son côté, Pinto (2009) parle de la pédagogie « antiscolaire », qui repose sur l'animation, en donnant faveur aux étudiants pour pratiquer leurs propres règles, notamment dans la conduite de leurs travaux scolaires. Vandebunder (2015) met en conclusion que les écoles d'art ont pour finalité « de mettre à jour les qualités charismatiques des étudiants » qui ont choisi le parcours des arts. En ce sens, elles tiennent autant « de la magie que de la pédagogie ».

---

<sup>1</sup>«La transmission des savoir-faire, même si elle a encore sa place aux beaux-arts, ne peut plus être l'objectif principal de la formation »

Bonnéry, S. (2013). L'enseignement de la musique, entre institution scolaire et conservatoires. *Éclairages mutuels des sociologies de l'éducation et de la culture. Revue française de pédagogie*, n° 185, pp. 5-20, page 6.

<sup>2</sup> « Les études artistiques par « trois absences, en comparaison avec les autres filières : l'absence de corpus de connaissances arrêté, l'absence d'ordre structurant de l'apprentissage et l'absence de référentialité académique »

Galodé, G. & Michaut, C. (2003). Les études artistiques : hétérogénéité des écoles supérieures d'art, pratiques étudiantes et réussite scolaire. In G. Felouzis, *Les mutations actuelles de l'université*. Paris : PUF, pp. 317-340, pages 231-232.

De ce fait, plusieurs questions cherchent encore de réponses, en particulier :

Quel paradigme contemporain d'apprentissage peut-on appliquer dans les instituts supérieurs des arts et/ou les écoles des arts et métiers ?

Comment concrétiser une approche pédagogie de l'enseignement dans ces instituts au regard de son caractère évolutif et adaptatif ?

Nos réflexions sur l'organisation de nos établissements et des événements en relation avec la pédagogie d'enseignement, doivent-elle être réorientées pour fonder un art d'enseignement ou une forme scolaire ?

### **Méthodologie**

La méthode de recherche est empirique, et repose dans un premier temps sur un rapport de synthèse portant sur les interventions des experts et pédagogues à l'occasion du 6<sup>ème</sup> colloque international de l'Institut Supérieur des Arts et Métiers de Sfax-Tunisie (voir Figure 1). Ce colloque, qui s'est déroulé du 23 au 25 Novembre 2018 à Monastir-Tunisie, a regroupé plus que 150 participants, entre enseignants, doctorants, représentants des établissements universitaires des différentes écoles d'arts en Tunisie, à l'écoute et la discussion avec une dizaine de chercheurs et experts de l'Allemagne, France, Maroc, Turquie, Portugal et Tunisie. Ce colloque regroupait des pédagogues, directeur d'école d'art, artiste, designer, sémiologue, critique de l'art, etc.) (http 1, 2020). Il s'est organisé sous forme de sessions plénières, des tables rondes et des workshops autour de la thématique « Enseigner l'art, le design, et les médias » (annexe 1). Il nous a permis de contextualiser le sujet de notre recherche, et de dégager les questions-problématiques qui provoquent aussi bien les enseignants que les étudiants.

En complément de celui-ci, des visites de deux écoles européennes d'art (beaux-arts Nantes -France- et école d'arts plastiques de Selcuk-Turquie), ont permis de mener des entretiens auprès d'enseignants, d'étudiants de différentes spécialités mais de niveau Licence et de responsables pédagogiques (chefs de département, directeur des études, ...). Ces entretiens reposent sur une collecte des feedbacks des interviewés, sur leurs expériences pédagogiques et leur réflexion sur des questions précises comme « l'art peut-il être enseigné de la manière classique magistrale », ou encore « l'apport des workshops pour les étudiants en création artistique ».



**Figure 1.** Affiche du 6ème colloque international de l'ISAMS (Monastir, Tunisie)

Outre ce travail empirique, notre méthodologie repose sur l'expérience personnelle vécue dans l'enseignement dans différents établissements universitaires : l'institut supérieur des arts et métiers de Sfax (ISAMS, niveau licence et master professionnel en arts plastiques, design et communication multimédia), l'Institut Supérieur des Etudes Technologiques de Sfax (ISET, niveau licence, spécialité Offset) et l'école internationale d'Architecture de Sfax (EIA, premier niveau) qui suivent tous un régime d'étude LMD (Licence-Master-Doctorat). De plus, plusieurs séries d'observations et d'interventions artistiques dans les ateliers ouverts organisés à l'ISAMS depuis 2012 (ateliers de spécialité, de peinture, gravure, etc., ou ateliers en coworking entre artiste, designer et ingénieur suivant une synergie préalablement planifiée entre les différents animateurs des ateliers).

Enfin, d'autres sources d'informations ont été consultées à savoir les articles de lois du système LMD en Tunisie et les sites web des écoles d'art visitées.

Le traitement des résultats était structuré de manière à questionner les outils d'enseignement et de dégager par croisement des données un concept contemporain sur la pédagogie d'enseignement dans les écoles des arts et métiers.

## Résultats

### De la question de pédagogie d'enseignement dans les écoles d'art

Dans son intervention au 6<sup>ème</sup> colloque International de l'ISAMS, Amel Nafti (Amel, 2018), directrice de l'école supérieure d'art et design de Grenoble, a soulevé une question majeure autour de laquelle a argumenté son point de vue : « comment peut-on valoriser les compétences artistiques ? », en insistant que « c'est totalement différent de tous les autres domaines ! ».

Elle a discuté entre autres le rôle de l'image comme support d'enseignement et s'est questionnée chaque fois sur les moyens de valoriser la subjectivité en tant qu'objectif en lui-même. Elle souligne que, pour passer de l'objectif au subjectif, il faut avoir des réflexions économiques et également écologiques. De plus, il faut voir le monde plus créatif, et surtout appuyer le volet recherche-crédation dans les échanges avec les étudiants, au niveau de leur encadrement, pour toutes les filières et les spécialités. Ceci notamment à travers l'organisation des workshops et des ateliers de partage des connaissances et des expériences, dans une même école ou entre les universités.

Abdelali (2018), en tant qu'expert - pédagogue, a cherché à trouver des outils pour l'évaluation de l'acte créatif, par l'innovation pédagogique, à travers des nouvelles approches qui intègrent la technologie dans l'enseignement de l'art, le design et les médias. Lotfi (2018), expert et universitaire tunisien, a une autre vision à propos de cette problématique. En effet, selon le chercheur dans l'éducation créative, l'évaluation de l'acte créatif dans les domaines des arts et design passe impérativement par des pédagogies rénovées. Il estime que l'éducation et la pédagogie évoluent tant que leurs objectifs sont évolutifs et dépendent des défis et enjeux sociétaux. Il déclare dans ce sujet « qu'on a plus besoin de l'information en elle-même, car elle -l'information- est partout, sur le net, YouTube, livres, etc. ». Les éléments pédagogiques sont articulés ainsi sur le duel « enseignant – étudiant ». Dans ce cas, « la relation entre eux n'est plus qu'autrefois... elle doit nécessairement se développer puisqu'elle est liée aux changements sociétaux et aux besoins du marché ». Toutefois, est ce que le développement de marché lui a accompagné un développement dans l'enseignement ? Est-ce que l'évolution dans la réelle « sociale » conduit à une évolution de l'éducation ? Il y a des gens doués et des talents, est ce qu'on a préparé des pistes de réussite pour eux ? Un ensemble de questions ont été énumérées par le pédagogue dans sa présentation. Par conséquent, Hajlaoui déclare qu'il faut un changement radical dans le système éducatif et passer vers l'éducation créative. En se basant sur des exemples, il propose une révision, voir un changement à plusieurs niveaux pour aboutir à un système éducatif créatif :

- Psychologie d'enseignement
- Paradigmes contemporains, théoriques et technologiques
- Notion de confort psychologique

L'intervention de l'expert Ahmed Chabchoub a éclaircie les niveaux d'innovation dans le système éducatif universitaire tunisien caractérisée par la mise en place de la réforme du système LMD (Licence-Master-Doctorat) et la lutte contre la corruption et le plagiatisme (Ahmed, 2018). Le chercheur fait appel pour évaluer continuellement le système éducatif et révéler les filières inadaptées au marché de l'emploi. D'une autre part, il souligne la culpabilité de la méthode de cours magistraux dans l'enseignement créatif et la nécessité de s'améliorer par auto-évaluation. Pour enchaîner ses idées, le chercheur a présenté six méthodes pédagogiques :

- Exposé interactif
- Atelier de production
- Projet collectif ou individuel
- Approche par problème
- Pédagogie inversée
- Blended Learning

Dans le but de trouver les meilleures conditions pédagogiques, Chabchoub fait un appel au choix du dispositif le plus conforme aux objectifs pédagogiques prédéfinis et de viser et communiquer les nouvelles connaissances pour satisfaire les finalités d'un cours. En effet, l'objectif de l'apprentissage a changé ; il « n'est plus enseigné mais plutôt accompagner » ou ce qu'on appelle « Coaching » (Anne-Claudine, 2015), (Soufiane & Mohammed Jawad, 2019). De cette manière, on peut ressentir le taux d'évolution et même l'évaluation qui est consacrée pour tester les compétences "à partir d'un Portfolio par exemple, pour suivre l'évolution de chaque étudiant et non seulement à partir d'examens et tests". Des régularisations sont demandées également suites aux évaluations de l'enseignement également. Chabchoub déclare aussi que la fonction universitaire reste au service de la société comme le confirme Henri Jorda dans l'article publié dans « Marché et organisations » (Alain, 2004). De ce faire, les recherches sur l'innovation pédagogique doivent se faire à l'écoute de l'exigence de la société. Dans ce contexte, il s'interroge : « Quels sont les nouveaux métiers à l'horizon de 10 ans et plus ? Seront-ils en harmonie et au service de la société selon ses besoins ? ». Pour l'exemple tunisien, il révèle que la société Tunisienne souffre des moyens approchés et qu'il faut arrêter de calquer les exemples anglophones ou francophones. En effet, l'approche de la pédagogie de l'enseignement

centré-étudiant donne importance et est reconnue à l'échelle mondiale (Koukougnon, 2020), mais voir que les étudiants diffèrent d'un pays à un autre (de point de vue culturel, social, économique, ...), et tenant compte du secteur mis en question (arts et design), l'étudiant en arts diffère aux étudiants de technologie par exemple. Par conséquent, nous sommes invités à appliquer la méthode pédagogique qui tient compte de l'état psychologique, du contexte, du lieu et surtout des exigences du milieu culturel - politique – socio-économique, tout en tenant compte des compétences déjà acquises (Imen et al., 2017 ; Maha, 2017).

Au regard de ce débat, une questions/problématique sur les techniques pédagogiques spécifiques aux écoles d'art est posée : ces techniques, restent-elles objectives ou mutent vers la subjectivité ? Ikbel Charfi, designer et chercheur dans le domaine de l'innovation pédagogique (Ikbel, 2013), affirme que « dans le domaine du Design, on peut développer des méthodes qui se basent sur la conception et le prototypage, comme deux critères majeurs d'évaluation, de plus la partie faisabilité et l'expérimentation, sans oublier l'interaction avec d'autres champs comme la sociologie et la culture. Dans le domaine des arts, on peut instaurer "un scénario de travail et d'évaluation par projet en tenant compte des atouts de la nouvelle génération et de leur mentalité en mutation, et fortifier le lien entre un travail participatif – dans la société - et les objectifs créatifs, sans nier le background paradigme du savoir et les objectifs acquis des compétences".

### **Emergence d'un paradigme contemporain : pédagogie de l'autonomie**

Si on suppose que l'art ne s'apprend pas et qu'il est un don, on naît artiste et talent, ce qui mène à la rupture avec l'académisme et l'entrée dans le « paradigme de l'art contemporain » (Nathalie, 2014). Mais la séparation avec l'académisme conduit impérativement à un bouleversement au niveau des éléments sur lesquels repose l'enseignement de l'art. Cette hypothèse engendre que :

- Les critères d'évaluation ne sont plus basés sur la maîtrise des techniques plastiques,
- L'objectif principale de la formation dans les écoles d'arts et métiers n'est plus la transmission du savoir-faire.

Ces réflexions nous invitent à repenser les limites et les légitimes culturelles, religieuses ou encore politiques et de poser la question suivante : « en tenant compte des facteurs contemporains, comment peut-on forger une pédagogie d'enseignement propre à l'art sans être « prisonnier de la forme scolaire (Guy, 1994) » ? Vincent définit la forme scolaire comme « une organisation de l'éducation caractérisée par la constitution d'un

univers séparé, l'importance des règles dans l'apprentissage, l'organisation rationnelle du temps, la multiplication et la répartition d'exercices n'ayant d'autres fonctions que d'apprendre selon les règles, ou autrement dit, ayant pour fin leur propre fin"<sup>3</sup>.

Pour améliorer une stratégie d'enseignement dans les écoles d'art, il est demandé de développer un corpus de connaissance, et organiser un ordre structurant l'apprentissage sans oublier d'appliquer les normes académiques puisque « enseigner n'est pas transmettre des savoirs mais créer les possibilités de leur production ou de leur construction »<sup>4</sup>.

La stratégie "de l'éducation à l'autonomie" est bien développée par les pédagogues Jean-Pierre Bourreau<sup>5</sup> et Michèle Sanchez<sup>6</sup>. Elle (Pédagogie/Autonomie) consiste à développer le statut formel d'un enseignant pour qu'il passe d'un simple transmetteur d'information à un accompagnateur tout en instaurant un climat de respect et de tolérance. Ceci permet de développer la confiance dans les relations, sans transmission des savoirs classiques, mais surtout nous mène à « donner vie à une école d'art sans écoles ». Basil Bernstein dans ses ouvrages suppose qu'il y a deux types de curriculum, un cloisonné (les contenus en relation fermée entre eux), et une autre intégrée (les contenus sont en relation ouverte) (Sophia, 2007). La pédagogie adoptée et les manières d'évaluation varient selon le degré d'intégration des cursus :

- Cloisonnement : professeur, maître de son enseignement et décide de façon autonome le contenu de son cours et la forme d'évaluation de ses apprentis,
- Intégration : adoption du professeur pratique commun pour la pédagogie et l'évaluation

---

<sup>3</sup> C'est une organisation de l'éducation caractérisée par la constitution d'un univers séparé, l'importance des règles dans l'apprentissage, l'organisation rationnelle du temps, la multiplication et la répartition d'exercices n'ayant d'autres fonctions que d'apprendre selon les règles, ou autrement dit, ayant pour fin leur propre fin.

Glasman, D. (1995). L'éducation prisonnière de la forme scolaire ? Scolarisation et socialisation dans les sociétés industrielles. *Revue Française de pédagogie*, p. 112.

<sup>4</sup> « Enseigner n'est pas transmettre des savoirs mais créer les possibilités de leur production ou de leur construction »

Paul, F. (2013). *Pédagogie de l'autonomie*, Erès, p. 164.

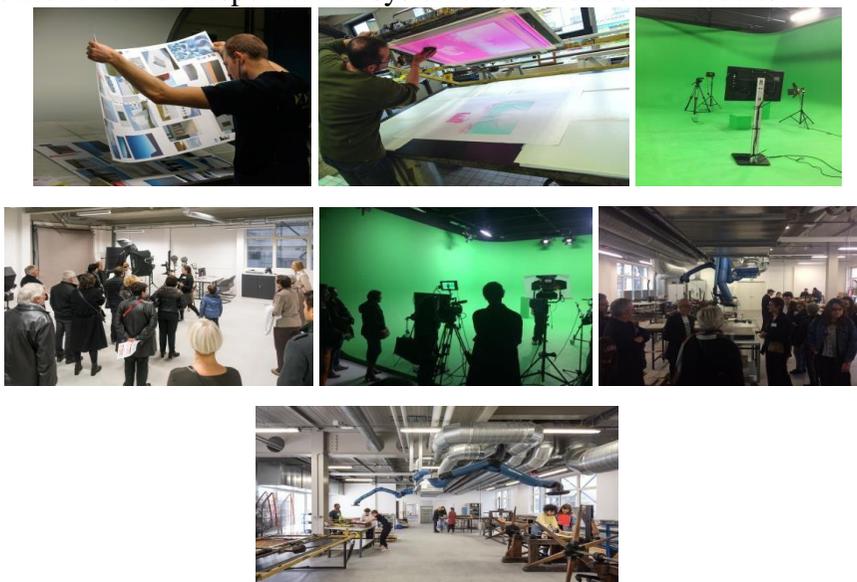
<sup>5</sup> Enseignant, formateur-ressource et animateur de groupe de recherche-formation sur la prise en charge des élèves en difficulté. Il a plusieurs publications sur le sujet de la pédagogie.

<sup>6</sup> Enseignant, chargé d'une mission spécifique à Mulhouse - Académie de Strasbourg. Auteur de plusieurs ouvrages sur la pédagogie/autonomie.

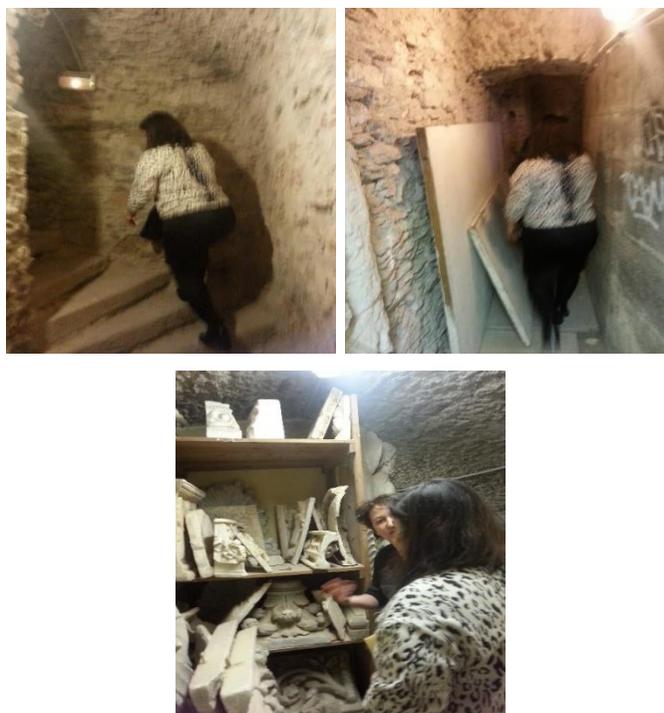
## Etude de cas : les ateliers ouverts entre forme scolaire et événement éphémère

Pour comprendre ce paradigme contemporain, une comparaison est menée entre les approches éducatives appliquées dans deux écoles d'art européennes (en France et en Turquie) avec ceux pratiquées dans une école Tunisienne. Comme l'illustrent les figures 2, 3 et 4, à Nantes, on trouve les médiums artistiques et les bases techniques où l'enseignant-artiste applique la pédagogie de l'autonomie. C'est grâce à « l'anatomie » de l'école structurée en *ateliers ouverts* durant toute l'année scolaire : atelier bois, atelier métaux, atelier de différentes techniques d'impression (lithographie – sérigraphie – héliogravure – offset – linogravure), atelier audiovisuel (avec un studio d'enregistrement), atelier peinture, etc. C'est quasiment "la même architecture adaptée" dans l'école Turque, où la salle de dessin est ouverte sur *l'atelier de l'artiste*, de manière à conjuguer "apprentissage" et "pratique artistique", Figure 5.

Dans ces espaces, l'étudiant est autorisé à accéder à tous les ateliers pour toucher, apprendre et réaliser son projet dont le thème est proposé par l'enseignant. La 1<sup>ère</sup> année d'étude est fondamentale et est organisée dans une vision académique d'apprentissage des savoir-faire et de maîtrise des techniques plastiques. Cependant, les 2 et 3 années ont pour objectif de pratiquer des outils techniques fondamentaux liés à la création artistique et de s'identifier son projet personnel. Ces projets s'insèrent dans un atelier collectif et des ateliers de recherche-crédation pour construire une démarche personnelle tout en respectant un système de validation de crédits.



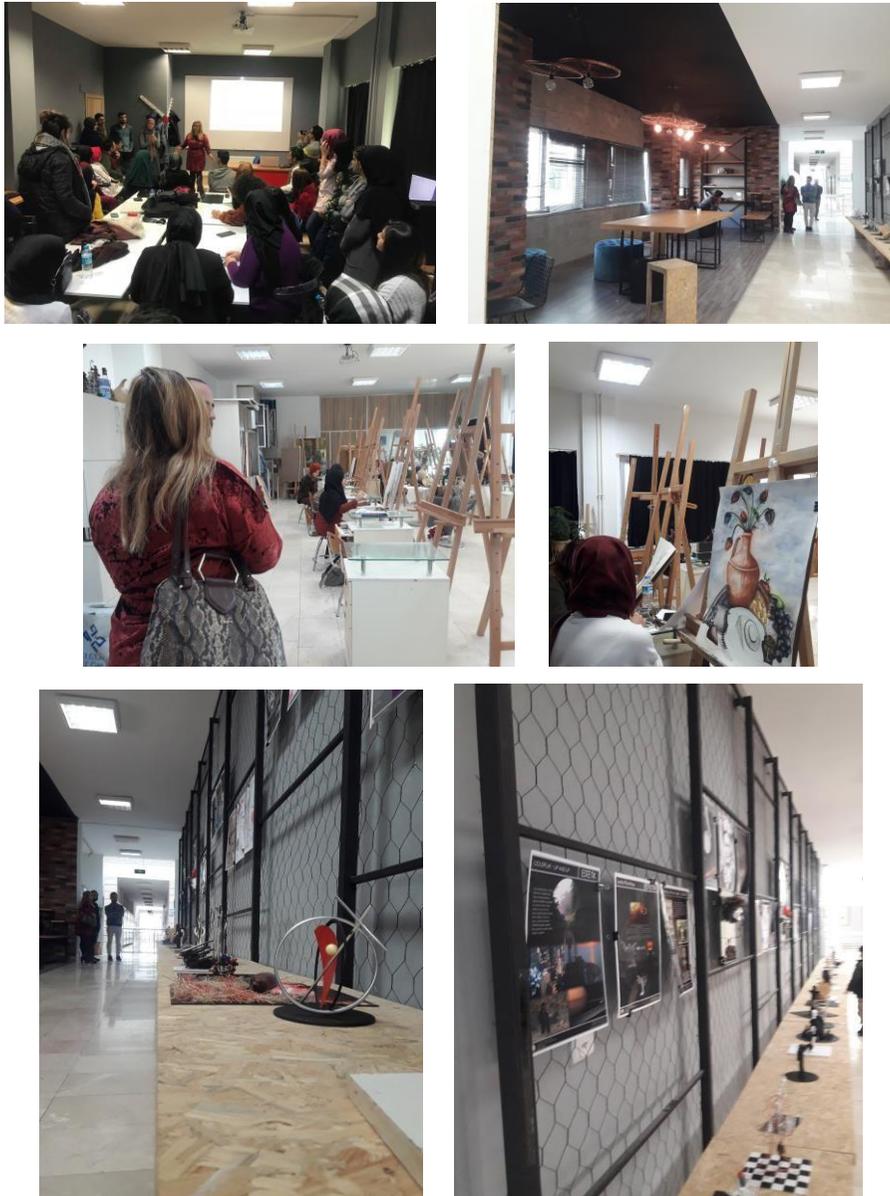
**Figure 2.** Différents ateliers de l'école Supérieure des beaux-arts de Nantes : Atelier offset, sérigraphie, multimédia, photographie, vidéo, lithographie et gravure (2015)



**Figure 3.** Visite à l'Ecole Supérieure des beaux-arts de Nantes- 2015 « les modèles et les références académiques classiques sont tous assemblés et organisés dans une cave de l'école », il n'y a plus de traces de l'enseignement académique classique.



**Figure 4.** Visite des différents ateliers à l'Ecole Supérieure des beaux-arts de Nantes- 2015 « Les ateliers sont ouverts : ils se croisent, se communiquent et même se transforment en lieu d'exposition »



**Figure 5.** Visite des ateliers à l'Ecole des beaux-arts de Selcuk, 2018  
« Les ateliers de dessins communiquent avec l'atelier personnel de l'enseignant-artiste,  
les couloirs sont des espaces d'exposition et de communication permanentes »

Si on mène une comparaison entre l'approche appliquée aux deux écoles européennes avec celle à l'ISAMS, on constate que la notion des ateliers ouverts à l'ISAMS est un événement éphémère et temporel, organisé pour quelques jours où l'école est transformée en grand atelier de création, avec des sessions parallèles, sous la responsabilité d'un

enseignant, Figure 6. Une thématique annuelle est choisie par un comité d'enseignants en collaboration avec l'association de l'ISAMS. Comme présenté sur le site de l'ISAMS (rubriques d'articles et galerie), « c'est un moment de croisement pour les visiteurs et le grand public de s'ouvrir à la variété de talents locaux, et pour les enseignants de montrer leur travail au sein de leur espace de création. C'est enfin une façon insolite de découvrir les capacités des étudiants participants à cet événement où les ateliers viennent se croiser entre eux pour aboutir à une création unique et qui porte le nom de tout le monde (http 3, 2020) ». Les travaux réalisés à l'occasion des ateliers ouverts font l'objet d'une exposition collective à la galerie de l'école.

Alors que c'est de l'évènementiel à l'ISAMS, les ateliers aux deux écoles européennes se présentent comme une forme scolaire - où l'étudiant est invité à choisir « un projet » dès sa première année de formation, Figure 7. Il reste à valider un calendrier de rendez-vous pédagogique avec un enseignant-encadreur ; du coup, l'étudiant passe d'un extrême cursus intégrant des relations entre « différentes matières largement ouvertes » vers une « confusion et relation étroites entre différents contenus » par le passage de différents ateliers tout au long de son cursus. Basil Bernstein (Basil, 1997) déclare que « les beaux-arts sont un modèle d'écoles ouvertes ». Il suggère que l'objectif de la formation dans ces écoles est d'élaborer un « projet personnel » ; l'enseignement académique classique est à abandonner. C'est parfaitement la base de l'enseignement artistique dans la majorité des systèmes d'enseignement européen et canadien (Jérôme et al., 2019). De ce fait, la démarche artistique échappe à l'académisme, et par conséquent le curricula est devenu très développé pour laisser liberté aux étudiants, et surtout au « choix de sujet- technique préférée – à la maîtrise de l'emploi du temps et du système rendez-vous » (Bernard, 2017).



Figure 6. Les ateliers ouverts à l'ISAMS : programmes des sessions 2013, 2014, 2016 et 2017

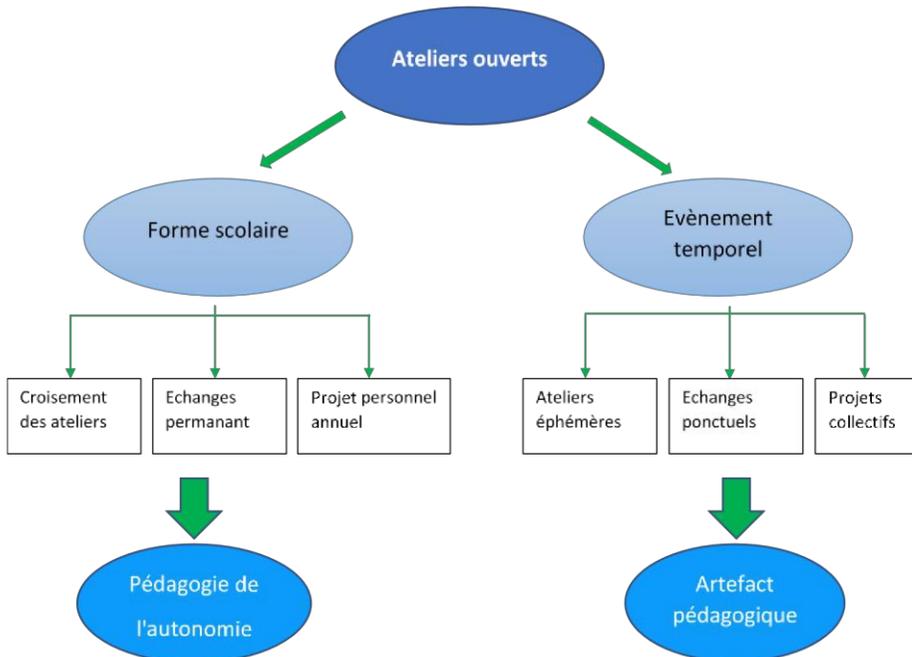


Figure 7. Modélisation des ateliers ouverts au regard des objectifs pédagogiques

### **De la notion d'école vers le concept « école – atelier »**

L'école des beaux-arts est un établissement qui donne vie à une synergie entre forme scolaire et liberté artistique. A ce fait, l'étudiant co-participe à la création de sa formation tout en suivant une pédagogie spécifique : « la pédagogie de l'autonomie » puisque selon Bernard Lahire, c'est « une organisation collective où tout le monde ne fait pas la même chose au même moment » (Bernard, 2001). L'étudiant est libre de se déplacer au sein de l'espace de son école « Atelier », et l'enseignant « n'enseigne plus, mais guide ». Ainsi, la possibilité de monter un programme d'étude sur la base de référentiels de métiers qui ont une large masse financière et capitale dans le marché, est finalement l'élément clé dont l'étudiant peut profiter aux beaux-arts. En effet, en garantissant telle démarche, l'intérêt de la formation change et devient plus efficace et l'étudiant devient plus engagé puisque l'école se transforme à un champ fortement lié au marché et devient un espace d'échange et de forgeage des compétences théoriques et pratiques en même temps. Par conséquence, comme le souligne (Bernard, 2001), la pédagogie de l'autonomie admet que « l'élève démontre à chaque instant qu'il est parfaitement adapté à l'univers scolaire et [que] son comportement ne réclame aucune intervention extérieure ».

### **Conclusion**

Il paraît qu'une réflexion sur la pédagogie d'enseignement dans les écoles d'art est intéressante dans le cadre de la recherche sur les méthodes innovantes d'apprentissage en arts. Mettre en œuvre des situations de formation dans des écoles, qui diffèrent sur plusieurs niveaux, mais appliquant toutes le système LMD de formation universitaire, a permis de dégager l'impact de la pédagogie d'autonomie au regard des méthodes classiques d'enseignement. Le concept de l'école-atelier peut être une alternative émergente pour contextualiser ce paradigme contemporain.

De ce fait, la pédagogie d'autonomie est une convocation à poursuivre dans le commun et à en adorer les activités et leurs évaluations. Les écoles d'art se marquent bien dans une harmonie de mettre en évidence les talents qui possèdent déjà les étudiants pour finalement trouver le bonheur de la recherche. En effet, l'étudiant artiste fonde sa propre vision, sa propre approche sans perdre l'ambition de communiquer des savoir-faire. La stratégie de l'enseignement spécifique aux écoles des beaux-arts appelée par Nathalie Heinich (Nathali, 2000) « l'ambivalence de la singularité » conduit à créer non seulement des étudiants certifiés mais aussi des créateurs qui peuvent s'intégrer et s'exceller dans le marché et dans le paradigme contemporain.

## References:

1. Abdelali, K. (2018). *L'innovation de l'évaluation pédagogique dans l'enseignement supérieur*, Conférence plénière, 6<sup>ème</sup> colloque international de l'ISAMS, novembre 2018, Tunisie
2. Ahmed, C. (2018). *L'enseignement des arts, du design et des médias dans les ISAM : de l'épistémologie à la pédagogie*, Conférence plénière, 6<sup>ème</sup> colloque international de l'ISAMS, novembre 2018, Tunisie
3. Alain, R. (2004). *Psychologie et pédagogie : à la recherche des fils de la trame*, Article paru dans le numéro 191 d'Actualité de la formation permanente (« Formation des salariés : quels choix pédagogiques ? », juillet-août 2004
4. Amel, N. (2018). *Structuration de l'enseignement de l'art et du design dans les écoles supérieures d'art en France, état des lieux après 10 ans de réformes*, Conférence plénière, 6<sup>ème</sup> colloque international de l'ISAMS, novembre 2018, Tunisie
5. Anne-Claudine, O. (2015). *Le coaching scolaire, un espace intermédiaire contre l'école et la famille*, Chapitre 3, Aux frontières de l'école, pages 155 à 174
6. Annie, V. (2020). *Enseignement de l'art*, Encyclopædia Universalis [en ligne], consulté le 26 Juillet . URL : <http://www.universalis.fr/encyclopedie/enseignement-de-l-art/>  
<http://www.agendas.ovh/sixieme-colloque-international-de-lisams/> (vue le 30 juillet)
7. Basil, B. (1997). *Ecoles ouvertes, société ouverte ?*. in Forquin (Jean-Claude), dir., les sociologues de l'éducation américains et britanniques, Paris- De Boeck université.
8. Bernard, L. (2001). *La construction de l'« autonomie » à l'école primaire : entre savoirs et pouvoirs*. Revue Française de Pédagogie, n° 134, janvier-février-mars 2001.
9. Bernard, L. (2017). *Permettre aux élèves de devenir autonome : une construction par étapes*, Académie de Nantes, Revue N°12. [https://www.pedagogie.ac-nantes.fr/medias/fichier/enoveps12p1a2lebrun\\_1485895960895-pdf](https://www.pedagogie.ac-nantes.fr/medias/fichier/enoveps12p1a2lebrun_1485895960895-pdf)
10. Bonnéry, S. (2013). L'enseignement de la musique, entre institution scolaire et conservatoires. Éclairages mutuels des sociologies de l'éducation et de la culture. *Revue française de pédagogie*, n° 185, p. 5-20.
11. Ellen, H. (2004). *Les écoles d'art de demain : enjeux et possibilités*, Politiques et gestion de l'enseignement supérieur 3 (no 16), pages 153 à 173

12. Dominique, O. (2006). *La pédagogie comme science, Les Sciences de l'éducation - Pour l'Ère nouvelle* 4 (Vol. 39), pages 99 à 110
13. Floriane, S. (2019). *Les méthodes actives, facteur de réussite et d'empowerment chez les élèves*. Education. ffdumas-02321470f
14. Ghizlane, C., Mounir, S., Mohamed, R., & Mohammed, T. (2016). *Conception Et Analyse De La Structure Factorielle D'un Outil Informatisé D'évaluation Des Enseignements*. *European Scientific Journal, ESJ*, 12(7), 109.
15. Gilles, G. (1994). *Les écoles d'art en France : évolution des structures d'offre et des effectifs*. IREDU, 294 p, Les Cahiers de l'IREDU, 225634-064-4. fihal-02051963
16. Guy, V. (1994). *L'éducation prisonnière de la forme scolaire ? Scolarisation et socialisation dans les sociétés industrielles*. Lyon, Presses Universitaires de Lyon, p 228.
17. <https://www.institutfrancais-tunisie.com/faq-bourses-michel-foucault> (Vue 02 Juillet 2020)
18. <http://www.isams.rnu.tn/fra/articles/143/les-ateliers-ouverts-2013> (Vue 02 Juillet 2020)
19. Ikbel, C. (2013). *Repenser l'enseignement du design : quel quotidien pédagogique ?*, 4ème colloque International de l'ISAMS "Repenser le quotidien"- 12 avril 2013- Sfax, Tunisie
20. Imen Ben, O., Anis, A. & Taïeb Ben, A. (2017). *Amélioration de la qualité de la formation en renforçant les liens avec le tissu socioéconomique*, Actes du colloque international de IPAPE'2017, Innovation pédagogique, accompagnement et professionnalisation des étudiants.
21. Joëlle, D.-L., & Cathy, P. (2010). *Identifier les conceptions de l'enseignement et de l'apprentissage pour accompagner le développement professionnel des enseignants débutants à l'université*, *Savoirs* 2 (n° 23), pages 51 à 72
22. Jérémie, V. (2015). *Peut-on enseigner l'art ? Les écoles supérieures d'art, entre forme scolaire et liberté artistique*, *Revue française de pédagogie* 3 (n° 192), pages 121 à 134
23. Jérôme, D., Christian, B., Philippe, B., Jean-Marc, R., Corinne, S. (2019). *Étude sur la pédagogie, la recherche et le développement à l'international dans les écoles supérieures d'art*, Rapport n° SIE 009, Direction générale de la création artistique, 2019
24. Koukougnon, A. F. (2020). *Identification des habiletés des élèves : processus de dressage d'une cartographie des acquis des élèves dans la perspective d'une pédagogie différenciée*. *European Scientific Journal, ESJ*, 16(7), 117.

25. Lotfi, H. (2018). *La pédagogie créatives, enjeux et perspectives*, Conférence plénière, 6<sup>ème</sup> colloque international de l'ISAMS, novembre 2018, Tunisie
26. Maha, I. (2017). *Usages pédagogiques des Médias, des Images et des Technologies de l'Information et de la communication (MITIC) et leurs effets sur la réussite éducative des étudiants*, Doctorat de l'Université Toulouse Jean Jaurès.
27. Nathali, H. (2000). *Être écrivain-Création et identité*. Paris, La découverte, Collection : Armillaire, 372 p.
28. Nathalie, H. (2014). *Le paradigme de l'art contemporain*. Structures d'une révolution artistique, Editions Gallimard, 384 pages
29. Pinto, V. (2009). *Une pédagogie anti-scolaire aux frontières de l'école. Le cas des formateurs BAFA*. In E. Lescure & C. Frétygné, Les métiers de la formation. *Approches sociologiques*. Rennes : Presses universitaires de Rennes, p. 197-208.
30. Sophia, S. (2007). *Bernstein Basil. Pédagogie, contrôle symbolique et identité : théorie, recherche, critique*. Revue française de pédagogie, 158, 165-168.
31. Soufiane, Er-R., & Mohammed Jawad, T. (2019). *Le Coaching scolaire comme nouvelle pratique pédagogique*, European Scientific Journal edition, Vol.15, No.29 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431
32. Vandebunder, J. (2020). *Peut-on enseigner l'art ? Les écoles supérieures d'art, entre forme scolaire et liberté artistique*. *Revue française de pédagogie* [En ligne], 192 | juillet-août-septembre 2015, mis en ligne le 30 septembre 2018, consulté le 01 novembre.
33. Zeitoun, S., & Malek, R. (2018). *Dispositif Hybride De Formation Universitaire Des Enseignants : Etude De Cas*. *European Scientific Journal, ESJ*, 14(28), 15.

## Annexe 1. Dépliant du 6ème colloque international de l'ISAMS (Monastir, 2018)

### ENSEIGNER L'ART, LE DESIGN & LES MÉDIAS

#### PROGRAMME

##### 5ème COLLOQUE INTERNATIONAL DE L'INSTITUT SUPÉRIEUR DES ARTS ET MÉTIERS DE STAX

**Vendredi 23 Novembre 2018**

09h00 - Accueil et inscription des participants

10h30 - Allocution d'ouverture du colloque & Cérémonie de signature de la convention entre l'université de Stax et l'université de Sékuk

Dr. Abhat CHABRI, Directrice de l'Institut Supérieur des arts et métiers de Stax

Dr. Abdelkhalid MOKIN, Président de l'université de Sékuk (Turquie)

Dr. Mohamed OKRA, Vice-recteur de l'université de Sékuk (Turquie)

11h30 - Présentation du programme du colloque

12h00 - Verrouillage de l'inscription du Dr. **Ilham ENVERDOĞLU** (Turquie) « *La communication visuelle : De la tradition à la modernité* »

12h30 - Pause déjeuner

14h00 - 14h30 - « Présentation de l'enseignement de l'art et du design, dans les écoles supérieures d'art en France, sur des lieux peints 10 ans de référence »

**Amel IMATI** (France), Directrice générale de l'ESAD Grenoble Valence, diplômée de l'école

du Louvre en Histoire de l'art et archéologie et de l'Université Paris-Sorbonne en lettres, Classiques, Paris

14h30 - 15h00 - « Innovation, l'évaluation, pédagogique dans l'enseignement supérieur »

**Abdelkhalid KAOJACH** (Maroc), Professeur à l'université Mohammed I, Laboratoire de recherche en éducation et formation et président du centre de mesure et d'évaluation en éducation et développement.

15h00 - 15h30 - « Comment enseigner la technologie de l'histoire de l'art et des médias visuels de nos jours ? »

**Michael ZIMMERMANN** (Allemagne), Historien de l'art à l'université catholique Eichstätt-Ingolstadt et membre de l'Académie des Sciences Européennes à Londres.

15h30 - 16h00 - « Art and design in Eastern Europe in the 20th century »

**Art and design in Europe de TEA au 21ème siècle)**

**Tanja ZIMMERMANN** (Allemagne), Historienne de l'art et de la littérature scientifique, Professeur d'histoire de l'art, directrice de l'université de TEU, Centre-Est et de Sud-Est, à l'université de Leipzig Allemagne.

16h00 - Pause

16h30 - 17h00 - « Turkish Fine arts » (Les beaux-arts en Turquie)

**Ilham ENVERDOĞLU** (Turquie), artiste et professeur universitaire en art et design, université de Sékuk, Turquie.

17h00 - 18h00 - « La pédagogie créative : enjeux et perspectives »

**Lothi HALAOUË** & **Rabiba BEN YOUSSEF** (Tunisie)

« Dr. **Lothi HALAOUË**, Maître-chercheur habilité en sciences de l'éducation, Université de Tunis, Enseignant contractuel à l'école de l'éducation supérieure Bou Khedher

Mme **Rabiba BEN YOUSSEF**, Enseignante-chercheuse et enfance Université de Sfax, Collège universitaire en développement personnel, académique par l'écrit, membre de la Fédération et de l'Association de l'école de l'éducation supérieure

18h00 - 19h00 - Session Afterwork 1

**Karim MIMAS** (Ingénieur développeur)

« Outils de partage et de sauvegarde des données entre enseignants sur plateforme Google professional »

Inscription sur place, l'inscription est gratuite

**Samedi 24 Novembre 2018**

09h00 - 09h30 - Session en visioconférence de l'Université Paris 13

« Les Formations professionnalisantes en numérique à l'Université Paris 13, recherche et travail en situation professionnelle »

**Hamid IMANI** (France), MCF - Directeur de l'UTJ Bobigny

**Dominique CARRE** (France), Professeur en Sciences de l'éducation et de la communication, Université Paris 13

**Abdelkhalid BENCHEHNA** (France), MCF - Laboratoire Labac.

10h00 - 13h00 - « L'enseignement des arts, du design et des médias dans les ISAM : de l'exploratoire à la pédagogie »

**Amel IMATI** (France), Professeur à l'Université de Sékuk, présidente de l'Association des ISAM de France

**Amel IMATI** (France), Professeur à l'Université de Sékuk, présidente de l'Association des ISAM de France

### ENSEIGNER L'ART, LE DESIGN & LES MÉDIAS

10h30 - 11h30 - « The International Society for Education Through Art (INSEEA) »

Présentation de l'ONG-INSEEA : projets et perspectives.

**Amel CHABRI** (Tunisie), Professeur à l'Université de Sékuk, présidente de l'Association des ISAM de France

11h30 - Pause déjeuner

14h30 - 15h30 - « Formation polytechnique et pédagogie de projet en Master métiers du multimédia interactif »

**Bernard DARRAS** (France), professeur et administrateur, Professeur à l'Université Paris 1 Panthéon Sorbonne, Coordinateur de l'Institut ACTE (Arts - Créations - Théories - Esthétiques), directeur de recherche sur la sémiotique des arts et du design et directeur du programme de master multimédia interactif.

15h30 - 16h00 - « Teaching of design in Portugal »

« Enseignement du design au Portugal »

**Angela SALDANHA** (Portugal), Docteur en éducation artistique, faculté des beaux-arts Université ouverte au Portugal.

16h00 - Pause

16h30 - 17h30 - « New developed graphene coating method for reducing wear and friction issues - multidisciplinary perspectives »

« Projet de recherche international Turquie-Tur »

**Séminaire parallèle : 14h30 - 17h30** (Salle n°2)

« New developed graphene coating method for reducing wear and friction issues - multidisciplinary perspectives »

« Projet de recherche international Turquie-Tur »

14h30 - Dr. **Mohamed KHAOU** (Turquie), Faculté des beaux-arts Université ouverte au Portugal.

15h00 - **Prof. Dr. Recep KUS** (Turquie), Turkish research process and opportunities of collaboration »

15h30 - **Prof. Dr. Biadh ELLEUCH** (Tunisie) « materials innovation and challenges »

16h00 - Pause

16h30 - 17h30 - Table ronde - « Montage d'un projet Européen à caractère multidisciplinaire »

18h00 - 19h00 - Session Afterwork 1

**Karim MIMAS** (Ingénieur développeur)

« Outils de partage et de sauvegarde des données entre enseignants sur plateforme Google professional »

Inscription sur place, l'inscription est gratuite

21h00 - « Spanish design »

« Soirée entre collègues organisée pour le 6ème colloque international de l'ESAMS »

**Demanche 25 Novembre 2018**

09h00 - 10h30 - « Pour une pédagogie des arts, beaucoup de liberté - mais pas de bonnes notes »

**Yves MICHAUD** (France), Philosophe et critique d'art, ancien professeur à Paris et à Bernier.

10h30 - Pause

11h00 - 12h30 - « Enseignement et pratique d'enseignements, Table ronde animée par les différents intervenants et les invités du colloque »

12h30 - 13h00 - Clôture du colloque

**Le comité d'organisation**

Mme **Ilbel CHABRI**  
Mr. **Mohamed KHAOU**  
Mme. **Chima GARGOUË**  
Mme. **Noura ZAGHDEN**  
Mme. **Salma CHABRIANI**

All - Une attention particulière pour chaque administrateur sera adressée aux participants.

Institut Supérieur des Arts et Métiers de Stax

تدریس الفن والتصميم والوسائط

الندوة الدولية السادسة للعلوم التطبيقية والفنون



ESJ Social Sciences

### **Tobias Okoth Ondiek**

PhD candidate, Department of Management  
Science, School of Business University of Nairobi,  
Kenya

### **Stephen Odock**

Senior Lecturer, Department of management  
science, School of Business University of Nairobi,  
Kenya

### **James Muranga Njihia**

Associate Professor, Department of Management  
science, School of Business University of Nairobi,  
Kenya

### **Peter K'Obonyo**

Professor, Department of Business Administration,  
School of Business University of Nairobi, Kenya

---

Submitted: 07 October 2020  
Accepted: 05 November 2020  
Published: 30 November 2020

Corresponding author:  
*Tobias Okoth Ondiek*

DOI: 10.19044/esj.2020.v16n31p147

 Copyright 2020 Tobias Okoth Ondiek et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## **Examining the Effect of Organizational Culture on the Relationship between Supply Chain Quality Management Practices Adoption and Performance of Private Hospitals in Kenya**

### **Abstract**

Health care institutions have complex global supply networks and organizations that have heterogenous cultural configurations. There are a number of studies that have directly linked supply chain quality management practices in the manufacturing sector and other service firms to organizational performance. However, minimal research has been done to examine the role of corporate culture in the relationship. Moreover, there is need to empirically confirm effect of corporate culture in private hospitals in Kenya where provision of quality and affordable health care remains a challenge. Corporate culture fit between organizations serves as a thread that ties firms together. The study was conducted in order to examine the effect of organizational culture on the relationship between supply chain quality management practices adoption and performance of private hospitals in Kenya. Positivist research orientation and descriptive cross-sectional research design guided the research process. Raw data was collected from management staff tasked with supply chain decision making responsibility in the hospitals. A response rate of 70.51% was realized. Normality, collinearity, homoscedasticity and autocorrelation constituted model diagnosis. Hypothesis was tested using model fit indices and significance of path coefficient. The findings indicate that corporate culture has significant positive effect on the relationship. The study concluded that right corporate culture among supply chain partners both internally and externally serves as catalyst

### **How to cite this article**

Ondiek, T.O., et al, (2020). Examining the Effect of Organizational Culture on the Relationship between Supply Chain Quality Management Practices Adoption and Performance of Private Hospitals in Kenya. *European Scientific Journal, ESJ*, 16(31), 147. <https://doi.org/10.19044/esj.2020.v16n31p147>

while implementing SCQM practices to bring about improved performance. It is therefore recommended that for private hospitals to benefit more from improved performance upon adopting SCQM practices, they must ensure homogeneity of cultural configurations internally and externally. In addition, the study provides future researchers with a useful conceptual and methodological reference that can be used in the pursuit of further studies particularly in the area of both supply chain and quality management with

specific reference to the corporate culture as a moderating variable.

---

**Subject:** Business, Investments

**Keywords:** Corporate culture, supply chain quality management practices, organizational performance

## 1. Introduction

Organizations have unique internal human behavior that may need significant realignment to contend with new scientific management paradigms. In particular, SCQM practices implementation may call for inter and intra organizational cultural compatibility in order to yield desired performance outcomes (He, Sun, Ni & Ng, 2017; Lee, Lee & Schniederjans, 2011). This is premised on the understanding that adoption of such management philosophy entails formation of business relationships with other organizations with predetermined cultural patterns. Harmonization of interfirm culture plants a conducive environment and framework that cements strategic business alliances which may amplify performance outcomes (Cadden, Humphreys & McHugh, 2010). Indeed, there are several studies that have been conducted on the effect corporate culture in both strategy implementation by organizations and performance in different contexts (Fawcett, Magnan, & McCarter, 2008; Lee & Yu, 2013; Abd, Kamarulzaman & Sambasivan 2013) However, a similar research is not apparently reported in the uniquely characterized hospital environment in Kenya.

### 1.1. Corporate Culture

Culture refers to configurations of morals and philosophies that are demonstrated in practices, behaviors and artefacts that are communal in organizations (Cadden et al., 2010). The corporate culture is thus a reflection of the beliefs and values of the corporate leaders and the subjects. It can therefore directly be linked to firm's operations strategy. Meaning that, culture is a form of organizational social environment in which organizational operating strategy is embedded. More often, organizational cultures are shaped by understandings and beliefs of the entire firm population and their stakeholders. It is also argued that culture shapes behavior of the employees among themselves and towards entire business associates. Culture can be described as implicit, unifying,

invisible, intrinsic and informal consciousness organizational substance which explains meaning and direction of an organization.

There are several categories of culture that different authors have reported in literature. Sun (2008) compartmentalized culture into three layers with outer layer being linked to values about strategies, missions and objectives of the organization. The middle layer is attributable to beliefs on the issues that firm employees normally narrate. The inner core reflects on the organizational life that people find difficult to recall and explain. According to Abd et al. (2013), four categories of corporate culture are identifiable. First, competitive culture which emphasizes demanding goals, competitive advantage, marketing superiority and profits. Second, is the entrepreneurial culture which stresses innovation, risk taking, high levels of dynamism and creativity. Third is the bureaucratic culture which underscores formalization, rules, standard operating procedures and hierarchical coordination. Finally, consensual culture with tradition, loyalty, personal commitment, extensive socialization, teamwork, self-management and social influence underlined as dominating elements.

Among the typical beliefs that shape organization's culture is position a firm takes to actively and visibly pursue superior quality in the entire array of activities. Adherence to quality of service design and products in addition to conformance to specification is a reflection of organizational culture. The same is therefore regarded as mandatory substance necessary for designing and implementing successful strategies such as SCQM practices to yield best performance. As such, all firms within a supply network must have common knowledge and culture on what constitutes quality. Therefore, cultural homogeneity and compatibility is a pillar prerequisite for aligning intra-firm practices with inter-organizational relationships (Fawcett et al., 2008). This in effect implies that inability to integrate corporate cultures of quality along supply chain is a potential foundation for failure by the firms that attempt to implement SCQM practices. Cultural fit between business partners enable them to share information fast and manage partnerships relating to suppliers and customers (Cadden et al., 2010; Prajogo & McDermott, 2011; Lee & Yu, 2013). Low productivity, lack of customer satisfaction, poor financial performance results and increased level of conflicts have been shown to emerge from cultural incongruence despite adoption of effective and time-tested business ideas such as SCQM practices (Mello & Stank, 2005; Fawcett et. al., 2008; Meirovich, 2010; Deshpande & Farley, 2013).

## **1.2. Supply Chain Quality Management Practices**

The primary goal of integrating total quality management (TQM) into a supply chain is to sustain value addition to customers and all other prime stakeholders. This approach has been conceptualized as supply chain quality

management (SCQM) while the activities embodied in this management strategy are referred to as SCQM practices. Three main sets of supply chain quality management practices are identifiable (Zeng, Phan, & Matsui, 2013). First, there is internal quality management or internal process management. Second, is the interaction with suppliers which constitutes upstream arm of supply chain or upstream quality management. Lastly, firms have to manage quality upon interacting with their customers or downstream quality management.

Common supply chain quality management practices are customer focus, supplier relationship management, information sharing, postponement, process management and coordination. Focusing on customers enables firm to concentrate on making products that are appealing to their customers more than their competitors. This guarantees customer loyalty and their willingness to pay premier prices for the organizations' outputs (Talib, Rahman & Qureshi, 2011). Supplier relationship management denotes selection, development, monitoring and collaborating with suppliers. It leads to long term coexistence that enables firms in the chain to communally avoid risks and share benefits (Prajago et al., 2012). Information sharing allows firms to optimize inventories, effectively serve customers and manage capacity. This is in addition to optimizing delivery time and production schedules necessary for generating required revenue (Sampaio et al., 2016). Postponement is applicable to mitigate risks occasioned by products characterized by high monetary value and difficulty in demand prediction (Bagchi & Gaur, 2018). Internal firm process management activities encompass research and development, product design and processes which dictate firm's level of productivity, time to market and employee performance important necessary for firms' competitiveness and improved performance (Zhong et al., 2016). Coordination of supply chain relates to managing transportation and logistics which integrates firms, suppliers and customers to minimize waste of efforts and time resulting in increased productivity, delivery time accuracy and customer satisfaction (Farnandes, Sampaio, & Carvalho, 2014).

### **1.3. Organizational Performance**

Organizational performance is a measure of the reward to or satisfaction level of stakeholders in return to their contribution to the organizations (Rouse & Putterill, 2003). In this regard, such measures reveal extent to which explicitly or implicitly communicated organizational vision and mission respond to stakeholder expectations and requirement. Freeman (2010) conceptualizes stakeholders as a distinct group or individuals who influence or are controlled by goals of a firm. The author numerates stakeholders as employees, partners, community, governments and business owners. Therefore, a complete performance measurement model should

capture financial, market, operational, societal, environmental, customer, learning and growth outcome facets which contends with the wish of the stake holders which was incorporated in this study. A good operating strategy must be geared towards yielding favorable impact on all the listed performance metrics. The six sub variables of SCQM practices considered in the study included; supplier quality management (SQM), customer focus (FC), information sharing (IS), postponement (P), process management (PM) and coordination of supply chain (CSC).

#### **1.4. Private Hospitals in Kenya**

Debates on what really constitutes private or public organizations are far from conclusion. The fundamental issues for categorization advanced in literature include; stockholding, profit motive, openness to external influence, scope of sharing benefits (communal or restricted to individuals), extent of accessing the health facilities, its resources or confidential information (Vries & Huijsman, 2011; Awuor & Kinuthia, 2013; WHO, 2015). Additional guide is whether the person or the organization is acting on behalf of the entire community or restricted to the individual. Based on the narrative, public organizations are confined to state owned and funded facilities. On the other hand, privately owned firms constitute those under total control and funded by individual(s), sales revenue or personal investments (Lachman, 1985). Private hospitals therefore encompass both for-profit and not-for-profit health entities that are not funded via exchequer and heavily influenced by their economic markets. Public and private hospitals compete with and complement each other in providing healthcare. There is also notable fierce competition among private hospitals since they presumably provide similar types of services (Turkyilmaz, Bulak, & Zaim, 2015).

Both devolution and extended use of NHIF are Kenya's deliberate attempts to meet her health care objectives, cater for high healthcare demand and provide health security at a reasonable cost. To attain equilibrium, managers of private hospitals in Kenya need to embrace modern approaches such as SCQM practices to reduce cost of operation, improve service quality, improve patient safety, generate adequate revenue and meet expectations of all other stakeholders. In the developing economies such as Kenya, demand for healthcare services in the private hospitals which overrides public counterparts has continued to grow in response to purportedly high quality of services, efficiency, the expanding middle class, higher health insurance penetration and low resource constraints (UNIDO, 2016). Kenya is still struggling to meet the goal of providing a universal healthcare. A research to present current data that can propel Kenya to achieve her healthcare goals and alleviate sufferings originating from poor health is an absolute necessity.

## **2. Literature Review**

### **2.1. Corporate Culture, Supply Chain Quality Management Practices and Organizational Performance.**

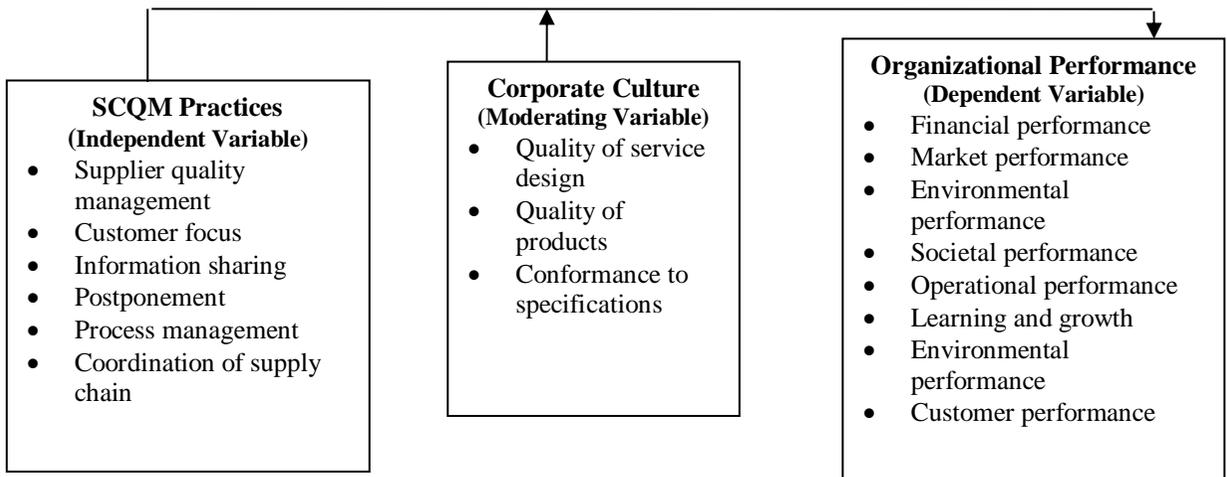
Relational view posits that network members need inter-organizational cultural harmony to strategically bond together and merge resources such as assets, knowledge and capabilities. This further competitively positions them at a better position among cohorts to achieve continuously improving firm performance (Fawcett et al., 2008; Prajogo & McDermott, 2011). Conversely, corporate culture variability among firms may impede extent of SCQM practices implementation negating or weakening the link between the variable and organizational performance (Cadden et al., 2010; Vanichchinchai & Igel, 2011). Additionally, contingency theory which proposes that cultural fit among networked organizations yields positive organizational performance outcomes due to aligned internal and external organizational conditions (Tuai, 2015). This implies that it is not the universality of appropriate internal conditions across organizations which guarantee firms success. Rather, the specific organizational attributes or contextual factors such as cultural orientation determine firms' effectiveness in implementing and sustaining SCQM practices so as to achieve competitive advantage that leads to enhanced organizational performance (Wadongo & Abdel-Kader, 2014). This debate can be made crystal clear when context specific empirical data is collected and analyzed.

Rashid, Sambasivan & Johari (2003) conducted a study to examine the influence of corporate culture and organizational commitment on financial performance in Malaysian companies. The researchers collected data from 202 managers in the public listed companies which confirmed that a significant correlation exists between corporate culture, organizational commitment and financial performance. Wei, Liu, Zhang and Chiu (2008) empirically sought to understand role played by corporate culture in the strategic human resource management (SHRMS) adoption and implementation among 223 Chinese enterprises. Results revealed that group and developmental cultures had positive impact on the adoption of SHRMS. However, hierarchical culture had insignificant impact. Further, developmental culture also had a direct effect on firm performance. Mailu, Ntale, and Ngui (2018) did a research to establish the effect of corporate culture in the relationship between strategy implementation and performance of 64 pharmaceutical companies in Nairobi Kenya. Using multiple regressions, the study confirmed that corporate culture has positive impact on the relationship. Indiya, Obura, & Mise, J. K. (2018) conducted a study to find out the effect organizational culture has on performance of public universities in Kenya. The authors predicted possible outcome based on contingency theory. Data was gathered from 215 management staff of eleven public universities. The researchers used

correlation as a research design and reported a strong positive correlation between organizational culture and performance.

While these studies underscore the importance of organizational culture in sparing performance growth, it falls short of clarifying the possible adhesive role of corporate culture in relationships and networks to trigger better performance. Secondly, the researchers report direct link between organizational culture and organizational performance with no indication of moderating effect of organizational culture. Other studies have emphasized the relevance of culture compatibility between firms in networks together with their customers in determining level of multi-dimensional performance (Mello & Stank, 2005). Some have also reported significant relationship between corporate culture, operational strategies and influence of culture incongruence on differing levels of performance outcomes among firms (Cadden et al., 2010). These results suggest that organizational culture provides insight into the context dependence of supply chain quality management practices. Since nature of business conducted by firms shapes organization's culture, it would be interesting to confirm the exact role played by corporate culture in the relationship between SCQM practices adoption and performance of private hospitals in Kenya. The moderating effect of corporate culture is not expressly stated in the reviewed literature. The study was conducted to fill this gap left by past researchers.

### Conceptual Framework



**H1:** The moderating effect of organizational factors on the relationship between SCQM practices and performance of private hospitals is significant

### **3. Research Methodology**

To test the resultant model informed by theories and literature review, positivist philosophy was adopted. Similarly, descriptive cross-sectional census survey research design was preferred to accommodate a low population of 158 private hospital as well as generate adequate data to facilitate use of covariance-based SEM for data analysis. The design is known to uncover the relationships among variables at a particular point in time (Saunders, Lewis & Thornhill, 2007). The study targeted all private hospitals under category C according to National Hospital Insurance Fund (NHIF). From the NHIF website, there were 158 private hospitals categorized by NHIF as group C across Kenya as at June 2019. Data was collected by pharmaceutical professional sales representatives who routinely interact with management personnel using structured questionnaires. The respondents make decision on medical supply chain for the institutions. The tool was in form of five-point Likert-scale ranging from 1  $\equiv$  not at all, 2  $\equiv$  little extent, 3  $\equiv$  some extent, 4  $\equiv$  large extent and 5  $\equiv$  very large extent was used to convert qualitative information into quantitative data. Drop and pick later strategy was preferred to give respondents adequate time to study the questionnaire and give accurate responses.

Corporate culture was operationalized as quality service design, consistency in offering quality products and conformance to specifications as suggested by Kuei et al (2001) and Vanichchinchin and Igel (2011). Completed questionnaires were picked by individual data collectors, sent via WhatsApp or email. Cronbach's Alpha value of 0.6 confirmed reliability of the questionnaire, item to total correlation value above 0.3 to ascertain reliability to the measuring scale, average variance extracted above 0.5 informed of high composite reliability, confirmatory factor analysis (CFA) above 0.4 verified construct validity. Further, AVE score above 0.5 indicated no convergent validity while heavy factor loading of indicators on the construct and Fornell-Larcker criterion for discriminant validity concluded the tests. All the readings were confined to the prescribed thresholds. Before proceeding to actual data analysis, normality, collinearity, homoscedasticity and autocorrelation model diagnostic tests were undertaken which were within the required cut offs. Individual 156 private health facilities comprised the unit of analysis and a single respondent was satisfactory.

### **4. Data Analysis and Findings**

The study centered on all private hospitals in Kenya. From the National hospital Insurance database, a total of 158 private hospitals were identified to operate in Kenya. These are spread across all the forty-seven (47) counties in Kenya. Questionnaires were sent to all the 156 facilities. Out of the total, 121 questionnaires were received back implying that thirty-five (35) hospitals did

not respond at all or in time due to a number of reasons. Explanations advanced include: challenges due to geographical distance, complicated policies, administrative procedures and snubbing by the target respondents to fill the provided questionnaire. The response rate was therefore 77.56%. Upon scrutiny, eleven (11) questionnaires were found to have significant missing data on crucial research variables. Such questionnaires were purged from initial analysis which left a total of 110 fully filled questionnaires. The effective response rate was adjusted to 70.51%.

**Table 1:** Demographic data of the private hospitals were as presented below.

Bed Capacity			
Bed capacity	Frequency	Percentage	Cumulative Percentage
Below 100	72	65.5	65.5
100 – 250	30	27.3	92.7
Over 250	8	7.3	100
Total	110	100	
Age (Years)			
Less than 10	28	25.5	25.5
10 – 20	47	42.7	68.2
Over 20	35	31.8	100
Total	110	100	

Source: Research data, 2019

Corporate culture was measured using three indicators namely; quality service design, consistently offer quality products and conform to specifications. The elements were rated on a five-point Likert scale ranging from one (1) denoting “not at all” to five (5) representing “very great extent” as synopsised in the table below:

**Table 2:** Corporate Culture

	Mean	SD	Factor loading	Item-total correlation	Alpha if item deleted
Quality service design	3.34	1.007	.459	.437	.563
Consistently offer quality products	3.55	1.028	.536	.482	.499
Conform to specifications	3.71	1.087	.644	.464	.468

Cronbach’s Alpha=.684, Grand Mean=3.53. Source: Primary research data, 2019

Conforming to specifications was ranked highest at 3.71 (SD = 1.087, N = 110) followed by offering consistently quality products at 3.55 (SD = 1.028, N = 110) while quality service design was ranked lowest at 3.34 (SD = 1.007, N = 110). On the whole, corporate culture was mean rated at 3.53 implying that private hospitals implemented the practice to a great extent. Factor loadings for the elements ranged from 0.459 to 0.644. Cronbach’s Alpha was 0.684 while item to total correlation ranged from 0.437 to 0.482, a higher value than the threshold of 0.3. The three items met the prescribed cut

offs for reliability and construct validity to allow progress to model determination.

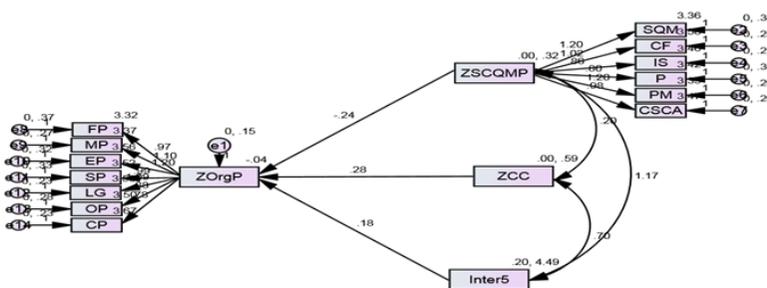
Chi-Square ( $\chi^2$ ) fit test, Standard Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI) and Root Mean Square Error of Approximation (RMSEA) were used to assess the model fitness before interpretation of the findings. Chi square test that is recommended for sample range between 100 and 200 as was the case in this study had a value of 3.869, the degrees of freedom was 117. The Chi-Square was insignificant at 0.05 level of significance and lower than the degree of freedom. This confirms model fitness. Additionally, SRMR (0.039) and GFI (0.787) were within the prescribed limits of  $\leq 0.05$  and  $\geq 0.9$  respectively. RMSEA value was 0.0429 and the expected value was  $\leq 0.05$ . Apart from GFI, other observed values confirmed that the condition of model fitness was met to permit further analysis and interpretation. Motawa & Oladokun, (2015) found a value of 0.774 but proceeded with analysis since the value can be affected by small sample size. In this case 110 sample size falls in the lower continuum.

**Table 3:** Model Fit Statistics for Moderation Effect of Corporate Culture

Model	$\chi^2$	Df	SRMR	RMSEA	GFI
Default model	3.869	117	0.039	0.0429	.787

Source: Primary research data, 2019

Corporate culture was subjected to analysis as a moderating variable to determine its effect on the relationship between SCQM practices adoption and organizational performance. The independent variable, SCQM practices was entered into AMOS followed by corporate culture and then the interaction term of SCQM practices and corporate culture. AMOS graphic with path coefficients was developed and presented as shown in figure below.



Structural Equation Modelling Path Diagram for the Moderating Effect of Corporate Culture on the relationship between SCQM Practices and Organizational Performance

Organizational performance (ORP) as endogenous latent construct (OP) was measured in terms of Financial Performance (FP), Market (MS), Societal Impact (SI), Operational Performance, Learning and Growth (LG) and Environmental Impact (EI). The six items used to measure SCQM practices were; Supplier Quality Management (SQM), Customer Focus (FC), Information Sharing (IS), Postponement (P), Process management (PM) and Coordination of Supply Chain (CSC). CC denotes corporate culture.

Table 4 bellow gives a summary of objectives, hypothesis, data analysis, decision Criteria, interpretation and remarks of the study

**Table 4:** Summary of Objectives, Hypothesis, Analysis and Decision Criteria

Objective	Hypothesis	Data analysis	Decision Criteria	Results	Interpretation and remarks
To establish the role of corporate culture in the relationship between SCQM practices and performance of Private hospitals in Kenya	Hypothesis 1: The moderating effect of corporate culture on the relationship between SCQMP and OP of private hospitals is significant	CB-SEM analysis –  GFI, SRMR, RMSEA and significance of path coefficient	Chi square (insignificant at .05), SRMR ≤ 0.08, GFI ≥ 0.9 and RMSEA ≤ 0.08. H <sub>2e</sub> is not rejected if p-value of the path coefficient is ≤ 0.05	$\chi^2 = 3.869$ , $p > 0.05$ ; SRMR = 0.039, $p < 0.05$ ; GFI = 0.787; RMSEA = 0.0429, $p < 0.05$ . Results showed that SCQM practices have a significant positive effect on the performance of private hospitals ( $\beta = 0.236$ , $t = 4.367$ , $p < 0.001$ ). The effect of corporate culture on the performance of private hospitals is also positive and significant ( $\beta = 0.276$ , $t = 5.056$ , $p < 0.001$ ). The effect of the interaction term on the performance of private hospital is also positive and insignificant ( $r = 0.184$ , $t = 2.015$ , $p = 0.044$ ). $R^2 = 0.514$	Hypothesis 2e is supported. This implies significant moderating effect of corporate culture on the relationship between SCQM practices and the performance of private hospitals

## 5. Test of Hypothesis, Interpretations and Discussion

### 5.1. Corporate Culture, Supply Chain quality Management Practices and Organizational Performance

Hypothesis that Corporate culture significantly moderates the relationship between SCQM practices and organizational performance was confirmed. This is consistent with past findings (Meirovich, 2010; Prajogo & Mcdermott, 2011; Maiga, 2015; Lin, Kuei & Chai, 2013). A firm that has culture of motivation, knowledge and good attitude to implement SCQM practices benefit from high level of performance. The result is better if this culture is shared among trading partners, customers and implied stakeholders (Lee & Yu, 2013). Mello and Stank (2005) confirmed that corporate culture and orientation directly contributes to SCQM practices success. The authors concluded that an organization must ensure effective cultural change that is aligned to SCQM practices for it not to become an artifact of corporate fad.

Given the inter-organizational nature of SCQM practices, it is posited that partners must have cultural similarities to realize any meaningful gains (Meirovich, 2010). The findings support the relevance of network theory and general contingency theory in the prediction of the effect. The wider the cultural gaps are between partners, the more the dismal performance outcome as a result failed SCQM practice (Cadden et al., 2010).

### **Conclusion, Recommendations and Implications**

It was ascertained that corporate culture positively and significantly moderates the relationship between SCQM practices and performance of private hospitals. There was a positive significant path between SCQM practice and organizational performance, a positive and significant path between the moderator and organizational performance and a positive and significant path between the interaction term and organizational performance for corporate culture as a construct. Corporate culture has a significant moderating effect on the relationship between SCQM practices and the performance of private hospitals. This reveals that for relationships in supply chain to thrive, appropriate corporate culture must be ensured in private hospitals. Cultural incongruity among supply chain members should be kept minimal if not eliminated. This enables firms to interpret the benefit of quality management at equal wavelength to support implementation across the organizations. The study recommends that organizations must make tangible efforts to align culture with their operating strategies. The right corporate culture is a key element in the implementation of SCQM practices to bring about improved performance (Meirovich, 2010; Kushwaha & Barman, 2010; Lee et al., 2013; Lin et al., 2013). The implication is that corporate culture denotes long term commitment by the organizations to quality along the supply chain. Based on social network theory relationships flourish when harmonized corporate culture prevails within organizations and beyond their boundaries (He et al., 2018).

### **Suggestions for Further Research**

In this study cross-sectional census survey was adopted. Given the dynamic nature of organizations, future studies need to consider the option of longitudinal research to assess the alterations occasioned by situations and business landscape dynamics. The study was confined to private hospital in Kenya as per National Hospital Insurance Fund definition. Future studies should extend beyond the Kenyan borders, cover other industries and involve greater geographical areas. Further, the studies should include mission, public and not for profit hospitals to allow for comparisons. The cultural dissimilarities are likely to be revealed in SCQM practices. In future, research orientation needs to lean towards investigating quality approaches and

methods across cultures. Such a research is likely to reveal global information that can be used as a foundation for international comparative studies on SCQM practices, corporate culture and performance.

### References:

1. Abd Rahman, A., Kamarulzaman, N. H., & Sambasivan, M. (2013). A study on organizational culture, performance, and technological adoption behaviors of Malaysian food-processing SMEs. *Pertanika Journal of Social Sciences & Humanities*, 21, 231-256.
2. Awuor, O.E., & Kinuthia, D.M.W (2013). Total Quality Management Practices in Selected Private Hospitals in Nairobi, Kenya. *European Journal of Business and Management*. 5(13),32-44.
3. Bagchi, S. S, & Gaur, J (2018). Optimization of postponement process for a two-stage modular manufacturer. *Journal of Global Operations and Strategic Sourcing*, 11(1), 39-54.
4. Cadden, T., Humphreys, P. & McHugh, M. (2010). The influence of organizational culture on strategic supply chain relationship success. *Journal of General Management*, 36 (2) 37-61.
5. Deshpande, R. & Farley, J.U. (2013). Organizational culture, market orientation, innovativeness, and firm performance: an international research odyssey. *International Journal of Research in Marketing*, 21 (1), 53-73.
6. Fawcett, S.E., Magnan, G.M. & McCarter, M.W. (2008). Benefits, barriers, and bridges to effective supply chain management. *Supply Chain Management: An International Journal*, 13(1), 35-48.
7. Fernandes, A. C., Sampaio, P., & Carvalho, M. S. (2014). Quality management and supply chain management integration: a conceptual model. *IEOM*, 773-780.
8. Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press.
9. He, Y., Sun, H., Ni, W., & Ng, S.C.H (2017). Re-examining the effects of supplier integration on operations performance: a relational view. *International Journal of Operations & Production Management*, 37 (12), 1702-1721.
10. Indiya, G. D., Obura, J., & Mise, J. K. (2018). Effect of Organization Culture on organization performance on Public Universities in Kenya.
11. Kushwaha, G. S., & Barman, D. (2010). Development of a theoretical framework of supply chain quality management. *Serbian Journal of Management*, 5(1), 127-142.
12. Lachman, R. (1985) Public and private sector differences: CEO's perceptions of their role environments. *Academy of Management Journal*, 28, 671-679.

13. Lee, S.K.J. & Yu, K. (2013). Corporate culture and organizational performance. *Journal of Managerial Psychology*, 19 (4), 340.
14. Lee, S. M., Lee, D., & Schniederjans, M. J. (2011). Supply chain innovation and organizational performance in the healthcare industry. *International Journal of Operations & Production Management*, 31(11), 1193-1214.
15. Lin, C., Kuei, C. H., & Chai, K. W. (2013). Identifying critical enablers and pathways to high performance supply chain quality management. *International Journal of Operations & Production Management*, 33(3), 347-370.
16. Prajogo, D.I. & McDermott, C. (2011). The relationship between multidimensional organizational culture and performance. *International Journal Operations and Production Management*, 31(7), 712-35.
17. Maiga, A. S. (2015). Organizational Learning and Firm Profitability: The Role of Competitive Advantage. *Advances in Accounting Behavioral Research*, 179-211.
18. Mailu, R. N., Ntale, J. F., & Ngui, T. K. (2018). Strategy implementation and organizational performance in the pharmaceutical industry in Kenya. *International Academic Journal of Human Resource and Business Administration*, 3(2), 33-47.
19. Mello, J.E. & Stank, T.P. (2005). Linking firm culture and orientation to supply chain success. *International Journal of Physical Distribution and Logistics Management*, 35 (7/8), 542-54.
20. Meirovich, G. (2010). The impact of cultural similarities and differences on performance in strategic partnerships: an integrative perspective. *Journal of Management and Organization*, 6, 127-39.
21. Motawa, I., & Oladokun, M. (2015). A model for the complexity of household energy consumption. *Energy and Buildings*, 87, 313-323.
22. Rashid, M.Z.A., Sambasivan, M. & Johari, J. 2003. The influence of corporate culture and organizational commitment on performance. *Journal of Management Development* 22(8): 708-728
23. Sampaio, P., Carvalho, M. S., Fernandes, A. C., Quang, H. T., An, D. T. B., & Vilhenac, E. (2016). An extensive structural model of supply chain quality management and firm performance. *International Journal of Quality & Reliability Management*, 33 (4), 444-464
24. Saunders, M., Lewis, P. & Thornhill, A. (2007) Research Methods for Business Students (3)54-95.
25. Sun, S. (2008). Organizational culture and its themes. *International Journal of Business and Management*, 3(12), 137-141.
26. Talib, F., Rahman, Z., & Qureshi, M.N. (2011). A study of total quality management and supply chain management practices.

- International Journal of Productivity and Performance Management*, 60(3), 268-288.
27. Turkyilmaz, A., Bulak, M. E., & Zaim, S. (2015). Assessment of TQM Practices as a part of supply chain management in healthcare institutions. *International Journal of Supply Chain Management*, 4(4), 1-9.
  28. Rouse, P & Putterill, M. (2003). An integral framework for performance measurement *Management Decision*, 41(8), 791-805
  29. UNIDO Pharmaceutical Sector profile Kenya: Global UNIDO Project (2016): Retrieved from: <http://www.unido.org> on 1-8-2013
  30. Vanichinchai, A., & Igel, B. (2011). The impact of total quality management on supply chain management and firm's supply performance. *International Journal of Production Research*, 49(11), 3405-342.
  31. Vries, J., & Huijsman, R. (2011). Supply chain management in health services: an overview. *Supply Chain Management: An International Journal*, 16(3), 159-165.
  32. Wei, L. Q., Liu, J., Zhang, Y., & ChLu, R. K. (2008). The role of corporate culture in the process of strategic human resource management: Evidence from Chinese enterprises. *Human Resource Management*, 47(4), 777-794
  33. Zeng, J., Phan, C.A. & Matsui, Y. (2013). Supply chain quality management practices and performance: An empirical study. *Operations management research* 6(2), 19–31
  34. Zhong, J., Ma, Y., Tu, Y., & Li, X. (2016). Supply chain quality management: an empirical study. *International Journal of Contemporary Hospitality Management*, 28(11).



ESJ Social Sciences

**Nkwenka Nyanda Patrick  
Geoffroy**

Ecole Supérieure des Sciences et Techniques  
(ESSET), Cameroun

**Ngassa Nya Yve Daniel**

Université de Maroua, Cameroun

**Sonwa Dongue Ghislain Hervé**

Université de Dschang, Cameroun

**Temomo Wamba Romuald**

Université de Dschang, Cameroun

**Gachilie Ladifatou**

Université de Yaoundé 2 Soa, Cameroun

---

Submitted: 31 August 2020

Accepted: 19 October 2020

Published: 30 November 2020

Corresponding author:

*Nkwenka Nyanda Patrick Geoffroy*

DOI: 10.19044/esj.2020.v16n31p162



Copyright 2020 Nkwenka Nyanda Patrick Geoffroy et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
**OPEN ACCESS**

---

## **CoViD-19, capital humain et crise économique en Afrique subsaharienne : une analyse prospective**

### **Résumé**

Depuis quelques mois, le monde fait face à une grave crise sanitaire liée à la pandémie de la CoViD-19. Cette crise menace de faire trébucher l'Afrique subsaharienne en inversant les progrès économiques qu'elle a réalisés ces dernières années. L'objectif de cet article est de mener une étude prospective des effets économiques de la pandémie de la CoViD-19 en Afrique subsaharienne, sur la base d'une analyse de la théorie de la croissance endogène (capital humain), des résultats des travaux empiriques sur le lien santé-croissance et des prévisions axées sur les scénarios projetés par les organismes internationaux (le FMI, notamment) et les études antérieures. Selon le FMI (2020), cette pandémie entraînera une contraction du taux de croissance de 1,6% en Afrique subsaharienne en 2020. Pour faire face à cette crise sanitaire et économique, la priorité selon le FMI (2020) est d'accroître les capacités et les dépenses de santé pour sauver des vies et contenir la pandémie. Par ailleurs, pour répondre aux importants besoins de financement engendrés, tous les partenaires du développement devraient apporter leur soutien, en plus d'alléger la dette des pays les plus vulnérables de cette sous-région. Les politiques budgétaires, monétaires et financières doivent être orientées vers la protection des groupes vulnérables en atténuant les pertes économiques et en soutenant la reprise.

---

**Mots clés:** CoViD-19 ; Capital humain ; Crise économique ; Afrique subsaharienne

### **How to cite this article**

Geoffroy, N. et al. (2020). CoViD-19, capital humain et crise économique en Afrique subsaharienne : une analyse prospective. *European Scientific Journal, ESJ*, 16(31), 162. <https://doi.org/10.19044/esj.2020.v16n31p162>

## **CoViD-19, Human Capital and Economic Crisis in Sub-Saharan Africa: A Prospective Analysis**

***Nkwenka Nyanda Patrick Geoffroy, PhD***

Ecole Supérieure des Sciences et Techniques (ESSET), Cameroun

***Ngassa Nya Yve Daniel, PhD***

Université de Maroua, Cameroun

***Sonwa Dongue Ghislain Hervé, PhD***

***Temomo Wamba Romuald, MSc***

Université de Dschang, Cameroun

***Gachilie Ladifatou, PhD***

Université de Yaoundé 2 Soa, Cameroun

---

### **Abstract**

For the past few months, the world has been facing a serious health crisis linked to the CoViD-19 pandemic. This crisis threatens to trip sub-Saharan Africa by reversing the economic progress it has made in recent years. The objective of this article is to conduct a prospective study of the economic effects of the CoViD-19 pandemic in sub-Saharan Africa, based on an analysis of the endogenous growth theory (human capital), of the results of empirical works on the link between health and growth and forecasts focusing on the scenarios projected by international organizations (the IMF, in particular) and previous studies. According to the IMF (2020), this pandemic will lead to a contraction of the growth rate of 1.6% in sub-Saharan Africa in 2020. To deal with this health and economic crisis, the priority according to the IMF (2020) is to increase health capacities and spending to save lives and contain the pandemic. In addition, to meet the significant financing needs generated, all development partners should provide support, in addition to reducing the debt of the most vulnerable countries in this sub-region. Fiscal, monetary and financial policies must be geared towards protecting vulnerable groups, by mitigating economic losses and supporting the recovery.

---

**Keywords:** CoViD-19; Human Capital; Economic crisis; sub-Saharan Africa

### **Introduction**

Depuis les années 1920, une nouvelle composante immatérielle (la capacité humaine) s'est imposée comme moteur déterminant de la croissance

économique à long terme (Nan-guer, 2008). Autrefois, la richesse en matières premières, les industries manufacturières et le volume du capital matériel dont disposait une nation étaient considérés comme les facteurs essentiels de la croissance économique. Mais la théorie de la croissance endogène a montré que la véritable richesse génératrice d'avantage compétitif essentiel est la capacité à innover, à créer des concepts et à produire des idées. Autrement dit, la véritable richesse d'un pays, ce sont ses Hommes. Une population active, saine et bien qualifiée vaut plus que des lingots d'or (Nan-guer, 2008). Ces capacités, mises en valeur par Schultz et Becker à travers la notion de capital humain, sont créées ou produites par la combinaison des capacités innées et d'investissements dans les êtres humains. Sous plusieurs facettes (l'éducation, la nutrition et la santé), le capital humain constitue une source très importante de la croissance économique (Grossman, 1998). Selon la définition de l'OCDE, le capital humain recouvre les connaissances, les qualifications, les compétences et les autres qualités d'un individu qui favorisent le bien-être personnel, social et économique. Pour que le capital humain puisse contribuer favorablement et durablement à la croissance économique, les individus devraient jouir d'une bonne santé ; ce qui fait de cette dernière une composante indispensable du capital humain (Balde, 2004). La détérioration de l'état de santé des individus serait donc de nature à amenuiser l'effet catalyseur du capital humain sur la croissance économique (Grossman, 1998). L'intérêt porté sur le capital humain trouve tout son sens dans le contexte socioéconomique mondial actuel caractérisé par la crise sanitaire planétaire sans précédent due à la CoViD-19 (maladie à coronavirus 2019), une crise qui est en train de propager les souffrances humaines, paralysant l'économie mondiale et bouleversant la vie de nombreux individus (FMI, 2020).

La CoViD-19 apparaît le 17 novembre 2019 dans la ville de Wuhan, en Chine centrale, puis se propage dans le monde entier. L'Organisation Mondiale de la Santé (OMS) alerte dans un premier temps la République populaire de Chine et ses autres Etats membres, puis prononce l'état d'urgence de santé publique de portée internationale le 30 janvier 2020. Auparavant, un premier cas est découvert hors de la Chine continentale le 13 janvier 2020. Deux navires de croisière (le MS Westernam et le Diamond Princess) sont aussi touchés. Au cours du mois de janvier 2020, le gouvernement chinois met en œuvre des procédures lourdes de confinement, et place plusieurs villes, puis toute une région en quarantaine, fermant de nombreux sites publics et déployant d'importants moyens sanitaires. Le nombre total de malade hors de la Chine dépasse 1500 à la mi-février 2020. Le 25 février 2020, le nombre de nouveaux cas déclarés quotidiennement hors de la Chine est plus élevé que dans ce pays. Le 11 mars 2020, l'épidémie de CoViD-19 est déclarée pandémie par l'OMS, qui demande des mesures de protection essentielle pour prévenir la saturation des services de soins intensifs et renforcer l'hygiène

préventive (suppression des contacts physiques, bises et serrement des mains, fin des attroupements et des grandes manifestations ainsi que des déplacements et voyages non indispensables, la promotion du lavage des mains, la mise en application de quarantaine, etc.).

Cette pandémie provoque des annulations en série de manifestations sportives et culturelles sur toute la planète, la mise en place par de nombreux pays de mesures de confinement pour freiner la formation de nouveaux foyers de contagion, la fermeture des frontières de nombreux pays, et un krach boursier du fait des incertitudes et des craintes qu'elle fait peser sur l'économie mondiale (Maliszewska *et al.*, 2020). Le 8 avril 2020, environ 1 529 500 cas cumulés sont confirmés dans le monde, dont environ 339 500 personnes guéries et 89 500 morts. Ce sont 214 pays et territoires qui sont touchés par cette crise sanitaire mondiale, avec des foyers majeurs en Chine, en Italie, aux Etats-Unis, en Espagne, en Allemagne, en Iran et en France.

Une récession mondiale est attendue du fait des perturbations généralisées provoquées par la pandémie de CoViD-19. La croissance mondiale devrait s'effondrer, passant de 2,9 % en 2019 à une contraction de 3,0 % en 2020, soit un repli bien pire que lors de la crise financière mondiale de 2008–09 (FMI, 2020). Parmi les principaux partenaires commerciaux de l'Afrique subsaharienne, la zone euro devrait connaître une contraction de 7,5 % en 2020, contre une croissance de 1,2 % en 2019, tandis que la croissance en Chine devrait considérablement décélérer de 6,1 % à 1,2 % (FMI, 2020).

L'Afrique subsaharienne n'est pas épargnée ; elle est confrontée à une crise sanitaire et économique sans précédent, qui menace de faire trébucher la région et d'inverser les progrès constatés ces dernières années sur le front du développement (Caldera *et al.*, 2020). En outre, par le lourd tribut humain qu'elle prélève, le bouleversement des moyens d'existence qu'elle entraîne et les dommages qu'elle cause aux entreprises et aux bilans publics, cette crise pourrait assombrir les perspectives de croissance de la région dans les prochaines années (Calderon *et al.*, 2020).

La rapide propagation du virus, si elle n'est pas maîtrisée, risque de submerger des systèmes de santé qui sont déjà fragiles. Le nombre de cas confirmés de CoViD-19 en Afrique subsaharienne est en augmentation rapide. Au 9 avril, plus de 6 200 cas étaient confirmés dans 43 pays de la région, l'Afrique du Sud, le Cameroun et le Burkina Faso étant les plus touchés (FMI, 2020).

Comme dans le reste du monde, la crise sanitaire due à la CoViD-19 a précipité une crise économique dans la région subsaharienne résultant de trois chocs de taille sur l'activité économique (FMI, 2020) :

- les strictes mesures d'endiguement et d'atténuation que les pays ont dû prendre pour limiter la propagation de la CoViD-19 perturberont la production et réduiront nettement la demande ;

- l'effondrement de la croissance économique mondiale et le resserrement des conditions financières ont de fortes retombées sur la région ;
- ces effets vont être aggravés par la brusque baisse des cours des produits de base, notamment du pétrole, qui accentue les difficultés dans certains des plus grands pays de la région, riches en ressources naturelles.

La maladie à virus Ébola et la CoViD-19 sont des maladies contagieuses très différentes. Toutefois, elles ont déclenché des mesures de santé publique similaires, de sorte que l'expérience de la crise de la période 2014–2015 demeure pertinente aujourd'hui (FMI, 2020). Lorsque le virus Ébola s'est propagé aux zones urbaines surpeuplées, les systèmes de santé publique ont été rapidement submergés, les rares ressources ayant été réorientées vers la lutte contre l'épidémie (FMI, 2020). L'impact économique des mesures d'endiguement et d'atténuation a été considérable, en raison de la forte baisse de l'offre de main-d'œuvre. Une rapide augmentation de l'aide internationale a été cruciale pour contenir la propagation du virus et atténuer son impact. Face à l'effondrement des recettes budgétaires, un financement budgétaire s'est avéré indispensable pour assurer les services publics essentiels, dont les soins de santé, l'éducation et la sécurité (FMI, 2020).

La plus grave flambée de maladie à virus Ébola jamais enregistrée a eu des effets dévastateurs en Guinée, au Libéria et en Sierra Leone (FMI, 2020). La maladie à virus Ébola a infecté plus de 28000 personnes, a causé plus de 11000 morts et a eu un coût humain énorme sous forme de souffrances, de dislocation sociale, d'insécurité alimentaire et de bouleversements de la vie quotidienne normale (FMI, 2020). Les ressources ayant été redirigées vers la lutte contre l'épidémie, des systèmes de santé tout entiers ont été essentiellement mis à l'arrêt, ce qui a nui à la fourniture des soins de santé, y compris le diagnostic et le traitement des autres maladies infectieuses (FMI, 2020). En dehors des effets dévastateurs au niveau sanitaire, l'épidémie d'Ebola a aussi eu un profond impact socio-économique en Afrique subsaharienne, notamment en Guinée, au Libéria et en Sierra Leone. Selon la Banque mondiale, on estime la perte en termes de produit intérieur brut à 2,2 milliards de dollars en 2015 pour les trois pays. La croissance a chuté de 9 % en moyenne dans les pays touchés, principalement du fait de la réduction de l'offre de main-d'œuvre (Wane *et al.*, 2019).

La maladie a eu pour conséquences une baisse des investissements ainsi que des pertes substantielles dans le secteur privé, un déclin de la production agricole menant à une inquiétude au niveau de la sécurité alimentaire, et enfin une baisse du commerce transfrontalier liée à une

augmentation des restrictions des déplacements des personnes, des biens et des services (Nations Unies, 2015).

En raison de la mortalité et la morbidité en rapport avec la maladie à virus Ebola, l'activité économique s'est contractée (Nations Unies, 2015). Cette contraction résulte de la combinaison de plusieurs éléments, notamment : la baisse des ventes sur les marchés et dans les commerces, une activité réduite dans les restaurants, les hôtels, les transports publics, la construction et les institutions éducatives (causée également par les mesures gouvernementales comme la déclaration de l'état d'urgence et les restrictions imposées à la circulation des personnes), et le ralentissement de l'activité des sociétés alors que de nombreux expatriés s'en vont, entraînant une baisse de la demande de certains services (Nations Unies, 2015).

L'épidémie d'Ebola a entraîné une diminution des revenus et une augmentation des dépenses, en particulier dans le secteur de la santé, ajoutant une pression supplémentaire sur les déficits budgétaires et affaiblissant la capacité du gouvernement à la fois de contenir la maladie et de renforcer l'économie grâce par exemple à des mesures de stimulus budgétaire (Nations Unies, 2015). Les pays ont eu recours à des appuis extérieurs pour combler leurs déficits financiers. Les recettes publiques ont diminué (Nations Unies, 2015). Cette réduction s'est expliquée par une diminution de l'activité économique et par une contraction de l'assiette fiscale dans la plupart des secteurs, notamment dans l'industrie et les services (Nations Unies, 2015). On peut y ajouter une faiblesse accrue de l'administration fiscale, de sorte que moins d'impôts ont été prélevés sur les revenus, les entreprises, les biens et services et le commerce international. En outre, les redevances collectées sur les ressources naturelles dominantes se sont amoindries (Nations Unies, 2015).

Par ailleurs, la crise déclenchée par l'épidémie d'Ebola a exigé des dépenses non négligeables dans le secteur de la santé pour confiner la maladie alors que les besoins en protection sociale croissaient également rapidement (Nations Unies, 2015). D'autres dépenses non sanitaires ont également émergé à propos de la sécurité, des importations alimentaires et autres. De par ses effets négatifs sur les recettes et les dépenses publiques, l'épidémie a mis à mal les budgets, contribuant substantiellement à l'élargissement des déficits budgétaires (Nations Unies, 2015). Au regard de la diminution des recettes publiques et de l'augmentation des dépenses, la crise a détourné les dépenses publiques d'investissements en capital physique et humain au profit de dépenses de santé et autres dépenses sociales. Les investissements privés étrangers et nationaux ont également été en diminution à court terme, souvent en raison de l'alarmisme généré par la maladie (Nations Unies, 2015).

La crise d'Ebola a réduit l'offre de travail (y compris chez les expatriés), diminuant potentiellement la quantité et la qualité de biens et

services produits, en particulier la prestation de services publics (Nations Unies, 2015). La mortalité et la morbidité dues à la maladie ont réduit le nombre d'agriculteurs pouvant travailler dans l'agriculture et fait payer un lourd tribut aux travailleurs du secteur de la santé (Nations Unies, 2015). Les pressions inflationnistes augmentaient à mesure que l'épidémie se répandait, sapant la compétitivité des entreprises et des commerçants et provoquant une baisse du pouvoir d'achat des ménages (Nations Unies, 2015). Les avoirs extérieurs ont nettement diminué et les monnaies locales se sont dépréciées alors que le commerce extérieur s'étiolait et que la demande de dollars augmentait. Les réserves monétaires des pays avaient également été touchées (Nations Unies, 2015).

Compte tenu du coût économique de l'épidémie d'Ebola, l'on est tenté de se poser la question suivante : quels pourraient être les effets économiques de la pandémie de la CoViD-19 en Afrique subsaharienne, sachant qu'elle menace l'humanité tout entière en se répandant partout dans le monde, paralysant des pays entiers, suscitant la psychose et plongeant le monde dans une crise inédite ?

La peur de la maladie et d'un décès prématuré fait de la lutte contre la CoViD-19 l'une des principales préoccupations mondiales actuelles. La santé apporte aux individus et aux familles une perspective d'épanouissement personnel et la possibilité d'assurer leur sécurité économique dans le futur. Elle est à la base du rendement professionnel, du potentiel d'apprentissage à l'école et de la capacité de développement intellectuel, physique et affectif. Compte tenu de la propagation exponentielle de la CoViD-19, du nombre de décès fulgurant qui en découle et des mesures gouvernementales de confinement, l'objectif de ce papier est de déterminer l'incidence que cette pandémie aurait probablement sur l'activité économique afin d'éclairer les gouvernements sur les mesures qu'ils pourraient prendre pour stabiliser leur économie à terme, étant donné que « gouverner c'est prévoir ».

Loin de faire une analyse empirique du sujet, ce papier se borne à l'étude prospective des conséquences économiques de la CoViD-19 à la lumière de la théorie du capital humain, et des prévisions axées sur les scénarios projetés par les organismes internationaux (FMI, Banque mondiale) et les études antérieures. Dans cette perspective, la théorie de la croissance endogène sera mobilisée dans la première section pour montrer l'importance du capital humain pour la croissance à long terme. Ensuite une synthèse des travaux empiriques sur le lien entre la santé et la croissance fera l'objet de la deuxième section. Enfin, la troisième section permettra de faire une synthèse des effets économiques probables de la CoViD-19.

## **1. Théorie de la croissance endogène et capital humain : l'importance de la santé**

Pour les tenants de la théorie de la croissance endogène, le progrès technique ne tombe pas du ciel. Les théories de la croissance endogène considèrent le facteur résiduel comme un facteur endogène. Elles montrent que les externalités technologiques et de connaissances permettent de compenser l'effet des rendements décroissants de l'accumulation du capital et de maintenir l'économie sur un sentier de croissance soutenue à long terme. La croissance économique est ainsi assimilée à un phénomène autoentretenu par l'accumulation de quatre facteurs<sup>1</sup> principaux : le capital physique, la technologie, le capital public et le capital humain.

### **1.1. Capital physique**

C'est l'équipement dans lequel une entreprise investit pour produire des biens et services. Romer (1986) a proposé un modèle qui repose sur les phénomènes d'externalités<sup>2</sup> entre les firmes. Ce phénomène s'explique par le fait que l'investissement dans de nouvelles technologies est le point de départ des nouveaux apprentissages par la pratique (*learning by doing*). Or, ce savoir ne peut être approprié par la firme qui le produit. Il se diffuse donc inévitablement aux autres firmes. L'investissement agit donc directement sur la croissance et indirectement sur le progrès technique.

### **1.2. Technologie**

Pour Romer (1986), le changement technique sera d'autant plus intense que les innovateurs espèrent en tirer un profit important. Le progrès technique n'est pas exogène, il est produit. Son niveau de production dépend de la rémunération attendue, c'est-à-dire des droits de propriété et des rentes monopolistiques. Si au travail et au capital, on ajoute des idées nouvelles génératrices de changement technique, tout sera modifié. En effet, contrairement au capital dont les rendements sont décroissants et au travail dont les rendements sont constants, les idées ont un rendement croissant (plus on s'appuie sur un stock d'idées important, plus on aura de nouvelles idées). Le progrès est d'autant plus intense que le nombre de chercheurs est élevé et le stock de connaissances important. Ainsi pour Romer (1986), le rythme de croissance ne va pas en déclinant au fur et à mesure que l'on s'approche de l'état régulier<sup>3</sup>, comme le prétendait Solow (1956). Il dépend du nombre, de la proportion et de la productivité des chercheurs, c'est-à-dire de la capacité

---

<sup>1</sup> Le rythme d'accumulation de ces facteurs dépend des choix économiques. C'est pourquoi on parle de théories de la croissance endogène.

<sup>2</sup> En investissant dans de nouveaux équipements, une firme se donne les moyens d'accroître sa production mais également celle des autres firmes (concurrentes ou non).

<sup>3</sup> Seuil où la production par tête croît moins que les coûts liés à son augmentation.

des rendements croissants de la recherche à compenser les rendements décroissants de l'investissement matériel. La diffusion de la connaissance parmi les producteurs et les effets externes du capital humain évitent la baisse du rendement de l'investissement (décroissance des rendements du capital). Dans ce contexte, la croissance peut se poursuivre à long terme.

### **1.3. Capital public**

Il correspond aux infrastructures de communication et de transport. Il est au cœur du modèle élaboré par Barro (1991). En théorie, le capital public n'est qu'une forme de capital physique. Il résulte des investissements opérés par l'Etat et les collectivités locales. Le capital public comprend également les investissements dans les secteurs de l'éducation et de la recherche. En mettant l'accent sur le capital public, cette nouvelle théorie de la croissance développée par Barro (1991) souligne les imperfections du marché. Outre l'existence de situations de monopole, ces imperfections proviennent des problèmes d'appropriation de l'innovation. Du fait de l'existence des externalités entre les firmes, une innovation se diffuse d'une façon ou d'une autre dans la société. La moindre rentabilité de l'innovation dissuade l'agent économique d'investir dans la recherche-développement. Dans ce contexte, il incombe à l'Etat de créer des structures institutionnelles pour soutenir la rentabilité des investissements privés et de subventionner les activités insuffisamment rentables. Tous ces travaux ont été prolongés par Grossman et Helpman (1991), Aghion et Howitt (1992), Barro et Sala-i-Martin (1995). Il en ressort que les découvertes n'ont pas tendance à s'épuiser et les taux de croissance peuvent rester positifs à long terme. Le taux de croissance à long terme dépend des actions gouvernementales (politique fiscale, respect des lois, fourniture des biens collectifs, développement des marchés financiers, etc.). Le gouvernement a ainsi un pouvoir d'infléchissement du taux de croissance à long terme.

Puisque l'Homme est le moteur de l'investissement, de la création et l'utilisation des biens d'équipement, de la mise sur pied et de l'implémentation des politiques publiques, le capital physique, la technologie et le capital public seraient dépourvus de sens sans l'existence humaine. La théorie de la croissance endogène explique donc la poursuite de la croissance économique à long terme par l'amélioration des capacités humaine constituant le capital humain.

### **1.4. Capital humain**

Le capital humain a été mis en évidence par les économistes de l'Ecole de Chicago, notamment Becker (1964) qui est au centre des études menées par Lucas (1988). Le capital humain désigne les capacités apprises par les individus. Ces capacités accroissent leur efficacité productive. Chaque

individu est en effet propriétaire d'un certain nombre de compétences qu'il valorise en les vendant sur le marché du travail. Dans ce schéma, l'éducation est un investissement dont l'individu attend un certain retour. Lucas (1988) souligne que la tendance à allonger la durée moyenne de la scolarité est un facteur important de la croissance économique.

Le cadre théorique issu de l'approche endogène de la croissance apparaît compatible avec une analyse intégrant le facteur santé dans le processus de l'accumulation des richesses. L'intérêt et l'importance de l'investissement en capital humain dans la promotion de la croissance peuvent se résumer en cette phrase de Mingat cité par Psacharopoulos : « l'investissement en infrastructure et en capital physique n'atteindra pas tout son potentiel si on n'a pas investi dans les personnes qui sont de façon ultime responsable du fonctionnement du capital physique ». La santé fait partie, avec l'éducation et la formation professionnelle, du capital humain. Le capital éducatif comprend la formation initiale et la formation permanente, ainsi que l'ensemble des aptitudes. Ce concept a ensuite été appliqué à la santé par Grossman (1998). Par contre le capital santé collectif, celui d'une société ou d'une nation est d'abord la somme des capitaux individuels qui les composent, mais pas seulement. Deux facteurs s'y ajoutent : les économies externes et les préoccupations collectives éthiques. On en trouve les effets avec la contagion et l'incertitude. Ma santé individuelle dépend en effet de celle de mon voisin. D'abord par risque de contagion : le SIDA, la tuberculose, l'Ebola ou la CoViD-19. Ensuite, du niveau de risque toléré dans la société : en situation d'incertitude, j'ai intérêt, à cause du « voile d'ignorance », à ce que toute la société se protège des risques pour m'en protéger, donc à ce que mon voisin en soit aussi protégé.

Grossman (1998) a présenté la santé comme un bien durable et l'a intégrée dans un modèle général de consommation et d'investissement des ménages. Tout agent économique hérite d'un capital humain, qui tend à se déprécier à un rythme croissant avec l'âge. Mais Grossman (1998) considère l'individu en partie comme un producteur de sa propre santé. Il optimise son revenu et sa consommation au cours de sa vie en luttant contre cette dépréciation par ses attitudes préventives, en y consacrant du temps et en utilisant des soins. Cette optimisation se fait sous contrainte de temps et de revenu. On distingue deux sous modèles. L'un considérant la santé comme un investissement permettant d'augmenter la capacité de production et de gain. La demande de santé est alors une demande dérivée de la demande générale de bien-être. Ce raisonnement s'applique bien aux adolescents et à la population active dans une optique individuelle. Au niveau collectif, il y échappe dans les zones touchées par le chômage où une partie de la population d'âge actif peut rester à la fois inoccupée et en mauvaise santé sans effet sur l'économie. Le second sous modèle considère la santé comme une

consommation pure : elle améliore l'utilité tirée de la vie et des autres consommations. Cette analyse s'applique dans un modèle général où les consommations individuelles et collectives sont à la fois les autres biens durables, les consommations courantes, mais aussi la vie personnelle. L'optique consommation pure s'applique aux inactifs et en particulier aux retraités. L'approche de Grossman (1998) fait de la santé un facteur endogène dans l'ensemble des comportements économiques.

L'amélioration de la santé contribue donc à la croissance économique et cela de différentes façons : elle limite le manque à produire imputable à l'incidence de la morbidité sur la main d'œuvre ; elle permet d'exploiter des ressources naturelles qui, situées dans des zones infestées de vecteurs d'agents pathogènes, étaient totalement ou largement inaccessibles ; elle accroît le taux de fréquentation scolaire et permet aux enfants de mieux assimiler ce qu'on leur enseigne ; enfin, elle libère à d'autres fins les ressources qui auraient servi, sinon à soigner les malades. Les effets les plus évidents de l'amélioration de la santé sur la population active sont la réduction du nombre de journées perdues pour cause de maladies, l'augmentation de la productivité, l'amélioration des chances d'accéder à des emplois mieux rémunérés et l'allongement de la durée de vie active.

Les lignes qui précèdent témoignent considérablement de l'importance de la santé, composante essentielle du capital humain, pour le développement économique compte tenu de la théorie de la croissance endogène. Cependant, les travaux empiriques présentent des résultats ambigus quant au lien santé-croissance. La section suivante permettra de synthétiser les résultats des investigations empiriques sur ledit lien.

## **2. Santé et croissance économique : une synthèse des résultats empiriques**

La relation entre l'état de santé et la croissance dans les analyses macroéconomiques trouve sa justification dans les travaux de nature microéconomique montrant le lien entre l'état de santé et l'offre de travail (quantité et productivité), d'une part et entre état de santé et capital humain, d'autre part. L'état de santé peut alors être introduit dans la fonction de production agrégée comme un vecteur nécessaire de l'accumulation du capital humain qui est lui-même un élément essentiel de la croissance endogène dans un modèle de type Lucas (1988). Une autre approche, basée sur les travaux de Nelson et Phelps (1966), présente le capital santé comme un élément important de l'absorption et de la diffusion de la technologie au sein d'une économie assurant ainsi un taux de croissance plus élevé. Implicitement, ces modèles macroéconomiques supposent que l'état de santé est le résultat d'investissements dans le secteur de la santé. Il existerait alors une fonction de

production qui aurait pour *output* l'état de santé et pour *input* les ressources du secteur de la santé (en capital, en travail et en technologies).

Les travaux empiriques, au niveau macroéconomique, sur les relations entre l'état de santé et la croissance ont émergé avec le développement des théories de la croissance endogène à partir des années 1990 (Ulmann, 1999) et la mise en place de bases de données internationales. Ces travaux économétriques portant sur des modèles de mesure des sources de la croissance peuvent se diviser en deux grandes catégories : ceux qui concernent un vaste échantillon de pays (avec, notamment, un grand nombre de pays en développement), d'une part et, d'autre part, ceux qui portent spécifiquement sur les pays développés. Si la relation positive entre l'état de santé et la croissance est largement validée pour les pays en développement, elle reste fragile, voire remise en cause, pour les pays développés (Yusuf et Rodrigo, 2012). Aussi, face aux limites de ces travaux macroéconomiques, les études renvoient généralement aux travaux de nature microéconomique ou aux approches en termes de fondements micro de la macroéconomie, travaux de modélisation à caractère plus théorique dont il est plus difficile d'extraire des conclusions empiriques (Yusuf et Rodrigo, 2012).

La majeure partie des travaux empiriques macroéconomiques étudiant la relation entre l'état de santé et la croissance s'inscrit dans le domaine de l'économie du développement, visant à estimer le poids des déterminants des différentiels de croissance entre pays riches et pays pauvres à partir de régressions sur un échantillon plus ou moins large de pays (Yusuf et Rodrigo, 2012). Une augmentation de 10 % de l'espérance de vie à la naissance contribue au moins à 0,3 point de croissance supplémentaire par an (Yusuf et Rodrigo, 2012). Pour la quasi-totalité des études regroupant un large échantillon de pays, la santé a un impact important sur la croissance, une augmentation de cinq ans de l'espérance de vie se traduisant par 0,3 à 0,5 point de croissance supplémentaire (Kocoglu et De Albuquerque, 2009). Un second résultat important émerge de ces analyses : l'impact de la santé sur la croissance serait marginalement décroissant, devenant nul au-delà d'un certain niveau de santé (Bhargava *et al.*, 2001 ; Jamison *et al.*, 2004).

Acemoglu et Johnson (2008), qui régressent l'augmentation de la durée de vie sur le PIB par habitant sur la période 1940-1980, obtiennent un résultat non significatif qu'ils attribuent aux effets négatifs de la taille de la population sur la croissance. Ainsi, les améliorations de l'état de santé auraient deux effets négatifs sur le revenu par tête selon la théorie néoclassique de la croissance : l'effet de «Solow» (dilution du stock de capital) et celui de Malthus (réduction de la quantité de terre par travailleur), qui engendrent respectivement une réduction des ratios capital/travail et terre/travail. Même si le déclin initial du revenu par tête peut *a posteriori* être compensé par l'augmentation de l'*output* et de la population active, cette compensation est

insuffisante si les gains de productivité liés à l'augmentation de l'espérance de vie sont limités et si l'offre de certains facteurs de production (comme la terre) est inélastique (Yusuf et Rodrigo, 2012).

Cependant, cette conclusion est remise en cause par l'étude relativement robuste d'Aghion *et al.* (2010). Les auteurs reprennent l'étude d'Acemoglu et Johnson (2008) et y ajoutent à l'effet traditionnel de l'accumulation du capital santé sur la croissance (effet Lucas) l'effet du stock de capital santé (effet Nelson-Phelps), en introduisant le niveau d'espérance de vie à la date initiale (1940). Ils obtiennent alors un impact fort et positif du niveau initial et du taux de croissance de l'espérance de vie sur la croissance du PIB par tête. L'introduction par Aghion *et al.* (2010) de cet effet Nelson-Phelps permet ainsi de prendre en compte la convergence des espérances de vie entre les pays en développement et les pays développés.

Au final, et bien que les résultats quantitatifs demeurent fragiles et hétérogènes en raisons de problèmes économétriques importants (endogénéité, multicollinéarité), ces études montrent une certaine convergence dans la reconnaissance d'effets importants de l'état de santé sur la croissance dans les pays en développement. Dans certaines études (Barro, 1996 ; López-Casnovas *et al.*, 2005), l'influence de la santé est même supérieure à celle de l'éducation, traditionnellement considérée comme l'élément central du capital humain.

Généralement, les études macroéconométriques qui testent la relation santé-croissance utilisent des échantillons regroupant à la fois des pays développés et des pays en développement. Or, cette association présente trois principales sources de biais qui peuvent sensiblement fragiliser les conclusions : différences dans les patrons de morbidité, dans les paramètres de la fonction de production et dans les niveaux d'espérance de vie à l'état initial (Yusuf et Rodrigo, 2012).

La première spécificité des pays développés est avant tout celle de leur patron de morbidité (Suhrcke *et al.*, 2005). Ainsi, alors que la charge de la maladie repose avant tout dans les pays pauvres sur des maladies transmissibles liées à des facteurs de risque spécifiques (maladies périnatales, déficiences nutritionnelles), dans les pays développés, la morbidité est surtout liée à des maladies non contagieuses, généralement associées au mode de vie (diabète, maladies mentales) et bien plus complexes et coûteuses à combattre que les maladies infectieuses (Yusuf et Rodrigo, 2012). Il existe ainsi une relation fortement décroissante entre la part des années de vie perdues en raison des maladies transmissibles et le niveau de revenu du pays : pour les pays à haut niveau de revenu, les maladies transmissibles représentent moins de 10 % des années de vie perdues, contre 70 % pour les pays à bas revenus (Yusuf et Rodrigo, 2012).

La principale conséquence de cette différence dans les patrons de morbidité est la suivante : alors que les indicateurs de mortalité sont pertinents comme *proxies* de l'état de santé des personnes d'âge actif dans les pays en développement, ils sont imparfaits dans les pays industrialisés, pour lesquels des indicateurs de morbidité, notamment liés à l'incapacité et à la dégradation des fonctions cognitives, pourraient être plus adaptés (Yusuf et Rodrigo, 2012). Un autre effet de cette différence dans le patron de la charge de maladie est que la variance des indicateurs de mortalité entre pays développés n'est pas significative, ce qui tend à biaiser le résultat des régressions basées sur l'espérance de vie ou des indicateurs de mortalité ou de survie (Yusuf et Rodrigo, 2012).

La deuxième grande spécificité des pays développés par rapport aux pays en développement est que les paramètres de leur fonction de production sont significativement différents. En effet, la combinaison productive des pays développés intègre une part plus importante de progrès technique et de capital humain et une part moins importante d'activités intensives en travail (Yusuf et Rodrigo, 2012). Les effets d'une mauvaise santé sur la production ne transitent pas par les mêmes canaux et, par exemple, une mauvaise santé physique aura des effets plus importants sur la production dans les pays en développement que dans les pays développés (Yusuf et Rodrigo, 2012). Aussi, modéliser au sein d'une même fonction de production relativement basique les effets de l'état de santé sur la croissance des pays en développement et des pays développés entraîne nécessairement des biais dans les résultats (Yusuf et Rodrigo, 2012).

Enfin, l'étude de Aghion *et al.* (2010) soulève une troisième spécificité des pays développés par rapport aux pays en développement soulignant au passage un nouvel aspect de la fragilité des études macroéconomiques mêlant pays développés et pays en développement. Les auteurs montrent que sur la période 1940-1980, les espérances de vie des pays ont convergé : les gains d'espérance de vie ont été de 20 ans pour les pays avec un revenu par habitant faible contre une hausse de 9 ans pour les pays avec un revenu par habitant élevé. Aussi, l'écart d'espérance de vie entre les deux groupes de pays a été divisé par deux sur la période, passant de 20 ans à 10 ans alors que dans le même temps le revenu par habitant des pays développés a augmenté plus vite que celui des pays à revenu par habitant faible (2,5 % par an en moyenne contre 2,3 %). L'omission de cet effet dit de rattrapage de l'espérance de vie biaise considérablement les résultats des estimations.

Ces trois sources de biais justifient l'étude de la relation entre l'état de santé et la croissance avec un échantillon spécifique aux pays développés. Le lien significatif et positif entre état de santé (généralement approximé par des indicateurs de mortalité ou d'espérance de vie) et croissance, constaté pour les

pays en développement, est moins net lorsqu'on se focalise sur les pays à hauts revenus (Yusuf et Rodrigo, 2012).

En effet, la santé n'est pas toujours positivement corrélée à la croissance, la relation étant même négative parfois. Knowles et Owen (1995), par exemple, incorporent l'espérance de vie comme *proxy* de la santé dans un modèle de croissance de type Mankiw-Romer-Weil (1992) et estiment la relation par les moindres carrés ordinaires. Pour leur échantillon global de 84 pays, la corrélation entre le revenu par tête (ou le taux de croissance) et l'espérance de vie est forte et robuste (plus forte que celle entre éducation et revenu), mais celle-ci n'est pas statistiquement significative dans le sous-échantillon de 22 pays développés. Si certains ont pu y voir la preuve des rendements décroissants de la santé, un consensus se dessine quant au fait que ces résultats pourraient être avant tout expliqués par des problèmes méthodologiques liés notamment au choix des indicateurs de l'état de santé (Yusuf et Rodrigo, 2012). Des indicateurs de morbidité par pathologie et par facteurs de risque spécifiques aux pays riches, comme l'obésité, les maladies cardiovasculaires, les incapacités ou encore les déficiences cognitives, seraient ainsi à privilégier sur les indicateurs de mortalité, posant dès lors le problème de disponibilité des données sur longue période et pour un assez vaste échantillon de pays (Yusuf et Rodrigo, 2012).

Rivera et Currais (1999) concentrent, quant à eux, leur analyse sur 24 pays développés, toujours à l'aide d'un modèle de type Mankiw-Romer-Weil (1992), mais en utilisant cette fois les dépenses de santé comme un *proxy* de l'état de santé. Leurs estimations par la méthode des moindres carrés ordinaires et des doubles moindres carrés avec plusieurs variables instrumentales, aboutissent à un fort impact positif et robuste des dépenses de santé par tête sur le PIB par tête. Ces résultats ont été par la suite confirmés par ceux de Beraldo *et al.* (2005), mais ils doivent être pris avec précaution en raison de la forte endogénéité des dépenses de santé par rapport au PIB et du fait que cet indicateur n'est pas corrélé avec les indicateurs usuels de l'état de santé.

Suhrcke et Urban (2006) font ainsi valoir que le lien entre les dépenses et les différents *outcome* de santé n'est pas encore assez bien connu et démontré pour que le premier soit utilisé comme un *proxy* du second. Ils utilisent comme indicateur d'état de santé, dans leur régression de croissance, le taux de mortalité par maladies cardiovasculaires parmi la population d'âge actif. Leurs résultats sont particulièrement robustes et significatifs en ce qui concerne les pays développés : 1 % d'amélioration de cet indicateur de santé engendrerait un gain de 0,1 % point du taux de croissance du revenu par habitant dans les cinq années suivantes. En ce qui concerne l'échantillon de pays à bas et moyens revenus, cet indicateur n'a aucune influence sur la croissance.

Ulmann (2003) estime les corrélations croisées du taux de croissance des dépenses nationales de santé (en % du PIB) avec le taux de croissance du PIB pour 22 pays de l'OCDE entre 1960 et 1996. Il conclut que, pour huit des vingt-deux pays analysés (Allemagne, Autriche, Danemark, France, Italie, Pays-Bas, Portugal et Grèce), il existe une corrélation significative et positive entre la dépense nationale de santé en  $t$  et le PIB en  $t+2$  et/ou en  $t+3$ . Ces résultats inciteraient, selon l'auteur, à repousser l'hypothèse « libérale » d'une relation négative de court terme entre les dépenses de santé et la croissance dans les pays développés en raison du poids excessif des dépenses publiques. Il n'en demeure pas moins que ces résultats sont soumis à des problèmes liés à la faible profondeur de la base (36 années), au faible nombre de pays avec un résultat positif (8/22), et aux limites intrinsèques de l'analyse par corrélations croisées. Il reste donc un large travail à accomplir quant à la disponibilité et au choix d'indicateurs spécifiques au profil de morbidité des pays développés avant de pouvoir espérer obtenir des résultats plus pertinents de ce genre d'analyse (Yusuf et Rodrigo, 2012).

Néanmoins, l'effet positif de l'amélioration de l'état de santé (notamment des gains en longévité) sur la croissance de long terme semble prévaloir, notamment si l'on suit les conclusions des études relativement robustes de Aghion *et al.* (2010) ou Suhrcke et Urban (2006), même si ce résultat ne fait pas encore totalement consensus. En termes d'implications politiques, ces résultats confirment que l'état de santé tient une place importante parmi les sources de la croissance et que les dépenses publiques de santé doivent également être analysées sous cet angle pour la croissance de long terme d'une économie.

Au-delà de son effet sur la croissance *via* l'amélioration de l'état de santé général de la population, le secteur de la santé est aussi source (directe et indirecte) de croissance par son activité productive même, notamment par les retombées (*spillovers*) de ses activités de recherche et développement (R&D) sur l'ensemble de l'économie (Yusuf et Rodrigo, 2012).

Les développements théoriques et empiriques précédant montrent à suffisance le rôle indispensable de la santé comme ressource fondamentale du capital humain dans le processus de développement économique des nations. L'on peut donc s'attendre à ce que la pandémie de la CoViD-19 qui détériore considérablement la vie des habitants dans le monde amenuise significativement le bien-être des populations et par ricochet affecte globalement la santé socioéconomique des nations. Les paragraphes qui vont suivre permettront d'éclairer les consciences individuelles et collectives sur les conséquences socioéconomiques qui résulteraient de l'expansion de la pandémie de la CoViD-19 dans le monde en général, et en Afrique subsaharienne en particulier.

### 3. Retombées économiques

Le nombre de cas confirmés de CoViD-19 en Afrique subsaharienne est en augmentation rapide. Alors que le rythme d'apparition de nouveaux cas dans la sous-région était initialement très proche de celui observé dans la plupart des autres pays, avec un doublement du nombre de cas tous les trois jours, l'augmentation quotidienne des cas s'est quelque peu infléchi depuis la première semaine d'avril sur fond des mesures strictes d'endiguement et d'atténuation instaurées dans plusieurs pays (Calderon *et al.*, 2020). Au 9 avril, plus de 6 200 cas étaient confirmés dans 43 pays de la sous-région, l'Afrique du Sud, le Cameroun et le Burkina Faso étant les plus touchés (FMI, 2020).

Selon la Commission économique des Nations Unies pour l'Afrique, les pays africains devraient se préparer à voir leur croissance divisée par deux, la faisant ainsi passer seulement à 2% au lieu des 4% prévus initialement (Boutaleb, 2020). Le PIB réel en Afrique subsaharienne devrait se contracter de 1,6 % en 2020, le pire résultat jamais enregistré. Ce chiffre est inférieur d'environ 5,2 points de pourcentage à celui qui était envisagé dans l'édition d'octobre 2019 des *Perspectives économiques régionales pour l'Afrique subsaharienne* (FMI, 2020). Cette forte révision à la baisse s'explique en grande partie par les conséquences de la propagation de la CoViD-19 et des cours des produits de base inférieurs aux prévisions (FMI, 2020). En outre, des facteurs spécifiques tels que des contraintes structurelles permanentes (Afrique du Sud), l'ajustement de la politique économique (Éthiopie) ainsi que des chocs climatiques et autres chocs naturels comme l'invasion de sauterelles (Afrique orientale) ont également contribué à ces révisions à la baisse (FMI, 2020).

Selon Calderon *et al.* (2020), la croissance économique en Afrique subsaharienne passera de 2,4 % en 2019 à une fourchette entre -2,1 % et -5,1 % en 2020, ce qui constituera la première récession enregistrée dans la sous-région depuis 25 ans. Selon ces derniers, les pertes de production dans la sous-région pour 2020 vont se chiffrer entre 37 et 79 milliards de dollars américains. La révision à la baisse de la croissance en 2020 reflète les risques macroéconomiques découlant de la chute brutale de la croissance du PIB des principaux partenaires commerciaux de la sous-région, particulièrement la Chine et la zone euro, de la baisse du prix des matières premières, de la réduction de l'activité touristique dans de nombreux pays ainsi que des mesures destinées à maîtriser la pandémie mondiale de la CoViD-19 (Calderon *et al.*, 2020). Grosso-modo, la pandémie de CoViD-19 amenuisera la situation économique des pays d'Afrique subsaharienne par plusieurs canaux.

### **3.1. Effets sanitaires intérieurs**

Outre les coûts humains croissants, la fermeture des lieux de travail, la perturbation des filières d'approvisionnement et la diminution de la main-d'œuvre due à la maladie ou aux décès peuvent profondément perturber la production. En outre, un confinement peut avoir des effets dévastateurs (par exemple, l'insécurité alimentaire) sur des foyers vulnérables qui vivent dans la précarité et ont un accès limité aux filets de sécurité sociale (FMI, 2020). Par ailleurs, la perte de revenus, la peur de la contagion, la perte de confiance et l'incertitude accrue sont autant d'éléments qui réduisent la demande (FMI, 2020).

La CoViD-19 est susceptible de créer une grave crise en termes de sécurité alimentaire en Afrique subsaharienne. La contraction de la production agricole pourrait aller de 2,6 % dans le scénario optimiste jusqu'à 7 % dans le scénario avec blocages commerciaux. Les importations alimentaires baisseraient également de façon considérable (de 13 à 25 %) en raison de la combinaison de coûts de transaction plus élevés avec une demande intérieure réduite (Coladeron *et al.*, 2020).

Les effets seront également ressentis sur le court terme en Afrique subsaharienne puisque l'Afrique dépend de ses importations autant qu'il dépend de ses exportations. Avec le confinement de plusieurs de leurs partenaires, l'accès aux chaînes d'approvisionnement mondiales sera plus compliqué que par le passé (Boutaleb, 2020). La forte demande, couplée à une offre en baisse, pourrait également impacter les prix des produits mais également leur disponibilité pour les petits commerçants et entreprises africaines (Boutaleb, 2020).

Les pertes de bien-être des ménages en 2020 s'élèveront à 7 % par rapport à un scénario sans CoViD-19, mais pourraient atteindre 10 % si la crise devait se prolonger. La détérioration des termes de l'échange (à la suite à l'effondrement des prix des produits de base) combinée à une baisse de l'emploi se traduit par une forte perte de bien-être pour les ménages (Calderon *et al.*, 2020).

### **3.2. Effets sur les flux réels et monétaires**

En ce qui concerne les échanges, un brutal ralentissement de la croissance des principaux partenaires commerciaux diminue la demande extérieure tandis que les perturbations des filières d'approvisionnement réduisent la disponibilité des produits importés, ce qui pourrait engendrer des pressions inflationnistes (FMI, 2020). En outre, le resserrement brutal des conditions financières mondiales réduit les flux d'investissement vers la sous-région et sa capacité à financer les dépenses nécessaires pour gérer la crise sanitaire et soutenir la croissance. Cela pourrait entraîner une baisse des dépenses publiques, une accumulation d'arriérés ou une augmentation des

emprunts d'État sur les marchés locaux, avec les conséquences qui s'ensuivent sur le crédit et la croissance (FMI, 2020). Pour les pays pré émergents, l'arrêt brutal des entrées de capitaux et les sorties de capitaux pèsent sur les taux de change et peuvent causer un ajustement conséquent du solde courant par une contraction de la demande intérieure et d'autres pressions sur les bilans dans les pays qui présentent de fortes asymétries de devises (FMI, 2020). Le ralentissement de la croissance mondiale pourrait également faire baisser les envois de fonds, ce qui réduirait le revenu disponible et s'ajouterait aux pressions externes (FMI, 2020). En outre, certains secteurs tels que le tourisme, l'hôtellerie et le transport peuvent être gravement touchés par les restrictions des déplacements (FMI, 2020).

Des stratégies ayant pour résultat des blocages des échanges sous-régionaux vont accroître les coûts de transaction et mener à des pertes de bien-être encore plus fortes. En Afrique, une région qui dépend des produits agricoles, ces stratégies auront un impact disproportionné sur le bien-être des ménages à cause des augmentations de prix et des déficits d'approvisionnement (Calderon *et al.*, 2020).

### **3.3. Effets sur les produits de base**

La forte chute des prix des produits de base est un choc de plus pour les pays de la sous-région riches en ressources naturelles, qui accentue encore l'impact de la pandémie. Le choc sur les termes de l'échange pèsera sur la croissance et aggravera la vulnérabilité budgétaire et extérieure, mais surtout, de faibles recettes issues des produits de base réduiraient sensiblement les ressources de ces pays pour combattre l'épidémie et soutenir la croissance (FMI, 2020).

Selon le FMI (2020), ces chocs viennent aggraver une situation économique déjà difficile dans la sous-région. En effet, l'activité économique dans les pays riches en ressources naturelles a été terne ces dernières années, car la plupart des pays s'ajustaient encore au choc sur les cours des produits de base de 2014. Dans le même temps, la forte croissance dans les pays pauvres en ressources naturelles a souvent été soutenue par les investissements du secteur public et s'est accompagnée d'une augmentation de la dette et de la vulnérabilité extérieure (FMI, 2020). En outre, selon le FMI (2020), la situation sécuritaire au Sahel reste difficile et le continent a subi de multiples chocs météorologiques parmi lesquels des cyclones, des sécheresses en Afrique australe et orientale (surtout au Mozambique, en Zambie et au Zimbabwe) et des nuages de sauterelles dévastateurs (en particulier en Éthiopie, au Kenya, en Ouganda et au Soudan du Sud).

Les pays dépendants de leurs ressources naturelles, comme c'est le cas de bon nombre d'entre eux sur le continent, verront leurs revenus impactés négativement (Boutaleb, 2020). En effet, une baisse du prix et de la demande

des matières premières résulte en une baisse des revenus. C'est le cas de la Guinée qui dépend de ses exportations de bauxite, principalement en Chine, mais également celui des économies tributaires des produits pétroliers, comme l'Angola et le Nigeria. Le prix d'un baril de pétrole a effectivement largement chuté en dessous du seuil de rentabilité fixé sur lequel les pays prévoient leur budget annuel inquiétant ainsi les gouvernements de ces pays (Boutaleb, 2020). Pour le Nigeria par exemple, le prix de référence sur lequel le budget a été conçu est de 57 dollars tandis que les prévisions pour le second et troisième trimestre de l'année 2020 situent le prix d'un baril à 30 dollars, ce qui représente un coup dur pour le géant ouest-africain (Boutaleb, 2020).

La CoViD-19 frappe les trois plus grandes économies de la sous-région (le Nigeria, l'Afrique du Sud et l'Angola) dans le contexte d'une faiblesse persistante de la croissance et des investissements, et d'un déclin des prix des matières premières (Coladeron *et al.*, 2020). Selon ces derniers, les prix du pétrole brut et des métaux industriels ont fortement baissé (de 50 et 11 % respectivement entre décembre 2019 et mars 2020). Les simulations des modèles suggèrent que, comparé à un scénario de base sans CoViD-19, la croissance moyenne du PIB réel dans ces trois pays pourrait connaître une réduction allant jusqu'à 6,9 points de pourcentage en 2020 dans le scénario de base, et jusqu'à 8 points de pourcentage dans le scénario pessimiste (Coladeron *et al.*, 2020). L'Afrique du Sud a le plus grand nombre de cas confirmés dans la région et les mesures strictes de lutte contre le virus et d'atténuation de ses conséquences pèsent sur son économie (Coladeron *et al.*, 2020).

Le FMI a annoncé, en février, que les économies des pays africains encouraient des dangers. Cela s'explique, d'une part, par la diminution de la demande chinoise, principal partenaire commercial du continent mais, également, par celle de l'Europe, très proche des pays africains. De plus, la lutte contre le virus nécessite d'augmenter les dépenses dans les secteurs les plus impactés, ce qui suggère d'injecter de l'argent dans les petites et moyennes entreprises, les ménages et de venir en aide aux travailleurs du secteur informel (Boutaleb, 2020). Cette démarche, couplée à la baisse de revenus, entraînerait sans doute une accumulation du déficit qui pourrait se solder par une dette insoutenable pour certains de ces pays (Boutaleb, 2020).

### **3.4. Effets de la fermeture des frontières**

La fermeture partielle ou totale des frontières de plusieurs pays d'Afrique subsaharienne impactera sur plusieurs secteurs économiques prioritaires de cette sous-région. Certains pays ont dû, du fait de la propagation du virus, reconsidérer la priorité du placement de leurs budgets. Alors que le Sénat nigérian venait d'approuver une demande de prêt de 22,7 milliards de dollars pour des projets d'infrastructure et de développement social

d'envergure, le gouvernement a décidé de mettre en suspens ses projets pour se concentrer sur cette lutte sanitaire (Boutaleb, 2020). Le tourisme, principal levier économique dans plusieurs Etats africains, accusera également un recul considérable. Ce secteur est considéré comme ayant un effet catalyseur sur l'ensemble de l'économie en termes de création d'emplois et d'apport de devises. De ce fait, avec la baisse brutale encaissée par le secteur, l'effet sera immédiat non seulement sur le secteur formel mais également sur le secteur informel qui en dépend largement dans ces pays (Boutaleb, 2020). Les compagnies aériennes sont également fortement touchées du fait de la suspension d'une grande partie de leurs vols. Depuis le début de l'épidémie, la compagnie nationale marocaine Royal Air Maroc a perdu près de 400 millions de dollars en deux mois (Boutaleb, 2020). C'est également le cas de plusieurs compagnies aériennes sur le continent qui peinaient déjà à se développer. Les effets seront également ressentis sur le court terme sur un continent comme l'Afrique qui dépend de ses importations autant qu'il dépend de ses exportations. Avec le confinement de plusieurs de leurs partenaires, l'accès aux chaînes d'approvisionnement mondiales sera plus compliqué qu'auparavant. La forte demande, couplée à une offre en baisse, pourrait également impacter les prix des produits mais également leur disponibilité pour les petits commerçants et entreprises africaines (Boutaleb, 2020).

En raison de la fermeture des frontières au commerce, les pertes de bien-être se monteraient à 14 % par rapport au scénario sans CoViD-19 (Coladeron *et al.*, 2020). La fermeture des frontières affecterait de façon disproportionnée les populations pauvres, en particulier les ouvriers agricoles ou la main d'œuvre non qualifiée du secteur informel (Coladeron *et al.*, 2020).

### **3.5. Effets sur les entreprises**

Lorsqu'une entreprise est victime d'une baisse de sa rentabilité, les employés n'en sont pas épargnés. Ce phénomène est relativement plus présent dans les Petites et Moyennes Entreprises (PME) qui représentent un poids important dans le tissu économique des économies d'Afrique subsaharienne. Victimes de la pandémie de la CoviD-19, les PME enregistreront à coup sûr une baisse considérable de leurs chiffres d'affaires et par ricochet une réduction de leurs profits. Pour pallier à ce problème, les chefs d'entreprise devraient développer des nouvelles stratégies en prenant des mesures pour faire face à la crise. Dans cette veine, les entreprises pourraient procéder à la réduction de leurs personnels par le chômage technique, la réduction des salaires et le recours au télétravail. Les entreprises gagneraient également à maintenir le personnel aguerri pouvant cumuler les postes de travail.

## **Conclusion et recommandations**

L'objectif de ce papier était d'analyser prospectivement les effets économiques de la pandémie de la CoViD-19 en Afrique subsaharienne. Une analyse exploratoire prenant appui sur la théorie du capital humain, les travaux empiriques antérieurs sur le lien santé-croissance et les projections économiques des organismes internationaux, notamment le FMI, a permis de constater que la pandémie de la CoViD-19 impactera négativement la situation économique des pays de cette sous-région. La gestion de la crise sanitaire liée à la CoViD-19 exige aux gouvernements des pays d'Afrique subsaharienne d'adopter urgemment des mesures correctives. Dans cette veine, le FMI (2020) recommande un certain nombre de mesures prioritaires pour contrecarrer les pertes économiques éventuelles dues à la pandémie de la CoViD-19. La première priorité pour les dirigeants est de faire tout ce qui est en leur pouvoir pour accroître les dépenses de santé publique pour faire face aux besoins croissants de services de santé et de ralentir la propagation du virus. Ensuite, une politique macroéconomique efficace est essentielle pour limiter les pertes économiques, protéger les groupes les plus vulnérables et assurer une reprise rapide lorsque la pandémie s'éloignera. Étant donné l'ampleur du choc, mais aussi son caractère temporaire, un certain soutien budgétaire discrétionnaire se justifie, même dans les pays disposant d'un espace budgétaire réduit. Il convient de privilégier les mesures ciblées qui allègent les problèmes de liquidité des entreprises (pour qu'elles puissent surmonter la crise) et des ménages (pour assurer l'approvisionnement continu en produits de première nécessité comme les produits alimentaires). Cependant, pour les pays exportateurs de pétrole qui devront affronter un choc plus long, la marge de relance budgétaire discrétionnaire est plus restreinte : l'objectif doit rester de financer les dépenses de santé prioritaires et d'entreprendre des ajustements bien rythmés des dépenses favorables à la croissance qui visent à protéger et à créer l'espace pour les dépenses sociales tout en mobilisant des financements additionnels auprès des institutions financières internationales et de la communauté des donateurs. Les mesures de relance monétaire peuvent jouer un rôle important pour contenir les répercussions économiques. La flexibilité des taux de change dans les pays dotés d'un régime de change flottant et des ponctions sur les réserves lorsque celles-ci sont suffisantes peuvent amortir en partie le choc extérieur. Pour les pays confrontés à un brusque retournement du financement extérieur et donc à une crise imminente, des mesures temporaires de gestion des flux de capitaux pourraient être envisagées. Enfin, un large soutien des partenaires au développement est indispensable pour aider la sous-région à préparer les systèmes de santé et à lever les financements indispensables. Les mesures de riposte à la crise sont temporaires et doivent être mises en œuvre dans la transparence, avec une bonne communication, pour assurer aux parties

prenantes que la hausse du déficit budgétaire et de la dette publique sera corrigée après la crise. Cette approche garantira que la sous-région reste en bonne voie d'atteindre ses objectifs à moyen terme, à savoir accroître la résilience, rétablir la croissance pour créer des emplois et atteindre d'autres objectifs de développement durable.

### References:

1. Acemoglu, D. and Johnson, S., S., 2008, "Disease and Development: The Effect of Life Expectancy on Economic Growth", *Journal of Political Economy*, 113 (5), pp. 949-995.
2. Aghion, P. and Howitt, P., 1992, "A Model of Growth Through Creative Destruction", *Econometrica*, 60, pp. 323-351.
3. Aghion, P., Howitt, P. et Murin, F., 2010, « Le bénéfice de la santé, un apport des théories de la croissance endogène », *Revue de l'OFCE*, 112, pp. 88-108.
4. Balde, A., 2004, « Influence de la santé sur la croissance économique : le cas du Sénégal », Mémoire pour le Master en Sciences Economiques présenté et soutenu en 2004, Université Cheikh Anta Diop de Dakar au Sénégal.
5. Barro, R., 1991, "Government Spending in a Simple Model of Endogenous Growth", *Journal of Political Economy*, 98, pp. 103-125.
6. Barro, R., 1996. "Health and economic growth", <http://www.paho.org/English/HDP/HDD/barro.pdf>
7. Barro, R. et Sala-i-Martin, X., 1995, "Economic Growth", London, Mac Graw Hill.
8. Becker, G., S., 1964, "Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education", University of Chicago Press, Chicago.
9. Beraldo, S., Montolio, D. and Turati, G., 2005. "Healthy, Educated and Wealthy: is the Welfare State Really Harmful for Growth?", *Universidad de Barcelona, Working Papers in Economics* 127.
10. Bhargava, A., Jamison, D., Lau, L. and Murray, C., 2001, "Modeling: the Effects of Health on Economic Growth", *Journal of Health Economics*, 20 (3), pp. 423-440.
11. Boutaleb, O., 2020, « Face au coronavirus, l'Afrique se prépare au pire », *POLICY BRIEF 20-18*, Policy Center for the New South, Mars 2020.
12. Calderon, C., Kambou, G., Zebaze Djiofack, C., Korman, V., Kubota, M., Cantu Canales, C., 2020, « Evaluation de l'impact économique de la CoViD-19 et des réponses politiques en Afrique subsaharienne », *Africa's Pulse*, N° 21 (Avril). Washington, DC. Doi: 10.1596/978-1-

- 4648-1569-0, La Banque mondiale, Licence : Creative Commons Attribution CC BY 3.0 IGO
13. FMI, 2020, « CoViD-19: Une menace sans précédent pour le développement », Perspectives Economiques Régionales pour l'Afrique subsaharienne, Avril 2020.
  14. Grossman, G., M. and Helpman, E., 1991, "Innovation and growth in the global economy", Cambridge, MA: MIT Press.
  15. Grossman, M., 1998, "On the optimal length of life", Journal of Health Economics, 17.
  16. Jamison, D., Lau, L. and Wang, J., 2004. "Health's Contribution to Economic Growth in an Environment of Partially Endogenous Technical Progress", Disease Control Priorities Project Working Paper 10.
  17. Knowles, S. and Owen, P., 1995, "Health Capital in Cross-Country Variation in Income per Capita in the Mankin-Romer-Weil model", Economic Letters, 48, pp. 99-106.
  18. Kocoglu, Y. et De Albuquerque, D., R., 2009, « Contributions du secteur santé à la croissance économique ». Paris. Rapport de recherche pour la Drees.
  19. López-Casanovas, G., Rivera, B. and Currais, L., 2005, "Health and Economic Growth". Cambridge : MIT Press, Cambridge.
  20. Lucas, R., 1988, "On the Mechanics of Economic Development", journal of monetary economics, 22, pp. 3-42
  21. Maliszewska, M., Mattoo, A., Men, D., Sbrugghe, D. v. d., 2020, "The Potential Impact of CoViD-19 on GDP and Trade : A Preliminary Assessment", Policy Research Working Paper 9211, World Bank Group.
  22. Mankiw, G., Romer, D. and Weil, D., 1992, "A Contribution to the Empirics of Economic Growth", The Quarterly Journal of Economics, 107(2), pp. 407-437.
  23. Nan-guer, K., B., 2008, « L'impact du capital humain sur la croissance économique au Tchad », Mémoire pour le DEA en Sciences Economiques présenté et soutenu en 2008, Université Cheikh Anta Diop de Dakar au Sénégal.
  24. Nations Unies, 2015, « Incidences socio-économiques d'Ebola sur l'Afrique », janvier 2015, Addis-Abeba (Éthiopie).
  25. Nelson, R. and Phelps, E., 1966, "Investment in humans, technological diffusion, and economic growth", American Economic Review, Papers and Proceedings, 61, pp. 69-75.
  26. Romer, P., 1986, "Capital, Labor and Productivity", Brooking papers on microeconomics, pp. 337-367.

27. Solow, R., 1956, "A Contribution to the Theory of Economic Growth", *Quarterly Journal of Economics*, 70, pp. 65-94.
28. Suhrcke, M. and Urban, D., 2006, "The Role of Cardiovascular Disease in Economic Growth", Venise: WHO European Office for Investment for Health and Development, Mimeo.
29. Ulmann, P., 1999, « Les relations entre santé et croissance dans les pays développés », *Les Cahiers du Gratice*, 15, pp. 9-44.
30. Ulmann, P., 2003, « Économie de la santé : quelques faits stylisés », <http://129.3.20.41/eps/hew/papers/0308/0308002.pdf>
31. Wane, Abdoul, Chu Wang, Mehmet C., Komla A. et Iyabo M., 2009, « Growth under Ebola ». Document de travail du FMI, Fonds monétaire international, Washington DC.
32. Yusuf, K. et Rodrigo, D. A. D., 2012, « Santé et croissance de long terme dans les pays développés : une synthèse des résultats empiriques », *Économie publique/Public economics* [En ligne], 24-25 | 2009/1-2, mis en ligne le 01 décembre 2012, consulté le 10 mai 2020. URL: <http://journals.openedition.org/economiepublique/8478>.



ESJ Social Sciences

### **Rose Mwikali Kithungu**

PhD Candidate, University of Nairobi, Kenya

### **Daniel Komo Gakunga**

PhD, University of Nairobi, Kenya

### **Musembi Nungu**

PhD, University of Nairobi, Kenya

Submitted: 02 September 2020

Accepted: 05 November 2020

Published: 30 November 2020

Corresponding author:

*Rose Mwikali Kithungu*

DOI: 10.19044/esj.2020.v16n31p187

 Copyright 2020 Rose Mwikali Kithungu et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

## **Influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya**

### **Abstract**

The use of Information Communication Technology (ICT) in teaching and learning has become a necessity and an opportunity for improving and enhancing acquisition of knowledge by learners. The integration of ICT in teachers' pedagogical practices has the potential to transform the teaching and learning process. ICTs have become vital tools for teachers to enhance learning through the teachers' pedagogical aspect of content preparation in classroom. The purpose of this study was to investigate the influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools. The study's specific objectives were to assess the status of teachers' integration of ICT in content preparation and to establish the influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools. The hypothesis of the study was; ICT integration does not significantly influence content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya. The study employed descriptive survey research design. The sample size comprised of 180 principals, 360 teachers and 398 students. Data was collected using questionnaires, observation schedule, and document analysis. Content validity of the research instruments was ascertained through analysis by experts in comparative education and piloting of the research instruments. Reliability was ascertained by testing and re-testing the instruments. Data analysis was done by use of the Statistical Package for Social Sciences (SPSS). Responses from the observation schedule and document

### **How to cite this article**

Kithungu, R.M., et al. (2020). Influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya. *European Scientific Journal, ESJ*, 16(31), 187. <https://doi.org/10.19044/esj.2020.v16n31p187>

analysis guide were organized into themes and integrated with rest of the data for purposes of triangulation. Pearson's Product Moment correlation coefficient was used to determine the level and strength of the relationship between ICT integration and teachers' content preparation. Pearson chi test was employed to determine the levels of significance between the variables. The study established that ICT trained teachers profoundly embraced the use of ICT skills to prepare e-based learning activities which enhanced their content preparation leading to more innovative lessons due to the acquisition of pedagogical ICT training. The study concluded that ICT integration significantly influenced teachers' content preparation by ICT and Non-ICT trained teachers. ICT trained teachers' integration of ICT in their content preparation was significantly higher at (p) 0.002 than their Non-ICT trained counterparts at (p) 0.045. It was concluded that ICT trained teachers

integrated ICT in their content preparation more than Non-ICT trained teachers in secondary schools. Hence the null hypothesis was rejected. Based on the findings and conclusions the study recommended that, The Ministry of Education (MOE) and other ICT training agencies should provide ICT in-service training programs to ensure that all teachers acquire ICT skills to utilize ICT in content preparation for quality education.

---

**Subject:** Education

**Keywords:** ICT integration, content preparation, pedagogical practices, ICT trained teachers, Non-ICT trained teachers

## 1.1 Introduction

In the recent three decades, progressive education systems have prioritized the use of Information Communication Technology (ICT) as a salient strategy that has had the capability to change teachers' pedagogical operations (Kozma & Vota, 2014). This has been based on several researches that have identified ICT as a pivotal feature of educational innovation and change. According to Ifenthaler and Schweinbenz, (2013) many countries, particularly in the developed world, have reported tangible improvements on teaching and learning following the integration of ICT in teachers' pedagogical practices. In addition developed and developing countries have attested to the fact that ICT ought to be a constituent of teachers' pedagogical practices to improve the quality of teaching and learning.

Though conventional pedagogy has shown greater educational improvements over time, the integration of ICT in teachers' pedagogical practices is believed to exhibit more significant achievements in education worldwide. According to Robinson and Latchem, (2013) education policymakers have acknowledged that for citizens to overcome the 21<sup>st</sup> Century demands they must be in a position to communicate, access information, and use emerging technologies, hence ICT must be an integral part of educational pedagogy. ICT integration in education necessitates the

incorporation of Information Communication Technologies (ICTs) in pedagogy to support and intensify the acquisition of suitable competencies within learners, which include; skills, knowledge, attitudes, and values to manage learning effectively (Heick, 2016). Pedagogy, broadly defined, entails the didactic approach and strategies that permit learning to take place, while teachers' pedagogical practices are teachers' actions and discourses that define the interaction between the teacher and the learners (Amuko, 2015).

An efficacious application of ICT in pedagogy improves teachers content preparation as well as facilitating learners' access to knowledge and developing within them higher order thinking skills, accessing variant information from the internet, increased students problem solving skills, participation in the learning process, and collaboration with other students (Heick, 2016). The World Education Forum held in Dakar, Senegal, in April 2002, recommended the utilization of ICT in teaching and learning to improve the quality of education and ensure the attainment of recognized and measurable learning results. In their quest to attain the Sustainable Development Goals (SDGs), both developed and developing countries globally embarked on educational reforms aimed at embedding ICT in educational practice (UNESCO, 2015). Teachers play a cardinal role in education; hence they require specialized ICT training to acquire skills and knowledge for appropriate incorporation of technology in their content preparation and pedagogy in general. Passi (2014) posited that, many teacher training institutions across the world had undergone structural changes in their training content due to rapid technological development to ensure that they produce teachers who can apply technology in the classroom. These initiatives resulted to the production of ICT trained teachers competent to integrate ICT in their instructions.

Countries that have fully trained their teachers on ICT and exploited the prospective use of technology in education and pedagogy, mainly in the global north, have attained significant knowledge development (Tabira & Otieno, 2017). Ishizuka (2013) found out that in the United States the International Society for Technology in Education (ISTE) provided guidelines and standards for ICT training of teachers to ensure effective integration of ICT in the learning environment at all levels. These ICT trained teachers used and applied technology in content preparation and all aspects of teaching and learning leading to the production of globally competitive learners. Studies done by Ateş, Çerçi and Derman, (2015) in Turkey indicated that though teachers were offered pre-service and in-service ICT training; the in-service courses based more on the acquisition of basic ICT skills than utilization in teaching and learning. Therefore, the Non-ICT trained teachers in Turkish schools lacked adequate pedagogic training on technology use in pedagogy which limited their content preparation. On the contrary, the ICT trained

teachers who had acquired pre-service ICT training on technology application in pedagogy exhibited improved and enriched methods of content preparation thus improved students' performance (Ateş, Çerçi and Derman, 2015).

Most African countries have embarked on educational reforms aimed at ICT integration in pedagogy and have drafted and approved ICT policies in education; in addition, they have established pre-service and in-service ICT training modules to ensure that educators gain knowhow on ICT based pedagogy to prepare globally competitive learners (Greaves, 2012). In Ghana ICT initiatives, aimed at improving educational achievements by reforming secondary education through integration of ICT in teachers' pedagogical practices. The education department endeavored to assimilate technology in pre-service and in-service teacher training for full employment of ICT in teaching and enhance learning; this initial training promoted digital literacy more than the construction of technology based instructional materials (Greaves, 2012).

As a result the Non-ICT trained teachers were unable to select relevant ICT tools, access, and appraise educational materials from variant sources for content preparation thus lowering the quality of teaching and learning. Comparatively the ICT trained teachers who had exposure to either pre-service or in-service ICT training demonstrated command on the adoption and integration of ICT in their teaching operations; consequently this resulted to increased students problem solving skills, access to expansive content and educational ideas, creativity and motivation amongst learners (Liu, 2011). Hennesy, David and Wamakote (2010) found out that East African countries, Tanzania, Uganda, among others had made the teaching profession a centre of focus due to technological advancements, expansion of knowledge, coupled with globalization. Passi (2014) asserted that despite lack of structured pre-service ICT training, efforts had been made to expose teachers to in-service pedagogical ICT training to promote the incorporation of technology in their classroom operations. This implied that majority of educators in the East African region were dearth of ICT proficiency for full usage of ICT in their pedagogical practices.

In Kenya, the use of ICT is fore grounded as a key driver of the country's vision 2030. The education sub-sector, in the vision 2030 social tower, aims at providing internationally competitive and quality education and research for sustainable development (MOE, 2013). This goal will be fulfilled by amid others, implementing Kenya's National ICT Policy. The policy aims at streamlining ICT integration in the teaching curriculum, establishing e-education networks, and promoting e-learning at all levels of education. The Ministry of Education (MOE) has embarked on initiatives to support and promote ICT incorporation in education and utilization in pedagogy (MOE, 2013). Teacher training institutions have incorporated ICT education in their

pre-service training curriculum with more emphasis on teaching with technology rather than teaching about technology, to produce ICT trained teachers. In addition, the Ministry of Education in partnership with other ICT development partners have organized in-service training programmes to enable Non-ICT trained teachers incorporate ICT in their pedagogy (Kombo, 2013).

Despite the MOE commitment to ICT integration in pedagogy; Kenya being a developing country is struggling towards the realization of full ICT integration in education and teachers pedagogical practices in particular. The initiative has been hindered by insufficient ICT infrastructural facilities, the focus of ICT as a subject rather than a pedagogical tool, coupled up with inadequate ICT training of teachers, thus, the presence of ICT and Non-ICT trained teachers in Kenyan secondary schools. This signifies that the integration and application of ICT in the teaching and learning process in the education sector in Kenya, and particularly in secondary schools is still in its infancy. However, in Africa generally, and in Kenya in particular, there has been little research to assess how the integration of ICT has impacted on teachers' content preparation. This study sought to address this gap by examining how ICT integration influences content preparation of teachers in public secondary schools in Machakos County, Kenya

## **1.2 Statement of the problem**

Utilization and integration of ICTs in pedagogy catalyzes and transforms teachers' pedagogical practices and ensures productive teaching and learning. This can be attained through professionally developing teachers who can conveniently integrate technology in their pedagogical practices and particularly in content preparation. In Kenya, the Ministry of Education has prioritized ICT integration in teaching through the inclusion of ICT education in teacher training institutions for the inclusion of ICTs in secondary school pedagogy. In addition the MOE has partnered with other development agencies in an endeavor to provide ICT in-service training to secondary school teachers to facilitate the incorporation of ICT in their didactics. However, the initiative has faced challenges such as; inadequate ICT training which has prioritized provision of technological literacy than ICT based pedagogy to enable teachers entirely integrate ICT in their instructions, inadequate ICT facilities, and the target of ICT as a subject rather than a tool for curriculum strengthening. This has led to low rate of ICT unification by teachers in Kenyan classrooms, which has inhibited the provision of quality education. Despite the immense efforts and resources directed towards the integration of ICT in education and pedagogy globally and more so in Kenya the highlighted setbacks have negatively imparted on the integration of ICT in teachers' content preparation in secondary schools. This implied that technological

uptake by teachers and inadequate ICT training had created a lag between teachers' pedagogical behavior change and its actual integration in content preparation which was likely to affect the quality of education. Hence, the existence of ICT and Non-ICT trained teachers in Machakos County and variant ICT application in pedagogy which escalated the need for this study. In this regard, this study, sought to investigate the influence of ICT integration on teachers' content preparation of ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.

### **1.3 Purpose of the study**

The purpose of this study was to investigate the influence of ICT integration on teachers' content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.

### **1.4 Objectives of the study**

The objectives of the study were to:

- i) Assess the status of teachers' integration of ICT in content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.
- ii) Establish the influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.

### **1.5 Research Hypothesis**

The study sought to test this null hypothesis:  $H_1$  ICT integration does not significantly influence content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.

### **2.1 Review of Related Literature**

Successful integration of ICT in teachers' pedagogical practices impacts on the methods of content preparation by educators. According to Badri (2014) the use of ICT in pedagogy by ICT and Non-ICT trained teachers enhanced their ability to prepare schemes of work, lesson plans, lesson notes, lesson attendance sheets, records of work, and access to variant information for quality resources and innovative teaching and learning. Comprehensive integration of ICT in pedagogy transforms lesson planning and preparedness of teachers. Lee and Tsai (2010) opined that ICT and Non-ICT trained teachers used word processor to prepare lesson plans, schemes of work, records of work, and compile lesson materials; In addition they searched different sites for educational resources leading to quality course content and heightened pedagogical practices. A comparative study conducted by Sigales (2013) in 22 secondary schools in Singapore concluded that ICT trained teachers'

application of technology in content preparation enabled the creation of multimedia based interactive and experimental instructional materials which catered for students with different learning abilities, enhanced access to a wide range of educational materials from online sources thus inclusive and quality education. A research done in Italy among 80 secondary school teachers which revealed that ICT trained teachers applied technology in lesson preparation which enabled them to easily access variant educational resources and resource formats including; audio clips, texts, images, and video/sound clips which made their subject content more simpler and innovative (Badri, 2014).

According to Tezci (2011) Non-ICT trained teachers were not sufficiently equipped with the skills to develop learning management software's which hindered the integration of technology in their content preparation. He further argued that high school teachers in Abu Dhabi region of United Arab reported lack of fundamental ICT skills as an impediment affecting their ability to use computer peripheral devices to prepare e-based learner-content interactive activities like PowerPoint presentations, audio/sound clips, video clips, images, and students' worksheets (Tezci, 2011). A study by Magbagbeola (2012) in Nigeria reported that Non-ICT trained teachers were deficient of ICT skills to plan technology lessons, sort educational software and explore internet sites for teaching materials, prepare PowerPoint slides, and images for class presentation which resulted to teacher centered classroom activities. The fore reviewed literature showed that ICT integration in teachers' pedagogical practices impacted on their content preparation. It was on this backdrop that this study was conceived to establish the influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.

### **3.1 Research methodology**

The study employed descriptive survey design. The targeted population was 328 principals, 3600 teachers and 95,200 students. The universal target population was 99,128 respondents. The study sampled; 180 principals, 360 teachers, and 398 students from the target population. The study embraced ratio proportionate sampling to get the sample size of the principals and teachers in each Sub-County. Equal allocation method was employed to choose the teachers and students in the sampled secondary schools. Data was collected using questionnaires, observation schedule, and document analysis. Content validity of the research instruments was ascertained through detailed comparative studies on the subject, review and analysis by expert in comparative education and piloting of the questionnaires. Test re-test technique was employed to enhance reliability of the instruments. Data analysis was done by use of the Statistical Package for Social Sciences (SPSS) programme. Responses from the observation schedule and document

analysis guide were organized into themes and integrated with rest of the data for purposes of triangulation. Pearson’s Product Moment was used to determine the level and strength of the relationship between ICT integration and teachers’ content preparation. Pearson chi test was used to present and interpret the inferential data; and determine the levels of significance of the relationship between ICT integration and teachers’ content preparation.

#### 4.1 Research findings

The study sought to assess the status of teachers’ integration of ICT in content preparation by teachers in secondary schools. In line with this objective, the respondents were asked to indicate their views on teacher’s usage of ICT skills when preparing content for their lessons.

#### 4.2 Analysis of Principals’, Teachers’, and Students’ views on teachers’ use of ICT skills in content preparation

The principals, teachers, and students were asked to indicate their level of agreement on teachers’ use of ICT skills in content preparation. They were requested to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results of the principals’ views on teachers’ use of ICT skills in content preparation were as contained in Table 4.1.

**Table 4.1** Principal’s views on teachers’ use of ICT skills in content preparation

Response	ICT trained teachers								Non-ICT trained teachers							
	SA		A		D		SD		SA		A		D		SD	
	n	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%
Teachers use ICT to prepare schemes of work	84	87.5	12	12.5	0	0	0	0	0	0	38	59.4	20	31.2	6	9.4
Teachers use ICT to write lesson plans	84	87.5	12	12.5	0	0	0	0	0	0	0	0	26	40.6	38	59.4
Teachers use ICT to write lesson notes	86	89.6	10	10.4	0	0	0	0	0	0	0	0	31	48.4	33	51.6
Teachers use ICT to prepare records of work	84	87.5	12	12.5	0	0	0	0	0	0	0	0	26	40.6	38	59.4
Teachers use ICT to research lesson content	49	51	47	49	0	0	0	0	0	0	30	47	30	47	4	6
Teachers use ICT to access educational materials from online data base (E.g. Websites etc.)	40	41.7	41	42.7	15	15.6	0	0	0	0	35	54.8	15	23.4	14	21.8
Teachers use ICT to prepare power point presentations	26	27.1	53	55.2	13	13.5	4	4.2	0	0	0	0	30	47	34	53
Teachers use ICT to prepare sound/audio clips for lessons	42	43.8	50	52.1	4	4.1	0	0	0	0	4	6.3	27	42.2	33	51.5
Teachers use ICT to prepare video clips for lessons	42	43.8	50	52.1	4	4.1	0	0	0	0	4	6.3	27	42.2	33	51.5

Teachers use ICT to prepare images for lessons	40	41.7	50	52.1	6	6.2	0	0	0	0	4	6.3	27	42.2	33	51.5
Teachers use ICT to prepare lesson attendance sheets	42	43.8	50	52.1	4	4.1	0	0	0	0	4	6.3	27	42.2	33	51.5

### **Schools with ICT trained teachers (n =96. % =100)**

#### **Schools with Non-ICT trained teachers (n =64. % = 100)**

The findings presented in Table 4.1 revealed that ICT trained teachers used ICT to prepare schemes of work, with 87.5 percent of the principals of schools with ICT trained teachers strongly agreeing with the statement, while none of the principals of schools with Non-ICT trained teachers strongly agreed with the statement. In addition 59.4 percent of the principals of schools with Non-ICT trained teachers agreed with the statement that teachers used ICT to prepare schemes of work compared to 12.5 percent of their counterparts who also agreed with the statement. None of the principals of schools with ICT trained teachers disagreed or strongly disagreed with the statement that teachers used ICT to prepare schemes of work compared to 31.2 percent and 9.4 percent of the principals of schools with Non-ICT trained teachers who disagreed and strongly disagreed with the statement respectively.

The analysis also revealed that 87.5 percent and 12.5 percent of the principals of schools with ICT trained teachers strongly agreed and agreed with the statement that teachers used ICT to write lesson plans, while none of the principals of schools with Non-ICT trained teachers indicated similar views. To the contrary, 40.6 percent and 59.4 percent of the principals of schools with Non-ICT trained teachers disagreed and strongly disagreed with the statement that teachers used ICT to write lesson plans, while none of their counterparts disagreed or strongly disagreed with the statement. None of the principals of schools with ICT trained teachers disagreed or strongly disagreed with the statement that teachers used ICT to write lesson notes compared to 48.4 percent and 51.6 percent of the principals of schools with Non-ICT trained teachers disagreed and strongly disagreed with the statement respectively. 89.6 percent and 10.4 percent of the principals of schools with ICT trained teachers strongly agreed and agreed with the statement that teachers used ICT to write lesson notes, while none of their counterparts indicated the same.

Further the data indicated that 87.5 percent of the principals of schools with ICT trained teachers strongly agreed with the statement that teachers used ICT to prepare records of work while none of the principals of schools with Non-ICT trained teachers strongly agreed with the statement. None of the principals of schools with ICT trained teachers disagreed or strongly disagreed with the statement that teachers used ICT to prepare records of work,

compared to 40.6 percent and 59.4 percent of their counterparts who disagreed and strongly disagreed with the statement respectively. Similarly 49 percent of the principals of schools with ICT trained teachers and 47 percent of the principals of schools with Non-ICT trained teachers agreed with the statement that teachers used ICT to research lesson content. None of the principals of schools with ICT trained teachers disagreed or strongly disagreed with the statement that teachers used ICT to research lesson content compared to 47 percent and 4 percent of the principals of schools with Non-ICT trained teachers who had similar views respectively. None of the principals of schools with Non-ICT trained teachers strongly agreed with the statement that teachers used ICT to research lesson content compared to 51 percent of their counterparts who strongly agreed with the statement.

None of the principals of schools with Non-ICT trained teachers strongly agreed with the statement that teachers used ICT to access educational materials from online data base (E.g. Websites etc.) compared to 41.7 percent of the principals of schools with ICT trained teachers who strongly agreed with the statement. Similarly 42.7 percent of the principals of schools with ICT trained teachers and 54.8 percent of the principals of schools with Non-ICT trained teachers agreed with the statement that teachers used ICT to access educational materials from online data base (E.g. Websites etc.). 15.6 percent of the principals of schools with ICT trained teachers disagreed with the statement that teachers used ICT to access educational materials from online data base (E.g. Websites etc.) compared to 23.4 of their counterparts who had similar views. 21.8 percent of the principals of schools with Non-ICT trained teachers strongly disagreed with the statement that teachers used ICT to access educational materials from online data base (E.g. Websites etc.), while none of their counterparts indicated the same.

The data further showed that 27.1 percent and 55.2 percent of the principals of schools with ICT trained teachers strongly agreed and agreed with the statement that teachers used ICT to prepare PowerPoint presentations, while none of the principals of schools with Non-ICT trained teachers had similar views. To the contrary, 47 percent and 53 percent of the principals of schools with Non-ICT trained teachers disagreed and strongly disagreed with the statement that teachers used ICT to prepare PowerPoint presentations, compared to 13.5 percent and 4.2 percent of the principals of schools with ICT trained teachers who disagreed and strongly disagreed with the statement.

In addition, 43.8 percent of the principals of schools with ICT trained teachers strongly agreed with the statements that teachers used ICT to prepare sound/audio clips for lessons and prepare video clips for lessons respectively, while none of the principals of schools with Non-ICT trained teachers strongly agreed with the statements respectively. 6.3 percent of the principals of schools with Non-ICT trained teachers agreed with the statements that

teachers used ICT to prepare sound/audio clips for lessons and prepare video clips for lessons respectively, compared to 52.1 percent of their counterparts who agreed with the statements respectively. However, 42.2 percent of the principals of schools with Non-ICT trained teachers disagreed with the statements that teachers used ICT to prepare sound/audio clips for lessons and prepare video clips for lessons respectively; compared to 4.1 percent of their counterparts who had similar views respectively. None of the principals of schools with ICT trained teachers strongly disagreed with the statements that teachers used ICT to prepare sound/audio clips for lessons and prepare video clips for lessons compared to 51.5 percent of their counterparts had similar views respectively.

None of the principals of schools with Non-ICT trained teachers strongly agreed with the statements that teachers used ICT to prepare images for lessons and prepare lesson attendance sheets respectively compared to 41.7 percent and 43.8 percent of the principals of schools with ICT trained teachers who strongly agreed with the statements respectively. In addition, 6.3 percent of the principals of schools with Non-ICT trained teachers agreed with the statements that teachers used ICT to prepare images for lessons and prepare lesson attendance sheets respectively, compared to 52.1 percent of their counterparts who indicated the same respectively. To the contrary, 42.2 percent of the principals of schools with Non-ICT trained teachers disagreed with the statements that teachers used ICT to prepare images for lessons and prepare lesson attendance sheets respectively, compared to 6.3 percent and 4.1 percent of their counterparts who disagreed with the statements respectively. In addition, 51.5 percent of the principals of schools with Non-ICT trained teachers strongly disagreed with the statements that teachers used ICT to prepare images for lessons and prepare lesson attendance sheets respectively, while none of their counterparts had similar views.

This connoted that ICT trained teachers' profoundly embraced the use of ICT skills to prepare e-based learning activities which enhanced their content preparation leading to more innovative lessons due to the acquisition of pedagogical ICT training. The position is supported by a research done in Italy among 80 secondary school teachers which revealed that ICT trained teachers applied technology in lesson preparation which enabled them to easily access variant educational resources and resource formats including; audio clips, texts, images, and video/sound clips which made their subject content more simpler and innovative (Badri, 2014).

Further the findings show that Non-ICT trained teachers lacked fundamental ICT skills to create multimedia based instructional materials like; PowerPoint presentations, sound/audio clips, video clips, and images for lessons which limited their integration of ICT in content preparation. These results supports a study conducted by Tezci (2011) which found that Non-ICT

trained teachers were not sufficiently equipped with the skills to develop learning management software's which hindered the integration of technology in their content preparation; He further argued that high school teachers in Abu Dhabi region of United Arab reported lack of fundamental ICT skills as an impediment affecting their ability to use computer peripheral devices to prepare e-based learner-content interactive activities like PowerPoint presentations, audio/sound clips, video clips, images, and students' worksheets.

The analysis also implied that both ICT and Non-ICT trained teachers used ICT to prepare their professional documents, to research lesson content and to access educational materials from online sources to enhance their content preparation. These findings concurred with the assertion that the use of ICT in pedagogy by ICT and Non-ICT trained teachers enhanced their ability to prepare schemes of work, lesson plans, lesson notes, lesson attendance sheets, records of work, and access to variant information for quality resources and innovative teaching and learning (Badri, 2014).

In addition the teachers also were asked to indicate their level of agreement on their use of ICT skills in content preparation.

They were requested to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were as contained in Table 4.2.

**Table 4.2** Teachers' views on their use of ICT skills in their content preparation

Response	ICT trained teachers								Non-ICT trained teachers							
	SA		A		D		SD		SA		A		D		SD	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Teachers use ICT to prepare schemes of work	193	91.9	17	8.1	0	0	0	0	51	36.4	39	27.9	30	21.4	20	14.3
Teachers use ICT to write lesson plans	193	91.9	17	8.1	0	0	0	0	0	0	0	0	56	40	84	60
Teachers use ICT to write lesson notes	179	85.2	31	14.8	0	0	0	0	0	0	13	9.3	60	42.8	67	47.9
Teachers use ICT to prepare records of work	179	85.2	31	14.8	0	0	0	0	0	0	10	7.1	63	45	67	47.9
Teachers use ICT to research lesson content	150	71.4	30	14.3	15	7.1	15	7.1	44	31.4	52	37.1	26	18.3	18	12.9
Teachers use ICT to access educational materials from online data base (Websites etc.)	116	55.2	48	22.9	26	12.4	20	9.5	40	28.6	52	37.1	30	21.4	18	12.9
Teachers use ICT to prepare power point presentations	120	57.1	50	23.8	22	10.5	18	8.6	0	0	0	0	35	25	105	75
Teachers use ICT to prepare sound/audio clips for lessons	109	51.9	63	30	18	8.6	20	9.5	0	0	10	7.1	59	42.2	71	50.7

Teachers use ICT to prepare video clips for lessons	109	51.9	63	30	18	8.6	20	9.5	0	0	10	7.1	59	42.2	71	50.7
Teachers use ICT to prepare images for lessons	109	51.9	63	30	18	8.6	20	9.5	0	0	10	7.1	59	42.2	71	50.7
Teachers use ICT to prepare lesson attendance sheets	109	51.9	63	30	18	8.6	20	9.5	0	0	10	7.1	59	42.2	71	50.7

### **ICT trained teachers (n = 210. % =100)**

### **Non-ICT trained teachers (n =140. % = 100)**

The information presented in Table 4.2 indicated that 91.9 percent and 8.1 percent of ICT trained teachers strongly agreed and agreed with the statement that they used ICT to prepare schemes of work compared to 36.4 percent and 27.9 percent of the Non-ICT trained teachers who strongly agreed and agreed with the statement respectively. None of ICT trained teachers disagreed or strongly disagreed with the statement that they used ICT to prepare schemes of work compared to 21.4 percent and 14.3 percent of Non-ICT trained teachers who disagreed and strongly disagreed with the statement respectively. None of the Non-ICT trained teachers strongly agreed and agreed with the statement that they used ICT to write lesson plans compared to 91.9 percent and 8.1 percent of ICT trained teachers who strongly agreed and agreed with the statement respectively. To the contrary, 40 percent and 60 percent of Non-ICT trained teachers disagreed and strongly disagreed with the statement that they used ICT to write lesson plans, while none of the ICT trained teachers disagreed or strongly disagreed with the statement respectively.

The data also showed that 85.2 percent of ICT trained teachers strongly agreed with the statements that they used ICT to write lesson notes and prepare records of work respectively, while none of the Non-ICT trained teachers strongly agreed with the statements. 9.3 percent and 7.1 percent of Non-ICT trained teachers agreed with the statements that they used ICT to write lesson notes and prepare records of work respectively, compared to 14.8 percent of ICT trained teachers who agreed with the statements respectively. None of the ICT trained teachers disagreed with the statements that they used ICT to write lesson notes and prepare records of work respectively, compared to 42.8 percent and 45 percent of Non-ICT trained teachers who disagreed with the statements respectively. In addition, none of the ICT trained teachers strongly disagreed with the statements that they used ICT to write lesson notes and prepare records of work compared to 47.9 percent of Non-ICT trained teachers who strongly disagreed with the statements respectively.

Similarly, 71.4 percent and 14.3 percent of ICT trained teachers strongly agreed and agreed with the statement that they used ICT to research

lesson content respectively, while 31.4 percent and 37.1 percent of Non-ICT trained teachers had similar views respectively. To the contrary, 7.1 percent of ICT trained teachers disagreed and strongly disagreed with the statement that they used ICT to research lesson content respectively, compared to 18.6 percent and 12.9 percent of Non-ICT trained teachers who disagreed and strongly disagreed with the statement respectively. The data also indicated that, 55.2 percent and 22.9 percent of ICT trained teachers strongly agreed and agreed with the statement that they used ICT to access educational materials from online data base (E.g. websites etc.) respectively, compared to 28.6 percent and 37.1 percent of Non-ICT trained teachers who had similar views respectively. However, 12.4 percent and 9.5 percent of ICT trained teachers disagreed and strongly disagreed with the statement that they used ICT to access educational materials from online data base (E.g. websites etc.) respectively; 21.4 percent and 12.9 percent of Non-ICT trained teachers had similar views respectively.

Further the information indicated that 57.1 percent of ICT trained teachers strongly agreed with the statement that they used ICT to prepare PowerPoint presentations compared to 75 percent of Non-ICT trained teachers who strongly disagreed with the statement. None of the Non-ICT trained teachers agreed with the statement that they used ICT to prepare PowerPoint presentations compared to 23.8 of ICT trained teachers who agreed with the statement. Similarly, 10.5 percent of ICT trained teachers and 25 percent of Non-ICT trained teachers disagreed with the statement that they used ICT to prepare PowerPoint presentations respectively.

The analysis also showed 51.9 percent and 30 percent of ICT teachers strongly agreed and agreed with the statements that they used ICT to prepare lesson attendance sheets, sound/audio clips, video clips, and images for lessons respectively; none of the Non-ICT trained teachers strongly agreed with the statements while only 7.1 percent of them agreed with the statements respectively. To the contrary, 42.2 percent and 50.7 percent of Non-ICT trained teachers disagreed and strongly disagreed with the statements that they used ICT to prepare lesson attendance sheets, sound/audio clips, video clips, and images for lessons respectively compared to 8.6 percent and 9.5 percent of ICT trained teachers who had similar views respectively.

This connoted that ICT trained teachers had the relevant ICT training thus intensely utilized technology and ICT software to ease and heighten their content preparation for quality teaching resources and innovative pedagogy. This is in line with a comparative study conducted by Sigales (2013) in 22 secondary schools in Singapore which concluded that ICT trained teachers' application of technology in content preparation enabled the creation of multimedia based interactive and experimental instructional materials which catered for students with different learning abilities, enhanced access to a wide

range of educational materials from online sources thus inclusive and quality education.

The Non-ICT trained teachers lowly employed ICT in their content preparation due to lack of formal ICT training on the use of ICT equipment in pedagogy. The low levels of ICT usage in content preparation could also be associated with inadequate ICT equipment, non-serviceable ICT equipment, huge workloads, broad curriculum, and insufficient time to prepare technology-based lessons. This concurs with the findings that Non-ICT trained teachers were deficient of ICT skills to plan technology lessons, sort educational software and explore internet sites for teaching materials, prepare PowerPoint and images for class presentation which resulted to teacher centered classroom activities (Magbagbeola, 2012).

Both ICT and Non-ICT trained teachers embraced ICT in preparing schemes of work which is a professional document for teachers, research lesson content, and access educational materials online thus enhancing their content preparation. This reflected the position held by Lee and Tsai (2010) that ICT and Non-ICT trained teachers used word processor to prepare lesson plans, schemes of work, records of work, and compile lesson materials; In addition they searched different sites for educational resources leading to quality course content and heightened pedagogical practices.

The study further sought to establish the students' views on teachers' usage of ICT skills in content preparation to reinforce the principals and teachers views. They were requested to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were presented in Table 4.3.

**Table 4.3** Students' views on teachers' use of ICT skills in content preparation

Responses	SA		A		D		SD		Total	
	n	%	n	%	n	%	n	%	n	%
Teachers use ICT to write lesson notes	1	36.	9	24.	8	21.	6	17.	3	1
	40	8	3	5	0	1	7	6	80	00
Teachers use ICT to research lesson content	1	28.	9	26.	9	25	7	20	3	1
	10	9	9	1	5	9	6	8	80	00
Teachers use ICT to access educational materials from online data base (E.g. Websites etc.)	1	26.	1	27.	9	23.	8	21.	3	1
	02	8	06	9	0	7	2	6	80	00
Teachers use ICT to prepare power point presentations	9	23.	9	25	9	24.	1	27.	3	1
	0	7	5	2	2	03	1	80	00	
Teachers use ICT to prepare sound/audio clips for lessons	9	25.	9	24	9	24.	1	26.	3	1
	7	5	1	2	2	00	3	80	00	
Teachers use ICT to prepare video clips for lessons	9	23.	9	25	9	24.	1	27.	3	1
	0	7	5	2	2	03	1	80	00	
Teachers use ICT to prepare images for lessons	9	26.	9	23.	9	23.	1	26.	3	1
	9	1	0	7	0	7	01	5	80	00

The analysis in Table 4.3 showed that 36.8 percent and 24.5 percent of the students strongly agreed and agreed with the statement that both ICT and

Non-ICT trained teachers used ICT to write lesson notes respectively, compared to 21.1 percent and 17.6 percent who disagreed and strongly disagreed with the statement respectively. In addition, 25 percent and 20 percent of the students disagreed and strongly disagreed with the statement that the teachers used ICT to research lesson content respectively, while 28.9 percent and 26.1 percent strongly agreed and agreed with the statement respectively.

Further, the information indicated that 21.6 percent of the students strongly disagreed with the statement that both ICT and Non-ICT trained teachers used ICT to access educational materials from online data base (E.g. Websites etc.) compared to 26.8 percent who strongly agreed with the statement. On the same, 27.9 percent of the students agreed with the statement that teachers used ICT to access educational materials from online data base (E.g. Websites etc.), compared to 23.7 percent who disagreed with the statement.

Similarly, 23.7 percent and 25 percent of the students strongly agreed and agreed with the statements that teachers used ICT to prepare PowerPoint presentations and video clips for lessons respectively, compared to 24.2 percent and 27.1 percent who disagreed and strongly disagreed with the statements respectively. Likewise, 25.5 percent and 24 percent of the students strongly agreed and agreed with the statement that teachers used ICT to prepare sound/audio clips for lessons respectively compared to 24.2 percent and 26.3 percent who disagreed and strongly disagreed with the statement respectively. The analysis also showed that 26.1 percent of the students strongly agreed with the statement that both ICT and Non-ICT trained teachers used ICT to prepare images for lessons compared to 26.5 percent who strongly disagreed with the statement. Similarly, 23.7 percent of the students agreed with the statement that teachers used ICT to prepare images for lessons, while 23.7 percent of the students disagreed with the statement.

These sentiments were similar to those of the principals and teachers which signified that both ICT and Non-ICT trained teachers applied ICT skills variedly in preparing content for their teaching and learning activities. The findings concurred with a study conducted by Heick (2016) which found out that in Turkish schools both ICT and Non-ICT trained teachers were knowledgeable in basic ICT but the levels of integration in lesson preparation were very low due to huge workloads and insufficient time to use ICT tools. The teachers lowly employed ICT in preparing video clips and images to merge with the subject content, develop lesson attendance sheets, and records of work which negatively influenced their creativity, innovation, and students' academic achievements.

### **4.3 Observation schedule on content preparation by teachers**

Further the researchers carried out an observation on teachers' use of ICT skills in content preparation. The findings were as shown in Table 4.4.

**Table 4.4** Observation results on teachers' use of ICT skills in content preparation

Response	ICT trained teachers						Non-ICT trained teachers					
	ICT compliance		Non-ICT compliance		Total		ICT compliance		Non-ICT compliance		Total	
	n	%	n	%	N	%	n	%	n	%	n	%
Lesson plans	210	100	0	0	<b>210</b>	<b>100</b>	13	9.3	127	90.7	<b>140</b>	<b>100</b>
Schemes of work	210	100	0	0	<b>210</b>	<b>100</b>	125	89.3	15	10.7	<b>140</b>	<b>100</b>
Students worksheets	210	100	0	0	<b>210</b>	<b>100</b>	115	82.1	25	17.9	<b>140</b>	<b>100</b>
Lesson notes	170	80.9	40	19.1	<b>210</b>	<b>100</b>	13	9.3	127	90.7	<b>140</b>	<b>100</b>
Hand outs	90	42.9	120	57.1	<b>210</b>	<b>100</b>	40	28.6	100	71.4	<b>140</b>	<b>100</b>
Records of work	210	100	0	0	<b>210</b>	<b>100</b>	20	14.3	120	85.7	<b>140</b>	<b>100</b>
PowerPoint slides	170	80.9	40	19.1	<b>210</b>	<b>100</b>	0	0	140	100	<b>140</b>	<b>100</b>
Video clips/Visual clips	189	90	21	10	<b>210</b>	<b>100</b>	22	15.7	118	84.3	<b>140</b>	<b>100</b>
Simulation clips	90	42.9	120	57.1	<b>210</b>	<b>100</b>	40	28.6	100	71.4	<b>140</b>	<b>100</b>
Games and Role play clips	189	90	21	10	<b>210</b>	<b>100</b>	90	64.3	50	35.7	<b>140</b>	<b>100</b>
Audio clips	180	85.7	30	14.3	<b>210</b>	<b>100</b>	12	8.6	128	91.4	<b>140</b>	<b>100</b>
Images	180	85.7	30	14.3	<b>210</b>	<b>100</b>	10	7.1	130	92.9	<b>140</b>	<b>100</b>

The data captured in Table 4.4 revealed that ICT trained teachers extensively integrated technology in their content preparation as evidenced by 100 percent of them found having ICT compliant lesson plans compared to 9.3 percent of Non-ICT trained teachers who had ICT compliant lesson plans; while 90.7 percent of Non-ICT trained teachers had non-ICT compliant lesson plans. All the ICT trained teachers had ICT compliant schemes of work compared to 89.3 percent of Non-trained teachers who had ICT compliant schemes of work; only 10.7 percent of Non-ICT trained teachers were not having ICT compliant schemes of work. In addition, 100 percent of ICT trained teachers were found having ICT compliant student's worksheets compared to 82.1 percent of Non-ICT trained teachers who had ICT compliant student's worksheets.

Further, the data indicated that 80.9 percent of ICT trained teachers had ICT compliant lesson notes compared to 9.3 percent of Non-ICT trained teachers who also had ICT compliant lesson notes. To the contrary, 90.7 percent of Non-ICT trained teachers and 19.1 percent of ICT trained teachers used lesson notes which were not ICT compliant respectively. Similarly, 57.1 percent of ICT trained teachers and 71.4 percent of Non-ICT trained teachers had non-ICT compliant handouts respectively compared to 42.9 percent of ICT trained teachers and 28.6 of Non-ICT trained teachers who had ICT compliant handouts respectively. All the ICT trained teachers had ICT

compliant records of work compared to 14.3 percent of Non-ICT trained teachers who had the same; 85.7 percent of Non-ICT trained teachers were not using ICT compliant records of work. None of the Non-ICT trained teachers used PowerPoint slides compared to 80.9 percent of ICT trained teachers who used PowerPoint slides in content preparation.

The analysis also showed that 90 percent of ICT trained teachers used video/visual clips in content preparation compared to 15.7 percent of Non-ICT trained teachers who used video/visual clips; 84.3 percent of Non-ICT trained teachers were found not using video/visual clips in content preparation compared to 10 percent of ICT trained teachers. In addition, 57.1 percent of ICT trained teachers and 71.4 percent of Non-ICT trained teachers did not use simulation clips respectively compared to 42.9 percent of ICT trained teachers and 28.6 percent of Non-ICT trained teachers who were found using simulation clips in content preparation respectively.

Similarly, 90 percent of ICT trained teachers and 64.3 percent of Non-ICT trained teachers used games and role play clips in content preparation respectively. However, 35.7 percent of Non-ICT trained teachers and 10 percent of ICT trained teachers did not use games and role play clips in content preparation respectively. The observation results also indicated that 85.7 percent of ICT trained teachers used audio clips to prepare lessons, compared to 8.6 percent of Non-ICT trained teachers who used audio clips to prepare lessons respectively. To the contrary, 91.4 percent of Non-ICT trained teachers did not use audio clips in content preparation compared to 14.3 percent of ICT trained teachers. 85.7 percent of ICT trained teachers used images in lesson preparation compared to 7.1 percent of Non-ICT trained teachers; however, 92.9 percent of Non-ICT trained teachers did not use ICT compliant images in content preparation compared to 14.3 percent of ICT trained teachers.

This implied that both ICT and Non-ICT trained teachers employed ICT skills in their content preparation though with variations. The ICT trained teachers greatly integrated ICT in their content preparation due to the ICT training they had acquired coupled with adequacy and serviceable ICT equipment in their schools. The Non-ICT trained teachers were not competent enough to prepare PowerPoint slides, video/visual clips, audio clips, and images and integrate them in their pedagogical practices. Non-ICT trained teachers lowly utilized ICT in preparation of lesson plans and notes which could be due to inadequacy and non-serviceable ICT equipment in the schools. This finding concurs with the views of the principals, teachers, and students.

#### **4.4 Document analysis on content preparation**

In addition, the study further considered the use of document analysis guide for data triangulation purposes. The researchers sought to find out the

availability of teachers' particulars for content preparation and if they included ICT related resources. The findings were as presented in Table 4.5.

**Table 4.5** Availability of teachers' particulars for content preparation and inclusion of ICT related resources

Response	ICT trained teachers						Non-ICT trained teachers					
	Yes		No		Total		Yes		No		Total	
	n	%	n	%	N	%	n	%	n	%	n	%
Lesson plans	210	100	0	0	210	100	13	9.3	127	90.7	140	100
Schemes of work	210	100	0	0	210	100	125	89.3	15	10.7	140	100
Students worksheets	210	100	0	0	210	100	115	82.1	25	17.9	140	100
Lesson notes	190	90.5	20	9.5	210	100	13	9.3	127	90.7	140	100
Hand outs	90	42.9	120	57.1	210	100	40	28.6	100	71.4	140	100
Records of work	210	100	0	0	210	100	20	14.3	120	85.7	140	100
PowerPoint slides	170	80.9	40	19.1	210	100	0	0	140	100	140	100
Video clips/Visual clips	189	90	21	10	210	100	22	15.7	118	84.3	140	100
Simulation clips	90	42.9	120	57.1	210	100	40	28.6	100	71.4	140	100
Games and Role play clips	189	90	21	10	210	100	90	64.3	50	35.7	140	100
Audio clips	180	85.7	30	14.3	210	100	12	8.6	128	91.4	140	100
Images	180	85.7	30	14.3	210	100	10	7.1	130	92.9	140	100

The information contained in Table 4.5 indicated that 100 percent of ICT trained teachers had ICT compliant lesson plans compared to 90.7 percent of Non-ICT trained teachers who had non-ICT compliant lesson plans; 9.3 percent of Non-ICT trained teachers had ICT compliant lesson plans. In addition, 100 percent of ICT trained teachers had ICT compliant student's worksheets and schemes of work compared to 89.3 percent and 52.1 percent of Non-ICT trained teachers who had same ICT compliant documents respectively. However, 10.7 percent and 17.9 percent of Non-ICT trained teachers were found having non-ICT compliant student's worksheets and schemes of work respectively. The analysis also showed that 90.5 percent of ICT trained teachers had ICT compliant lesson notes compared to 9.3 percent of Non-ICT trained teachers who had ICT compliant lesson notes. However, 90.7 percent of Non-ICT trained teachers had lesson notes which were not ICT compliant, compared to 9.5 percent of ICT trained teachers who had lesson notes which were not ICT compliant.

To the contrary, 57.1 percent of ICT trained teachers and 71.4 percent of Non-ICT trained teachers had non-ICT compliant handouts respectively; compared to 42.9 percent of ICT trained teachers and 28.6 percent of Non-ICT trained teachers had who ICT compliant handouts respectively. None of the ICT trained teachers had non-ICT compliant records of work compared to

85.7 percent of Non-ICT trained teachers who had non-ICT compliant records of work. All the Non-ICT trained teachers were not found having PowerPoint slides compared to 80.9 percent of ICT trained teachers who had PowerPoint slides; 19.1 percent of ICT trained teachers did not have PowerPoint slides. Further, the information revealed that, 90 percent of ICT trained teachers had video clips/visual clips compared to 15.7 percent of Non-ICT trained teachers. However, 84.3 percent of Non-ICT trained teachers did not possess video clips/visual clips compared to 10 percent of ICT trained teachers who did not have video clips/visual clips. Likewise, 57.1 percent of ICT trained teachers and 71.4 of Non-ICT trained teachers did not have simulation clips respectively compared to 42.9 percent of ICT trained teachers and 28.6 of Non-ICT trained teachers who had simulation clips for content preparation respectively. In addition, 85.7 percent of ICT trained teachers had audio clips and images for lesson preparation respectively compared to 8.6 percent and 7.1 percent of Non-ICT trained teachers who had audio clips and images respectively. However, 91.4 percent and 92.9 percent of Non-ICT trained teachers did not have audio clips and images respectively, compared to 14.3 percent of ICT trained teacher who were not found having audio clips and images respectively.

This implied that the availability of teachers' particulars for content preparation and inclusion of ICT related resources differed amongst the ICT and Non-ICT trained teachers which influenced their pedagogical practices variedly. The findings confirmed the opinions of the principals, teachers, students, and the findings of the observation schedule on ICT and Non-ICT trained teachers' usage of ICT skills and equipment for content preparation.

#### **4.5 Hypothesis testing and analysis**

The study also sought to establish the influence of ICT integration on content preparation by teachers in secondary schools. This was done through hypothesis testing and analysis.

#### **H<sub>1</sub> ICT integration does not significantly influence content preparation by ICT and Non-ICT trained teachers in secondary schools in Machakos County, Kenya.**

In order to establish whether there was a relationship between ICT integration and content preparation by teachers, a simple regression test was carried out between teachers' use of ICT skills and responses from questions on content preparation by both ICT and Non-ICT trained teachers. A coefficient of correlation ( $r$ ) was calculated which established the presence, strength, direction, and level of correlation.

The coefficient of correlation ( $r$ ) was squared to obtain the coefficient of determination which explained the degree of association between ICT integration and content preparation by ICT and Non-ICT trained teachers. The results were as illustrated in Table 4.6.

**Table 4.6** Simple regression model summary on the influence of ICT integration on content preparation by ICT and Non-ICT trained teachers

Model	( $r$ )	( $r^2$ )	Sig. (b)
ICT trained teachers	0.859	0.738	0.002
Non-ICT trained teachers	0.578	0.334	0.045

**Significant at the 0.05 level (2-tailed)  $df= 1$**

**(a) Constant predictor: ICT integration (b) Dependent variable: Content preparation**

The information in Table 4.6 showed that the coefficient of correlation ( $r$ ) for ICT trained teachers was 0.859 implying a very strong relationship between the predictor variable (ICT integration) and teachers' content preparation. The coefficient of determination ( $r^2$ ) was 0.738. This implied that about 73.8% of the variation in the content preparation by ICT trained teachers was explained by ICT integration in content preparation. Similarly for Non-ICT trained teachers the ( $r$ ) value was 0.578 indicating a moderate relationship between ICT integration and teachers' content preparation. The value of ( $r^2$ ) was at level 0.334 showing that about 33.4% of the variation in the content preparation by Non-ICT trained teachers could be explained by ICT integration in content preparation.

The data also showed that the significance level of teachers' integration of ICT in content preparation for ICT trained teachers was highly significant at  $p$  level 0.002. The relationship indicated that ICT integration resulted to high levels of use of ICT skills in content preparation by ICT trained teachers. Similarly the significance level amongst Non-ICT trained teachers was significant at  $p$  value 0.045; this indicated that ICT integration influenced Non-ICT trained teachers' content preparation though at a moderate level.

**Conclusions and Recommendations**

The study concluded that ICT integration significantly influenced teachers' content preparation by ICT and Non-ICT trained teachers. ICT trained teachers' integration of ICT in their content preparation was significantly higher at ( $p$ ) 0.002 than their Non-ICT trained counterparts at ( $p$ ) 0.045. The study concluded that ICT trained teachers integrated ICT in their content preparation more than Non-ICT trained teachers in secondary schools in Machakos County, Kenya. Hence the null hypothesis was rejected.

Based on the findings and conclusions the study recommended that, the Ministry of Education (MOE) should intensify ICT training in teacher training institutions to ensure that all secondary school teachers acquire the relevant ICT skills to fully integrate and use ICT in their pedagogical practices. The Ministry of Education (MOE) and other ICT training agencies should provide ICT in-service training programs to ensure that all teachers acquire ICT skills to utilize ICT in content preparation for quality education.

### References:

1. Amuko, S. (2015). Pedagogical Practices in Integration of ICT in Teaching and Learning Mathematics, in Secondary Schools in Nairobi County, Kenya. *IOSR Journal of Mathematics (IOSR-J JM)*, 11 (5), 20-23.
2. Ateş, M., Çerçi, A., & Derman, S. (2015). Content analysis of Turkish course videos in educational informatics network. *Sakarya University Journal of Education*, 5(3), 105–117.
3. Badri, M. A. (2014). Technology Readiness of School Teachers: An Empirical Study of Measurement and Segmentation. *Journal of Information Technology Education: Research*, 13, 257-275. Retrieved August 25, 2016 from <https://www.informingscience.org/Publications/2082>
4. Greaves, T.W. (2012). Revolutionizing Education through Technology: The Project RED Road map for Transformation, ISTE. <http://www.projectred.org>
5. Heick, T. (2016). How 21st Century Thinking Is Just Different. Teach thought. [http://www. Teacher thought.com/critical thinking/ how 21<sup>st</sup> century thinking is different](http://www.Teacher thought.com/critical thinking/ how 21<sup>st</sup> century thinking is different).
6. Ishizuka H (2013). The effects of ICT Environment on Teachers' Attitudes and Technology Integration in Spain and the US. *Journal of Information Technology Education: Innovations in Practice*12 (1): 29–43.
7. Kombo, N. (2013). Enhancing Kenyan Students Learning Through ICT Tools for Teachers. Centre for Educational Innovation. An Initiative for Results for Development Institute
8. Kozma, R. B., & Vota, W. S. (2014). *ICT in Developing Countries: Policies, Implementation, and Impact*. New York, NY: Springer.
9. Lee, M.H., and Tsai, C. - C. (2010). Exploring Teachers' Perceived Self Efficacy and Technological Pedagogical Content Knowledge with Respect to Educational Use of the World Wide Web. *Instructional Science*, 38 (1), 1–21.

10. Liu, S-H 2011, 'Factors related to pedagogical beliefs of teachers and technology integration', *Computers & Education*, vol. 56, no. 4, pp. 1012-1022.
11. Magbagbeola, N. O. (2012). Information and Communication Technology in Nigeria: A Critical Assessment.
12. MOE (2013). Curriculum Guide for ICT Integration in Education. Digital Literacy Programme. A New Assessment Paradigm Using ICT, 2013-2016.
13. Passi, B K. (2014). *Training in Technology-Pedagogy Integration*. Presentation to Experts' Meeting on Teachers/Facilitators Training in Technology Pedagogy Integration, Bangkok, Thailand. June 18-20.
14. Sigalés, C. (2013). Teachers' Perceptions of ICT Application in Pedagogical Practices - A Comparative Study of Singapore Schools. *Electronic Journal of Research in Educational Psychology* 11(3): 787–808.
15. Tezci, E. (2011). Factors that Influence Pre-service Teachers' ICT Usage in Education. *European Journal of Teacher Education*, 34, 483-499.
16. UNESCO. (2015). *ICT Competency Standards for Teachers: Competency Standards Modules*. UNESCO, Paris.



ESJ Social Sciences

## Adeshina Abideen Olojede

Department of Continuing Education and  
Community Development,  
Faculty of Education and Arts,  
Ibrahim Badamasi Babangida University,  
Lapai, Niger State

---

Submitted: 06 January 2019

Accepted: 02 July 2020

Published: 30 November 2020

Corresponding author:

A. A. Olojede

DOI: 10.19044/esj.2020.v16n31p210



Copyright 2020 A.A.Olojede  
Distributed under Creative Commons BY-NC-ND 4.0  
OPEN ACCESS

---

## Psychotherapeutic Effect of Using Songs and Music for the Promotion of Basic Education Among Adult Learners: An Analysis

### Abstract

Various teaching methods and approaches have been researched and used in non-formal education, but the abstract technique of songs and music is uncommon. The peculiar characteristics of adult learners make teaching and learning to be complex. This study is experimental. Seventy-six (76) adult learners were purposefully selected and divided into two groups of thirty-eight (38) each. Group A was exposed to songs in both Nupe and English language over a period of time. Observation and narrative methods were used to study the effect of songs and music as a tool for the facilitating of learning among adults' learners. The facilitators encouraged the learners to identify new words which were written separately on boards to spell and pronounce. Learners in Group B were exposed to the normal learning process of using primers to facilitate learning. At the end of one month, both groups were examined and evaluated. Data were analyzed using percentage. The results of the experiment showed that the learners in Group A exhibited more than 80.0% of success in assimilation as against Group B with 38% success when both were examined. 31 out of the 38 (81.5%) learners from Group A can identify and read fairly with little assistance while 14 learners from Group B (36.8%) can read in relation to music played and identification of words identified and written on board by the facilitator. Group A members were more enthusiastic to learn as they were involved in generating means of learning; they were able to identify words and produce sentences from the words written on the board. The

### How to cite this article

Olojede, A., (2020). Psychotherapeutic Effect of Using Songs and Music for the Promotion of Basic Education Among Adult Learners: An Analysis. *European Scientific Journal, ESJ*, 16(31), 210. <https://doi.org/10.19044/esj.2020.v16n31p210>

study also showed that songs and music produce a psychotherapeutic effect that soothes the learning process and produce a positive outcome while teaching adult learners. The paper recommends the inclusion of local songs and music into the non-formal education curriculum. Also, facilitators should be more creative in the teaching and learning process of adult education.

---

**Subject:** Education

**Keywords:** Adult Learners, Analysis, Basic Education, Psychotherapeutic Songs, Music

## Introduction

Literacy has been found to be an indispensable foundation that enables young people and adults to engage in learning opportunities at all stages of the learning continuum. The right to literacy has also been argued to be an inherent part of the right to education. It is a prerequisite for the development of personal, social, economic, and political empowerment. Literacy is also an essential means of building people's capabilities to cope with the evolving challenges and complexities of life, culture, economy, and society (UNESCO, 2009). Education is also a necessity for the survival of man and is generally viewed as the most important instrument for change, progress, and development by all societies all over the world. Scholars believed and have argued that educating adults would go a long way to bring about the development we desire in the society. Hence, the importance of education and literacy development is emphasized (Omolewa, 1985; Aderinoye, 1997).

Literature has shown that no country can achieve sustained economic growth without attaining near universal basic education (UBE). Its goal is to universalize access to basic education, which includes pre-primary and primary schooling as well as basic life skills for youth and adults—as defined by OECD-DAC for the purposes of collecting data on aid flows (Hinzen, 2013).

In the Nigerian context, basic education includes primary, junior secondary, nomadic education as well as adult literacy. As a member of Group E-9 nations (UNESCO, 2017), Nigeria is committed to the total eradication of illiteracy. In spite of this, the nation's literacy rate is stagnantly rooted at 53 percent of the growing population that is estimated at about 170 million people (World Bank, 2012). Education statistics for 2012 and the upward review of the statistics show that only 14.1 million out of the 21 million children of school age are enrolled in primary schools. The completion rate was 64 percent while the rate of transition to junior secondary school was 43.5 percent. There is overwhelming evidence that these vital literacy indicators have not improved (UBEC, 1999, 2000 and 2005), and this has an implication on adult and non-formal education.

Basic literacy (both formal and non-formal) in Nigeria has been hampered by many social, political, economic, and cultural factors such as insufficient number of schools and the quality of physical infrastructure like school buildings, school furniture and equipment, lack of books, writing materials and teaching supplies, as well as an insufficient number of qualified teachers, considerable number of dropouts and repetition of grades at the primary and middle levels.

Understandably, the impacts of adult literacy first appear in the individual learner by way of new cognitive behavior and ways of understanding reality which engender in the individual, a new self-concept accompanied by greater self-confidence and self-esteem. The ability to read will enable an individual to comprehend and use modern technology. Learner's ability to read and write will help to keep their privacy. Some new literates may be satisfied with just reading the scriptures (Bible and Quran), while others may want to read folk tales and the ancient epics of their culture. Some may want to read newspapers to find out what is going on in their immediate or wider surroundings. Utilitarian uses of literacy by individuals may include generating income for better livelihood or making one's voice heard in situations where social and political decisions are made.

Against the backdrop of several educational opportunities like formal and non-formal education available in Nigeria, unequal participation and access continue unabated among the citizens (Education for All (EFA); Global Monitoring Report, 2005; Federal Ministry of Education (FME, 2003); UNESCO, 2012). In response to the demand for equal opportunity to education for all, the Federal, State and Local governments have been making frantic efforts at providing access to educational distribution in the country. Such a move includes the establishment of parastatals like National Mass Education and Adult Education Commission (NMEC) and states agencies for adult education in 1990. Others include the Nomadic Education Commission and Universal Basic Education Commission among others. Universities and Colleges of Education have programs that cover adult and non-formal education. Non-Governmental Organizations and International Donor Agencies are not left behind. Nevertheless, illiteracy still exists.

Series of economic and psycho-social situations in Nigeria serve as stumbling block to learning for many. It has been recorded that adults have the feelings to learn. Hence, they enroll into adult education, but some always dropped out by the way. Examples of such economic problems include the inability to feed themselves, as well as house and cloth their family. There is massive unemployment among the youths while the adults' salary emolument is nothing to write home about. Thus, those uneducated adults find it difficult to survive. Such unstable minds are opened to induced stress, hence, requiring a redress in terms of help with mental and emotional health problems. It aims

to enable patients, or clients, to understand their feelings and what makes them feel positive, anxious, or depressed.

The concern of adult educators and practitioners therefore now covers what went wrong and what can be done to right the wrong. To this end, various teaching methods and approaches have been researched in an attempt to find a solution for the sustainability of literacy among learners. While it is true that teaching and learning are complex, teaching adults is extraordinary because of the peculiar characteristics of adult learners. Various teaching methods have been used in adult education, but using the abstract technique of songs and music has not been researched and could be said to be uncommon in adult and non-formal education. There is a dearth of information on the use of songs and music as a technique of facilitating learning among adult learners in contemporary non-formal education. This paper intends to analyze the possibility of their inclusion in the promotion of basic education among adult learners.

### **Statement of the Problem**

Nigeria has been involved in adult education development since the 1914 amalgamation. The South Western Region introduced free education which was extended to other regions in the late 60s. After independence, various agencies and parastatals were established to create access to education. Despite these efforts, about 53 percent of the current population is literate (World Bank, 2010). What went wrong? Is it the method of teaching or the curriculum? There is abundant literature on methods of teaching and characteristics and attitude of adults to learning, but there is a dearth of literature on the use of songs and music in adult learning. This paper, therefore, focuses on examining the use of song and music in the promotion of adult education as a way to establish permanent literacy and providing therapeutic effect among adult learners.

### **Purpose of the Study**

The purpose of this paper was to report the possible effect of music and songs on the learning process. Primers have always been the means by which learning is facilitated in adult education. Other techniques have been adopted; however, the use of music and song is relatively new in adult education. To examine this, learners were exposed to different songs and music which were written on the board. The effect of listening to music and songs where new words were selected and written on the board for learners to copy and learn was recorded. Based on the reviewed literature, several research questions were formulated.

## **Research Questions**

The following research questions were raised to anchor the study:

1. To what extent will songs and music be relevant to basic literacy promotion among adult learners?
2. How have the beneficiaries been coping with the use of songs and music to attain permanent basic literacy skills?
3. What is the difference in the learning outcome between the learners in independent and dependent groups used for the study?

## **Literature Review**

### **Adult Education**

Adult education is the practice of teaching and educating adults. It is imparted at the workplace or otherwise in classrooms or learning centers through extension or continuing education courses organized at the adult learning center, secondary schools or college and university levels more generally by adult education professionals. Adult education is also referred to as popular education and training for transformation or education for community mobilization or education for sustainable development. It has also been referred to as andragogy to distinguish it from pedagogy.

Pedagogy literally means the art and science of educating children and is often used as a synonym for all formal classroom-based teaching. More commonly, pedagogy signifies a teacher-centered education. Andragogy, in contrast, is defined as the art and science of helping adults learn. Its usage now is more broadened to include learner-centered education for people of all ages. Adult education differs from children's education in many ways. One very significant difference is that adults already have a fairly large amount of accumulated knowledge and experience with them. This knowledge and experience of adults coupled with their deep-seated attitudes can either add value to their learning experience or hinder it. Another significant difference between adult and children learning is that adults often seek practical applications and uses of knowledge, which they wish to learn effectively.

### **Teaching Methods in Non-Formal Education**

Facilitating an adult learning process is a dynamic activity. Constant reflection, assessment, and change on the part of the adult education providers are necessary components in planning programs and determining the appropriate teaching methods. In this line, evaluating the learning process is most essential to have a fruitful learning outcome. Thus, it is imperative that various teaching methods are accessed for their practicability and otherwise. Just as what operates in pedagogy, teaching adult learners entails certain methods which, if properly propelled, help learners to attain permanent

literacy. To achieve this, adult facilitators could use any of the following techniques in adult education:

- Demonstration
- Role-Playing
- Field Trip
- Hands-on practice
- Field Trip
- Clinic
- Simulation/Games

### **Characteristics of Adult Learners**

Majority of adult learners share the following similarities:

1. They prefer a learning structure that emphasizes the flexibility of time and pacing, heterogeneity of group membership, individualization with self-pacing, self-selection of learning activities, and interaction with a facilitator.
2. They prefer to learn from each other, even from those with divergent views. They are seemingly unwilling to assume risks. They do better in a climate of trust where differences are accepted. They tend to be critical of instructors who insist that there is only one right way to think or perform. They come to class with very definite expectations, and they value an instructor who responds to those expectations. Adults value learning experiences that have a rather immediate pay-off.
3. Adults want to be participative learners. They do not want to sit through long lectures; they want to play an active role and have constructive feedback about their performance. They tend to be receptive to cooperative learning that has a problem-solving orientation (Glatthorn, 1990).
4. They prefer a learning structure that emphasizes the flexibility of time and pacing, heterogeneity of group membership, individualization with self-pacing, self-selection of learning activities, and interaction with a teacher.
5. They prefer to learn from each other, even from those with divergent views. They are seemingly unwilling to assume risks.
6. They do better in a climate of trust where differences are accepted.
7. They tend to be critical of instructors who insist that there is only one right way to think or perform.
8. They come to class with very definite expectations, and they value an instructor who responds to those expectations.
9. Adults value learning experiences that have a rather immediate pay-off.

These findings have clear implications for adult learning. It is quite likely that the educational programmes that reflect these preferred structures and practices will be much better received than those that ignore what is known about adults learning preferences. Such practices and structures can be the incentive that will enhance adult learners' motivation to pursue programmes.

### **Songs and Music as a Form of Teaching Method**

Music has always been seen as a way of life. It is embedded in the culture of man. It is universally accepted to soothe men religiously and socially. It provides identity with which man is known. In religion, be it modern or core traditional, music performs ritual functions. It elicits affirmation of acceptance of the deities. Both Muslim and Christians use music and dance to worship and "probably appease the Gods". Traditionally, man uses music and dance to appease gods such as Ijala for Ogun (the god of Iron); Iyere Osun for Ifa worshippers, same goes for Sango (god of thunder); Yemoja (sea goddess) and so on.

Expanding the use of music, Salcedo (2010) affirmed Bancroft (1985) that the familiar adage, that music soothes the savage soul, comes from the interpretation of the Biblical verses in Psalms 33: 2, 3 (King James Version) in which music was used for mood-altering purposes. Music has been shown to have physiological benefits including lowered anxiety, heart rate, pain, and blood pressure, as well as improved respiratory rate, recovery, and tension relief. Listening to music has been shown to "cause changes in blood pressure, blood flow, posture, respiratory rate, pulse rate, and general activity" (Olojede, 2016).

Listening to music engages the whole brain, thus, stimulating cognitive performance in a range of non-purely musical activities such as language and memory tasks (Neurosci, 2013). Recent studies (Racette & Peretz, 2007; Moussard, Bigand, Belleville & Peretz, 2012) reported a perturbing effect of music on the memorization of verbal material. A consistent part of the literature (Thompson, Moulin, Hayre & Jones, 2005; Racette, Bard & Peretz, 2006; Simmons-Stern, Budson & Ally, 2010) claims that music can have a positive effect on memory in both healthy and clinical populations. Thus, results showed an effect of music on subsequent item recognition memory performance, although this did not extend to a source memory performance (Neurosci, 2013). Music played during encoding facilitated item recognition.

In the modern world, a large proportion of popular music enjoyed around the world has its roots in American genres. From blues to hip-hop, to rock & roll, to house and techno and to jazz, the DNA of American music can be felt all over the world. However, much of the folk and traditional music found in the United States has its roots in the traditions of other countries.

Music like reggae has its root in Jamaica while Apala, Fuji and Sakara are from Nigeria. African and Nigerian music to be specific could be understood within the context of the cultures of the people that listen and enjoys it.

Listening to music has been established to have a soothing effect on the psychology of people that listen to it. In fact, according to Gardner (1985), music as a problem-solving tool suggests that all individuals without brain damage possess some degree of musical intelligence. It is on that note that he concludes that musical intelligence in the classroom combines the theory of multiple intelligences with actual classroom learning. Application of music in foreign language classes could allow teachers to use the students' musical intelligence and their musical interests to achieve mastery of language skills (Gardner, 1985).

Literature has established a correlation between music and learning. Overy (1998) reported a study where children were exposed to a curriculum emphasizing music instruction over language and mathematics. Results showed that students in the music instruction group improved in language and reading, yet they were not worse at mathematics than students who had spent more time on these subjects without the additional music instruction. Learning to listen for changes in pitch in music may promote the ability to sound out new words. Therefore, there seems to be a correlation between language and music reading abilities. Some very early studies (Cooley, 1961; Dalton, 1952; Hutton, 1953; Maze, 1967; Wheeler & Wheeler, 1952) affirmed varying degrees of correlation, all positive, between language reading ability and music reading ability even when children presented learning difficulties. Additionally, Hurwitz, Wolff, Bortnick, and Kokas (1975) found that the development of reading skills in young children involved in a music programme tended to accelerate over a prolonged period of time.

Many studies from field of education systems, neurophysiology and other sciences show to us that music has big influence on human beings, especially on children and their cognitive and psychophysical development. About good influence of music, we also have evidences in neurological researches on music and rhythm stimulation, which provide to us unbelievable information about work of cerebral cortex during listening music and playing music instrument (Gojmerac, 2018). Music and songs were said to have a universal appeal and ubiquitous presence in most people's daily lives, hence have all the prerequisites to become an effective teaching resource in this respect (Bokiev, Bokiev, Aralas, Ismail, & Othman, 2018).

Recalling unfamiliar words can be burdensome to most learners; however, music may ease the process. Wallace (1994) compared immediate and long-term recall of spoken texts to texts learned with music. Results of the study indicated that recall was significantly greater with music than for the spoken condition. On the other hand, when the music was too difficult or the

melody remained unlearned, it impaired recall. The study suggests that simple musical song can transform ordinary text into information that is effectively retained and recalled when needed. In addition, melody provides sequential information, line and syllable length information, chunk linking, and rhythmical information that have the potential for making an accurate reconstruction of the text.

## **Methodology**

This study was an experimental study inspired by McElhinney and Annett's study (1996) as used in Salcedo (2010). Seventy-six (76) learners were selected for the study from Lapai Literacy Clinic Foundation, an NGO established as a community service in I.B.B. University, Lapai. They were divided into two groups with each group having thirty-eight (38) learners that were purposefully selected. Group A was exposed to various songs and local music in both Nupe and English language over a period of six months, while Group B (Control Group) was not. The respondents comprised of newcomers into literacy programs (Basic Literacy Class, are those that have never been to school or experience learning activities before).

The class was picked because of the following reasons:

- a. Many of the learners had never been to school before while some dropped out for one reason or the other and therefore have not acquired basic literacy;
- b. As an experimental study, it is better to use the newcomers in order to ascertain the veracity of the instruments;
- c. The respondents are readily available anytime they are needed for assessment and evaluation of the effect of the instruments and are really committed to learning.

The learners' enthusiasm because of the learning environment (IBB University), as well as the learning process, also facilitated how the respondents were selected.

The main instruments were Focus Group Discussion, which entails the observation of learners' performances after a period of six months of learning and interview. The researcher of this study served as the moderator and facilitated the group discussion with an observer/note taker. The moderator was guided by questions that were used to elicit information from the group, while the trained note taker recorded key issues raised and other factors that may influence the interpretation of information.

**FGD Guides;** The FGD sessions covered such issues as:

- a. Provision for learning materials like primers, writing books, pencils, and so on by the organizer of the program.

- b. Main reason/need of the learners in enrolling for a literacy class.
- c. Song(s) or music they love listening to both at home and at the literacy class.
- d. Do they count music or songs as a waste of time in education?
- e. The skills acquired and used by the learners (e.g., writing, reading and numeracy).
- f. Has using both music and songs been beneficial to them and others? (Using the skills of 3R to improve their lives).
- g. Would they recommend the use of music and songs for others?
- h. Any regrets in registering for the literacy activity?

## **Discussion of Findings**

### **Research Question 1: To what extent will songs and music be relevant to basic literacy promotion among adult learners?**

Figure 1 shows a song composed and sang by a learner in Group A. The learners in the group whose ages ranged between thirty-five and fifty years had been exposed to English Alphabets, could identify and pronounce between five to seven letter words, and a majority of them (68%) had been to school (basic II equivalent to primary three in the formal education sector) and have acquired a preliminary knowledge about education. However, they dropped out because of one reason or the other. They were encouraged to identify various songs or music in Nupe language which they sang while the facilitator wrote the same on the board.

Control group listened to the facilitator identifying and pronouncing various words in the songs as written on the board. They followed their facilitator doing the same. This method paved way to what Smith (1992) established that listening is a very large part of school learning, with students spending an estimated 50 to 75 percent of classroom time listening to the teacher, to other students, or to media. The story is not all that different in adult learning as learners are expected to listen (in this case to music or songs composed by their colleagues). To Mayesky (1986), learning to listen is a prerequisite to listening to learn; hence, encouraging adult learners to listen to music soothed their mind, rekindle their interest, and provides foundation for reading development and an assimilation of what was sung.

Based on their interpretation of the song in their native language, the facilitator translated the song into English language and at the same time exposed the learners to identify new words in both Nupe and English language. The new words were spelled and learners wrote same in their note books. Some of the songs used for the study are as shown below:

**Figure 1.** Translating a Nupe song to English

<b>Nupe Song</b>	<b>English Version</b>
Man nya Makaranta 2x	Teacher 2x
Ganya adeawo 2x	Tell them and be heard 2x
Muhammadu Kobo yi ba bonna...	In this our Muhammadu Kobo Centre
Yiga de man dozhi nwa bea	There cannot be any teacher like you
Ganya adeawo	Tell them and be heard.

The outcome of the exercise shows the learners eagerness to learn more. They were able to catch up with the English equivalence for certain words identified in the songs:

**Man** =Teacher,  
**Ganja** = Tell them  
**Makaranta** = School  
**Ganya adeawo** =Tell them and be heard

**Figure 2.** Translating a Nupe song to English

Yiji yebo soko (2x)	We thank God (2x)
Yan makaranta	For establishment of this school
Na kpe yayi dana	May allah peace and blessing
Soko yayi saa	Be upon us now
Be nasaree	And always
Amin.	Amen

The learners happily sang the songs, joyfully danced while clapping, and they mastered the spelling of words like teacher, school, Muhammadu, Center, etc. Many of them were able to spell the words as written on the board by the facilitator.

Introducing the national anthem to learners as shown in Figure 3 was done to encourage national identity, patriotisms among learners, and to encourage oneness as Nigerians. The learners listened to the music and were taught the national anthem. After two weeks of exposure, the learners were allowed to carry out various activities to determine the level of acquisition. The outcome of the experience showed that learners were able to identify two, three, four, and five letter words from the national anthem. They were able to give new words of the same letters on their own.

**Figure 3. National Anthem**

Arise, O compatriots,  
 Nigeria's call obey  
 To serve our fatherland  
 With love and strength and faith  
 The labour of our heroes past  
 Shall never be in vain  
 To serve with heart and might  
 One nation bound in freedom,

Peace and unity.

The respondents were able to carry out the following activities after the singing of the national anthem:

1. They identified three letter words used in the anthem (one, and, our).
2. They mentioned four letter words (call, obey, past, vain).
3. They spelt and pronounced any five and six letter words in the anthem.
4. They pronounced and wrote the following words:
  - (a) Love
  - (b) Obey
  - (c) Faith
  - (d) Nation
  - (e) Peace
  - (f) Unity
  - (g) Freedom
  - (h) Fatherland
5. How many letters are in the following words? They counted and wrote:
  - (a) Nation (6)
  - (b) Freedom (7)
  - (c) Peace (5)
  - (d) Nigeria (7)
  - (e) Fatherland (10)

**Research Question 2: How have the beneficiaries been coping with the use of songs and music to attain permanent basic literacy skills?**

**Table 2.** Different measurement timings and measures of the Analysis

Timing (Exposure to Learning)	Measures	Exposure to song and music on learning outcome
<b>Before</b>	<ul style="list-style-type: none"> <li>• Prior knowledge/skills</li> <li>• Learners' satisfaction/attitude/perception towards learning system/tool</li> <li>• Baseline information about self-efficacy and the local culture identity</li> </ul>	<ul style="list-style-type: none"> <li>• Elementary knowledge and identification of alphabets</li> <li>• Fear and unstable mind among learners</li> <li>• Inferiority complex as failure and a never-do-well was exhibited</li> </ul>
<b>During</b>	<ul style="list-style-type: none"> <li>• Collaborative behaviors/patterns</li> <li>• Participation in collaborative activities</li> </ul>	Individual and group reading encouraged Emotional stability, fear removed and social interaction encouraged
<b>After</b>	<ul style="list-style-type: none"> <li>• Learning performance</li> <li>• Learners satisfaction/attitude/perception toward learning system/tool</li> </ul>	• Learners were able to read and write well.

	<ul style="list-style-type: none"> <li>• Perception of learning skills (problem-solving/inquiry skills, collaborative skills)</li> </ul>	<ul style="list-style-type: none"> <li>• Self-confidence and ability to use communicative skills was experienced.</li> <li>• Fear of failure removed. Interest in further studies shown.</li> </ul>
--	--	---

**Source:** Field Study, 2017

Table 2 above showed the pre and post effect of beneficiaries' efforts on literacy acquisition. It shows that learners' attitude to education that was low at entry into the program improved as they were exposed to collaborative and participatory approach in learning. Their capability to retain learning experiences improved as they were able to acquire skills with which they solved personal problems. In addition, their self-esteem and confidence were also developed. Some of the learners exhibited interest to further their education. Some that were initially shy gained confidence. Their social interactions improved through individual and group reading.

**Research Question 3: What is the difference in learning outcome among the learners in group A and group B?**

At the end of the experiment, both groups were exposed to a test. The outcome of the experiment reflects regular attendance in both groups. The learners were more enthusiastic to learn. Seventy-six percent of the learners in group A were above average, while 52% were in group B. Most of the experimental group could form words with fewer efforts, while the control group was given a guide before such exercise could be completed. Experiment group (Group A) exhibited much confidence and collaborative efforts in learning more than group B. The outcome of the learning experiences among the learners in group A and group B showed that Group A learners were able to identify two, three, four, and five letter words from the passage easily and they were able to give new words of the same letters on their own than Group B learners. Reading speed among Group A was faster than Group B. However, there were not many differences in writing skills between the two groups.

It was evident that learners in both groups have adequate knowledge of the reason they were involved in adult education programs; yet, the control group were optimistic about advancing the course of their participation in the program. Learners in Group A were also willing to encourage people to attend the literacy class, while Group B would wish to continue if they could remain in Group B. This signifies the interest and change of attitude toward the use of songs and music with their resultant effects on the learning process.

Reading ability and comprehension among Group A was better than in Group B. As earlier discussed, learners in Group A were able to read

effectively and comprehend the message more than Group B. Thus, this finding is in line with Durkin (1993) and Harris and Hodges (1995) that intentional thinking is constructed through interactions between text and reader when appropriate methods of teaching are applied.

### **Discussion of Findings**

The result of the experiment shows that the learners in Group A exhibited traits of complete learning experience than Group B as they were involved in generating means of learning. Furthermore, they were able to identify words and produced new sentences from the words written on the board. The study also showed and confirmed the study of Altbach, Berdahl and Gumpert (2005) that dynamic curriculum can effectively produce improved learning outcome if properly managed as done in the use of songs and music to effectively change the attitude, orientation, and learning experiences of the learners. It is also evident that songs and music produce a psychotherapeutic effect in soothing the learning process and a produce positive outcome in teaching of adult learners. This agrees with Wallace (1994) study that a simple musical song can transform an ordinary text into information that is effectively retained and recalled when needed.

The classroom environment was friendlier in Group A than Group B because of the participatory nature experienced. The findings also showed that learning outcome improved as learners were able to read and write well. Their self-esteem improved, they gained self-confidence and the ability to use communicative skills. There is also the removal of fear of failure and establishment of interest in further studies shown. This finding agrees with a recent quasi-experimental study by Gromko (2005), which showed evidence that school children participating in music instruction exhibited improved phonemic awareness.

The outcome of the finding put to test the suitability of andragogy in teaching adults and pedagogy for youth and children as posted by Usman (2015) on the arguments that were based on the characteristic differences that exist between children, youth, and adults in their approaches to learning and readiness. Identification of words (two-letter words, three, four and more) is an indication of mastery and sustenance of literacy. The outcome of the experience in the study showed that the learners were able to identify two, three, four, and five letter words from the passage. They were able to give new words of the same letters on their own, thus, indicating permanent and sustained literacy.

As exhibited by some of the learners to further their education, the findings therefore extend the need and possibility of mainstreaming non-formal education into formal education and the gaining of lost confidence among the participants; the findings further corroborated with Olojede (2012),

who advocated for the promotion of continuation of adult learners and provision of an avenue that makes such a platform possible. There were improvements among Group A on social interactions as individual and group readings were encouraged which fostered self-confidence, social interactions, and a high self-esteem among the group unlike what was obtainable in Group B. As Gromko (2005) concludes in his work, music instruction, while valuable for liberating the artistic and musical potential of every child, may significantly enhance children's language literacy as well. The same story could be said of adults learning as established in this study.

### **Conclusion and Recommendations**

Literacy has been found to be an indispensable foundation that enables young people and adults to engage in learning opportunities at all stages of the learning continuum. The right to literacy has also been argued to be an inherent part of the right to education. Nigeria has been involved in adult education development as far back as 1914 amalgamation. However, little achievements have been shown for this. Literacy rate is still put at 53 percent of the estimated over 170 million citizens. Examination of the use of song and music in the promotion of adult education as a way to establish permanent literacy and providing therapeutic effect among adult learners became imperative.

The outcome of the experience showed that experimented learners were able to identify two, three, four, and five letter words from the passage easily against what was obtained in the second group since they were able to produce new words of the same letters on their own. The experiment shows that, if properly used, songs and music can be used as a teaching technique that is sustainable to the learning process. The outcome of the experiment showed that the experiment group wanted the continuity of the method because of the sustainability of literacy acquired; hence, they preferred to maintain the control group and furtherance of their class. Though the outcome of the exercise reflects a sign of rivalry between the learners in groups A and B, yet it was established that both song and music served psychotherapeutic effects in the life of the participants. Clearly, there are dynamics between a facilitator and their learners. Understanding how the relationship affects the intended outcome can be a fundamental precursor to learning. This is because motivation may be one of the most important aspects of teaching adult learners. The results of this study revealed that facilitators innovation play a very important role in the success of learning. Recognizing and addressing those innovations would go a long way to improve the learning outcome of learners. Following the findings of this paper, teachers and facilitators and policy makers in literacy programmes should be encouraged to include possibility of incorporating local songs and music into the non-formal education curriculum. Also, facilitators should be more creative in the

teaching and learning process of adult education. Facilitators should encourage participatory or group reading as an effective way of encouraging social interaction and confidence among adult learners. Music is a complex auditory stimulus which evolves through time and has a strong emotional impact; hence, facilitators should use those that relate with the context of the curriculum so as to arouse and maintain the interest of the learners.

### References:

1. Altbach, P., Berdahl, R., & Gumport, P. (2005). American higher education in the twenty-first century, (2nd ed.). Baltimore, MD: John Hopkins University Press.
2. Bancroft, W. J. (1985) Music therapy and education. *Journal of the Society for Accelerative Learning and Teaching*, Vol. 10, No. 1, pp. 3-19, 1985. (ERIC Document Reproduction No. ED 285 414).
3. Bokiev, D., Bokiev, U., Aralas, D., Ismail, L., & Othman, M. (2018). Utilizing Music and Songs to Promote Student Engagement in ESL Classrooms. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 314–332.
4. Cooley, J. C. (1961). A Study of the Relation Between Certain Mental and Personality Traits and Ratings of Musical Abilities. *Journal of Research in Music Education*, 9(2), 108–117. <https://doi.org/10.2307/3344307>
5. Durkin, D. (1993). Teaching them to read (6th ed.). Boston, MA: Allyn & Bacon.
6. Federal Ministry Education FME (2003).
7. Ferreri, L., Aucouturier, J., Makii Muthalib, M., Bigand, E. & Bugaisk, A. (2013). Music improves verbal memory encoding while decreasing prefrontal cortex activity: an fNIRS study.10.3389/fnhum.2013.00779. PMID: PMC3857524
8. Glatthorn, A. (1990). *Supervisory leadership: Introduction to instructional leadership*. GlenView: Scott.
9. Gromko, J. (2005). The effect of music instruction on phonemic awareness in beginning readers. *Journal of College Reading and Learning*, 53(3), 199-209.
10. Gojmerac, I. (2018). Importance of Music in Education System. <https://www.researchgate.net/publication/323167985>
11. Harris, T. L. & Hodges, R. E. (Eds.) (1995). *The literacy dictionary: The vocabulary of reading and writing*. Newark: DE: International Reading Association.
12. Moussard, A., Bigand, E., Belleville, S. & Peretz, I. (2012). Music as an aid to learn new verbal information in Alzheimers disease. *Music Percept.* 29 521—531 10.1525/mp.2012.29.5.521

13. National Bureau of Statistics (2010). Annual Report, Abuja.
14. Olojede, A.A. (2016). Knowledge, Adjustment & Prevention of Infectious Diseases: Non-Formal Education as an Alternative Approach to Rural Community Health. *Ibadan Journal of Educational Studies (IJES)*, Volume 16 No. 2.
15. Racette, A., Bard, C. & Peretz, I. (2006). Making non-fluent aphasics speak: sing along! *Brain* 129 2571—2584 10.1093/brain/awl250.
16. Racette, A. & Peretz, I. (2007). Learning lyrics: to sing or not to sing? *Mem. Cognit.* 35 242—253 10.3758/BF03193445
17. Salcedo, C. S. (2010). The Effects of Songs in the Foreign Language Classroom on Text Recall, Delayed Text Recall and Involuntary Mental Rehearsal. *Journal of College Teaching & Learning — June 2010 Volume 7, Number 6* (19).
18. Simmons-Stern, N. R., Budson, A. E. & Ally, B. A. (2010). Music as a memory enhancer in patients with Alzheimers disease. *Neuropsychologia* 48 3164—3167
19. Thompson R. G., Moulin C. J. A., Hayre S., Jones R. W. (2005). Music enhances category fluency in healthy older adults and Alzheimers disease patients. *Exp. Aging Res.* 31 91—99 10.1080/03610730590882819.
20. UNESCO (2017). E-9 Ministerial Meeting on Education 2030 Inclusive and Equitable Quality Education and Lifelong Learning by 2030: Challenges and Opportunities for E-9 countries. Dhaka, Bangladesh, from 5 to 7 February 2017
21. Usman, Y. H. (2015). Differences between Pedagogical and Andragogical Methods of Teaching and the Preference of Andragogy for the Teaching of Adults. *International Journal of African and Asian Studies* www.iiste.org . ISSN 2409-6938 An International Peer-reviewed Journal Vol (6).



ESJ Social Sciences

### **Willys Obuba Chache**

School of Business, University of Nairobi, Kenya

### **Cyrus Iraya Mwangi**

School of Business, University of Nairobi, Kenya

### **Winnie Nyamute**

School of Business, University of Nairobi, Kenya

### **Caren Angima**

School of Business, University of Nairobi, Kenya

---

Submitted: 05 October 2020

Accepted: 27 October 2020

Published: 30 November 2020

Corresponding author:

*Willys Chache*

DOI: 10.19044/esj.2020.v16n31p227



Copyright 2020 Chache W. O. et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## **Risk-Based Capital and Investment Returns of Insurance Companies in Kenya: Moderating Effect of Firm Size**

### **Abstract**

The link between risk-based capital and investment returns remains unclear due to divergence in findings. Mixed findings can be attributed to operationalization of study variables, selection of variables and control variables, the choice of econometric models, and contextual differences which give rise to conceptual, methodological, and contextual gaps. This paper focuses on the moderating effect of firm size on the relationship between RBC and investment returns. Risk-based capital was computed by incorporating market, insurance, credit and operational risk charges. The firm size was measured using gross written premium, while investment returns were measured using investment income ratio. The study population comprised of 63 insurance companies licenced by Insurance Regulatory Authority from 2014 to 2018, where a longitudinal panel design was adopted. Multiple linear regression was used to evaluate the nature of the relationship among variables based on the hypothesis in the study and at a significance level of 5%. The findings confirmed that firm size, both gross written premiums and total assets, had a moderating effect on the relationship between risk-based capital and investment returns. Insurance companies who intend to hold a reasonable risk-based capital so as to ensure stability in times of financial crisis should consider their size either in asset base or the gross premium written. Firms can strive to underwrite more insurance business and increase their asset base in order to safeguard themselves from a one in two-hundred-year crisis and concurrently maximize the investment returns.

### **How to cite this article**

Chache W. O. et al. (2020). Risk-Based Capital and Investment Returns of Insurance Companies in Kenya: Moderating Effect of Firm Size. *European Scientific Journal, ESJ*, 16(31), 227. <https://doi.org/10.19044/esj.2020.v16n31p227>

---

**Subject:** Business

**Keywords:** Risk-Based Capital,  
Investment Returns, Firm Size, Linear  
regression analysis

## **Introduction**

Risk-based capital gives a true reflection of the capital which an underwriter holds to attain a certain safety level considering the size of the company and the amount of risk they hold. A company's size on the other hand would influence its risk-based capital, since the total amount of premium a company underwrites informs the amount of premium reserves. Furthermore, its claims reserves will influence the insurance risk capital, while its assets composition informs market and credit risk capital (Liebwein, 2006). Insurers recognize how important it is to separate investment management and the core insurance business because investment returns act as a backing for their reserves and capital, which is very important in maximizing these returns (Smith, 1989).

Kochanski (2010) defines risk-based capital as the appropriate capital an insurance company has in place to survive a one in two-hundred-year crisis. This definition is based on solvency II risk-based framework which provides a holistic assessment of the risks an insurance company takes in its operations. The Society of Actuaries (2016) further defines risk-based capital as the capital an insurance company holds to meet risks that can be quantified on their portfolio mix in a one-year expectation of new business. RBC may be calibrated at valuation at risk (VaR) 99.5% over one year or adopt a conditional tail expectation (CTE) methodology, which is deemed favorable than VaR if there is risk of large losses. This means a one in two-hundred-year event of the change in the economic value over a one-year horizon. The change in economic value is usually given as all assets minus all liabilities within the period.

Firm size can be defined as the amount of assets owned by a company that have productive proficiencies (Hasan et al., 2016). Shalit and Sankar (1977) stipulated that the size of the firm plays a vital role in industrial organization and applied macroeconomics. They further stated that firm size has been confirmed as a robust empirical variable in many studies despite using alternative indicators. In an organization, firm size, a specific internal factor of a firm's characteristics, has a role in determining its behavior with respect to risk management thus influencing its performance. The size of an insurance company can be measured using the total assets, gross premium written or the capital it holds (Mwangi & Angima, 2016).

Fiala and Hedija (2015) analyzed firm size using three indicators, revenue, number of employees and total assets, to analyze the law of

comparable effect (Gibrat's law) which states that the size of a firm is a random walk independent of the size of the company. Despite all the three indicators rejecting Gibrat's law, they were deemed as a viable measure while undertaking regression analysis. One of the most commonly used indicators to measure firm size is total assets (Hoque & James, 2000). A firm which has more assets tends to operate with less constraints and have an advantage because of the capital they hold, thus having a competitive edge by being more agile and taking higher risks without major implications to its available capital (Yegon et al., 2014).

Gross premium written can also be used to measure the size of an insurance company. The premium underwritten is a representative of the sales an insurance company has made within a defined period. The premium growth rate is used to measure an increase in the market share of an insurance company where the gross premium written is used to determine the growth rate. Insurance companies with high premium(s) volumes and major in size are expected to respond faster when there are changes in the market as compared to small companies. They can diversify their risks in an effective way and maintain adequate capital while maximizing their underwriting profits and investment income (Kaya, 2015). Dang et al. (2017) alluded that firm size is deemed important in many empirical analysis and is often used as a measure within firm characteristics. There are several indicators of the firm size which can be measured empirically using the measurement effect or size effect. Total assets, total sales, and market capitalization are some of the indicators which are adopted when measuring firm size. There is evidence from several empirical analysis that some measures of firm size are considered favorable than others based on the situations. Different indicators will lead to different findings during analysis. It is therefore recommended that the choice of indicators for firm size is fully supported, theoretically and empirically, based on the context of the research.

Insurance investment risk is different from that of a typical fund manager. This is because investment risks for fund managers are both absolute, meaning that the market value of the fund will rise and fall at a particular period, and there is a relative meaning that it may over or under perform the benchmark. Concentration is more on the asset side of the client and little or no consideration of the liabilities. Therefore, insurance companies' investment has to look at both sides of the company since they bear the liability. This makes it difficult for the companies to go for the perceived high risk high return investments. Investment returns are vital for any company which intends to be profitable. Investment returns should positively covary with current stock but negatively covary with future stock based on the effect of discount rates on investment returns (Lamont, 2010). The investment income ratio is a profitability determinant for insurance

companies. Previous regulatory regimes which did not have a holistic view of the risks of the entire balance sheet or compliance-based regimes, had concentration limits on where insurance companies had to invest and what percentage of the total assets will be in certain asset classes. Risk-based supervision regime gives companies greater investment flexibilities and allows for better management of assets in respect to the size, complexity, and risk appetite of the companies (Liebwein, 2006).

### **Statement of the Problem and Research Objective**

Various empirical studies have adopted different metrics to measure risk-based capital as well as investment returns. Hogan, Meredith and Pan (2015) used credit and market risk as proxies for risk-based capital while Lastra (2004) utilized additional indicators of risk-based capital (insurance and operational risk) and documented insignificant risk-based capital-returns link. Likewise, a number of empirical studies have been largely bivariate in nature, focusing on either the link between risk-based capital and investment returns, risk-based capital and asset allocation, or asset allocation and investment returns. However, the risk-based capital investment returns link is not usually direct, but it is explained by several control variables such as asset allocation, firm size, age of the firm among others. This study, therefore, extends risk-based capital-returns link by incorporating firm size to bridge these conceptual gaps.

To establish the causal link between risk-based capital and investment returns, this study goes beyond the previous studies since it incorporates firm size as the moderating variable. This study sought to answer the question: how does firm size influence the relationship between risk-based capital and investment returns of insurance companies in Kenya? The main research objective was to examine the effect of firm size on the relationship between risk-based capital and investment returns of insurance companies in Kenya.

### **Literature Review**

#### **Theoretical Foundation**

This study was conceptualized on Redington (1952) immunization theory and Tippet (1928) extreme value theory. Redington immunization theory, which was developed by Frank Mitchell Redington, is widely used in asset liability management and is applicable when insurers use investments returns as a backing for their reserves and capital. The extreme value theory, developed by Tippet (1928), deals with any extreme anomalies from the median. This theory is majorly applied in risk management to assess the effect of extreme scenarios, majorly the outliers in an event. Thus, it is applicable in the concept of RBC.

Redington immunization theory (1952) was developed as a strategy to ensure that interest rates variations do not affect the worth of an investment portfolio. The idea behind this theory was to structure assets in such a way that the net present value on its local minimum of 0 at  $i_0$ , which means that the net present value of the assets equals to the present value of liabilities at interest rate  $i_0$ , and the derivative of the present value function of the assets equals the derivative of the present value functions of the liabilities at the interest rate  $i_0$ . Some of the disadvantages of this theory is that, even if the Redington immunization conditions are met, it is still uncertain to conclude that the assets fully cover the liabilities of a firm. Firstly, Taylor series third and higher order terms are ignored. Therefore, any conclusion made on assets exceeding the values of liabilities can be deemed valid if changes in the interest rate are sufficiently small. Secondly, to satisfy the conditions of Redington immunization, one will have to reorganize the value of the portfolio of assets since their value changes over time. Thirdly, other factors which may have an influence on the payouts of any assets are not considered. The theory only investigates the variations of the interest rates.

Barber (1999) generalized several immunization theories previously developed thus proving that Redington's (1952) immunization, Fisher and Weil (1971) immunization, and other immunization theorems can be generalized to affine term structures. This allows generality in defining durations which can be applicable to multiple models. The duration coverage condition gives an assurance that each liability can be immunized separately. The study further shows that the ratio of the asset to liabilities is globally convex and not purely locally immunized as per Redington's assumption of equality in terms of assets and liabilities. Also, asset cash flow is more dispersed than liability cash flows. Additionally, it extends the feasibility of term structure models in the sense that one can empirically determine the best model based on historical changes of term structure. This is possible by not assuming a parallel shift or a particular model. Wang et al. (2009) further extended the immunization theory to address longevity risks of life insurance companies, due to the changes of their liability influenced by mortality changes, which is similar to change in interest rates. The study's main objective was to obtain optimal product mix, which included life policies and annuities, to enable life insurers achieve better natural hedging effect through immunization. Their valuations are inclusive of the interest rate risk as described by Redington (1952) but further analyzes mortality risk over time.

Based on the above discussion, the adoption of the word immunization by Redington was to signify the investments in such a way that any business that is in existence is immune to the general changes of interest rates. This study looks at how risk-based capital affects the investment returns of insurance companies in Kenya. The concept of determining risk-based capital

involves imposing capital charges across the entire balance sheet based on how risky the asset or liability is deemed. This concept of provision of high capital to assets which are high risk to cushion insurance companies against shocks or adverse scenario applies immunization theory as described by Frank Redington.

Tippet (1928) developed the extreme value theory (EVT) which deals with the extreme deviations from the median. This theory has been extensively used in the area of risk management of financial portfolios by statistically modelling extreme events and computing extreme risk measures. EVT can be used to model the influence of any adverse scenario or situations which have extreme stress on any portfolio an investor holds. The two main models used for extreme values over time and are the block maxima models and peaks-over-threshold (POT) models. These are models for bulky data collected from large samples of identically distributed observations. For example, if hourly, daily or weekly transactions on trading of an instrument are recorded, the model that will be suitable to analyze quarterly or annual maximum would be the block maxima method due to the bulkiness of the data.

The extreme value theorem has also been applied in recent developments in finance such as the use of cryptocurrency. Gkillasa and Katsiampab (2018) have reviewed the applicability of EVT on the five major crypto currencies namely, Litecoin, Ethereum, Bitcoin Cash, and Ripple. The study focused on the tail behavior of the cryptocurrencies by applying extreme value theory, estimating the Valuation at Risk and the expected shortfalls. Their study reviewed the applicability of EVT in financial risk analysis, since the behavior of cryptocurrencies is totally unique and not similar to the traditional currencies. Despite the uniqueness, their study alluded that EVT was successfully applicable and helps to determine which cryptocurrency is deemed riskier than the others. An evaluation of the tail distribution by applying the generalized Pareto distribution model confirmed the applicability of EVT in cryptocurrencies.

Embretch and Hofert (2011) alluded that the financial service sector is experiencing adequate changes. The insurance industry is prone to huge disastrous losses for which the requested cover is only just available. Traded financial assets are becoming more complex thus indicating that there is need for advanced methods of risk management. The required risk transfers mechanism and risk management practices indicates the convergence of finance and insurance at the product level. The extreme value theory is important methodologically regarding risk management in insurance, reinsurance, and finance. When determining RBC, capital charges are imposed on insurance, market, and credit risks. The extreme value theory concept is used when defining the insurance risk capital charge, which is imposed on the premium reserve and claims reserves on short term insurance business, and on

mortality, longevity, morbidity, expenses, lapses, and catastrophe on long term insurance business.

### **Empirical Review**

Hall and Weiss (1967) alluded that increased capital in a firm is likely to increase the total profits of the firm and earnings per dollar, due to its higher echelon in comparison to other industry players. Their study focused on firm size and how it affects the profitability of a firm. The sample used was five hundred largest industrial corporations in a seven-year duration. Firm size was the independent variable which the reciprocal of the log of total assets was used as an indicator. On the other hand, profitability was the dependent variable and was measured using the rate of return after tax at the year end equity. Their findings show that the size of a firm leads to a high profitability rate and that there is a significant capital requirement barrier, which may have an effect on the profit rates. This study however did not look at the moderating effect of firm size on the relationship between risk-based capital and investment returns.

Kim (1997) reviewed the explanatory effect of beta, firm size, book to market equity, and earnings price ratio on the average stock returns. He adopted a cross sectional regression model for analysis of the data. His findings show that book to market value and beta and earning price ratio had a significant explanatory effect on stock returns. On the other hand, firm size was barely significant while using monthly returns and totally insignificant when using quarterly returns. However, this study did not look at how firm size can moderate the relationship between risk-based capitalization of a firm and its investment returns.

Stanwick and Stanwick (1998) sought to examine the relationship between corporate social performance with the size of the firm, financial performance and environmental performance of the organization. The population sample was based on the top five hundred firms listed in the fortune corporate reputation index, for a six-year period (from 1987 to 1992). The corporate social performance was measured using the corporate reputation index, the firm size was measured using total sales, financial performance was measured using a ratio of total profits and annual sales level of the firm, while environmental performance was measured using the level of emitted pollution as per toxic release inventory report. Regression analysis was performed to analyze the relationship between variables. The results show that there was a positive significant relationship between corporate social performance and firm size, financial performance and environmental performance. However, the study did not look at the capitalization of a firm from a risk perspective while considering its size and the overall effect to investment returns.

Lee (2009) examined the effect of firm size on the profitability of public firms in the United States while incorporating the determinants of performance. The size of the sample was a total of seven thousand public firms listed in the United States Stock Exchange over a twenty-year period. The study applied ordinary least square method to the panel data which was used for regression analysis. The size of the firm was measured by log of total assets. Profit variation was measured in three categories, which entailed general economic conditions, firms, and industry specific factors. The proxy for general economic conditions was the annual growth rate, while that of the firm's market environment was market concentration. The overall findings of the study show that market concentration has a significant effect on the profitability of the firm, while firm size played a dominant role in explaining the profitability of the firm. The study focused on the overall profitability of the firm and not specifically on investment returns. It also did not look into the risk-based capitalization of the firm, its effect in investment returns, and how firm size affects this relationship.

Abdullahi et al. (2011) did an empirical analysis on how firm size, through a sectoral approach, can affect the risk and return of firms listed in Nigerian Stock Exchange. The study adopted a multi factor model basing it on arbitrage pricing theory to analyze how sectoral size affects risk and return. Ordinary Least Square (OLS) estimation procedure was used in their study. Regression analysis was conducted to confirm if sector size had an influence on sectoral returns. Their findings show that sectoral size had no direct significance on the sectoral returns of the listed firms on Nigerian Stock Exchange. This study did not look at how a firm is capitalized from analyzing the risks and its effect on investment returns, and at the same time, how the size of a firm would affect this relationship.

Mwangi and Angima (2016) sought to identify a moderating variable which would influence the relationship between actuarial risk management practices and the financial performance of property and casualty insurance firms. The methodology adopted was conceptual and empirical literature review. Their findings show that there was a moderating effect of firms' specific characteristics; quality of management, years of operation of the company and its size, and on the relationship between actuarial risk management practice and financial performance of property and casualty insurers.

Mutunga and Owino (2017) looked at the moderating role of firm size based on the relationship between financial performance and micro factors of manufacturing firms in Kenya. They opted for descriptive research design and used regression and correlational analysis to analyze the data collected. The study findings showed that the relationship between the independent variable (micro factors) and the dependent variable (financial performance) was

statistically significant. There was also a positive moderating effect when they introduced firm size as a moderator based on the relationship between the two variables. Despite looking at the moderating effect of firm size between micro factors and performance, the study did not entail risk-based capitalization and was not specific on investment returns.

### Conceptual Framework

The study focused on how firm size influences the relationship between risk-based capital and investment returns of insurance companies in Kenya. The dependent variable in the study was investment returns measured by the Investment Income Ratio, the independent variable was risk-based capital, and the moderating variable was the firm size which was measured by the log of total assets and log of gross written premiums.

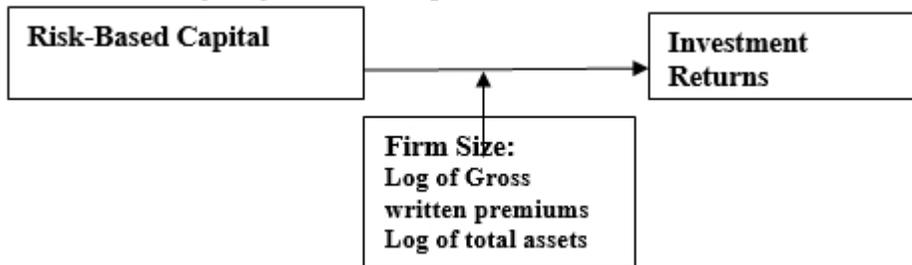


Figure 1. Conceptual model

### Research Hypothesis

This study aims to establish the moderating effect of firm size on the relationship between risk-based capital and investment returns. The null hypothesis that was tested in the study was as follows:

H<sub>1</sub>: The relationship between risk-based capital and investment returns of insurance companies is not moderated by firm size.

### Data and Methodology

This study adopted a positivistic approach since it relied on evidence and statistics to determine the relationship among variables. A longitudinal (panel) design was adopted to describe the relationship between variables over time. Secondary data was collected from the insurance companies' annual returns submitted to Insurance Regulatory Authority for a five-year duration (2014-2018), which was adequate in computing the risk-based capital and the investment returns. Risk-based capital was computed using data on market risk capital charge, insurance risk capital charge, credit risk capital charge, and operational risk capital charge. The investment income, life fund, and earned premiums data was collected in order to compute the investment income ratio as an indicator of investment returns. Firm size was measured using the log of total assets and the log of gross written premiums.

The relationship between the study variables, RBC, firm size and investment returns, was measured by using correlation analysis. Linear regression was used to evaluate the nature of the relationship among various variables based on the hypothesis in the study and at a significance level of 5%.

Risk-based capital was computed as follows:

$$RBC = \sqrt{IRC^2 + MRC^2 + CRC^2} + \text{Operational Risk} \dots \dots \dots \text{Equation 1}$$

Investment returns in insurance companies was calculated as follows:

*General Insurance Companies:*

$$\text{Investment Income Ratio} = \frac{\text{Net Investment Income}}{\text{Net Earned Premium}} \dots \dots \dots \text{Equation 2}$$

*Life Insurance Companies:*

$$\text{Investment Income Ratio} = \frac{\text{Net Investment Income}}{\text{Life Fund}} \dots \dots \dots \text{Equation 3}$$

According to Baron and Kenny (1986) methodology, a multiple regression model was used to determine the moderating effect of firm size on the relationship between risk-based capital and investment returns. The model was as follows:

**Model (a):** Total asset as the moderator

$$IR = \beta_0 + \beta_1 RBC_{it} + \beta_2 TA_{it} + \beta_3 ((RBC_{it}) * (TA_{it})) + \epsilon_{it} \dots \dots \dots \text{Equation 4}$$

Where:

- IR is the investment income ratio,
- $\beta_0$  : The regression constant,
- $\beta_1, \beta_2$  and  $\beta_3$  are the regression coefficients,
- RBC is the risk-based capital,
- TA is the total asset score,
- $\epsilon_i$ : is the random error term.

**Model (b):** Gross premium written as the moderator

$$IR = \beta_0 + \beta_1 RBC_{it} + \beta_2 GWP_{it} + \beta_3 ((RBC_{it}) * (GWP_{it})) + \epsilon_{it} \dots \dots \dots \text{Equation 5}$$

Where:

- IR is the investment income ratio,
- RBC is the risk-based capital,
- $\beta_0$ : The regression constant,
- $\beta_1, \beta_2$  and  $\beta_3$  are the regression coefficients,
- GWP is the gross written premium,
- $\epsilon_i$ : is the random error term.

Consequently, adjusted  $R^2$  was used to assess the outcome variable variation as a result of the effects of the predictor variable. F- Test was conducted to assess the model fit by testing the significance of the model. The beta coefficient ( $\beta$ ) showed the effect of variation in the dependent variable as a result of a unit change in the predictor variable. T-test was used to evaluate the significance of the beta coefficient of the independent variable at 95% significance level. Moderation effect is presumed if or when changes in  $R^2$  are high as a result of interaction between risk-based capital (RBC) and firm size (measured by total assets and gross written premium). Similarly, moderation is confirmed if the beta coefficient ( $\beta$ ) of the interaction term is statistically significant.

### Results and Discussions

The objective of the study was to establish the moderating effect of firm size on the relationship between risk-based capital and investment returns. Firm size is comprised of total assets and gross written premium. The developed hypothesis was:

***Hypothesis 3: The relationship between risk-based capital and investment returns of insurance companies is not moderated by firm size.***

The moderating effect was computed using the approach proposed by Baron and Kenny (1986). The first step involved a regression analysis of RBC (independent variable) and the moderating variable (firm size measured by total assets) against investment returns (the dependent variable). The results were as follows;

**Table 1.** Regression Results for the Relationship between Investment Returns Firm Size (Total Assets) and RBC

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	S. E of the Estimate	
<b>a. Predictors:</b> <b>(Constant), Total Assets, RBC</b>	.902a	.814	.812	.02951	
Model	Sum of Squares	Df	Mean Square	F	Sig.
<b>Regression</b>	.935	2	.467	536.706	.000b
<b>Residual</b>	.214	246	.001		
<b>Total</b>	1.149	248			
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	-.187	.031		-5.973	.000
<b>RBC</b>	-.016	.005	-.157	-3.364	.001

<b>Total Assets</b>	.121	.006	1.023	21.992	.000
<b>a. Dependent Variable: Investment Returns</b>					
<b>b. Predictors: (Constant), Total Assets, RBC</b>					

The results in Table 1 above show an adjusted  $R^2$  of 0.812 which indicates that risk-based capital and total assets explain 81.2% variation in investment returns. It further indicates that the p value is 0.000 which is statistically significant at a 5% level of significance. The p value for risk-based capital and total assets is 0.001 and 0.000 respectively which are statistically significant since they are less than the 0.05 level of significance.

The next step entailed testing the effect of RBC (the independent variable), total assets as the first measure of moderating variable and the interaction term between RBC and total assets (RBC\*TA) on investment returns (independent variable). RBC and total assets were centred and multiplied together in order to create a single item indicator (RBC \* TA). The regression result where the interaction term is introduced is shown below:

**Table 2.** Regression Results for the Relationship between Investment Returns, Firm Size (Total Assets) and RBC, Centred Approach.

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	S. E of the Estimate	
<b>a. Predictors: (Constant), RBC*TA, Total Assets, RBC</b>	.904a	.817	.815	.02929	
Model	Sum of Squares	Df	Mean Square	F	Sig.
<b>Regression</b>	.939	3	.313	364.771	.000b
<b>Residual</b>	.210	245	.001		
<b>Total</b>	1.149	248			
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	.783	.448		1.748	.082
<b>RBC</b>	-.123	.050	-1.190	-2.488	.014
<b>Total Assets</b>	.015	.049	.129	.312	.755
<b>RBC* TA</b>	.012	.005	1.833	2.170	.031
<b>a. Dependent Variable: Investment Returns</b>					
<b>b. Predictors: (Constant), RBC*TA, Total Assets, RBC</b>					

Results from the above Table 2 show a change in 0.003 change in  $R^2$  from 0.814 to 0.817 and adjusted  $R^2$  from 0.812 to 0.815 which is also a 0.003 increase occasioned by the interaction term. The p values of risk-based capital

and the centered value are less than 0.05 thus depicting a statistical significance at 0.05 level of significance.

From the results, firm size (total assets) moderates the relationship between risk-based capital (the independent variable) and investment returns (the dependent variable). The resultant regression model is shown below:

$$IR_{it} = 0.783 - 0.123RBC_{it} + 0.012((RBC_{it}) * (TA_{it}))$$

Where:

IR is the investment returns,

RBC is the risk-based capital, and

TA is Total Assets.

The regression model above indicates that risk-based capital had a statistically significant negative effect on investment returns.

The second step involved a regression analysis of RBC (independent variable) and the moderating variable (firm size measured by GWP) against investment returns (the dependent variable). The results were as follows;

**Table 3.** Regression Results for the Relationship between Investment Returns, Firm Size (Gross Written Premium) and RBC

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	S. E of the Estimate	
<b>a. Predictors: (Constant), Gross Written Premium, RBC</b>	.742a	.550	.547	.04587	
<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Regression</b>	.631	2	.315	149.902	.000b
<b>Residual</b>	.515	245	.002		
<b>Total</b>	1.146	247			
<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	B	Std. Error	Beta		
<b>(Constant)</b>	.097	.043		2.267	.024
<b>RBC</b>	.027	.007	.256	3.700	.000
<b>Gross Written Premium</b>	.055	.007	.523	7.550	.000
<b>a. Dependent Variable: Investment Returns</b>					
<b>b. Predictors: (Constant), Gross Written Premium, RBC</b>					

The results in Table 3 above show an adjusted R<sup>2</sup> of 0.547 which indicates that risk-based capital and gross written premiums explain 54.7%

variation in investment returns. The table further illustrates that the p value is 0.000 which is statistically significant at a 5% level of significance. The p value for risk-based capital and gross written premium is 0.000 respectively which are statistically significant since they are less than the 0.05 level of significance.

The final approach was to use the gross written premium as a measure of firm size. This entailed testing the effect of RBC (the independent variable), gross written as the second measure of moderating variable, and the interaction term between RBC and gross written premium (RBC\*GWP) on investment returns (independent variable). RBC and gross written premium were centred and multiplied together in order to create a single item indicator (RBC \* GWP).

**Table 4.** Regression Results for the Relationship between Investment Returns, Firm Size (GWP) and RBC, Centred Approach.

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	S. E of the Estimate	
<b>a. Predictors: (Constant), RBC*GWP, Gross Written Premium, RBC</b>	.767a	.589	.583	.04396	
<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Regression</b>	.675	3	.225	116.345	.000b
<b>Residual</b>	.472	244	.002		
<b>Total</b>	1.146	247			
<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	B	Std. Error	Beta		
<b>(Constant)</b>	2.564	.520		4.935	.000
<b>RBC</b>	-.262	.061	-.2521	-4.296	.000
<b>Gross Written Premium</b>	-.219	.058	-2.081	-3.778	.000
<b>RBC*GWP</b>	.032	.007	5.089	4.763	.000
<b>a. Dependent Variable: Investment Returns</b>					
<b>b. Predictors: (Constant), RBC*GP, Gross Written Premium, RBC</b>					

Results from Table 4 above show an adjusted R<sup>2</sup> of 0.583 which is a 0.036 (3.6%) increase from the one in Table 3 of 0.547. The adjusted R<sup>2</sup> is 0.583 from the previous one of 0.547 which is a 0.036 increase. Table 5.8 above further indicates that the p values of risk-based capital and the centered value is 0.000, which portrays a statistical significance at 0.05 level of significance.

From the results, firm size (gross written premium) moderates the relationship between risk-based capital (the independent variable) and investment returns (the dependent variable), thus rejecting the null hypothesis which stated that the relationship between risk-based capital and investment returns of insurance companies is not moderated by firm size. The resultant regression model is shown below:

$$IR_{it} = 2.564 - 0.262RBC_{it} - 0.219GWP_{it} + 0.012((RBC_{it}) * (GWP_{it}))$$

Where:

IR is the investment returns,

RBC is the risk-based capital, and

GWP is Gross Written Premium.

From the regression model above, risk-based capital and gross written premiums have a statistically significant negative effect on investment returns.

### **Conclusion and Limitations**

The study's objective was to examine how firm size affects the relationship between risk-based capital and investment returns of insurance firms in Kenya. The null hypothesis to be tested was that firm size does not moderate the relationship amongst risk-based capital and investment returns of insurance companies. As per the study findings, the hypothesis was rejected indicating that the relationship between risk-based capital and investment returns of insurance companies is moderated by firm size. Insurance companies who are keen on holding a reasonable risk-based capital which will ensure their stability in times of financial crisis should consider their size either in asset base or the gross premium written. Firms can strive to underwrite more insurance business and increase their asset base in order to safeguard themselves from a one in two-hundred-year crisis and concurrently maximize the investment returns.

This study has generally contributed to the field of finance and risk management (particularly risk-based capital) and the influence of firm size on insurance companies' investment returns. The study supports Redington immunization theory which defines asset liability matching. Asset liability matching is a critical component in determining the amount of capital a company is expected to hold after taking the total balance sheet approach, which involves reviewing the asset and liabilities and imposing a capital buffer that will ensure continuity of the company during a financial crisis. Due to a progressively complex financial service industry, all financial institutions are keen in managing their risks and holding enough capital in order to survive such crisis in the future.

Despite the study having some limitations, efforts were made to ensure that these shortcomings did not significantly affect the results of the study. This research study opted for longitudinal (panel) design where secondary data was collected over a period of 5 years. The use of secondary data, which is historical in nature, may not have represented the current situation and may not also have incorporated any management comments, especially on factors that may have influenced asset allocation. Future research may arise from the outcomes of this study and some of the limitations. Since the study adopted longitudinal (panel) design, future studies can consider using a descriptive cross sectional research design which may incorporate management comments, especially on factors that may have influenced asset allocation and investment decisions. Hence, this may have an effect on the returns on investment.

### **Recommendations**

The study findings show that size is positively linked to investment returns of insurance companies. Regulators can encourage insurance firms to merge, acquire or be acquired with other sector players, which will lead to well capitalized companies that can withstand any harsh economic conditions (a one in two-hundred-year crisis as per the risk-based capital model). The current insurance penetration rate in Kenya is quite low, thus requiring the regulator to devise ways to increase the penetration. Initiatives, such as educating the general public on the importance of insurance, might assist in increasing the penetration rate which in turn might lead to an increase in gross written premiums, thus growing the size of insurance companies.

### **References:**

1. Abdullahi, I., Muhtar, E., & Lawal, W. A. (2011). The effects of firm size on risk and return in the Nigerian stock market: A sectoral analysis. *British Journal of Economics, Finance and Management Sciences*, 1(2), 1-10.
2. Dang, C., Frank Li, Z., & Yang, C. (2017). Measuring firm size in empirical corporate finance. *Journal of Banking and Finance*, 86(1), 159-176.
3. Embrecht, P., & Hofert, M. (2011). *Statistics and quantitative risk management for banking and insurance*. Zurich: Swiss federal institute of technology.
4. Fiala, R., & Hedija, V. (2015). The relationship between firm size and firm growth: The case of the Czech Republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 63(5), 1639-1644.

5. Fisher, L., & Weil, R. L. (1971). Coping with the risk of interest-rate fluctuations: Returns to bondholders from naive and optimal strategies. *The Journal of Business*, 44(4), 408-431.
6. Gkillas, K., & Katsiampa, P. (2018). An application of extreme value theory to cryptocurrencies. *Economic Letters*, 164(1), 108-111.
7. Hall, M., & Weiss, L. (1967). Firm size and profitability. *The Review of Economics and Statistics*, 49(3), 319-331.
8. Hasan , I., Kobeissi, N., Liu, L., & Wang, H. (2016). Corporate social responsibility and firm financial performance: The mediating role of productivity. *Journal of Business Management*, 1(2), 1-18.
9. Hogan, T., Meredith, N., & Pan, X. (2015). Risk based capital regulation. *Journal of financial regulation and compliance*, 23(2), 115-134.
10. Hoque, Z., & James, W. (2000). Linking balanced scorecard measures to size and market factors: impact on organizational performance. *Journal of Management Accounting Research*, 12(1), 1-17.
11. Insurance Regulatory Authority. (2017). *Insurance industry annual report*. Nairobi.
12. Kaya , E. Ö. (2015). The effects of firm-specific factors on the profitability of non-life insurance companies in Turkey. *International Journal of Financial Studies*, 3(4), 510-529.
13. Kim, D. (1997). A re-examination of firm size, book-to-market, and earnings price in the cross-section of expected stock returns. *The Journal of Financial and Quantitative Analysis*, 32(4), 463-489.
14. Kochanski, M. (2010). Solvency capital requirement for German unit linked insurance products. *German Risk and Insurance Review*, 6(2), 33-70.
15. Lastra, R. M. (2004). Risk-based capital requirements and their impact upon the banking industry: Basel II and CAD III. *Journal of financial regulation and compliance*, 12(3), 225-239.
16. Lee, J. (2009). Does size matter in firm performance? Evidence from US public firms. *International Journal of the Economics of Business*, 16(2), 189-203.
17. Liebwein, P. (2006). Risk models for capital adequacy: applications in the context of solvency II and beyond. *The International Association for the Study of Insurance Economics*, 31(3), 528-550.
18. Mutunga, D., & Owino, E. (2017). Moderating role of firm size on the relationship between micro factors and financial performance of manufacturing firms in Kenya. *Journal of Finance and Accounting*, 1(2), 14-27.
19. Mwangi, M., & Angima, C. (2016). Actuarial risk management practices and financial performance of property and casualty insurance

- firms: identification of a moderating variable. *International Journal of Humanities and Social Science*, 6(2), 126-132.
20. Shalit , S., & Sankar, U. (1977). The measurement of firm size. *The Review of Economics and Statistics*, 59(3), 290-298.
  21. Society of Actuaries (2015). *Own risk solvency assessment process implementation for internal stakeholders*. Washington: Milliman.
  22. Stanwick, P., & Stanwick, S. (1998). The relationship between corporate social performance and organizational size, financial performance and environmental performance: an empirical examination. *Journal of Business Ethics*, 17(2), 195-204.
  23. Tippett, C. (1928). Limiting forms of the frequency distribution of the largest or smallest member of a sample. *Proceedings of the Cambridge Philosophical Society*, 24(5), 180-290.
  24. Wang, J. L., Huang, H., Yang, S. S., & Tsai, J. T. (2010). An optimal product mix for hedging longevity risk in life insurance companies: The immunization theory approach. *The journal of risk and insurance*, 77(2), 473-497.
  25. Yegon, C., Gekara, J., & Wanjau , K. (2014). Effects of firm size on enterprise risk management of listed firms in Kenya. *Journal of Business and Management*, 15(5), 86-95.



ESJ Social Sciences

## Traore Oumar

Enseignant-chercheur à l'Institut National de  
Formation des Travailleurs Sociaux, Bamako

---

Submitted: 31 October 2020  
Accepted: 24 November 2020  
Published: 30 November 2020

Corresponding author:  
*Oumar Traore*

DOI: 10.19044/esj.2020.v16n31p245

 Copyright 2020 Oumar Traore et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## Education pour la paix et le développement: stratégies pour son intégration dans le système éducatif malien

### Résumé

Cet article présente le processus d'intégration de l'éducation à la paix dans le système éducatif malien. Elle fait un état des lieux tout en procédant à une analyse des stratégies assortie de propositions. Le Mali connaît, de plus en plus, des crises multiformes, conduisant à des conflits, et donc à des situations de paupérisation annihilant l'efficacité des politiques de développement. L'éducation à la paix et le développement revêt une importance indéniable, car elle permet aux différentes couches sociales d'apprendre à vivre ensemble tout en étant nanties de moyens de prévention et de règlement des situations conflictuelles. La recherche se veut une contribution à la compréhension de l'expérience malienne d'implantation de l'éducation à la paix et au développement dans le système éducatif. Les objectifs sont: -Analyser le processus de mise en œuvre de l'éducation à la paix et au développement au Mali, dans le cadre de son intégration dans le système éducatif malien; - Proposer des stratégies pour une intégration durable de l'éducation à la paix et au développement. La recherche documentaire et empirique ainsi que des entretiens ont permis de recueillir des informations et des données. Les résultats révèlent une faille éducative dans le processus d'introduction de la culture de la paix et le développement. Le constat fait ressortir aussi une approche parcellaire et disparate à travers une introduction de portions de l'enseignement de la culture de la paix dans certaines disciplines scolaires. Ce qui justifie les propositions de stratégies appropriées, en investissant avec efficacité dans l'élaboration des curricula d'enseignement au travers d'une discipline spécifique dédiée à

### How to cite this article

Traore, O., (2020). Education pour la paix et le développement: stratégies pour son intégration dans le système éducatif malien. *European Scientific Journal, ESJ*, 16(31), 245. <https://doi.org/10.19044/esj.2020.v16n31p245>

l'enseignement de compétences liées à la paix selon les ordres et types d'enseignement pour une intégration structurante et durable.

---

**Mots-clés:** Éducation, culture, paix, développement, système éducatif, curriculum

---

## **Education for Peace and Development: Strategies for its Integration into the Malian Education System**

*Dr. Traore Oumar,*

Teacher-Reacher at the National Institute for Training Social Workers (INFTS), Bamako

---

### **Abstract**

This paper focuses on the process of integrating peace education into the Malian education system. It takes stock of the situation while carrying out an analysis of strategies accompanied by proposals. Mali is increasingly experiencing multifaceted crises, leading to conflicts, and therefore to situations of impoverishment that destroy the effectiveness of development policies. Education for peace and development is of undeniable importance because it allows different social strata to learn to live together while being provided with the means to prevent and resolve conflict situations. The research is intended to contribute to understanding the Malian experience of implementing peace and development education in the education system. The objectives are: - Analyze the process of implementing education for peace and development in Mali, as part of its integration into the Malian education system; - Propose strategies for a sustainable integration of education for peace and development. Documentary and empirical research, as well as interviews, gathered information and data. The results reveal an educational flaw in the process of introducing the culture of peace and development. The observation also highlights a fragmented and disparate approach through the introduction of portions of the teaching of the culture of peace in certain school subjects. This justifies the proposals for appropriate strategies by investing efficiently in the development of teaching curricula through a specific discipline dedicated towards the teaching of skills. These skills are related to

peace according to the levels and types of teaching for structural and sustainable integration.

---

**Keywords:** Education, culture, peace, development, education system, curriculum

## Introduction

Le Mali connaît, depuis 2012 une crise multiforme partie d'un conflit de rébellion qui s'est mu, au fil du temps, en cycle d'actes de violences terroristes à relents religieux et ethno-communautaristes, toutes choses rendant plus que jamais problématique le développement du pays.

Pour Naffet Kéïta (2018) : « *L'analyse historique de la conflictualité malienne fait [...] ressortir des errements de l'Etat et une crise profonde de certaines valeurs républicaines telles que le patriotisme, le nationalisme et la citoyenneté* ».

Il ajoute que : « *La crise actuelle au Mali renferme les germes d'une refondation de la gouvernance globale du pays, porteuse de stabilité, de cohésion sociale, d'équilibre entre les communautés et les territoires* ».

Ainsi, le manque de sécurité constitue aujourd'hui un des principaux obstacles au développement du pays.

Cependant, un « État failli » ou fragile comme le Mali peut éviter de sombrer en développant une force de résilience dont les Maliens sont de plus en plus conscients.

C'est pourquoi, il faut saisir toute opportunité pour renforcer le potentiel de résistance et de redressement par des actions concrètes appropriées contribuant chacune à relever les défis.

L'éducation fait partie des leviers d'un redressement fondateur.

Dans les options fondamentales du Programme Décennal de l'Éducation (PRODEC), cette préoccupation est soulignée en ces termes: « *la troisième république, convaincue que la paix est une condition sine qua non pour le développement humain durable, opte pour une éducation et une culture de la paix* ».

Or, dans le contexte malien, l'état des lieux révèle une faille éducative, plus ou moins significative, les actions d'intégration de la culture de la paix dans le système éducatif.

La mise en œuvre du Programme National pour l'Éducation à la Culture de la Paix et aux Droits Humains, élaboré en 2000, a pris totalement court avec la crise multiforme de 2012 ayant entraîné le retrait des partenaires.

Le Programme National pour l'Éducation à la Culture de la Paix et aux Droits Humains a connu des fortunes diverses au Mali. Certains ordres d'enseignement n'ont pas été pris en compte dans le programme tels

que l'Enseignement préscolaire, l'enseignement supérieur tandis que d'autres n'ont connu qu'une introduction partielle.

Dans tous les cas, les problèmes liés à une intégration effective s'expliquent pour des raisons liées aux choix stratégiques donnant lieu à des méthodes sélectives à cause desquelles l'expérience a pris court. De même la question de la formation des enseignants pour assurer la réussite de la réforme envisagée a été un goulot d'étranglement au processus.

D'où la question de savoir : quelles sont les failles de l'expérience malienne d'implantation de l'éducation à la paix et au développement dans le système éducatif ?

Ce travail a pour objectif de contribuer à la compréhension de l'expérience malienne d'implantation de l'éducation à la paix et au développement dans le système éducatif. Il s'agit dans un premier volet, d'analyser le processus de mise en œuvre de l'éducation à la paix et au développement au Mali ; et dans un second volet, de proposer des stratégies pour l'éducation à la paix et au développement au niveau de tous les ordres et types d'enseignement.

## **I. Objectifs**

**I.1 Objectif général** : Contribuer à la compréhension de l'expérience malienne d'implantation de l'éducation à la paix et au développement dans le système éducatif.

**I.2 Objectifs spécifiques** :

- Analyser le processus de mise en œuvre de l'éducation à la paix et au développement au Mali ;
- Proposer des stratégies pour l'éducation à la paix et au développement au niveau de tous les ordres et types d'enseignement.

## **II. Matériels Et Methodes**

**II.1 L'approche méthodologique** : la démarche adoptée est approche composite alliant la recherche documentaire et empirique et de sondage au travers d'entretiens semi-directifs. Il s'agit d'une étude qualitative sur la base d'un échantillonnage intentionnel de responsables du Programme National pour l'Education à la Culture de la Paix et aux Droits Humains et du Ministère de l'éducation nationale, des enseignants et universitaires ainsi que des autorités chargées de la question de la réconciliation nationale et de la cohésion sociale.

### **II.2 La collecte des données**

En ce qui concerne la recherche documentaire, elle s'est effectuée essentiellement au Centre de documentation de la Direction Nationale de la Pédagogie et du Ministère de la réconciliation et de la cohésion sociale ainsi

qu'au travers du site de l'UNESCO et de revues des sciences de l'éducation via les ressources de l'Internet.

S'agissant des entretiens, ils ont été menés avec des responsables du Programme National pour l'Education à la Culture de la Paix et aux Droits Humains et du Ministère de l'éducation nationale, des enseignants et universitaires ainsi que des autorités chargées de la question de la réconciliation nationale et de la cohésion sociale.

### **III.3 Traitement et plan d'analyse des données**

Dans un premier temps, la sélection et la classification des documents a précédé l'analyse documentaire qui a permis de comprendre les stratégies initiées et les tentatives d'élaboration des curricula et des supports documentaires appropriés.

En outre, elle a permis de recueillir des données importantes sur la préparation du Programme qui a été précédée par une étude sur toute l'étendue du territoire national.

Cette analyse a aussi porté sur l'observation des documents qui ont été élaborés à différentes étapes du processus (élaboration de curricula, de manuels et guides de l'enseignant etc.) ainsi que les ouvrages et documents exploités à partir de ressources électroniques d'Internet.

Dans tous les cas, une analyse méthodique a permis de relever des données sur le thème et les questions d'ordre stratégique.

Dans un second temps, l'analyse de contenus des discours recueillis lors des entretiens triés et classés a permis de cadrer les idées sur le processus de mise en œuvre de l'innovation portant sur la culture de la paix et le développement en termes de préparation, de goulots d'étranglement dans la mise en œuvre de la réforme visant l'introduction de cette innovation éducative au niveau des différents ordres et types d'enseignement.

### **III.4 Cadre conceptuel**

Par ailleurs un cadre conceptuel s'impose dans cette partie pour mieux appréhender la corrélation forte qui existe entre les concepts pris en considération.

#### **III.4.1 Le concept de paix**

- Etymologiquement, le terme vient du latin "pax", "pacu" qui signifie paisible (Le Dictionnaire étymologique Larousse, 4<sup>e</sup> édition, librairie Larousse, Paris 1964.
- Comme synonymes, existent d'autres termes tels que: "tranquillité", "calme", "quiétude" ou encore "sérénité" (Dictionnaire des synonymes, Larousse, France Loisirs, 1977).

- Sur le plan historique, au Mali, il existe une convergence des diverses cultures nationales vers un contenu essentiel du concept de paix avec des caractéristiques riches, c'est -à- dire des pratiques et des expériences qui ont trait ou qui participent de la culture de la paix (Konaté, 1998).

Il existe plusieurs mots, expressions et périphrases utilisés dans les langues nationales pour signifier la paix qui renvoient à l'harmonie primordiale fondant la paix et le bonheur.

C'est le cas, par exemple, des expressions bamanankan: NIONGON KANU (vivre en amis), GASI SIGUI (se tolérer), KELENYA (l'altérité), SIGUINYONGNON NYUMAYA (vivre en bons voisins), HINENYONGONA (vivre de façon solidaire), BEN (la bonne entente). (Konaté, 1998).

Dans la description de la « Perception malienne de la culture de la paix et des droits humains », Konaté (1998) fait remarquer que : « *La paix n'est pas conçue dans les sociétés maliennes comme un état de non-guerre ; mais comme une situation d'harmonie devant intégrer aussi bien la santé physique et morale des hommes, des animaux, que l'entente et la concorde au niveau communautaire et intercommunautaire, ainsi que des rapports à l'environnement* ».

Il s'agit donc de définir les conditions d'une paix qui ne soit pas seulement une suspension de la guerre, comme le respect de la territorialité et de la souveraineté de l'Etat.

Ainsi, par nécessité les hommes tendent à construire un monde où ils se sentent en sécurité, mais aussi en liberté pour vivre et pour bien vivre, il faut produire nécessairement et se développer dans la paix. Cette pensée se retrouve chez le philosophe Emmanuel Kant dans sa quête de « paix perpétuelle ».

Le concept tel qu'il est décrit et expliqué dans les différentes connotations apparaît comme un concept fédérateur et comme le socle de la continuité et de la durabilité, gage du développement des sociétés et donc l'épanouissement des peuples dans leur diversité.

#### **III.4.2 Le concept d'Education:**

Eduquer, au sens étymologique, signifie « conduire vers » dans le sens de guider. L'acte éducatif consiste donc à amener l'individu quelque part, dans un ailleurs différent de celui où il est déjà.

Pour Emile Durkheim (2013): « *L'éducation est l'action exercée par les générations adultes sur celles qui ne sont pas encore mûres pour la vie sociale* ».

René Hubert (1970) ajoute: « *L'éducation est l'ensemble des actions et des influences exercées **volontairement** par un être humain sur un autre être humain, en principe par un adulte sur un enfant, et orientées vers un but qui consiste en la formation dans l'être jeune des dispositions de toute espèce correspondant aux fins auxquelles, parvenu à maturité, il est destiné* ».

Roger Gal (1991) précise davantage: « *L'éducation comprend toutes les influences qui peuvent s'exercer sur l'individu pendant sa vie* ». En réalité, l'éducation recouvre tout ce qui contribue à la construction et au développement d'un être humain.

Autrement dit, elle est une combinaison d'influences diverses, les unes volontaires, issues d'actes qui se veulent éducatifs, fruits d'une volonté d'éduquer, les autres involontaires, issues de l'environnement, sans intention éducative.

Au fil de la vie, toutes ces influences ne cessent de se multiplier et d'interagir : l'éducation est continue. C'est pourquoi les adultes aussi ont toujours besoin d'éducation tout au long de la vie.

Et, dans le contexte de crises sociales, voire sociétales, ce sont principalement les influences involontaires qui conduisent à la dépravation et aux déviations de comportements, comme par exemple l'incivilité grandissante, l'orientation de jeunes gens vers la violence, le terrorisme. D'où la nécessité d'une action éducative volontariste, c'est-à-dire orientée pour cultiver un esprit tourné vers la paix.

Enfin, pour conclure avec Bernard Charlot (1995) : l'éducation est « *un ensemble de pratiques et de processus par lequel de l'humain advient en l'homme [...] le mouvement même de construction de l'homme comme homme* ».

### **III.4.3 Le concept d'Education à la paix et au développement**

En quoi consiste l'éducation à la paix ?

L'éducation à la paix est une éducation orientée vers la compréhension d'une part, des facteurs de conflictualité au niveau des individus, groupes, communautés, nations ou pays différents, et d'autre part, l'appropriation des dispositions et des mécanismes de préventions et de règlements structurantes des conflits.

Il s'agit de développer une culture de la paix qui « *repose sur des valeurs, des attitudes, des comportements et des modes de vie qui, par définition, ne se traduisent pas de même façon selon les traditions et les coutumes de chaque société* » (Konaté, 2017).

Les mots du poète américain Archibald MacLeish cité par l'Unesco (1945) inscrits en lettres d'or dans le préambule de son Acte constitutif illustre à suffisance l'objet et le but de l'éducation à la paix : « *Les guerres prennent*

*naissance dans l'esprit des hommes, c'est dans l'esprit des hommes que doivent être élevées les défenses de la paix ».*

Cette pensée universalisée selon laquelle l'Unesco devait devenir « *la conscience morale de l'humanité* » exprime la nécessité d'agir au niveau des consciences, par l'éducation à la tolérance et au respect des différences et des identités culturelles. Elle traduit l'importance de l'éducation aux valeurs de paix, de gouvernance, de démocratie, de droits humains et donc de développement.

S'agissant du développement, il s'allie au concept d'éducation à la paix comme étant l'état des sociétés dans des conditions favorables à l'amélioration de la qualité de vie des hommes qui y vivent.

Il s'agit de percevoir les liens entre les conditions idoines de réalisation du développement au travers d'un contexte de paix. Les résultantes de cette dialectique conduisent à l'objectif commun qui est l'épanouissement des populations.

La guerre est tout simplement une situation aggravante de sous-développement pour un pays comme le Mali. La part des conflits internes devient de plus en plus considérable dans les situations de paupérisation continue des populations annihilant, ainsi, l'efficacité des politiques de développement.

C'est pourquoi l'instauration de la paix est un facteur déterminant du développement durable.

Il convient de retenir que les concepts d'Education et d'éducation à la culture de la paix constituent, pour ainsi dire, les stratégies de modélisation de l'humain vers des finalités dont le terme central se retrouve dans le concept de développement humain tout court.

Mieux, si toutes les formes d'éducation concourent vers une telle finalité d'un type d'homme défini, l'éducation à la culture de la paix est encore plus participative d'un développement durable.

**III.4.4 Stratégies :** les préconisations qui sont formulées s'inscrivent dans une approche éducative systémique dans le cadre d'une approche nouvelle de sécurité collective par le biais de l'éducation et de la recherche.

Les moyens, les méthodes d'introduction de l'innovation sont à considérer dans le cadre d'une réforme éducative. Telle qu'elles apparaissent dans l'expérience du Mali, les stratégies ont manqué, tout au long du processus, d'emprise sur l'ensemble des ordres et types d'enseignement à la dimension même du concept du développement qui se veut holistique.

C'est pourquoi, il importe de considérer les formes d'éducation qu'elles soient formelles, non formelles ou informelles.

Dans cette optique, faut-il rappeler une des options fondamentales du Programme Décennal de l'Education (PRODEC) du Mali *qui souligne une*

*éducation et une culture de la paix dans la mesure où la paix est une condition sine qua non pour le développement humain durable.*

### **III.5 Limites de la recherche**

Les limites de cette recherche d'ordre méthodologiques se résument essentiellement au fait que, le programme étant en arrêt depuis 2012 et le départ à la retraite de beaucoup d'acteurs, cet état de fait n'a pas permis d'aller à d'autres observations en plus de l'analyse documentaire et des entretiens de certains responsables. Il aurait été plus intéressant d'intégrer les perceptions de quelques rares élèves et de leurs enseignants des écoles qui ont commencé l'exécution des modules.

## **IV. Resultats**

### **IV.1 Présentation du processus de mise en œuvre de l'éducation à la paix et au développement au Mali dans les différents ordres et types d'enseignement**

Les résultats de l'enquête sont présentés ici par ordre d'enseignement et par type d'enseignement pour saisir la stratégie qui a été adoptée dans la mise en œuvre de l'éducation à la paix et au développement dans le système éducatif malien.

Le Programme National pour l'Education à la Culture de la Paix et aux Droits Humains a connu des fortunes diverses au Mali.

#### **IV.1.1 Education formelle**

- **L'Enseignement préscolaire** : cet ordre d'enseignement n'a pas été pris en compte dans le programme.
- **L'Enseignement fondamental** : (F1 et F2) : dans cet ordre d'enseignement comprenant les cycles Fondamental 1 et Fondamental 2, l'éducation à la culture de la paix et aux droits humains et à la démocratie y est enseignée partiellement.
- Faute d'avoir formé tous les enseignants, la stratégie a consisté à répartir les thèmes entre différentes domaines du curriculum pour le F1 et les disciplines scolaires telles que l'histoire, la géographie et l'ECM pour le F2.
- **L'enseignement secondaire** : les curricula y ont été élaborés, mais la mise en œuvre n'a pas été effective.
- **L'enseignement supérieur** : n'a pas été concerné par le Programme ; en fait, il y a une inexistence de politique universitaire d'éducation à la paix et au développement. Des tentatives timides sont restées sans suite selon les dires d'un recteur d'une université de Bamako.
- **L'Enseignement normal** : au niveau de ce type d'enseignement, dans les Instituts de Formation des Maîtres (IFM), les programmes ne sont

pas non plus mis en œuvre, malgré leur adaptation suivant l'Approche par Compétence (APC) ;

- **l'éducation spéciale** : ce type d'enseignement connaît la même situation qu'au F1 et F2
- **la formation technique et professionnelle** : elle aussi se trouve dans même situation que l'enseignement secondaire général.

**IV.1.2 Education non formelle** : l'élaboration des modules et des guides pour les maîtres existents pour les centres d'Alphabétisation fonctionnelle (Centre alpha).

Il faut noter aussi la transcription des documents en langues songhai et tamasheq et un début d'exécution dans les zones ciblées qui sont: Tombouctou, Gao et Kidal.

## **IV.2 Analyses et commentaires**

Les analyses et les commentaires pouvant être faits des résultats présentés permettent de comprendre les goulots d'étranglement à la mise en œuvre de la réforme et d'expliquer les failles dans les stratégies retenues par le Ministère de l'Education nationale.

La Cellule d'exécution affiliée au Programme a travaillé avec la division des programmes de la Direction Nationale de la Pédagogie (DNP) pour la prise en compte des valeurs, comportements de la culture de la paix dans les programmes des écoles et au niveau non formel.

Ce travail s'est focalisé, seulement, sur deux ordres d'enseignement à savoir le fondamental et le secondaire.

Après l'élaboration des programmes, les auditeurs ont été formés : Directeurs des Centres d'Animation Pédagogique (DCAP), les Conseillers pédagogiques (CP) et les Directeurs d'Ecole (DE).

Le matériel didactique comprenant des guides d'enseignement ont été élaborés pour les maîtres et professeurs du fondamental, d'une part et les professeurs du secondaire, d'autre part.

Cependant, selon les dires des personnes ayant animé la Cellule, les enseignants n'ont été formés qu'au compte- goutte avec un échantillon pour le secondaire, sans les responsables des établissements de cet ordre. Ce qui dénote d'une mauvaise planification de la part des responsables de la Cellule. Il faut dire que cette stratégie de sélection injustifiée du point de vue pédagogique s'explique par le fait que cette pratique connue du Ministère de l'éducation procède de la mauvaise gestion des fonds alloués aux réformes et aux formations qu'elles requièrent.

S'agissant de la stratégie d'enseignement au niveau du curriculum, les thèmes relatifs à la culture de la paix ont été répartis entre les grands domaines

à savoir : Langues et Communication, Sciences-Mathématiques, Sciences humaines, Développement de la Personne, Arts.

En outre, la stratégie a consisté à former des formateurs pour les zones concernées par la crise ; ce qui veut dire que la dimension préventive de cette éducation n'est pas prise à sa juste valeur. Il s'agit de former et de pouvoir constituer des mentalités répulsives à la violence sous toutes ses formes.

En fait, sans être véritablement mis en œuvre, le programme national, malgré les plans d'actions ainsi que la politique nationale validés, a pris totalement court avec la crise multiforme de 2012 ayant entraîné le retrait des partenaires qui avaient participé à sa validation.

## **V. Discussion**

L'initiative de l'introduction de l'Education à la Culture de la Paix et aux Droits Humains a été une expérience malheureuse qui a montré les limites des efforts de l'Etat malien dans sa tentative d'asseoir les bases théoriques de la construction d'une idéologie pacifiste nationale.

Dans tous les ordres d'enseignement, apparaît la faille au niveau de la formation des enseignants, étape cruciale de la mise en œuvre d'une innovation éducative.

C'est le lieu de rappeler que l'approche culturaliste (Cros, 2018) de l'innovation conduit à considérer l'enseignement comme l'inculcation et la défense de valeurs, d'attentes qui guident le comportement des personnes.

L'innovation se définit par trois dimensions : les buts ou finalités, les rôles et responsabilités et le travail collectif. L'innovation est alors étroitement dépendante du pouvoir révélé à travers ces trois dimensions et, notamment du pouvoir pris par l'enseignant sur son acte professionnel même (Hargreaves & Hopkins, 1991 ; Rudduck, 1991 cités par Cros) [...] Une réforme de la formation continue des enseignants est souhaitée, concomitante au développement de l'innovation (Husen, 1986, p.145 cité par Cros).

Lorsqu'on a tout fait en amont en terme d'adoption d'une politique, d'élaboration de projets et de plans d'action, de matériels didactiques, de développement curriculaire et qu'enfin de compte les enseignants attendent de s'approprier l'innovation, il reste l'essentiel à faire pour que celle-ci puisse produire son effet.

Par ailleurs, telle qu'elle a été tentée, la stratégie d'intégration de l'éducation à la paix n'avait pas prévu tous les ordres d'enseignement et tous les publics au plan national et a souffert, dès lors, d'une dimension holistique.

L'approche systémique aurait pu amener à étendre le programme aux différentes couches de la société. La paix se construit avec toutes les composantes de la société, pour prétendre à une dimension nationale qui seule peut, par ricochet, impacter le développement du pays.

La paix et le développement requièrent un processus participatif et inclusif qui doit associer et concerner tout le monde y compris les acteurs privés. (Méité, 2014)

De même, d'après les opinions recueillies, une approche parcellaire et disparate par la répartition des thèmes relatifs à la paix entre différents domaines curriculaires ou certaines disciplines scolaires est réductrice pour valoriser l'éducation à la paix.

Cette stratégie ne peut produire le même effet qu'une spécialisation à travers une discipline consacrée entièrement à l'innovation. En outre, cette nouvelle discipline scolaire doit être valorisée dans le système d'évaluation scolaire.

## **VI. Propositions de stratégies de promotion de l'éducation à la paix et au développement dans le système éducatif malien**

L'introduction de l'éducation à la paix et au développement passe par l'élaboration de curricula pour chaque ordre et type d'enseignement. Les curricula seront fondés aussi bien sur les valeurs enfouies dans nos cultures ainsi que les droits humains dont le respect est un gage de stabilité sociale.

### **VI.1. Référence à l'Education traditionnelle à la paix**

- capitaliser les mécanismes, les pratiques et les expériences traditionnelles de prévention et règlement des conflits aux fins d'intégrer les éléments dynamiques adaptés au contexte actuel de notre pays dans les curricula pour les différents ordres et types d'enseignement ;
- Introduire au niveau de tous les ordres et types d'enseignement ;
- Au niveau de l'enseignement préscolaire : compte tenu des besoins de structuration de la personnalité, les petits enfants auront besoin aussi de connaître la paix entre eux tant les petits conflits d'intérêt d'ordre psychologique, à ces stades de développement, sont fréquents.
- Au niveau de l'enseignement fondamental : consolider l'enseignement de l'éducation civique et morale, il s'agira de fondre les différents thèmes de l'éducation à la culture de la paix dans cette discipline revalorisée.
- **Au niveau de l'enseignement secondaire**
- Les curricula seront élaborés pour les différents niveaux selon le type ou ordre d'enseignement. Et, en lieu et place répartition parcellaire, les contenus seront séquencés et enseignés par des enseignants d'une même discipline formés à cet effet. Par exemple pour l'enseignement secondaire général : la 10<sup>e</sup> année sera occupée par les professeurs de lettres ; les 11<sup>e</sup> année par les professeurs d'histoire-géographie, de sociologie et les terminales par les professeurs de philosophie.

- **Au niveau de l'enseignement supérieur**  
Introduire l'éducation à la paix et au développement dans le cycle universitaire ;

Créer un centre de recherche interdisciplinaire d'études sur la paix et le développement durable afin d'assurer un socle scientifique et une dimension prospective aux initiatives et démarches politiques de développement du pays.

### **VI.1.3 L'éducation spéciale**

Dans le cadre de l'éducation inclusive, on retrouve le besoin d'adopter les mêmes stratégies tout en privilégiant une pédagogie différentielle propice au développement efficient de compétences scolaires.

#### **VI.1.1.4 Education non formelle**

- Valoriser le concept « Education tout au long de la vie »
- étendre à toutes les composantes de la société : acteurs publics (forces de l'ordre) et privés (acteurs du domaine communautaire, secteur associatif, ONG, médias privés, syndicalistes...) afin de les sensibiliser à la culture de la paix.

### **Conclusion**

Dans un contexte de crises réelles ou potentielles, l'éducation à la paix et au développement est un arsenal idéologique stratégique permettant à un pays, une nation d'accéder à un développement durable par le truchement d'un environnement de paix structurant.

Pour Koffi Annan cité par Méité (2014) : « Il n'y a pas de développement sans sécurité, il n'y a pas de sécurité sans développement, et il ne peut y avoir ni sécurité, ni développement si les droits de l'homme ne sont pas respectés ».

Toute action éducative allant dans ce sens exige un investissement dont les profits sont tels qu'aucun autre domaine ne saurait apporter à l'avenir des sociétés modernes, a fortiori les pays en voie de développement comme le Mali.

C'est dans ce cadre, que le Mali doit adopter et appliquer une véritable politique de l'éducation à la culture de la paix qui couvre tout le corps social contrairement à la stratégie d'introduction parcellaire et disparate au niveau des écoles.

Dans cette perspective, il s'agira de capitaliser les mécanismes, les pratiques et les expériences traditionnelles de prévention et règlement des conflits aux fins d'intégrer les éléments dynamiques adaptés au contexte actuel de notre pays dans les curricula d'éducation et de formation des différentes couches de la population.

Il existe indubitablement une dialectique entre développement et sécurité ou paix, les deux concepts sont consubstantiellement liés.

### References:

1. Boussel, P., Burollet, T., Christ, Y., & Clébe, J.-P (1964). Dictionnaire étymologique Larousse, 4<sup>e</sup> édition, librairie Larousse, Paris 1964.
2. Charlot Bernard (1995). Les valeurs explicites et implicites dans la formation des enseignants (2008), pages 155 à 162 <https://www.cairn.info/les-valeurs-explicites-et-implicites-dans-la-forma--9782804159160-page-155.htm> Mis en ligne sur Cairn.info le 01/04/2010, consulté le 10 juin 2019.
3. Cros Françoise. L'innovation en éducation et en formation. In: Revue française de pédagogie, volume 118, 1997. L'école élémentaire. pp. 127-156; [https://www.persee.fr/doc/rfp\\_0556-7807\\_1997\\_num\\_118\\_1\\_1181](https://www.persee.fr/doc/rfp_0556-7807_1997_num_118_1_1181), Fichier pdf généré le 22/04/2018, 1997, 118 p. consulté le 10 juin 2019.
4. Durkheim Émile (2013). Éducation et sociologie, Collection: Quadrige, 2013, 144 p. consulté le 10 juin 2019. [https://www.puf.com/content/%C3%89ducation\\_et\\_sociologie](https://www.puf.com/content/%C3%89ducation_et_sociologie),
5. Gal Roger (1991). Histoire de l'éducation, Presses Universitaires de France, 13<sup>e</sup> édition mise à jour : 1991, décembre, Paris 1991, « Que sais-je ? » n° 310, 128 p.
6. Hubert (René). Traité de pédagogie générale, Paris, PUF, 7<sup>e</sup> éd., 1970, Husen (T.), Postlethwaite (N. T.), The International Encyclopedia of Education, Oxford, 687p.
7. Kéita Naffet (2018). L'Accord pour la paix et la réconciliation au Mali issu du processus d'Alger : entre euphorie ou doute, la paix en signe de traces ! Friedrich Ebert Stiftung, Nouvelles approches de sécurité collective, 44 p.
8. Konaté Doulaye (1998). Perception malienne de la culture de la paix et des droits humains, rapport final de l'Atelier d'élaboration du cadre d'orientation générale, Bamako, 28 mars 1998, comité de rédaction, 157p.
9. Meité Mamadou (2014). Éducation à la paix et au développement : quelles stratégies pour les pays d'Afrique et d'Amérique ? Presses universitaires de Paris Nanterre, 2014 Conditions d'utilisation : <http://www.openedition.org/6540> p. 43-54, p. 43-54, consulté le 10 juin 2019.
10. Ministère de la réconciliation et la cohésion sociale. Manuel de formation au civisme et à la citoyenneté pour la réconciliation et la paix, Bamako, juillet 2018, 221.p

11. Ministère de l'Enseignement Supérieur et de la Recherche Scientifique, Ministère de l'Education, de l'Alphabétisation et des Langues Nationales, Chaire UNESCO pour la promotion de la Culture de la Paix et des Droits de l'Homme. Rapport sur l'état de mise en œuvre de la Recommandation de l'UNESCO sur l'éducation pour la compréhension, la coopération et la paix internationales et l'éducation relative aux droits de l'homme et aux libertés fondamentales, Bamako, le 28 avril 2009, 28 p.
12. UNESCO (2016). Ministère de la réconciliation et la cohésion sociale. Programme National pour la Culture de la paix au Mali, Document cadre, juillet 2016, 48.p
13. UNESCO (2020). Textes fondamentaux, Édition 2020 (édition révisée) comprenant les textes et amendements adoptés par la Conférence générale à sa 40e session (Paris, 12 -27 novembre 2019) 218 p.



ESJ Social Sciences

### **Peter Magati**

School of Economics, University of Nairobi, Kenya

### **Leopold Mureithi**

School of Economics, University of Nairobi, Kenya

### **Wilfred Nyangena**

School of Economics, University of Nairobi, Kenya

---

Submitted: 06 October 2020  
Accepted: 23 November 2020  
Published: 30 November 2020

Corresponding author:  
*Peter Magati*

DOI: 10.19044/esj.2020.v16n31p260

© Copyright 2020 Peter Magati et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## **Impact of Tobacco Expenditure on Household Spending Patterns in Kenya**

---

### **Abstract**

Despite measures to control tobacco use in Kenya, there is still an increasing importance in the use of tobacco. This is seen by the growth in per capita consumption over time. Tobacco, being an addictive product, creates a situation where consumers allocate part of their resources towards its consumption and therefore positions the use of tobacco as an important expenditure decision in households in Kenya. Due to budget constraints faced by households in Kenya, tobacco consumption may crowd out consumption of essential goods and services. This paper therefore focuses on the impact of tobacco expenditure on household spending patterns in Kenya. Using the 2005/2006 Kenya Integrated Household and Budget survey, a Quadratic Almost Ideal Demand System was used to estimate a system of Engel curves to check whether the differences in expenditure between the two types of households is as a result of tobacco use or not. Results suggest that tobacco crowds out the consumption of food, health care, schooling, clothing, entertainment, house care, and personal care. Geographical location and socio-economic standing of households have a significant influence on the magnitude and pattern of crowding out. The policy implication of this finding is that tobacco control should be an integral part of governments' poverty alleviation strategy.

---

**Subject:** Business

**Keywords:** Tobacco use, crowding out, essential household expenditure items

### **How to cite this article**

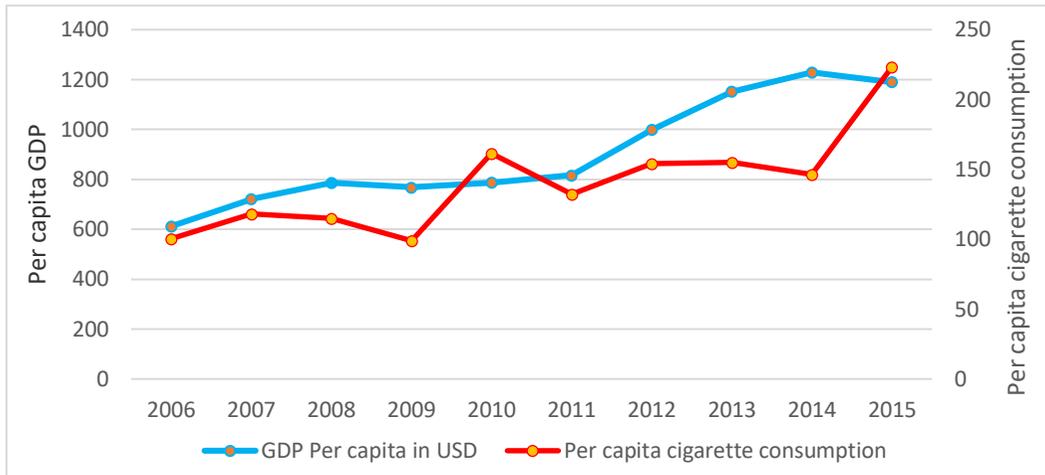
Magati P. et al. (2020). Impact of Tobacco Expenditure on Household Spending Patterns in Kenya. *European Scientific Journal, ESJ*, 16(31), 260. <https://doi.org/10.19044/esj.2020.v16n31p260>

## **Introduction**

It is estimated that at least 6 million deaths and almost 4% of global diseases are a direct result of tobacco use (Forouzanfar et al., 2015). In Kenya, tobacco related diseases contribute directly to deaths of at least 6,000 annually. Despite this, over 2,737,000 adults and more than 220,000 children use tobacco each day (Eriksen et al., 2015). Tobacco consumption has adverse effects on households. First, it is estimated that at least 6 million deaths and almost 4% of diseases globally are directly attributed to tobacco use (Forouzanfar et al., 2015). It is estimate that by the year 2030, the highest burden of disability and premature mortality will be as a result of tobacco – higher than any other health risk factor. If not prioritized in control, tobacco use will produce the highest mortality. Research suggests that compared to other health risk factors, the highest burden will be in low and medium-income countries (Mathers & Loncar, 2006). Secondly, and more importantly to this study, tobacco use contributes to adverse effect on household nutrition, poverty, and income. There are studies that suggest that households that consume tobacco have higher child stunting and generate lower income from assets (Wood et al., 2005). Tobacco use is also associated with higher poverty rates and lower spending on health care, clothing, education, and food (Efroymson et al., 2001; Pu et al., 2008; Koch & Tshiswaka-Kashalala, 2008; John, 2008).

Kenya realized the risk emanating from tobacco use and ratified the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) in 2004. To operationalize the WHO FCTC, the Kenya Tobacco Control Act (KTCA) was accented by Parliament in 2007. The Act provides the legal framework that regulates the production of tobacco leaf, manufacture of cigarettes, and the sale and advertisement of tobacco products (Republic of Kenya, 2007a).

Tobacco consumption in Kenya has been increasing progressively since 2006. Data suggests that per capita consumption of cigarette in Kenya has been rising (see Figure 1) and is expected to continue increasing based on the trend. Tobacco, being an addictive product, creates a situation where consumers allocate part of their resources towards its consumption. This therefore positions the use of tobacco as an important expenditure decisions for households in Kenya. Due to budget constraints faced by households in Kenya, tobacco consumption may crowd out consumption of essential goods and services. Despite this, however, there is limited information on the impact of tobacco use on household expenditure patterns in Kenya – a gap that this paper seeks to address.



**Figure 1.** Per Capita Tobacco Consumption and Per Capita GDP in Kenya  
 Source: Republic of Kenya, 2007-2016

**1. Materials and Methods**

The paper follows the theoretical framework as laid down in John (2008). Here, we assume that a household seeks to maximize utility in the manner built by Samuelson (1956) and Becker (1974). Due to the challenge of incorporating intra-household interaction in the data, utility maximization in the households generally results in a set of  $z$  household Marshallian demand functions of the form:

$$X_n = (p_n, \dots, p_z; Y, c) \dots \dots \dots (1)$$

Where  $x_n$  is quantity purchased of the  $n^{\text{th}}$  commodity,  $p_n$  is the price of the  $n^{\text{th}}$  commodity,  $Y$  is the total household income, and  $a$  is a vector of household characteristics.

The assumption of the model shows that a household that smokes tobacco is one in which any member smokes. The household pre-determines the quantity of tobacco that will be purchased before deciding on other commodities that will be purchased in the household. The rationale behind this approach is the addictive nature of nicotine, which means that the maximization of the household’s utility is subject to an expenditure amount that remains after the household has purchased tobacco. This situation, therefore, results to the optimization problem of utility maximization with a set of conditional demand functions of the form:

$$x_n = b_n(p_n, \dots, p_z; M; c, d) \dots \dots \dots (2)$$

Where  $d$  is an indicator variable for tobacco expenditure in a household and  $M$  is the income that remains after the household has already spent on tobacco. Demand by the household on commodity  $n$  is subject to its smoking

status. This suggests the possibility of the comparison of conditional demand functions of smoking households and Marshallian demand functions for non-smoking households. Hence, this is with any difference in the quantities consumed being attributed to tobacco.

Assuming there are  $z$  number of goods in the market and tobacco is the  $z^{th}$  goods, the household will have no control over  $z-1$  goods whose market prices are given as  $P_1, \dots, P_{z-1}$ . It follows, therefore, that the total expenditure of the household on these goods will be given by  $M(M = M - P_t t)$  where  $P_t t$  is the tobacco expenditure. Therefore, the utility maximization problem assumes the following form:

$$\text{Max } U = U(x_1, \dots, x_z; c) \text{ s.t. } \sum_{i=1}^{z-1} p_i x_i = M \dots\dots\dots (3)$$

with the additional constraint  $x_z = \bar{x}_z$  where  $\bar{x}_z$  is the household's demand for tobacco.

Following the presentation of the theoretical model, this paper used the econometric model laid out in Chelwa and Van Welbeek (2014). The paper first compared the mean expenditures of various commodities in the household between the tobacco consuming and non-consuming households. Specifically, comparisons were made in the following expenditure categories: food, healthcare, alcohol, water, housing, lighting and electricity, alternative energy sources, transport and communication, entertainment and personal care, school, clothing and household operations. To document the differences in spending decisions between tobacco consuming and non-consuming households, a student  $t$  test was run and tested using regression analysis on whether the difference can be attributed to the consumption of tobacco.

The second empirical strategy was to test corner solutions. The function  $b_n$  is the conditional demand on tobacco of the  $n^{th}$  good in the function  $x_n = b_n(p_n, \dots, p_z; M; c, d)$ . It therefore means that one gets demand for other goods on the household as a function of the price of that good, price of all goods except tobacco, which is the conditioning. To test whether having no expenditure on tobacco is as a result of abstaining from tobacco consumption or as a result of corner solutions, these conditional demand functions can be used. This is because there is possibility that some households which do not report tobacco use, especially in cross-sectional surveys, cannot be all theoretically assumed due to abstention only (John, 2008). There is possibility that the zero reporting by households is as a result of infrequent purchases, which can result to either corner solutions because of the budget constraint or sheer abstention. Corner solutions could suggest that once prices

improve, there are consumers who will resume purchase of the product. It is therefore important to statistically test whether the zero reporting of tobacco use was due to abstentions or corner solutions. To establish this, we followed the study of Vermeulen (2003) and used a simple t test where we augmented the conditional demand function with a binary variable that indicates if the household was a smoking household or a non-smoking household.

A necessary condition for non-reporting of tobacco expenditure and its correspondence to corner solution is that both non-users and users of tobacco behave according to the demand function  $x_n = b_n(p_n, \dots, p_z; M; c, d)$ . If this is the case, it means that there are households who do not set money aside for tobacco consumption because of budget constraints. We therefore test the null hypothesis for corner solution by following the test developed by Vermeulen (2003). The procedure involves testing whether the demand function depends on a binary variable  $d$ . Therefore, this binary variable indicates whether we observe negative expenditure on tobacco ( $d=0$ ) or positive expenditure on tobacco ( $d=1$ ). A significant conditioning binary indicator in the demand for the other commodities by all households means both non-users and users of tobacco behave differently. Therefore, the null hypothesis is rejected, indicating that zero reporting by households is as a result of abstention. However, if the binary indicator  $d$  is insignificant, we would not have sufficient reason for rejecting zeros to be derived from abstentions (Vermeulen, 2003; John, 2008; Chelwa & Van Walbeek, 2014).

It is possible that both tobacco users and non-users have similar preferences on the rest of the goods in the commodity package in the household, which may result to a rejection of the null hypothesis. However, because tobacco use acts as a constraint in a tobacco users' utility function and not for a non-user, it is important that the test explores whether tobacco is weakly separable from the consumption of other commodities (Vermeulen, 2003). If there is separability of  $x_n$  from  $d$  (i.e.,  $d$  is insignificant), it suggests that the household starts by first allocating money for tobacco. If this happens, it would generate an income effect but not a substitution effect on the rest of the household commodities.

The third empirical strategy in the paper was to test the hypothesis on whether tobacco expenditure crowds out consumption of the commodities chosen in the two sets of households. Here, Engel curves were estimated using a Quadratic Almost Ideal Demand System (QUAIDS). Estimating QUAIDS has an advantage in that it is consistent with utility theory and is consistent with Angus Deaton's Almost Ideal Demand System, and it allows one to make consideration of household income and model a commodity as a necessity or luxury (Banks et al., 1997). Since this is a non-parametric analysis of consumer expenditure pattern, Engel curves require quadratic terms in the

logarithm of expenditure, something that is not possible in Almost Ideal Demand System (AIDS). This is because they have expenditure share Engel curves that are linear in the logarithm of total expenditure (Banks et al., 1997). For example, there are certain durable goods or clothing types that are regarded as necessities by higher income individuals while at the same time luxuries by lower income individuals.

The paper assumes that a household seeks to maximize a collective utility. The paper therefore estimated a system of Engel curves, each taking the following form:

$$W_{nh} = \alpha_{1n} + \alpha_{2n}d_h + \alpha_{3n} \ln M_h + \alpha_{4n}(\ln M_h)^2 + \alpha_{5n}FE + \gamma_n a_j + u_{nh} \dots (4)$$

Equation 4 represents the conditional Engel curves of the conditional demand functions discussed in the theoretical framework presented in section 3.3. In the equation estimated,  $W_{nh}$  is expenditure portion of commodity  $n$  in household  $h$  after deducting the expenditure portion of tobacco in the household.  $d_h$  is a binary dummy variable, which is represented by a value of one (1) if household  $h$  reports a positive expenditure of tobacco in a month and zero (0) if there is no expenditure of tobacco in the household.  $\ln M_h$  is the natural logarithm of total monthly expenditure, excluding expenditure on tobacco.  $(\ln M_h)^2$  is the square of  $\ln M_h$  in household  $h$ .  $a_{ih}$  is a vector of household characteristics that include natural logarithms of characteristics such as age of head of household, household size, average age of the adults in the household, years of schooling of the household head, sex of household head, principal source of household income, and occupation of household head. Other characteristics include the proportion of adults in the household (household structure) and the number of employed persons in the household. For the purpose of this paper, adults are defined as those above 18 years. The controls used in  $a$  are standard ones used in literature for crowding out effects of tobacco (Chelwa & Van Walbeek, 2014; John, 2008; Pu et al., 2008, John,

Ross & Blecher, 2012; San & Chaloupka, 2016).  $u_{nh}$  is the error term and is assumed to be normally distributed and has a mean value of zero. Crowding out was then established if the coefficient of  $d$ , i.e.,  $\alpha_{2n}$  in equation (4), was negative and statistically significant.

There is a possibility that  $d$ ,  $\ln M_h$ , and  $(\ln M_h)^2$  are endogenous, i.e., correlated to the error term  $u_{nh}$ . In addressing this, this paper followed the study of John (2008), Pu et al. (2008), Chelwa and Van Walbeek (2014), and San and Chaloupka (2016) by instrumenting for tobacco expenditure  $d$ . The use of an instrumental variable not only makes the estimates consistent but also ensured they are unbiased. The essay adopts Chelwa and Walbeek (2014) assumption that  $\text{cov}(x, \varepsilon) \neq 0$ . It further states that the choice of the

instrumental variable is very important because the instrumental variable chosen has to be one that influences  $W_{nh}$  only through its influence on tobacco.

In addition to this, it has to influence  $W_{nh}$  only through its impact on  $\ln M_h$ . Given this scenario, the candidates for the instrumental variable were adult male and adult female ratio for tobacco and total household expenditure (which is used as a proxy income) for  $\ln M_h$ . As John (2008), Pu et al. (2008), and Chelwa and Van Welbeek (2014) opinioned, we instrumented for  $d$  with adult sex ratio. The rationale behind this choice of instrument is that male adult smoking prevalence is higher in Kenya than adult females, and they are therefore more likely to use tobacco. The study also makes an assumption that the instrumental variable of adult sex ratio is not correlated with the error term  $u_{nh}$ . To strengthen the case for the choice of the instrumental variable, we assessed the results of the coefficient of the F statistics reported at the first-stage probit for the regression of the instrumental variables. Thus, they were then evaluated to see if they were strong, i.e., if F statistic was equal or greater than 10 (Stock et al., 2002). This confirmed the validity of the choice.

It is also possible that another variable which was not specified in equation 2 might simultaneously influence a household's expenditure on tobacco and other commodities in the household. It is important we account for this endogeneity to ensure that the coefficients specified in the demand system are both consistent and unbiased. The OLS procedure specified previously assumed that  $d$  is exogenous, i.e., not related to the error term. Additionally,  $\ln M_h$  and  $(\ln M_h)^2$  are also likely to be endogenous in a similar manner. We therefore account for this possible endogeneity. In doing so, we first estimated the first stage regressions involving the endogenous variables and potential instruments (Baltagi, 2008). The potential instruments assessed included total expenditure, household size, years of schooling of household head, household structure, age of household head, average household age, and average child age. Afterwards, at the second stage, the predicted values from the first stage regression are substituted for the endogenous variables in equation 4.

As a result of the dichotomous nature of  $d$ , the first stage regression between  $d$  and adult sex ratio (instrument) will likely be non-linear. Therefore, we best estimated it using a probit. This ensures that the predicted values for  $\hat{d}$  are bounded between 0 and 1, something that is not certain when one uses a linear estimation. However, using this estimation introduces the complication of forbidden regression, which is a situation where predicted values from the first stage are directly applied to a second stage, which is linear (Wooldridge, 2002). The challenge with this is that one risks non-zero

correlation between  $\hat{d}$  and the first stage residuals (Angrist & Pische, 2009). To prevent this from happening, we followed the suggestions made by Heckman (1978), Wooldridge (2002), and Angrist and Pische (2009). In addition, we also used the predicted values from the first stage probit ( $\hat{d}$ ) as an instrument for  $d$ .

To implement the instrumenting technique above, this essay adopts Chelwa and Van Walbeek (2014) approach where equation 4 is estimated using 3SLS combined with a Seemingly Unrelated Regression (SURE). This would in effect make it a four stage least squares procedure because the first two stages involve estimating a probit function for  $d$  and using the estimated function to generate the predicted values,  $\hat{d}$ , which are used as instruments for  $d$  in the third stage. The SURE method assumes the fourth stage because it corrects errors associated with regression coefficients within household correlation with error term (Zeller, 1962).

## Data

The data for this paper comes from the 2005/2006 Kenya Integrated Household and Budget Survey (KIHBS) conducted by the Kenya National Bureau of Statistics. This survey was nationally representative and used a two-stage stratified cluster sampling whereby 1,343 clusters comprising of 482 urban clusters and 861 rural clusters were selected in the first stage. In the second stage, a total of 13,430 households from the 1,343 clusters and divided into 8,610 rural households and 4,820 urban households were selected.

The KIHBS survey collects a rich set of data based on the living conditions of Kenyan households in the area of education, health characteristics, child nutrition, household income levels and transfers, employment status, income sources, food production and consumption, household expenditure patterns, access to clean water, household access to social amenities, access to credits and shocks, and many more. The expenditure section in the survey (section IJKL) asks each household to report the total expenditure of a commodity over time, ranging from per week to one month. Where the survey reports consumption over a period of seven days, this paper assumes a uniform consumption amount per week and multiplies the same by a four to estimate the monthly consumption of all the expenditures. In some cases, such as schooling, the households give an annual expenditure. In such cases, this annual expenditure is divided by twelve to give the monthly expenditure. In this paper, the expenditure, as stated earlier, focuses on the following commodities: Alcohol, tobacco, food, healthcare, entertainment, transport and communication, house care, personal care, electricity and lighting, rent, clothing, and alternative energy.

## Results and Discussion

### Description of Results

Table 1 shows some of the summary statistics from the 2005/2006 KIHBS. The full sample consisted of 13,212 households with 1,775 households reporting positive tobacco use (13.43%). The KIHBS survey suggests that the average household size of Kenyan households is 5.05, with adults generally comprising 49.60% of Kenyan households. For the purposes of this paper, adults are defined as those who are 18 years or older in a household. The adults have a general average age of 37.25 years and the average age of the head of the household in the survey is 44.52 years. Children in this paper are defined as those under the age of 18 years and the survey results indicate that the average age of children in the households is 3.68 years. The average years of schooling for the household head in the households surveyed was 18 years. Based on the percentage of adults in the households, the results suggest that the number of adults in the households is at an average of 2.52 and the average number of people employed in Kenyan households from the full sample is 1.61.

**Table 1.** Summary Statistics- Full Sample

Line No.	Statistic	Full Sample	Urban	Rural
1	Number of households	13,212	4,725	8,487
2	Percentage of households in urban areas	35.76%	100%	N/A
3	Percentage of households in rural areas	64.24%	N/A	100%
4	Average monthly tobacco expenditure	373.33	679.80	291.27
5	Percentage of households reporting positive tobacco expenditure	13%	11%	15%
6	Tobacco share among tobacco spending households	6.32%	6.70%	6.22%
7	Monthly household expenditure	8,342.25	14,937.22	6,091.94
8	Average household size	5.05	4.13	5.56
9	Percentage of adults in the household	49.90%	56.90%	47.12%
10	Average age of household head	44.52	39.16	47.50
11	Average age of adults in the household	37.25	35.24	38.37
12	Average age of children in the household	3.69	2.58	4.30
13	Average years of schooling of household head	10.16	11.46	9.21
14	Average number of employed people in the household	1.61	1.34	1.77
15	Percentage of people living in high-cost residences	55.76%	49.04%	59.45%

Line No.	Statistic	Full Sample	Urban	Rural
16	Percentage of people living in medium-cost residences	15.34%	33.53%	5.32%
17	Percentage of people living in low-cost residences	28.89%	17.33%	35.24%
18	Food	54.07%	45.36%	56.41%
19	Alcohol	4.37%	5.04%	4.19%
20	Health care	2.83%	1.94%	3.07%
21	School	0.05%	0.05%	0.05%
22	Clothing	6.16%	4.50%	6.60%
23	Water	1.28%	1.58%	1.20%
24	Housing	2.11%	8.22%	0.55%
25	Electricity	3.14%	2.11%	3.42%
26	Alternative Energy	6.49%	7.32%	6.26%
27	Transport and Communication	5.50%	9.97%	4.30%
28	Entertainment	0.79%	1.17%	0.69%
29	House Care	2.73%	2.13%	2.89%
30	Personal Care	4.20%	4.31%	4.17%

Source: Author's Computation using Kenya Integrated Household and Budget Survey 2005/2006

### Differences in Expenditure Shares

Table 2 shows the difference in expenditures between smoking and non-smoking households for the full, rural and urban samples. The presentation of results for both rural and urban areas was carried out because the survey collects a rich set of data on living conditions, which was split into rural and urban households. Further analysis in this paper for both rural and urban areas was done by assessing expenditure patterns of the top 50% and bottom 50% of each categorization. In this paper, the top 50% is referred to as 'richer' households and the bottom 50% to as the 'poorer' households.

These differences are expressed in percentage points. Positive implies that smoking households allocate a greater share of their expenditure to that category item compared to non-smoking households. When it is negative, it implies that smoking households spend a lower proportion of their budgets on the category item than the smoking households. The results suggest that smoking households allocate less monies to food, healthcare, clothing, housing, electricity, alternative energy, transport and communication, entertainment, house care and personal care. The difference in health care, school, housing, electricity, alternative energy, transport and communication, entertainment, house care and personal care are statistically significant.

Generally, smoking households allocate more funds towards the consumption of alcohol and water than non-smoking households. Thus, allocation to alcohol is statistically significant.

In summary, Table 2 shows that there are differences in the way smoking and non-smoking households allocate their monthly expenditure, with the difference being statistically different in many cases. It is therefore important to investigate whether these differences and patterns observed are in any way related to the smoking status of the households.

**Table 2.** Difference in Mean Expenditures Shares between Smoking and Non-Smoking Households

Expenditure Share on	Full Sample	Urban Sample	Rural Sample
Food	-6.3%	0.07%	-1.61% **
Alcohol	1.52% **	4.39% *	0.83%
Health care	-0.53% **	-0.68% **	-0.55% *
School	-5.96% *	-8.86% ***	-4.74%
Clothing	-0.52% *	-1.07% *	-0.47%
Water	0.03%	-0.37% **	0.2%
Housing	-1.45% ***	-3.80% ***	-0.09%
Electricity	-0.71% ***	-0.65% ***	-0.81% ***
Alternative Energy	-2.04% ***	-1.52% ***	-2.15% ***
Transport and Communication	-1.85% ***	-0.18%	-2.34% ***
Entertainment	-0.37% *	-0.43% *	-0.34%
House Care	-0.44% ***	-0.24% *	-0.55% ***
Personal Care	-1.20% ***	-1.29% ***	-1.16% ***

Significance levels [\*\*\* p<0.01, \*\* p<0.05, \* <0.1]

Source: Author's Analysis using KIHBS 2005/2006

Table 3 shows the expenditure shares of tobacco across expenditure quintiles for smoking households only. The paper first constructed expenditure quintiles on total expenditure across both urban and rural households to determine the expenditure spend across smoking households. The results suggest that urban tobacco smoking households have a higher expenditure allocation for tobacco use across all quintiles compared to rural households, with those at the lower quintiles for both urban and rural households having a higher allocation. For instance, the 1<sup>st</sup> quintile for urban households allocates 11.83% compared to 4.71% for the 5<sup>th</sup> quintile. In the case of rural households, the 1<sup>st</sup> quintile allocates 10.04% compared to 4.67% for the 5<sup>th</sup> quintile. This could suggest that poorer households, which have the lowest expenditures, spend more in tobacco expenditure compared to fairly well of households.

**Table 3.** Tobacco Expenditure Shares across Expenditure Quintiles for Smoking Households

Quintile	1	2	3	4	5	Total
Urban	11.83%	7.71%	5.48%	4.78%	4.71%	6.70%
Rural	10.04%	6.56%	5.3%	5.25%	4.67%	6.22%

Source: Author's Analysis using KIHBS 2005/2006

## Ordinary Least Squares

This section investigates whether there is a causal interpretation to the differences discussed in the previous section. This basically means that this section seeks to find out if the expenditure share differences between the smoking and non-smoking households are as a result of the smoking households allocating more expenditure towards tobacco.

The difference in expenditure patterns observed in Tables 2 could be as a result of confounding variables, i.e., characteristics other than the tobacco smoking status of the household. For example, the household structure or the household's socio-economic status may be the cause of the difference in the expenditure patterns. To control these confounders, we can use ordinary least squares (OLS) where we regress expenditure shares on the household smoking status and a number of control variables that would represent the household structure and household socio-economic status. This would therefore mean that we estimate equation 3 by OLS and report the results of this in Table 4. However, we present only the results of the coefficient on  $d$  (smoking status) with the full results of the OLS estimation presented in an appendix later.

In Table 4, a negative coefficient on  $d$  suggests that smoking households allocate less expenditure in that category of expenditure item in the household when compared to non-smoking households when other variables are controlled. This table, to a great extent, replicates Table 2 from a qualitative perspective. The results suggest that for the full sample, crowding out occurs for housing, alternative energy, transport and communication, and personal care with all the instances being statistically significant at 1%. It also occurs for home care with a statistical significance of 5%. For the urban sample, crowding out occurs for alternative energy, transport and communication, personal care (all with statistical significance of 1%) and for house care at 5% statistical significance. In the rural sample, it occurs for housing and alternative energy (1% statistical significance), clothing (5% statistical significance), and personal care (10% statistical significance). Finally, we observe that commodities of the top 50% of the sample experience most crowding out compared to those of the bottom 50%.

**Table 4.** Ordinary Least Squares (OLS) Estimates for the Coefficient on d

<b>Coefficient on d in:</b>	<b>Full Sample</b>	<b>Urban H/holds</b>	<b>Rural H/holds</b>	<b>Top 50%</b>	<b>Bottom 50%</b>
Food	0.011(0.007)	0.0112(0.009) 0.033	0.006(0.011)	0.044(0.014)*** 0.029(0.004)***	0.006(0.009) 0.042(0.003)***
Alcohol	0.037(0.002)***	(0.003)***	0.045(0.004)***		
Health care	-0.003(0.003)	-0.003 (0.004)	-0.002(0.004)	-0.005(0.004)	0.002(0.004)
School	-0.001(0.001)	-0.001(0.001)	-0.001(0.003)	-0.0003(0.001)	0.175 (0.355)
Clothing	-0.001(0.004)	-0.007 (0.005)	-0.019(0.007)**	0.002(0.007)	-0.003(0.006)
Water	0.101 (0.088)	0.002 (0.001)	-0.001(0.002)	0.001(0.002)	-0.0003(0.001) -0.007(0.004)*
Housing	-0.007(0.003)***	-0.0005 (0.001)	0.019(0.007)***	0.013(0.005)***	
Electricity	-0.002(0.001)	-0.001(0.002)	-0.003(0.002)	-0.005(0.003)*	-0.002(0.002) -0.014(0.004)***
Alternative Energy	-0.014(0.003)***	0.012(0.004)***	0.015(0.005)***	0.015(0.005)***	
Transport and Communication	-0.010(0.004)***	-0.01(0.004)***	-0.007(0.007)	0.016(0.006)***	-0.008(0.005)
Entertainment	-0.001(0.001)	-0.002(0.002)	-0.0005(0.002)	-0.003(0.002)*	-0.001(0.002)
House Care	-0.002(0.001)**	-0.003(0.001)**	-0.0004(0.002)	-0.005(0.002)*	-0.001(0.001) -0.006(0.002)***
Personal Care	-0.007(0.002)***	0.008(0.002)***	-0.006(0.003)*	0.015(0.004)***	
Observations	9,281	5,388	3,870	3,887	5,371

Significance levels [\*\*\* p<0.01, \*\* p<0.05, \* <0.1]

Source: Author's Analysis using Kenya Integrated Household and Budget Survey 2005/2006

### Three-Stage Least Squares (3SLS)

The results presented in Table 4 assume that  $d$  is exogenous, i.e., not correlated to the error term. However, it is likely that  $d$  in equation 4 is endogenous, for instance in a situation where a household decides to spend on tobacco only after making other household expenses or where we have a variable not specified in the equation but contained in the error term. Thus, this influences a household's decision on tobacco spending simultaneously with the spending on other commodities. In addition to this, previous studies have suggested that  $\alpha$  and  $\beta$  are likely to be endogenous in the same way (Vermeulen, 2003; John, 2008; Pu et al., 2008).

To account for possible endogeneity of  $d$ ,  $\alpha$ , and  $\beta$  to prevent biased and inconsistent coefficient estimates in the demand system, this paper estimated equation 3-2 using 3SLS. The first two stages involved estimating a probit function for  $d$  and using the estimated function to generate the predicted values,  $\hat{d}$ , which are used as instruments for  $d$  in the third stage. These results are presented in Table 5 below.

The results suggest that food is given a smaller expenditure allocation in the full sample and rural households. This is with the results from the full sample suggesting that the results are statistically significant at 1% level, and the results from rural households being at 5% significance level. Urban smoking households allocate less expenditure in health care compared to non-smoking households, with the difference being only statistically significant at 10% with the bottom 50% of the survey being the ones mainly impacted. Rural smoking households allocate more resources in electricity and alternative energy than non-smoking households. This is with results being statistically significance at 5% for electricity and 10% for alternative energy. In the full sample, smoking households allocate more in terms of electricity and alternative energy compared to non-smoking households, with results being statistically significant at 5% for electricity and 1% for alternative energy. Also, smoking households in rural areas allocate less in house care, with results being statistically significant at 10%. The results, however, suggest that it is the top 50% of the sample that experience this crowding out of house care compared to the bottom 50%. In the full sample, the smoking households allocate less in house care, with results being statistically significant at 1%.

**Table 5.** Three Stage Least Squares (3SLS) Estimates for the Coefficient on *d*

<b>Coefficient on <i>d</i> in:</b>	<b>Full Sample</b>	<b>Urban H/holds</b>	<b>Rural H/holds</b>	<b>Top 50%</b>	<b>Bottom 50%</b>
Food	-1.019 (0.556) **	1.423 (1.261)	-1.870 (0.885) **	-2.143(2.36)	-1.297 (1.643)
Alcohol	-0.05 (0.149)	-1.375 (0.322)***	0.210 (0.240)	0.408 (0.614)	-1.717 (0.451) ***
Health care	-0.180 (0.231)	-0.869 (0.509)*	0.046 (0.367)	-0.681 (0.728)	-1.294 (0.795) *
School	-0.064 (0.092)	-0.058 (0.310)	-0.051 (0.118)	-0.009 (0.114)	0.175 (0.355)
Clothing	-0.327 (0.341)	-0.359 (0.720)	-1.953 (0.547)	-0.262 (1.318)	0.053 (1.078)
Water	0.101 (0.088)	-0.221 (0.226)	0.069 (0.133)	-0.441 (0.399)	0.121 (0.248)
Housing	0.166 (0.183)	0.681 (0.768)	-0.016 (0.106)	-0.410 (0.449)	0.465 (0.659)
Electricity	0.264 (0.108) ***	0.034 (0.271)	0.338 (0.167) **	1.624 (0.521)***	0.365 (0.280)
Alternative Energy	0.561 (0.222) ***	0.411 (0.582)	0.584 (0.331) *	0.199 (0.912)	1.16 (0.672) *
Transport and Communication	0.133 (0.283)	0.679 (0.751)	-0.045 (0.425)	0.402 (0.983)	0.962 (0.938)
Entertainment	-0.006 (0.102)	-0.086 (0.269)	0.098 (0.154)	-0.067 (0.335)	-0.176 (0.346)
House Care	-0.226 (0.904) ***	0.012 (0.177)	-0.265 (0.149) *	-0.745 (0.477)*	0.088 (0.202)
Personal Care	-0.053 (0.148)	-0.198 (0.378)	-0.074 (0.227)	-0.460 (0.627)	0.162 (0.441)
Observations	5,542	1,688	3,854	2,298	3,244

Significance level [\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $< 0.1$ ]

Source: Author's Analysis using Kenya Integrated Household and Budget Survey 2005/2006

## **Discussion of Findings**

This paper adds to the literature on how tobacco expenditure crowds out consumption of items in households in two ways. First, the paper uses data from a low-income country, Kenya, where a lot of households are poor. Secondly, this paper also uses the method of instrumental variables as is the standard method in literature but goes further and uses less stringent assumptions on the instruments.

The econometric analysis carried out suggests that tobacco crowds out the consumption of food, alcohol health care, schooling, clothing, entertainment, house care, and personal care. In the general sample, the crowding out is statistically significant on food and house care. The study also suggests that the magnitude and pattern of crowding out of tobacco on other household expenditure items is subject to geographical location and socio-economic standing of households. Further econometric analysis shows that crowding out of tobacco expenditure on health care is more among the poor. This is because at the bottom 50% of the surveyed households, the crowding out is statistically significant. The crowding out of tobacco on house care seems to be also more among the high income households and among the rural households as the results suggest that this is statistically significant as can be seen in Table 3.

This study shows that tobacco crowds in consumption of goods such as water, electricity, alternative energy, transport and communication and housing for the general housing, albeit with a mixed pattern where crowding in is subject to the geographical location and socio-economic standing. For instance, tobacco crowds in consumption of water and housing for those who are poor but seems to crowd out consumption of water and housing among the richer households. However, tobacco crowds in consumption of all households for electricity, alternative energy, and transport and communication. Crowding in of tobacco expenditure on other household items has been found in Wang et al. (2006) and Koch and Tshiswaka Kashalala (2008), who both stated that tobacco crowds in expenditure on alcohol. John (2008) highlighted that tobacco consumption has a positive relation with the consumption of health care, clothing, and fuels.

## **Conclusions and Policy Implications**

The results suggest that tobacco crowds out the consumption of food, health care, schooling, clothing, entertainment, house care, and personal care. In the general sample, the crowding out is statistically significant on food and house care. The paper also suggests that the magnitude and pattern of crowding out of tobacco on other household expenditure items is subject to geographical location and socio-economic standing of households. The study concludes that tobacco crowds in consumption of goods such as water,

electricity, alternative energy, transport and communication and housing for the general housing, albeit with a mixed pattern where crowding in is subject to the geographical location and socio-economic standing. For instance, tobacco crowds in consumption of water and housing for those who are poor but seems to crowd out consumption of water and housing among the richer households. However, tobacco crowds in consumption of all households for electricity, alternative energy, and transport and communication. To have a conclusive suggestion on whether tobacco crowds out consumption of household goods and services, the paper, however, recommends that tobacco control should be an integral part of governments' poverty alleviation strategy. This is because the results show that poorer households in Kenya will benefit from reduction in tobacco consumption, since they would have higher disposable income that could be spent in the purchase of food, education, and clothing.

### References:

1. Angrist, J.D. & Pischke, J. (2009). *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.
2. Baltagi, B. H. (2008), *Econometrics* (4<sup>th</sup> edition). Springer.
3. Banks, J., Blundell, R. & Lewbel, A. (1997). "Quadratic Engel curves and consumer demand". *The Review of Economics and Statistics*, 79(40): 527– 539.
4. Becker, G.S. (1974). "A theory of marriage". In Schultz, T.W (Ed), *Economics of the Family*. Chicago: University of Chicago Press.
5. Chelwa, G. & Van walbeek, C. (2014). *Assessing the causal impact on tobacco expenditure on household spending patterns in Zambia*. Working Paper 453. South Africa: ERSA.
6. Efrogmson, D., Ahmed, S. & Townsend, J. (2001). "Hungry for tobacco: An analysis of the economic impact of tobacco consumption on the poor in Bangladesh". *Tobacco Control*, 10(1): 212-217.
7. Eriksen, M., MacKay, J. & Ross, H. (2015). *The tobacco atlas*. Atlanta, GA: American Cancer Society.
8. Forouzanfar, M.H., Alexander, L. & Anderson, H.R. (2015). "Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990–2013: A systematic analysis for the global burden of disease study". *Lancet*, 386: 2287–2323. [http://dx.doi.org/10.1016/s0140-6736\(15\)00128-2](http://dx.doi.org/10.1016/s0140-6736(15)00128-2)
9. Heckman, J.J. (1978). "Dummy endogenous variables in a simultaneous equation system". *Econometrica*, 46(6): 931 - 959.

10. John, R.M. (2008). "Crowding out effect of tobacco expenditure and its implications on household resource allocation in India". *Social Science and Medicine*, 21(15): 1356-1367.
11. John, R.M., Ross, H. & Blecher, E. (2012). "Tobacco expenditure and implications for household resource allocation in Cambodia". *Tobacco Control*, 21(6): 341-346.
12. Kiriti, T. & Tinsell, C. (2003). Gender inequality, poverty and human development in Kenya: Main indicators, trends and limitations. Working Paper No. 35. Social Economics, Policy and Development.
13. Koch, S.F. & Tshiswaka-Kashalala, G. (2008). "Tobacco substitution and the poor". University of Pretoria Working Paper Series No. 2008 – 32.
14. Mathers, C.D. & Loncar, D. (2006). Projections of global mortality and burden of disease from 2002 to 2030. *PLoS Med*, 3(11): 442.
15. Pu, C.L., Chou, V. & Lan, C. (2008). "The crowding-out effects of tobacco and alcohol where expenditure shares are low: Analyzing expenditure data for Taiwan". *Social Science and Medicine*, 9(1): 1979-1989.
16. Republic of Kenya (2007a). Tobacco Control Act. National Council for Law Reporting. Nairobi: Government Printer.
17. Republic of Kenya (2007b). Statistical Abstract, Kenya National Bureau of Statistics. Nairobi: Government Printer.
18. Republic of Kenya (2009). Statistical Abstract, Kenya National Bureau of Statistics. Nairobi: Government Printer.
19. Republic of Kenya (2014). Kenya Demographic and Health Survey (KDHS). Available from: <http://dhsprogram.com/pubs/pdf/FR308/FR308.pdf>
20. Republic of Kenya (2015). Statistical Abstract, Kenya National Bureau of Statistics. Nairobi: Government Printer.
21. Samuelson, P.A. (1956). "Social indifference curves". *Quarterly Journal of Economics*, 70(1): 1-22.
22. San, S. & Chaloupka, F. (2016). "Impact of tobacco expenditures on spending within Turkish households". *Tobacco Control*, 2(1),1-6.
23. Stock, J.H, Wright, J.H. & Yogo, M. (2002). "A survey of weak instruments and weak identification in Generalized Method of Moments". *Journal of Business and Economics Statistics*, 20(4): 518-529.
24. Vermeulen, F. (2003). "Do smokers behave differently? A tale of zero expenditures and separability concepts". *Economics Bulletin*, 4(6): 1 –7.

25. Wood, D.M., Mould, M.G., Ong, S.B. & Baker, E.H. (2005). “Pack year” smoking histories: what about patients who use loose tobacco”? *Tobacco Control*,14: 141–142.
26. Wooldridge, J.M. (2002). *Econometric Analysis of Cross Section and Panel Data*. MIT Press
27. Zellner, A. (1962). “An efficient method for estimating Seemingly Unrelated Regressions and tests for Aggregation Bias”. *Journal of the American Statistical Association*, 57(298): 348-368.



ESJ Social Sciences

## Md Mahmudul Hoque

Doctoral Researcher, Institute of Development  
Studies, University of Sussex, UK

## Riffat Ara Zannat Tama

Doctoral Researcher, Huazhong Agricultural  
University, China. Assistant Professor, Bangladesh  
Agricultural University, Bangladesh

Submitted: 02 November 2020

Accepted: 16 November 2020

Published: 30 November 2020

Corresponding author:

*Mahmudul Hoque*

DOI: 10.19044/esj.2020.v16n31p279



Copyright 2020 Hoque M. & Tama R.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

## China's Belt and Road Initiative: Global Politics and Implications

### Abstract

Belt and Road Initiative (BRI) is a global infrastructure development project that ambitiously aims to connect Asia with European and African continents through land and sea corridors. China adopted this gigantic game-changing master plan in 2013 and spurred much speculation among scholars and policymakers worldwide. This article investigates the development of the project through the lens of global political geography and economy. From an international relations perspective, the author consults relevant pieces of literature and focuses on the international issues and events concerning the development of the project using concepts of ideas, interests, and institutions within the scope of geopolitics and political economy. The analysis is performed by reviewing critical events and arguments related to the ideas, interests and institutions evolving around the implementation of BRI. Drawing from the analysis, the author argues that the rise of China as a dominant global superpower largely depends on the success of the BRI, and this initiative will continue to generate politics among the international actors, multinational entities, and institutions. Despite widespread speculations, the project poses a substantive threat to the USA's global dominance and is likely to create more global development cooperation under Chinese leadership and vision.

**Subject:** International Politics

**Keywords:** Belt and Road Initiative (BRI), China, Superpower, Global Politics, International Relations

### How to cite this article

Hoque M. & Tama R. (2020). China's Belt and Road Initiative: Global Politics and Implications. *European Scientific Journal, ESJ*, 16(31), 279. <https://doi.org/10.19044/esj.2020.v16n31p279>

## 1. Introduction

Following the Cultural Revolution (1966-1976) People's Republic of China (PRC) reformed its economic policy in 1978, and since then, its story is mostly about the unceasing success of economic growth and market expansion. Since 1979 to 2017, China's real gross domestic product (GDP) grew at an average annual rate of nearly 10% (Morrison, 2018, p. 1). Due to its massive opening-up policy and trade liberalization, the country has become the top foreign direct investment (FDI) destination among all developing countries and received the highest amount of FDI since its accession to World Trade Organization (WTO) in 2001 (Tuan, Ng, & Zhao, 2009). In this incredible and unprecedented journey of economic development, the country has also lifted 850 million people out of poverty (World Bank, 2019). With a population of 1.3 billion China is now the second-largest economy in the world with a GDP of 13.4 Trillion USD and has been the single most significant contributor to world growth since 2008 (World Bank, 2019). In several aspects, the country has already surpassed the largest economy of the world—the United States of America (USA). For instance, China is the largest exporting nation in the world. Although in terms of Purchasing Power Parity (PPP) China has already become the largest economy in the world, several studies suggest that considering the GDP, it will become the largest economy of the world by 2030 (Johnson, 2019). China's economic rise in many ways has challenged the existing world economic and political order. Analysts believe that the unipolarity of the world led by the USA is coming to an end with the rise of China-led economic alliance (Sears, 2016; Vuving, 2012). The ongoing trade war between the two largest economies of the world, the USA and China, starting from July 2018 has been one of the significant products of the superpower rivalry (BBC, 2019). In this context, China's plan to lead the execution of the biggest ever infrastructure project in human history has been a subject of enormous interest and scrutiny in the international community.

China's Belt and Road Initiative (BRI) is an ambitious program to connect Asia with Africa and Europe through land and waterways. Since the inception of this project in 2013, it has not only made substantive progress but also spurred much speculation among scholars and policymakers around the world (Sarker, 2019, p. 280). Scholars of various disciplines have studied this gigantic game-changing project initiative from multiple perspectives (Xing, 2019; Lei, 2018). These perspectives largely addressed the bi-lateral and regional perspectives; few have explored the implications for international politics. The focus remains at the US-China relations. After Donald Trump won the US presidential election in 2016 through his promise of 'Making America Great Again', the momentum of global politics has shifted towards China and its ambitious global infrastructure project – the BRI. It is imperative to explore the implications of BRI in international politics and development if

we want to understand the current trends and future course of the global powerplay. Several scholars have assumed that the future impetus of power – political and economic – will reside in Asia (Khanna, 2018; Mahbubani, 2018; Mahbubani, 2020). However, these arguments largely depend on the political-economic rivalry between the USA and China in the world. Francis Fukuyama, in his most noted article ‘The End of History’ published in 1989 argued that the last ideological alternative to liberalism perished with the collapse of the Soviet Union, and the world would achieve homeostasis (Menand, 2018). As Mahbubabi (2020) argues that the emergence of China as a global superpower has challenged the primacy of the USA in several critical fronts, with the ongoing US-China trade war and the implementation of BRI, we are at a crucial time to assess and observe how new this fresh ideological war progresses. Exploring implication of the BRI for global politics can pave the way of deeper understanding, especially from the developing country perspectives.

In this backdrop, this paper aims to contribute to the understanding of the BRI in the context of concurrent global politics and development. The organization of this paper as follows. After providing a brief description of the initiative, we will discuss some of the key concepts making the framework through which we will extract international politics in and around the BRI. While analyzing the issues, we argue that the rise of China as a dominant global superpower largely depends on the success of the BRI, and this initiative will continue to generate politics among the international actors, multinational entities, and institutions. Despite widespread speculations, BRI as a grand infrastructure development project poses a massive threat to the USA’s global dominance. It is likely to create more global development cooperation under Chinese leadership and vision.

## **2. Belt and Road Initiative: a Chinese master plan**

During his state visit to Kazakhstan in October 2013, Chinese President Xi Jinping unveiled the *One Belt One Road* initiative comprising the Silk Road Economic Belt and the 21st Century Maritime Silk Road (Zeng, 2019). However, Callahan (2016) notes that the idea of BRI was first mooted by Wang Jisi (2012), a well-connected IR Scholar, in a Global Times article in October 2012. The author argued that since the USA was boxing in the PRC to the maritime East with its Asian pivot, China should march West to expand economic and security ties with neighbors in Central Asia (Callahan, 2016, p. 11). In November 2014, the Chinese government officially announced the creation of a new Silk Road fund of 40 billion US dollars at the Asia Pacific Economic Cooperation meeting in Beijing, followed by the official opening of the project in March 2015 through the National Development and Reform Commission under the Ministry of Foreign Affairs and the Ministry of

Commerce (Aoyama, 2016, p. 5). In March 2015, the Chinese government published the ‘Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road, which led the foundation of this visionary initiative. The official web portal of BRI describes it as “an initiative originated in China, but it belongs to the world; it is rooted in history, but oriented toward the future and focuses on Asia, Europe, and Africa, but is open to all partners” (PRC, 2019). The project spans numerous countries and regions, different stages of development, historical traditions, cultures and religions, and different customs and lifestyles. It indicates that although this initiative is majorly an infrastructure development project, it has the vision to deliver on social, political, and cultural aspects.

BRI includes 80 countries, mainly from Asia, Europe, and Africa encompassing nearly 36% of the global GDP, 68% of the world population, and more than 40% of international trade (Islam, 2019). As Aoyama (2016) created the following table (table 1) to describe six economic corridors and one sea route to be built under this giant initiative.

**Table 1:** Land and Sea Corridors Constituting Belt and Road Initiative  
(Source: Aoyama, 2016, p. 6-7)

<b>1. China-Mongolia-Russia Economic Corridor (CMREC)</b>
It includes two economic corridors. One starts in northern China, extends through Mongolia and Russia while the other starts in northeast China and reaches to Chita (Russia).
<b>2. New Eurasia Land Bridge Economic Corridor (NELBEC)</b>
This route is divided into three parts and connects Liyanyungang province to the Port of Rotterdam in the Netherlands. This corridor can potentially link Japan, South Korea, Iran, Russia, and the EU.
<b>3. China-Central Asia-West Asia Economic Corridor (CCAWEC)</b>
It starts in the Xinjiang, Uyghur region and extends through the Persian Gulf, and reaches the coast of the Mediterranean Sea and the Arab Peninsula. It connects Central Asian nations including Kazakhstan, Kyrgyzstan, and Tajikistan as well as Iran and Turkey.
<b>4. China-Indochina Peninsula Economic Corridor (CIPEC)</b>
It starts in Nanning, Guangxi Zhuang Region and Kunming and ends in Singapore. It crosses the South China sea and faces great difficulties in the establishment.
<b>5. China-Pakistan Economic Corridor (CPEC)</b>
It is a 3000-km route connecting Kashgar, Xinjiang Uyghur region with Gwadar Port in Pakistan. It has the role in connecting ‘One Belt’ with ‘One Road’. An agreement between China and Pakistan to cooperate broadly in areas such as energy, infrastructure, and industry.
<b>6. Bangladesh-China-India-Myanmar Economic Corridor (BCIMEC)</b>
This is to be established together with Bangladesh, India and Myanmar. Through this corridor, China can promote ties with India and Bangladesh, with which historically did not have close ties.
<b>21<sup>st</sup> Century Maritime Silk Road</b>
It consists of routes from the South China Sea and the Indian Ocean to Europe and Africa and routes from the South China Sea to the South Pacific. China plans to invest in 15 international harbour cities as part of this corridor development.

Scholars have compared this initiative with the US Marshall Plan in 1948, which was launched to minimizing the influence of the former Soviet Union over the central and eastern European countries (Sabine, 2017). However, Boucher (2019) argued that BRI is neither a Chinese version of the Marshall Plan nor a new Silk Road, and added that unlike Marshall Plan, BRI finances infrastructure projects constructed by the Chinese companies and labors. While in the case of the ancient Silk Road case, to Boucher (2019), everyone along the way had a stake in the trade while BRI profits mostly go to Chinese firms and banks.



The above image (figure 1) shows how BRI will facilitate international trade routes through landmass and seaways. In the official opening ceremony of BRI held in May 2017, President Xi presented the keynote in the program announcing the detailed plans as showed in the image. He also referred it to the beginning of a new Chinese Empire like what was built by the Qin and completed by the Han Dynasties in Chang'an (Schneider, 2017). It reaffirmed that Xi's foreign policy, as noted by Aoyama (2016), is aimed at the great revival of the Chinese People and for achieving the 'Chinese Dream'. This Chinese dream broadly includes the ideas and concepts which President Xi mentioned in his book 'The Governance of China' (final edition in 2018). These ideas and concepts include socialism with Chinese characteristics, achieving rejuvenation, broader Chinese leadership in the world, and economic development of the people of Chinese and the other countries (Peters, 2017; Callahan, 2016). The rejuvenation of the Chinese nation is

planned to get celebrated in 2049 (the centenary of the foundation of PRC) with the successful execution of BRI (Hillman, 2018).

Popular estimates anticipate that Chinese investment ranging from \$1 trillion to \$8 trillion for completing BRI projects (Ho, 2017). There are as many as twelve financial institutions that have been providing funds and loans to the BRI projects. These institutions are Afro-Asian Economic Council (AAEC), Asian Infrastructure Investment Bank (AIIB), China-CEE Fund, China Investment Cooperation (CIC), China Development Bank (CDB), China-Eurasian Economic Cooperation Fund (CEF), Export-Import Bank of China (EXIM), New Development Bank (NDB), Russia-China Investment Fund (RCIF), Silk Road Fund (SRF), and State Administration of Foreign Exchange (SAFE) (BRI, 2019). The Silk Road Fund and the Asian Infrastructure Invest Bank are the two major contributors to the funding. So far, the current outlay has around 200 billion USD investments, and President Xi claimed that 64 billion-dollar deals had been signed in the second forum of BRI (Pao, 2019). However, the funding information on the projects is still not fully in public.

The plans showed in the image illustrate the revival of silk routes through the landmass and sea. As per the official description of the initiative, there are five main areas of cooperation: (a) policy cooperation, (b) Infrastructure Connectivity, (c) Trade and Investment Enhancement, (d) Financial Integration, and (e) people-to-people bond. For the last five years, the Chinese government has worked to integrate BRI projects and its vision in China's domestic development policies as well as its regional and global action plans (BRI, 2019). These policies include the Five-Year Plan of Action on Lancang-Mekong Cooperation, China's Arctic Policy, Shaanxi's Action Plan for the Belt and Road Construction, Qinghai's Development and Action Plan of Silk Road Cultural Industrial Belt, and Asian Infrastructure Investment Bank Articles of Agreement.

Scholars worldwide have observed various kinds of Chinese political and economic interests covered inside this so-called infrastructure project. Critics have raised several issues and challenges in and around BRI. The USA has continuously expressed its concerns and fear over the execution of this initiative. Hurley, Morris and Portelance (2018) in their published by a Washington-based research organization 'Center of Global Development' raised several issues including the risk factors, debt, and lack of transparency. The arrangement of the second BRI forum in April 2019 and the participation of several leading economies of Europe have kept the USA worried (Reuters, May 9, 2019). This article takes a theoretical framework of geopolitical and economic concepts to look at the current developments of the projects and the issues raised, mainly backed by the US-led allies and institutions. Since this

article explores the implications of global politics and development, we shall discuss and analyze the issues and dynamics from a macro global perspective.

### **3. Conceptual framework**

Theories of geopolitics have always been an integral part of the study of international relations. The founder of Geopolitics Halford John Mackinder placed his famous but controversial ‘Mackinder’s Law’ in 1904, according to which – “who controls East Europe, controls Heartland and who controls Heartland, rules the world” (Kelly, 2006). From a geopolitical (or political geography) perspective, there are two kinds of power – Land Power and Sea Power. Understanding geopolitics concerns the geography of international politics, particularly the relationship between physical environment (location, resources, and territory) and foreign policy (Sprout & Sprout, 1960; Tuathail, 1992). Geopolitical reasonings can be described as creating a backdrop or setting upon which international politics takes place. To Tuathail (1992), this view is very simplistic. Kelly (2006) pointed out two distinct versions of geopolitics – classical and contemporary critical. Classical theories are a set of thoughts by some scholars, including Rudolf Kjellen, Thayer Mahan, Halford Mackinder, and Karl Haushofer. Tuithail criticizes classical geopolitics and advocates for critical geopolitics, which mainly deals with statecrafts and ideas made of practical problem-solving geopolitical strategies.

The study of political economy relates to the understanding of economics and political science together. The international political economy deals with political relations between different nation-states in framing their respective economic policies, which has primarily been the result of globalization and the emergence of a rapidly integrated and interconnected world (Timimi, 2010). In International Relations, the states are considered individual actors who want to maximize their gain or advantage in competitive trade and economic ties. Classical economists, including Adam Smith and David Ricardo, contributed to the origin of political, financial understanding. However, the theory has evolved. Currently, Political Economy Analysis (PEA) mainly focuses on the actors, networks, institutions, and their competing interests as Hall (1997) identifies the essential useful components of a political economy – ideas, interests, and institutions – to explore and understand the politics within. The framework developed by Pettit and Acosta (2014) explains contemporary PEA and identifies the significance of two characteristic features of PEA. First, the analysis of institutions is essential in understanding how the social and political institutions shape decisions and outcomes and reproduce asymmetries to protect the interests of influential actors. Second, the analysis of individuals crucially includes the best interests of individuals (or a group of like-minded actors) which could be not only material benefits or awards but also common good or behavior within the

setting. The absolute and competitive advantage of international trade also comes into the analysis of the global political economy.

Scholars have combined the concepts of geopolitics and international political economy while explaining the aggressive Chinese investments in the Arctic Region, Africa, and Asia (McDonald & Klasche, 2019; Lei, 2018). Luttwak (1990) grounded the origin of this integration of the concepts of geopolitics with geo-economics, and argue that understanding the purpose of global commerce and economics requires deeper insights of the rules of the game among the players. McDonald and Klasche (2019), while analyzing the Chinese quest of for resources and control of commercial infrastructure in arctic region, emphasize on understanding the dominance of sea routes and the advantages come with it. After noting the necessity of geopolitical analysis of contemporary geo-economic processes, Moisio (2017) notes that this kind of analysis is useful to explain the emerging inter-spatial competition for regional and economic expansion of global powers. By connecting these concepts and lens, this article develops its analysis by reviewing pertinent pieces of literature and reports of the critical events.

In this paper, we analyze the ideas, interests, and institutions related to BRI where the individual actors and stakeholders are the states and international (bilateral, multilateral, regional, and global) institutions with the framework of geopolitical analysis. Since the objective of the paper is to understand global politics in and around Belt and Road development projects, this conceptual framework will allow us to explore the implications and learning. The following sections categorically present the discussion and analysis drawn from the three concepts – ideas, interests, and institutions – which will lead us to a summarized presentation of the argument.

#### **4. BRI as an Idea: not a mere international development project**

The main ideas behind the establishment of Belt and Road infrastructures are multi-faceted. In ‘The Governance of China II’ (2018), Xi Jinping put together his speeches in a chapter dedicated to the Belt and Road Initiative. In his speech on the 8th of November, 2014, he outlined five significant ideas behind BRI- (1) the development focus on Asian countries, (2) developing a basic framework or master plan of Asian connectivity by leveraging economic corridors, (3) harvesting in Asian connectivity by making breakthroughs in transport infrastructure, (4) breaking through the bottlenecks in Asian connectivity by building a finance platform, and (5) social foundation of Asian connectivity promoting people-to-people exchange (Jinping, 2017, pp. 543-545). Notably, this initial plan neither includes Europe nor Africa, nor Latin America. In the following year he spoke about reviving the Maritime Silk Road and the culture of the Silk Road (29 April 2016) while on the 17th of August at a conference of BRI, he described eight strategic ideas

of how China should approach towards implementing BRI (Jinping, 2017, pp. 546-553). Eventually, on the 14th of May 2017, Xi presented his vision before 100 country representatives (including the heads of states and governments). His BRI speeches emphasized several things – peace and cooperation, openness and inclusiveness, mutual learning and benefit, financial interaction, friendship with European and African people, trade as a growth engine, mutually beneficial business partnerships, and following the root of the ancient Silk Road. These measures reflect on an old Chinese saying that he mentioned before concluding his speech – “A long journey can be covered only by taking one step at a time”. He also quoted a European saying – “Rome was not built in a day”. This year-by-year progress indicates a grand idea of the Chinese market and economic expansion.

The question arises – how did the idea of BRI originate? As Callahan (2016) argues, “we need to appreciate how Chinese elites view international politics, often in terms of domestic ideational debates” (p. 2). He also analyzed how realists, liberalists, and constructivists view BRI. Realists see how China structurally challenges the United States or Chinese characteristics of socialism play a role in capitalist power politics. Liberals oppose that view, and by arguing that China does not have the ideas, capacities, and incentives to tear down the existing international order while constructivists view the case of the Chinese rise in the world as a peaceful and respectful one. Scholars have identified domestic politics and the economy as the primary source of BRI as an idea. China’s economy was often called the ‘dragon economy’ for its consistent growth of 10% for more than three decades (Lin, 2011).

However, the economy started to slow down in 2012 due to several reasons. Zou Lei (2018) analyzes BRI from the Political Economy perspectives and notes, “in the 21st century, the rise of China’s manufacturing industry not only gives momentum to the miracle of China’s Economy but also drives the growth of the whole world...as the global financial and European debt crisis worsen, China’s manufacturing-oriented economy has become the stabilizer and engine of the world economy” (p. 91). By 2011 the output of manufacturing accounted for 19.8% of total world output, surpassing the USA’s 19.4% (Lei, 2018, p. 91). But this growth slowed down since 2012 as the cost of labor started to grow along with the per capita income. Since China remained the largest exporter country in the world, the companies were under pressure to produce more goods with minimized production costs. It was a daunting task for newly elected President Xi in 2013 to steer the economy towards a potential journey. In 2015 China released its ten-year plan called ‘Made in China 2025’ to update China’s manufacturing base by rapidly developing ten high-tech industries, including electric cars and other new energy vehicles, next-generation information technology (IT) and telecommunications, and advanced robotics and artificial intelligence

(McBride & Chatzky, 2019). Chinese construction companies are good at building things, at home and abroad. National construction companies were looking for international bids for employing their capital, labor, and machinery. Lenin's theory of imperialism (Lindsey, 1982) can explain this market and business expansion. Laura A. Johnson (2018) noted some critical aspects of China's slowing economy and the implication of BRI as international infrastructure projects. Firstly, the member states (or the targeted states) all belong to the 'young and poor' category of states, meaning that the concentration of low and demographically growing economies – those with the highest unrealized development potential in Central and South Asia and Africa (Johnson, 2018, p. 6). Secondly, the flow of FDI, both outside to China and China to outside countries, could well boost up with such giant infrastructure project partnerships. China introduced Peripheral Diplomacy as a policy strategy to the abovementioned potentials. The Work Forum on Peripheral Diplomacy (2013) and the Central Conference on Foreign Affairs (2014) laid the critical stones for China's fifth-generation leadership. The stated purpose of the October 2013 Work Forum was to establish the strategic objectives, basic principles, and overall setup of the peripheral diplomatic work in the next five-to-ten years (Callahan, 2016, p. 4). Through these measures, the Xi government wanted to strengthen ties with the peripheral countries in Central, South and Southeast Asia. President Xi mentioned in the speech given at the Conference on Interaction and Confidence Building Measures in Asia (CICA), "the Chinese people, in their pursuit of the Chinese dream of great national rejuvenation, stand ready to support and help other peoples in Asia to realize their great dreams...let us work together for realizing the Asian dream" (Callahan, 2016, p. 7). The idea of proposing a massive project like BRI grew in the Chinese leadership, mainly led by Xi Jinping.

The above analysis of ideas on how ideas evolved around BRI suggests that the Chinese expansion both as a land and sea power was at the center of these all ideas.

## **5. Interests of BRI: who gets what**

The political economy analysis mainly deals with the rules of the games and who gets what. Understanding the politics in an economy requires insights relating to the type of the stakes and the role of their holders. In BRI, firstly, the Chinese interest is apparent. The Chinese government seeks to (a) create a global market for their goods, (b) sustain the top position as a worldwide exporter, especially in the Asia and Europe, (c) fight with the US interests in the global market, (d) enhance the influence over the peripheral and strategically significant countries (for instance, Djibouti and Sri Lanka), (e) create an infrastructure alliance with like-minded countries to counter the hegemonic influence of the USA within the current liberal international order,

and (f) to raise the value of Yuan as a currency (Authers, 2018). However, the most significant interest of China is increasing the volume of trade through the proposed six economic corridors.

The following image shows the size of the GDPs (PPP) of the major trading countries in the world.



**Figure 2:** The Major Economies of the World and Their Sizes (Khanna, 2018)

The above image suggests that China has already become the largest economy of the world and is currently the largest trading partner of all major countries in Asia. In his latest book titled ‘The Future is Asian’; Khanna (2018) argues that China wants to maximize its competitive advantage by enhancing the trade volumes through the proposed corridors. That competitive advantage, he notes, will be shared by other major economies in the Asian region, whether it is Singapore, Malaysia, Vietnam, Indonesia in Southeast Asia, or the Central Asian countries like Kazakhstan, Kyrgyzstan, and Iran. He also argues that the future (relating international trade and development) will be China-centric as China holds the midpoint of the Silk Road both at land and in the ocean. China can also reap the benefit of having some internationally top-rated ports – land, sea, or air.

The second BRI International Forum held in Beijing in April 2019 hosted 37 Heads of the States or Governments, including Russian president Vladimir Putin, Italian prime minister Giuseppe Conte, UK chancellor Philip Hammond, Pakistan’s prime minister Imran Khan and the heads of state of the 10 ASEAN (Association of South-east Asian Nation) states (Kuo, 2019). The US was reportedly sending low-level delegates, while notably India and Turkey did not attend at all. As Singh (2019) notes that India remains cautious

of the project and has never expressed its support. Several reports questioned the success of the summit, referring to the denial of participation by a few crucial state-parties. However, the summit significantly delivers several important deals (worth 64 billion US dollars) and, with projected agreements. What was noticeable is that among those 37 Heads of the States, most of the leaders were either Military-backed or autocratic. Among these 37 leaders, only two were females – Myanmar’s State Counselor Aung San Suu Kyi, and Nepal’s President Bidhya Devi Bhandari. Both countries did have close ties with India. As India was not attending in protest of building the China-Pakistan Economic Corridor (CPEC), China was happy to have Myanmar, Nepal, and Pakistan (Aneja, 2019). Bangladesh, another South Asian nation, is still in the project, although its presence has not been evident in recent times.

The African countries have always been interested in BRI as the governments across the continent see a high potential of trade and infrastructure development partnerships. We can notice two points here – first, China has started various kinds of infrastructure projects since the 1990s in different African countries and has invested heavily and ten times more than the US (Davis, 2018). Second, most undemocratic African nations have a great affiliation with China since the Chinese loans are easy to get in comparison to the US ones, which come with a set of conditions, especially regarding democratic practices. As Breuer (2017) describes, almost two-thirds of Africans said China’s influence was ‘somewhat’ or ‘very’ positive, while only 15% saw it as somewhat/very negative. The factors which contributed most to a positive image of China are the cheap Chinese products as well as China’s business and infrastructure investments. China has capitalized on this positive image in Africa and started to build several seaports across the continent.

The interests of European countries in BRI are apparent. The proposed belt will allow Europe to import goods from China and export items to the countries in Asia. The direct participation of Italy, the UK, Switzerland, and several East European countries have enhanced the credibility of the project. During President Xi’s state visit to Italy in March 2019, several agreements and deals were signed as part of BRI (BBC, 2019). These developments have left the USA with concerns about China’s attitude towards the implementation of BRI, calling it a predatory investment. Hurley, Morris, & Portelance (2018) studied the concerns of risks in and around BRI, as well as the so-called ‘debt traps’ and raised a question about the sustainability of the debts and loans. The United Nations Secretary-General António Guterres and his team joined the BRI Summit in April 2019 and expressed UN’s concerns over the lack of transparency and openness of the initiative as asked for more accountability (UN, 2019).

Drawing from this criticism, we need to recognize some drawbacks of BRI. Firstly, although Russia participated in the second BRI International

Forum actively, the country immediately demanded the share of the idea and vision as an ally, not just as a business partner (Dasgupta, 2019). Yasmin (2018) states that the international system revolves around the concept of power. The existing world system is based on the Westphalian sovereignty, where the primacy of national interests determines state actions. China sees itself as a soft superpower in the Asian region, and the countries capitalized on their demographic and geographic advantage through Chinese initiatives, she added. Chance and Mafinezam (2016) studied the concerns and possibilities of US-China cooperation through BRI and found two significant issues.

*'Firstly, BRI is largely regarded among American experts to be a seriously pursued initiative with the potential to significantly impact the economic and political future of Eurasia. However, the overall response to BRI has been ambivalent, with Americans expressing frequent concerns about standards, the adequacy of Chinese development practices, and the erosion of Western development norms. Secondly, Geopolitical concerns significantly frame Americans' views of BRI. The initiative is sometimes viewed a deliberate attempt to economically marginalize the United States, to create a Eurasian sphere of influence, or as a pretext for expanding China's overseas military presence. At the very least, perceptions that China is embarking on a new, "assertive" phase of statecraft elevate the scrutiny BRI faces.'* (Mafinezam, 2016 p. 1)

Hence, the geopolitical interests of China and other participating countries are mutually inclusive and complimentary. At the same time, the concerns of the USA point towards the aggressive investment plans and initiatives from the current Chinese regime. It indicates that China's emergence as a global sea and land power through the BRI pose threats to US dominance in the current world order, especially with the leadership of President Xi Jinping.

## **6. BRI Institutions: promising and cooperative**

The institutions related to BRI can be divided into three major areas – (a) international financial institutions, (b) public institutions, and (c) private companies. In addition to that, the BRI project is itself a revival attempt of an old institution of trade and commerce. However, as part of the political economy analysis, this work investigates the formal and informal institutions affiliated with power and interests within BRI as a global initiative. Callahan (2016) notes that since the Asian Infrastructure Investment Bank (AIIB) and Silk Road Fund provide action with 150 billion US dollars, these two institutions will play a vital role in investments in Asian developing countries.

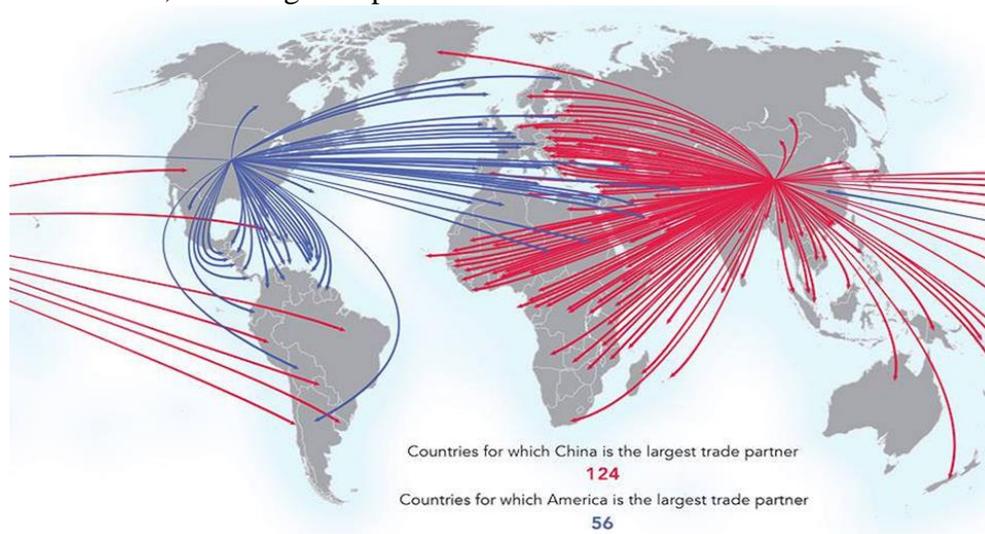
Having 97 member countries, AIIB could emerge as a potential contender to the World Bank and IMF. Khanna (2018) shows how, as a finance, trade, and investment alliance, AIIB has complemented with other Asian trading nations and created a mutually benefiting environment in the region. Shahriar et al. (2018) conducted a systematic review of the literature dealing with the institutional mechanism of BRI and examined AIIB, Silk Road, and the six economic corridors in their paper. They came up with two critical observations. First, the volume of foreign direct investments increased in the BRI countries since they participated in this initiative. This development indicates that the growth and development through BRI may boost the host countries. Second, to deliver the objectives in the economic corridors, China must take effective diplomatic measures to resolve the issues of peripheral conflicts and confrontations in some countries, especially in South Asia. For instance, we can discuss the case of CPEC here. The economy of Pakistan is not in perfect health and according to the statement of Prime Minister Imran Khan, Chinese investments and loans came as a rescuer for the Pakistan economy (Rana, 2019). However, due to China's substantial engagement in CPEC, India has withdrawn itself from BRI stating that the corridor is a threat to the sovereign lands of India (Rana K. S., 2020). In the backdrop of these developments, the Rohingya refugee crisis remains the most critical problem in the region.

These financial institutions in the coming days will play a vital role in building alliances between Chinese state-owned companies and private and public entities across BRI countries. The big concern for these supportive measures that some countries will not be able to pay back their loans and may need to provide some political and geographical leverages to China. The question of transparency and accountability remains at the core of the institutional mechanism inside BRI. However, the official website of BRI publishes documents (bilateral agreements, multilateral documents, MoUs, news, and research publications) regularly which will provide the participating and other potential members with confidence and hope.

## **7. Implications for Global Politics and Development**

As Khanna (2018) argued, if the 19th century has been the era of Europeanization, the 20th century has all been about Americanization, the 21st century will be a story of Asianization. To him, China will be at the center of international trade, investment, and business in the coming days. As shown in the following image (Khanna, 2016), the number of countries for which China is the largest trade partner is more than double that of the USA. The image also shows how international trading tends to find its center in Eurasia, not anywhere else. Therefore, BRI, if successful, will become the most beneficiary

multilateral project for many countries not only in Asia but also for other parts of the world, including Europe and Africa.



**Figure 3:** Countries for which China and the USA are the largest trading partner (Khanna, 2018)

Shahriar et al. (2018) state that as more than 65 countries have united within the umbrella of the Belt and Road Initiative, China has emerged as a global institution itself. They added, “China’s BRI is driven towards the following goals: a) to accelerate China’s economic development, b) to build up China’s international image, and c) to lead the world through the combinations and connectedness of trade facilitation, cross-border integration, and communications” (p. 9). China’s rise as a super soft and power both on land and sea seems to be inevitable through BRI, especially in the context of western powers’ current role in the global order.

In the American continent, the USA is the only global political and economic power. In Europe, the United Kingdom is suffering from its politics around Brexit. Germany and France have shown their interests in joining China’s BRI and stated during EU-China Summit 2019 that the two sides would enhance communication within the framework of the EU-China Connectivity Platform. Italy has already joined BRI while Switzerland, Austria, and Hungary are also willing to have partnerships. In the Southeast Asian region, major countries, including Malaysia, Philippines, Singapore, Thailand, and Myanmar, have already joined the project. In South Asia, Pakistan and Nepal have active roles in BRI. From West Asia, Saudi Arabia and Iran have joined, and almost all countries of Central Asia have participated. Several African countries, including Egypt, have already signed several projects under BRI. Russia has been one of the leading countries in the project as well. The East Asian countries like Japan and Korea are actively

considering to be connected. So, in a word, through BRI, China has successfully touched upon almost all continental lands and seas. It can be argued that the six economic corridors and the maritime silk route, if realized, will give China unprecedented geopolitical leverage.

It is noteworthy that China has started many of their construction works (highways, bridges, rail networks, and ports) in numerous countries since 1997, after the Asian Financial Crisis. China was looking at new markets and new demands actively. China, in other words, was playing Chess (regarding thinking well ahead) while other superpowers led by the USA were busy in fighting terrorists in West Asia. Since Donald Trump came in power with the 'American First' policy, China has had the playground empty. As Mahhubani (2018) argued that the West has failed to understand China; the West thought China had been ruled by the same Communist Party of China (CPC), but they did not realize that China has undergone many changes and revitalizations. He also argued that the West could no longer presume to impose its ideology on the world, and more crucially, they must stop seeking to intervene, politically and militarily, in the affairs of other nations. The liberal democratic world order led by the USA is also under decline as the western democratic institutions, including the US general election, has been under the question of credibility and objectivity. The authoritative nature of democratic regimes across the world (the USA, France, and India) have also damaged the image of liberal democracy as an ideology in the world. As a result, many countries now intend to join the Chinese bloc of global politics and development. The recent US ban on Huawei, followed by Google Android sanction, also raised the question on the dependency on the USA as a trading partner (Brandom, 22 May 2019). Although the trade war is damaging the Chinese dominance in the IT market, it mostly damages the image of the USA. Thus, the USA is facilitating the emergence of China in this context of the Belt and Road initiative.

## **8. Conclusions: no end of history**

Fukuyama in 1989 claimed that, "What we may be witnessing is not just the end of the Cold War or the passing of a particular period of post-war history, but the end of history as such; that is, the endpoint of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government." Considering the above account of stories and pieces of evidence in the context of BRI, we can recognize that with the emergence of China as a global superpower and as a practitioner of socialism with its unique characteristics, the ideological war with the West seems to regain its momentum once again. In the era of the rise of populist leaders, especially Donald Trump, the liberal order led by the West fail to adapt to the global changes. The United States, the United Kingdom, India,

and several other democratic world powers are mostly busy with their domestic problems. Liberal democracy as an ideology, seems to have lost footing in the world order. The ongoing trade war between the USA and China is less about global trade, but more about their national interests. Although the USA is still the only military superpower with hundreds of military posts around the world, it does not seem to influence the world. In contrast, China's BRI has raised hope and business among the developing and developed nations, and China seems to see its journey as a superpower within its reach, well within the year of 2049, the centenary of the formation of PRC. If BRI gets pace in the next decade, China will undoubtedly be the center of global politics and development. The USA will have to reinvent its policies and find new strategies if it wants to cease the Chinese rise and expansion.

### **Acknowledgement**

The authors thank the two anonymous reviewers for their valuable comments on the manuscript. This paper was presented in a symposium 'China in Global Politics' at Bangladesh Institute of Law and International Affairs in Dhaka on the 26th of May 2019. The authors express their gratitude to the participants of the symposium for their valuable comments that contributed to the final version of this paper. The authors did not receive any funding for this work.

### **References:**

1. Acosta, A. M., & Pettit, J. (2014). Power Above and Below the Waterline: Bridging Political Economy and Power Analysis. *IDS Bulletin*, 9-22.
2. Amighini, A. (2016). *China Dream: Still Coming True?* Milano: Edizioni Epoké.
3. Aneja, A. (2019). *China ready to wait for India's BRI participation*. New Delhi: The hindu.
4. Aoyama, R. (2016). One Belt One Road: China's New Global Strategy. *Journal of Contemporary East Asia Studies*, 3-22.
5. Authers, J. (2018). *Trump, Xi Got What They Wanted in a Stronger Yuan*. New York: Bloomberg.
6. BBC. (2019). *taly joins China's New Silk Road project*. London: British Broadcasting Corporation.
7. BBC. (2019). *Trade war: US-China trade battle in charts*. London: British Broadcasting Corporation.
8. Boucher, R. (2019, March 29). China's Belt and Road: A Reality Check. *The Diplomat*.
9. Brandom, R. (22 May 2019). *The case against Huawei, explained*. Washington DC: The Verge.

10. Breuer, J. (2017). Two Belts, One Road? The role of Africa in China's Belt & Road initiative. *Blickwechsel* , 1-8.
11. BRI. (2019, May 21). *Belt and Road Initiative*. Retrieved from BRI Institutions: <https://www.beltroad-initiative.com/institutions-and-mechanisms/>
12. Callahan, W. A. (2016). China 2035: from the China Dream to the World Dream. *Global Affairs*, 1-11.
13. Callahan, W. A. (2016). China's "Asia Dream": The Belt Road Initiative and the New Global Order. *Asian Journal of Comparative Politics*, 1-18.
14. Chance, A., & Mafinezam, A. (2016). *American Perspectives on the Belt and Road Initiative: Sources of Concern and Possibilities of Cooperation*. London: Institute of China America Studies.
15. Dasgupta, S. (2019). *Putin Demands a Role in Eurasian Part of Belt and Road*. Moscow: Voice of America.
16. Davis, M. (2018). *How China is transforming Africa into the next 'factory of the world'*. New York: Big Think.
17. Fukuyama, F. (1989). The End of History? *The National Interest*, 3-18.
18. Garnaut, R., Song, L., & Fang, C. (2018). *China's 40 Years of Reform and Development 1978-2018*. Melbourne: ANU Press.
19. Hall, P. A. (1997). The Role of Interests, Institutions, and Ideas in the Comparative Political Economy of the Industrialized Nations. In M. I. Lichbach, & A. S. Zuckerman, *Comparative Politics: Rationality, Culture, and Structure* (pp. 174-207). Cambridge: Cambridge University Press.
20. Hillman, J. E. (2018). *How Big Is China's Belt and Road?* Washington DC: Center for Strategic and International Studies.
21. Ho, D. (2017). *Cost of funding 'Belt and Road Initiative' is daunting task*. Beijing: South China Morning Post.
22. Hurley, J., Morris, S., & Portelance, G. (2018). *Examining the Debt Applications of the Belt and Road Initiative from a Policy Perspective*. Washington DC: Center for Global Development.
23. Islam, M. (2019). *Can China's Belt and Road Initiative can save the world from a mud fight?* Paris: Euler Hurmes.
24. Jinping, X. (2017). *The Governance of China II*. Beijing: Foreign Languages Press.
25. Jinping, X. (2018). *The Governance of China (Volume 1)*. Beijing: Foreign Languages Press.
26. Johnson, L. A. (2018). The Belt and Road Initiative: What is in it for China? *Asia and Pacific Policy Studies*, 1-19.

27. Johnson, S. (2019). *China will overtake the U.S. as world's top economy in 2020, says Standard Chartered Bank*. New York: Big Think. Accessed on 13th of May 2019 at <https://bigthink.com/politics-current-affairs/china-worlds-biggest-economy-2020>.
28. Kelly, P. (2006). A Critique of Critical Geopolitics. *Geopolitics*, 24-53.
29. Khanna, P. (2016). *Connectography: Mapping the Future of Global Civilization*. New York: Random House.
30. Khanna, P. (2018). *The Future is Asian*. Singapore: Simon and Schuster.
31. Kuo, L. (2019). *Belt and Road forum: China's 'project of the century' hits tough times*. London: The Guardian: Accessed on May 21, 2019 at <https://www.theguardian.com/world/2019/apr/25/belt-and-road-forum-chinas-project-of-the-century-hits-tough-times>.
32. Lei, Z. (2018). *The Political Economy of China's Belt and Road Initiative*. London: Shanghai People's Publishing House.
33. Li, X. (2001). The Chinese Cultural Revolution Revisited. *The China Review*, 137-165.
34. Lin, J. Y. (24 November 2011). *Viewpoint: China, the 'leading dragon' of the world economy*. London: BBC: Accessed on May 21, 2019 at <https://www.bbc.com/news/business-15861161>.
35. Lindsey, C. W. (1982). Lenin's Theory of Imperialism. *Review of Radical Political Economics*, 1-9.
36. Luttwak, E. N. (1990). From Geopolitics to Geo-Economics. *The National Interest*, 17-23.
37. Mahubani, K. (2018). *Has the West Lost It?: A Provocation*. Singapore: Penguin.
38. Mahubani, K. (2020). *Has China Won?: The Chinese Challenge to American Primacy*. New York: PublicAffairs; Illustrated edition.
39. McBride, J., & Chatzky, A. (2019). *Is 'Made in China 2025' a Threat to Global Trade?* New York: Council on Foreign Relations.
40. McDonald, T., & Klasche, B. (2019). Foot in the Door: China's Investments in the Arctic Region . In É. Féron, J. Käkönen, & G. Rached, *Revisiting Regionalism and the Contemporary World Order: Perspectives from the BRICS and beyond* (pp. 201-222). Verlag Barbara Budrich.
41. Menand, L. (2018, September 3). Francis Fukuyama Postpones the End of History. *The New Yorker*, pp. 3 Accessed on 13 November 2020 at <https://www.newyorker.com/magazine/2018/09/03/francis-fukuyama-postpones-the-end-of-history>.
42. Moisiso, S. (2017). Towards Geopolitical Analysis of Geoeconomic Processes. *Geopolitics*, 22-29.

43. Morrison, W. M. (2018). *China's Economic Rise: History, Trends, Challenges, and Implications for the United States*. Washington DC: Congressional Research Service.
44. Pao, J. (2019). *Xi claims \$64 billion in deals at BRI Forum*. Bangkok: Asia Times.
45. Peters, M. A. (2017). The Chinese Dream: Xi Jinping thought on Socialism with Chinese characteristics for a new era. *Educational Philosophy and Theory*, 1299-1304.
46. PRC. (2019, May 21). *Belt and Road Initiative*. Retrieved from Belt and Road Portal: <https://eng.yidaiyilu.gov.cn/zchj/qwfb/86739.htm>
47. Rana, K. S. (2020). Conclusion: An Indian Perspective on the Belt and Road Initiative. In K. YC., *China-India Relations* (pp. 203-228). Cham: Springer.
48. Rana, S. (2019). *China comes to Pakistan's rescue with \$2.5b loan*. Lahore: Pakistan Tribune.
49. Reuters. (2019). *China says 'fed up' with hearing U.S. complaints on Belt and Road*. Beijing: Reuters.
50. Sabine, P. (2017). *Belt and road is 'Marshall Plan without a war', analysts say, as Beijing and banks woo private-sector investors*. Beijing: South China Morning Post.
51. Sarker, P. C. (2019). One Belt One Road Project is a Driving Force for Holistic Development of Eurasian Region: Challenges to Bangladesh. In M. N. Islam, *Silk Road to Belt Road* (pp. 279-291). Singapore: Springer Nature.
52. Schneider, H. (2017). *The BRI – China's road to hegemony*. Liechtenstein: Geopolitical Intelligence Services.
53. Sears, N. A. (2016). *China, Russia, and the Long 'Unipolar Moment'*. Washington DC: The Diplomat. Accessed on the 13th of May 2019 at <https://thediplomat.com/2016/04/china-russia-and-the-unipolar-moment/>.
54. Shahriar, S., Lu Qian, M. S., Kea, S., Abdullah, N. M., & Sarkar, A. (2018). Institutions of the 'Belt & Road' Initiative: A systematic Literature Review. *Journal of Law, Policy and Globalization*, 1-13.
55. Singh, K. D. (2019). Strength and Challenges of OBOR Initiative: Indian Perspective. *Journal of National Law University Delhi*, 6(1), 65–77.
56. Sprout, H., & Sprout, M. (1960). Geography and international politics in an era of revolutionary change. *Journal of Conflict Resolution*, 145-161.
57. Timimi, K. (2010). *Political Economy Theory*. London: Economy Watch: Accessed on 21st May 2019 at

- <http://www.economywatch.com/political-economy/political-economy-theory.html>.
58. Tuan, C., Ng, L. F., & Zhao, B. (2009). China's post-economic reform growth: The Role of FDI and Productivity Progress. *Journal of Asian Economics*, 280-293.
  59. Tuathail, G. O. (1992). Geopolitics and discourse: Practical geopolitical reasoning in American foreign policy . *Political Geography*, 190-204.
  60. UN. (2019). *At China's Belt and Road Forum, Guterres calls for 'inclusive, sustainable and durable' development*. New York: United Nations Organization.
  61. Vuving, A. L. (2012). The Future of China's Rise: How China's Economic Growth Will Shift the Sino-U.S. Balance of Power, 2010-2040. *Asian Politics & Policy* , 401-423.
  62. World Bank. (2019). *The World Bank In China*. Beijing: The World Bank Group. Accessed on the 13th of May 2019 at <http://www.worldbank.org/en/country/china/overview>.
  63. Xing, L. (2019). *Mapping China's 'One Belt One Road' Initiative*. Cham: Palgrave MacMillan.
  64. Xing, L., & Duarte, P. (2019). Conclusion: The One Belt One Road in the Politics of Fear and Hope. In L. Xing, *Mapping China's 'One Belt One Road' Initiative* (pp. 279-289). New York: Palgrave MacMillan.
  65. Yasmin, L. (2018). Understanding the Concept and Vision of BRI: The Economic Cultural and Historical Aspects. *Asian Regional Conference; Belt and Road Initiative: prospects and Challenges* (pp. 15-16). Dhaka: Bangladesh Institute of Peace and Security Studies.
  66. Zeng, J. (2019). Narrating China's Belt and Road Initiative. *Global Policy*, 1-10.



ESJ Social Sciences

### **Nderitu B. Wanjiru**

Africa Nazarene University, Nairobi

### **Dorothy Ndunge Kyalo**

University of Nairobi, School of Open and Distance Learning, KIKUYU

### **Angeline Sabina Mulwa**

Senior Lecturer, School of Open & Distance e-Learning, University of Nairobi, KIKUYU

### **John Mbugua**

Senior Lecturer, School of Open Distance Learning, ODeL Campus, University of Nairobi, KIKUYU

---

Submitted: 25 September 2020

Accepted: 27 October 2020

Published: 30 November 2020

Corresponding author:

*Wanjiru Nderitu*

DOI: 10.19044/esj.2020.v16n31p300



Copyright 2020 Wanjiru Nderitu et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
**OPEN ACCESS**

---

## **Monitoring and Evaluation Practices and Performance of livelihood ventures: Focus; Nairobi youths conservation projects, Kenya**

### **Abstract**

In Kenya, youth unemployment rate is on the rise especially for urban youths, despite government's perennial interventions and funding. This study sought to investigate on monitoring and evaluation practices and performance of livelihood ventures; focusing on youth conservation projects in Nairobi County. The study specifically focused on solid waste collection projects managed by youth groups within Nairobi residential areas; which is among the conservation projects that attract government funding through the Directorate of youth. The study had a target population of 700 youth group members and a Study sample of 248 youths. Key informants from 4 departments of Directorate of Youth affairs were purposely selected. The study adopted descriptive survey and correlational research designs where data was collected using questionnaire and focus group discussion guide. Qualitative data was analyzed and presented in narrative statements while inferential statistics were analyzed using Pearson correlation coefficient and multiple regression analysis to test hypotheses. The research formulated a hypotheses in null state and subsequently, F-Test was used test it portraying;  $r(247) = .196$ ,  $R^2 0.38$ ,  $F(5,242) = 9.777$   $p \leq .05$ , implying that the levels of monitoring and evaluation practices possessed by youths may be a good predictor of performance of youth conservation projects. This inferred to the rejection of the null hypothesis and the conclusion made that H1: There is a significant relationship between monitoring and evaluation practices and performance of youth solid waste

### **How to cite this article**

Wanjiru N. et al. (2020). Monitoring and Evaluation Practices and Performance of livelihood ventures: Focus; Nairobi youths conservation projects, Kenya. *European Scientific Journal, ESJ, 16(31)*, 300. <https://doi.org/10.19044/esj.2020.v16n31p300>

management projects in Nairobi County. The study findings provided the evidence that the level of performance increases as monitoring and evaluation practices intensifies. The researcher recommends a Policy action by government to incorporate youths to obtain and nature monitoring and evaluation skills through industrial attachments in National and

County entities dealing with conservation projects; to enhance gainful youth conservation projects.

---

**Subject:** Waste Management

**Keywords:** Monitoring and evaluation practices, Livelihood projects, solid waste management projects, performance of youth conservation project

## Introduction

Global youth unemployment rate currently stands at 13%, (ILO, 2018). Kenya's population is reported to comprise of 75 percent youth with overall youth unemployment rate reported at 7.4 percent by the end of the year 2019 (Awiti, 2016). Environment offers context for alienated youth, towards re-engaging in gainful conservation projects that improves their livelihoods (Achankeng, 2003). This would gainfully benefit the bulging number of jobless youths, particularly low-income urban youth; to enable them find positive and meaningful ways to engage in conservation projects by reducing the amount of solid waste that has been dumped or burnt while creating meaningful jobs that can improve their livelihoods (ILO, 2017)

Monitoring and evaluation (M&E) is increasingly becoming an essential program management tool. This study consequently alludes to post positivism and critical postmodernism perspectives in support of different M&E constructivist philosophies (Connell, JP, Kubisch, 1998). It explores monitoring and evaluation practices based on axiological and ontological assumptions of cultural responsive approaches that demonstrates how well youth connects with conservation livelihood projects. Monitoring involves a systematic collection of information about activities while evaluation is an assessment of characteristics and results of projects or programmes to make judgment on whether to improve, inform decisions and increase the understanding of the programs processes (Patton, 2008).

These various definitions depicts M&E as an ongoing process mainly based on the set targets and planned activities in the course of the planning stage of work. Various agencies (The UN in particular) have established full-fledged M & E departments and legal or regulatory frameworks for regular M&E execution of projects that are donor funded on the backdrop of stringent regulations to achieve purposed socio economic development in target beneficiary communities. There is an increase in the amount of systematic attention and study being applied to the field of monitoring and evaluation (M&E) both internationally and country specific today; save Kenya. This is a very interesting and exciting development as the practice of M&E can contribute to sound governance in a number of ways: improved evidence-

based policy making (including budget decision making), policy development, management, and accountability (Nyonje, Ndunge, & Mulwa, 2012).

Conservation projects, save solid waste management has become a source of income generation activity for urban youth as a platform for engaging with the broader politics of basic services that address the challenges of upsurge unemployment rate (Okot-Okumu, 2017). Scanty information is available on waste management in Nairobi, though it is reported that youth play a bigger role in assortment of solid waste management within Nairobi residential areas than the municipal government, (Odour, 2017). These are registered youth groups who are primarily waste pickers who provide residential door-to-door solid waste collection business services. Conservation livelihood ventures are designed to improve youths quality of life by improving their inclusion capacity to participate fully in all levels of social, economic and political activities, including improved physical well-being and access to social amenities and services through income generating activities for youth empowerment; equity issues and alleviating poverty that leads to ennui-; state of hopelessness among the youth (UNESCO, 2013).

### **Objective of the Study**

The study was guided by the following objective: To examine how monitoring and evaluation practices effect performance of youth conservation livelihood projects in Nairobi County, Kenya.

### **Research Question**

The study sought and answered the following research question: How does monitoring and evaluation practices effect performance of youth conservation livelihood projects in Nairobi County, Kenya?

### **Research Hypothesis**

The study tested the following research hypothesis:  
H<sub>0</sub>: There is no significant relationship between monitoring and evaluation practices and performance of youth conservation livelihood projects in Nairobi County, Kenya.

### **Literature Review**

In the last two decades, monitoring and evaluation literature reflects increasing attention to culture and cultural contexts; looking through the lens that judges the standards in to which outcomes are considered as real project outcomes, what values support the monitoring and evaluation practice and the measures of knowledge gained (Bagele, et.al., 2016). Monitoring and evaluation as a social learning intervention theory in this study context expounds largely on human behavior in terms of continuous reciprocal

interaction between cognitive behavior and conservation influences (Patton, 2010). Data sources are the documentation tools, and locations for information that shows progress on youth conservation projects that include pre-posttests scores, program records (formative evaluation documents such as assessment reports), records from other Youth conservation livelihood projects stakeholders, and observations such as during focus groups discussions, interviews, or the conservation project itself (Villard, 2010).

In Nairobi, 45 percent of waste is managed by unemployed youth. (NEMA, 2015). Youth conservation government funded projects entails the involvement of unemployed young people in activities which have provision of conservation service that benefits the community with opportunities for personal development, accredited training and exit opportunities (Oduor, 2017). Registered youth groups in Nairobi engage in solid waste management projects, through garbage collection activities in varied residential zones which are categorized as government Youth conservation livelihood funded projects. They also collect various materials, recycle and re-sell them to improve their livelihood (YEDF, 2016). Monitoring and evaluation practices is therefore an effective process of facilitating data use for youth solid waste management processes, using culturally responsive monitoring and evaluation practices associated with assessment of waste management projects outcomes and impacts, analysis of processes, cost-effectiveness, implementation, and underlying theories of change, among other components of interest.

Dissemination of evaluation report involves the process of communicating either the procedures or the lessons learned from an evaluation in a consistent, unbiased, and timely manner (Carson-Cheng, and Jones, 2013), purpose being to ensure that utility by the potential evaluation users who are the youths group members, beyond those that have been involved in the evaluation process, are aware of the evaluation findings, conclusions and recommendations made. Monitoring leveraging technology entails mobile and social media applications to collect data; including use of geographic information system (GIS) technology (Carson-Cheng, and Jones, 2013), to map youth conservation projects. Adequate monitoring and evaluation practices ensures that effective information gathering procedures are chosen or often developed and implemented to ensure that the interpretation arrived at is valid for the intended use by project teams. (Rist, Bolly, and Martin, 2012). Data collected, processed, and reported in an evaluation should be systematically reviewed and any errors found should be corrected (Nyonje, Ndunge, and Mulwa, 2012).

Incentives during youth interventions evaluation findings to boost utility entails dissemination in detailed documented reports, stakeholders' workshops, news releases, press conferences and seminars, or social media

communication. Application of evaluation results may include demonstrations through apprenticeship in the industry (Kathryn, Hatry and Joseph, 2015). Studies that are carried out in Kenya shows that quite a number of youth livelihood ventures have been successful, especially various conservation projects in previous years that addressed the challenge of youth employment through adopting an Entrepreneurship Training Manual to facilitate youths conservation projects; through Youth Enterprise Development Fund loans (YEDF). *Uwezo* Fund loans (Government Youth funding Agency) funds solid waste management interventions including other youth conservation projects. On the other hand, several projects in Kenya have been informally cited as failed projects; meaning that they did not achieve the desired success. A significant share of the failed projects are government funded and donor funded, which usually undergo through heavy presence of monitoring and evaluation activities embedded on legal and donor requirement (Directorate of Youth, 2016)

The paradox in this study review is, despite a consensus among scholars that proper project monitoring and evaluation practices leads to project success, there are still cases of failing youth conservation projects in Kenya (Ochieng, Chepkuto, Tubey, and Kuto, 2012). Performance of many of the youth conservation projects in Kenya is inadequate, thus, alleviating poverty that leads to ennui-; state of hopelessness among the youth (UNESCO, 2013). This is irrespective of government funding, save Nairobi County which has more youths accessing government projects funding and training aggravated by proximity (Afon, 2012). The contest under this study was to investigate whether youth groups were engaging with the process of monitoring and evaluation as “researchers of their personal continuous practice” not as “mere data collectors”. It therefore sought to investigate on the missing links leading to poor performance of youth groups’ government funded conservation projects.

### **Theoretical Framework**

Theory of Change is basically a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context (Gujit, 2013). Theory of change in this research context is predominantly focused on assumptions that are anticipated to improve the already existing youth entrepreneurship manual for projects implementation into a more innovative design. The theory of change approach is by first identifying the desired long-term goals and then working backwards thus identifying all the awareness (outcomes) that must be in place (and how these may be related to one another causally) for the goals to occur (Brest, 2010). It is articulated in this study context by mapping out monitoring and evaluation practices to provide the basis for identifying the type of activity or intervention

that may lead to performance outcomes for achieving the long-term goal; which includes the performance of youth solid waste management projects.

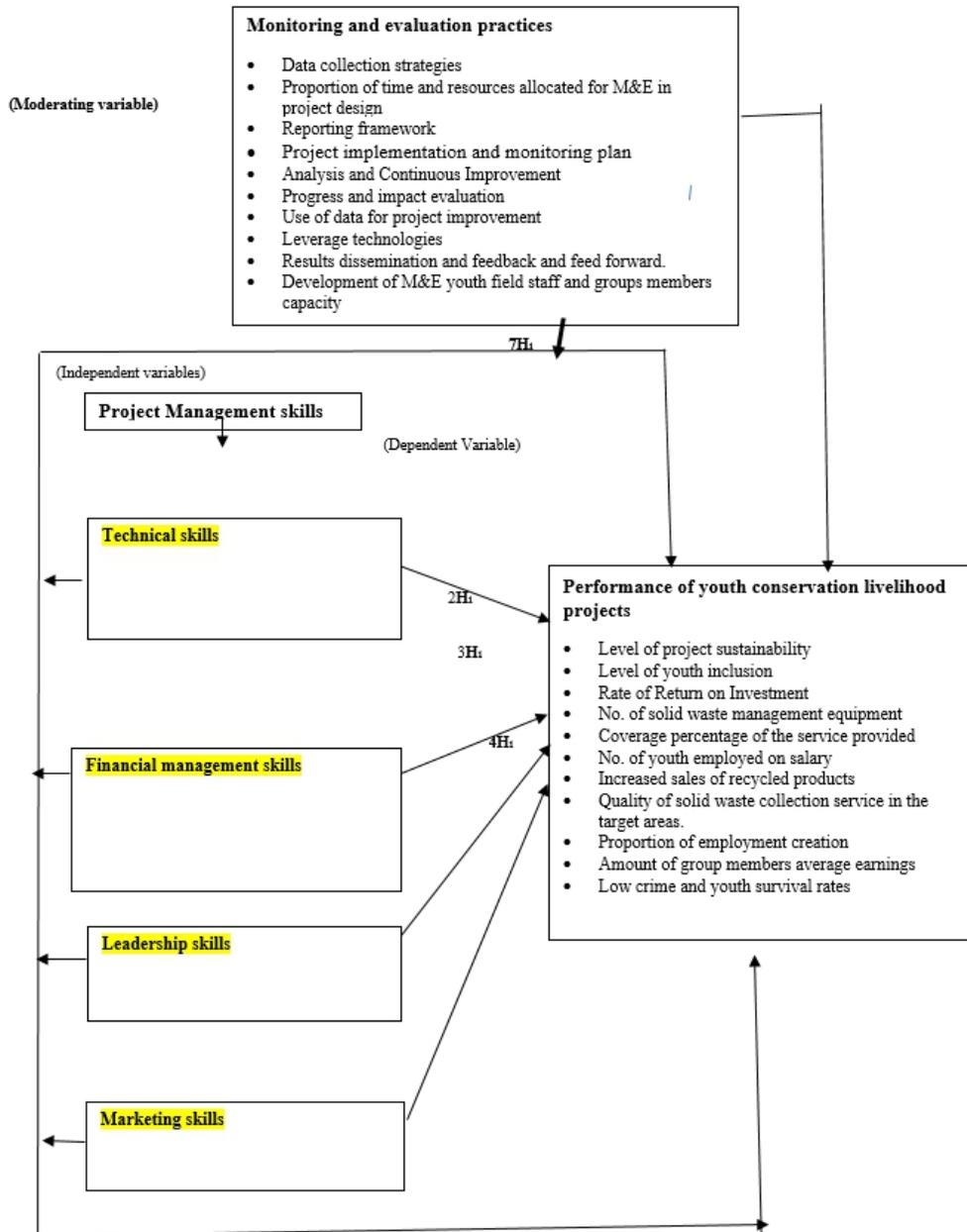
Through this approach, the precise link between activities, outputs, outcome and impacts that anticipated to lead to achievement of the long-term goals may be fully understood (Patton, 2010). The assumption of monitoring and evaluation of projects complexity theory of change is that it elaborates the design of the evaluation process to respect and protect the rights and welfare of the beneficiaries of a given intervention; including the ethical mandates of evaluators (Carol, 1995). This approach is assumed to lead to better evaluation, credibility of the findings, making it possible to measure progress indicators on achievement of future longer-term goals towards performance of youth conservation projects.

Research shows that the theory of change also expounds on evaluation ethics, like conflict of interest by evaluators to avoid compromising the evaluation processes and results. This includes evaluator's allocation and expenditure of resources that should reflect sound accountability procedures that are prudent and ethically responsible on expenditures (Lisa and Phillips, 2013).

The diversity of views derived through the theory of change links to the purpose of the this study in terms of youth cognitive aspects, and a value systems livelihood ventures towards the delineation of innovative solutions to youth conservation projects.

### **Conceptual Framework**

This study was guided by the following conceptual framework that shows diagrammatized representation of the relationship between the variables. This is shown in Figure 1.



**Figure 1:** Conceptual framework on project management skills, monitoring and evaluation practices, and performance of youth environmental projects

## Research Methodology

### Research paradigm and design

The study used descriptive research and exploratory research designs. The research design enabled the collected information to be statistically inferred on the respondents. The study involved Participatory Action Research

(PAR) approach which is a democratic process concerned with developing practical knowing and understanding based on emulated culture and values in the pursuit of worthwhile human purposes, grounded in a participatory worldview (McNamara, 2009). This allowed the researcher to provide deep insight into set study, as well as allowing more opportunities for the researcher to study innovative monitoring and evaluation practices prone to improving the performance livelihood projects.

### **Study Population**

The study population was 700 youth groups members who included the urban youths in Nairobi County engaged in government funded solid waste management projects, drawn from the seventeen sub counties in Nairobi County.

### **Sample size**

The sample size in this study was a selected representative sample from the accessible population to be studied and inference made to the larger population which was obtained using the Krejcie and Morgan table (1970). The sample size of 248 youths and sample strata table was calculated using proportionate Yamane method;  $(x/700*248)$ ; while the actual respondents from the number of youth members per group was homogenously selected using simple random sampling.

### **Data Collection and administration**

Data was collected using questionnaire guide and an interview guide. The questionnaire guide was a list of standard questions to gather both qualitative and quantitative information from the scope of study using both open and close - ended questions. Open ended questions enabled the respondents to complete the questionnaire in their own views. Data was administered through Nairobi Sub County Officers in charge of the Youth conservation livelihood groups in Nairobi County using a list of youths from the sampled groups. Data collection process was expedited through holding youth group sites meetings with the respondents that enabled the researcher to administer the questionnaire through face to face interaction during the site visits. The researcher also conducted in-depth interviews through group discussions to garner empirical data from the respondents who were the heads of departments in the Directorate of Youth.

### **Validity and reliability of the Instrument**

The researcher validated the research instruments through the assessment of validity which was subjected to a judgmental approach by the researcher's peers as recommended by Rist, 2012, for assessment to ensure

that it included all the items that were necessary and eliminating detrimental items to a particular construct domain. To test reliability, 10 percent (Patton, 2008), twenty (25) respondents from the sample size were administered to the questionnaire. They were not involved in the actual research groups and they were excluded from final analysis. The researcher determined the internal consistency of Likert scale items using Cronbach's Alpha (Lee Cronbach's in 1951) at a score of between zero and one, with 0.7 generally accepted as a sign of acceptable reliability.

### **Data presentation Method**

Data was presented by use of figures and tables which was a clear representation of monitoring and evaluation practices and Performance of Youth conservation livelihood ventures: Focus, Nairobi youth conservation projects, Kenya.

### **Data analysis**

Preliminary data was edited, coded, cleansed and rechecked to minimize data entry errors. Qualitative data was analyzed and presented verbally based on themes, while quantitative data was analyzed descriptively using percentage frequencies, mean, and standard deviation. Inferentially, Pearson correlation coefficient and simple linear regression analysis was used to test hypotheses  $P = \beta_0 + \beta_1 X_1 + \varepsilon$  where;  $\beta_0$  and  $\beta_1$  are constant/ regression parameters,  $X_1$  is the predictor variable (M&E Practices) and  $\varepsilon$  is the error term. T-test was used as a tool of analysis to test for significance level at 0.05 on the null hypothesis.

### **Results of the Study**

#### **Monitoring and Evaluation Practices and performance of Youth conservation livelihood Projects**

This variable measured the extent to which monitoring and evaluation practices influenced the performance of youth conservation livelihood projects. In order to achieve this, the respondents were asked to give their options based on their level of agreements or disagreements based on a Likert scale in which a numerical scale of 1-5 was provided where 1=strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly Agree. The results were presented in Table 1.1

**Table 1.1** Monitoring and Evaluation Practices and performance of Youth conservation livelihood Projects

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Deviation
1. My group has impact evaluation reports over time on Project implementation processes.	179(72.2)	34(13.7)	35(14.1)	0	0	1.42	.727
2. The group holds evaluative consultative meetings on financial flows for shared profits and dividends	11(4.4)	4(1.6)	38(15.3)	167(67.3)	28(11.3)	3.79	.831
3. The most immediate results from our group projects are the outputs indicators which relates directly to our projects for continued improvement.	39(15.7)	48(19.4)	39(15.7)	106(42.7)	16(6.5)	3.05	1.230
4. We often hold consultative evaluation dissemination meetings between the group members and key informants and other stakeholders on solid waste management	2(.8)	58(23.4)	43(17.3)	127(51.2)	18(7.3)	3.41	0.952
5. We have recorded actual benefits and success stories by our group members as a result of outcomes achieved over time following the implementation of our conservation projects.	7(2.8)	118(47.6)	12(4.8)	111(44.8)	0	2.92	1.017
6. Group's strategic designs include allocation of time and budget framework for effective implementation.	0	86(34.7)	1(.4)	28(11.3)	133(53.6)	3.84	1.382
7. Team leaders ensure information emerging from M&E is fed back into our ongoing projects implementation and future planning.	151(60.9)	44(17.7)	38(15.3)	15(6.0)	0	1.67	0.946
8. Our project promotes stakeholders participation in all our project related activities	53(21.4)	88(35.5)	16(6.5)	68(27.4)	23(9.3)	2.68	1.326
9. Project funders (GOK) has provided a common reporting framework and a standard M&E guidance to systematically demonstrate project results	206(83.1)	4(1.6)	38(15.3)	0	0	1.32	0.726
10. Customized application systems with project-specific indicators help team members track the project progress along a results chain to contribute to Vision 2030 social –economic pillars.	50(20.2)	17(6.9)	51(20.6)	114(46.0)	16(6.5)	3.12	1.259
11. A systematic assessment of youth group projects implementation capacity and needs can inform government funding towards scaling up or replicating youth social- economic innovations.	0	0	40(16.1)	175(70.6)	33(13.3)	3.97	0.543
<b>Composite mean and standard deviation.</b>						<b>2.83</b>	<b>0.303</b>

Table 1.1 presents the responses of monitoring and evaluation practices on performance of Youth conservation livelihood projects in Nairobi

County. The results were presented in mean and standard deviation. Eleven statements were developed to measure the extent to which monitoring and evaluation practices influenced the performance of Youth conservation livelihood projects.

Statement 1 “My group has impact evaluation reports over time on Project implementation processes”, majority of respondents 179 (72.2%) strongly disagreed with the statement, 34(13.7%) respondents agreed and 35(14.1%) were neutral. This line item had a mean score of 1.42 and a standard deviation of 0.727 which was lower than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement negatively influence performance of Youth conservation livelihood projects in Nairobi County. The findings disagrees with previous literature reviewed in this study on relevant project management skills that include savings and investment and the relationship between each critical success factors towards the realization of profits for impact assessment (Carson Cheng, 2013). This findings depicts the respondent’s status on investments which could be low or nothing at all. This implies that if youth group projects have to make impact, then something must done right from their inception to closure.

Statement 2 “The group holds evaluative consultative meetings on financial flows for shared profits and dividends”, 167(67.3%) respondents agreed with the statement, 28(11.3%) strongly agreed, 38(15.3%) were neutral, 11(4.4%) respondents strongly disagreed while 4(1.6%) disagreed. This line item had a mean score of 3.79 and a standard deviation of 0.831 which was higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the findings positively influence performance of Youth conservation livelihood projects in Nairobi County. The findings concurs with study findings on the impetus of monitoring and evaluating budget to assess project performance (Carson- Cheng, 2013, which was also portrayed by the respondents in this study findings.

Statement 3 “The most immediate results from our group projects are the outputs indicators which relates directly to our projects for continued improvement”, 106(42.7%) respondents agreed with the statement, 16 (6.5%) strongly agreed with the statement, 48 (19.4%) disagreed while 39(15.7%) while 39(15.7%). This line item had a mean score of 3.05 and a standard deviation of 1.230 which was higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement positively influence performance of Youth conservation livelihood projects in Nairobi County. The findings concur with empirical study on complexity of evaluation which expounds on culturally responsive evaluation approaches (Bagele *et. al.*, 2016). This confirms that youths perform tacit monitoring and evaluation regardless of formal M&E systems within their projects as indicated by this study findings.

Statement 4 “We often hold consultative evaluation dissemination meetings between the group members and key informants and other stakeholders on solid waste management”, 127 (51.2%) agreed, 18(7.3%) strongly agreed, 58(23.4%) disagreed, 2(0.8%) strongly disagreed while 43(17.3%) were neutral. This line item had a mean score of 3.41 and a standard deviation of 0.952 which was higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement positively influence performance of Youth conservation livelihood projects in Nairobi. This statement agrees with the exploratory study findings on monitoring and evaluation practices (Carson Cheng, 2013) that entails participatory approaches during project evaluation and dissemination, to enhance projects performance, which supports this study findings as well.

Statement 5 “We have recorded actual benefits and success stories by our group members as a result of outcomes achieved over time following the implementation of our conservation projects”, 118 (47.6%) respondents disagreed with the statement, 7(2.8%) strongly disagreed, 111(44.8%) agreed while 12(4.8%) were neutral. This line item had a mean score of 2.92 and a standard deviation of 1.017 which was higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement positively influence performance of Youth conservation livelihood projects in Nairobi. This findings agrees with literature reviewed findings on factors influencing project success that entails timely data collection, documentation of reports and success stories including lessons learnt, which also supports the findings of this study.

Statement 6 “Group’s strategic designs include allocation of time and budget framework for effective implementation”, 133(53.6%) respondents strongly agreed, 28(11.3%) agreed with the statement, 86 (34.7%) disagreed while 1(0.4%) respondents remained neutral. This line item had a mean score of 3.84 and a standard deviation of 1.382 which was higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the findings positively influence performance of Youth conservation livelihood projects in Nairobi. This findings approves the empirical study findings on developmental evaluation (Patton, 2010) which concludes that effective monitoring and evaluation practices entails projects strategic designs with a budget frame work to determine cost effectiveness during project implementation. This findings agrees with this study findings as established from the respondent’s responses which implies that Youth conservation livelihood groups have their tacit frame works and designs that guide their projects.

Statement 7 “Team leaders ensure information emerging from M&E is fed back into our ongoing projects implementation and future planning”, 151(60.9%) respondents strongly disagreed, 44(17.7%) disagreed, 15(6.0%) agreed, while 38(15.3%) were neutral. This line item had a mean score of 1.67

and a standard deviation of 0.946 which was much lower than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement negatively influence performance of Youth conservation livelihood projects in Nairobi. This findings disagrees with the empirical study findings on managing effective evaluations which expounds on effects of stakeholders feedback and feed forward during project implementation (Rist, and Stame, 2006), implying that the respondents were not involved on projects processes; which support the findings of this study.

Statement 8 “Our project promotes stakeholders participation in all our project related activities”, 88(35.5%), disagreed with the statement, 53(21.4%) strongly disagreed with the statement, 68(27.4%) respondents agreed, 23(9.3%) strongly agreed, while 16(6.5%) were neutral. This line item had a mean score of 2.68 and a standard deviation of 1.326 which was lower than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement positively influence performance of Youth conservation livelihood projects in Nairobi. This findings disagrees with empirical study findings on stakeholder’s engagement during project implementation by Patton, (2009) which elaborates on the impetus for bottom- up approach for project performance. This findings addresses the gap in knowledge in this study denoting that Youth conservation livelihood groups ought to engage with stakeholders to enhance their solid waste projects performance. This findings alludes to culturally responsive monitoring and evaluation practices where youths are mentored on project performance by other successful stakeholders through experiential learning.

Statement 9 “Project funders (GOK) has provided a common reporting framework and a standard M&E guidance to systematically demonstrate project results”, 206(83.1%) respondents strongly disagreed with the statement, 4(1.6%) respondents agreed while 38(15.3%) were neutral. This line item had a mean score of 1.32 and a standard deviation of 0.726 which was much lower than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement negatively influence performance of Youth conservation livelihood projects in Nairobi County. This findings support the empirical study findings by Rist, *et.al.*; 2012, on building of evaluation capacity to strengthen governance which describes the importance of a monitoring and evaluation policy framework by governments towards effect programme implementation.

Statement 10 “Customized application systems with project-specific indicators help team members track the project progress along a results chain to contribute to Vision 2030 social –economic pillars”, 114(46.0%) respondents agreed with the statement, 16(6.5%) strongly agreed, 50(20.2%) strongly disagreed, 17(6.9%) respondents disagreed while 51(20.6%) were neutral. This line item had a mean score of 3.12 and a standard deviation of

1.259 which was higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement positively influence performance of Youth conservation livelihood projects in Nairobi County. This findings agreed with empirical study findings on Utilization –focused evaluation using technology leverages (Quinn, 2008). The findings infers that customized application systems with project indicators can enhance performance on Youth conservation livelihood projects through application programmes for tracking systematic project results.

Statement 11 “A systematic assessment of youth group projects implementation capacity and needs can inform government funding towards scaling up or replicating youth social-economic innovations”, 175(70.6%) respondents agrees with the statement, 33(13.3%) strongly agreed with the statement while 40(16.1%) were neutral. This line item had a mean score of 3.97 and a standard deviation of 0.543 which was much higher than the composite mean of 2.83 and a standard deviation of 0.303, implying that the statement positively influence performance of Youth conservation livelihood projects in Nairobi. This statement agrees with empirical findings by Cummings, (2000) on results based management which expounds on Logic models that can be used as tools for systematic assessment of youth groups during project implementation. These he indicates are a viable monitoring and evaluation project evaluation practices to enable build capacity using participatory action approaches and in return thrush out youth capacity building needs to inform future funding. This findings also supports literature reviewed in this study on explanatory monitoring and evaluation knowledge and understanding on how project indictors accelerate development (Nyonge, Ndunge and Mulwa (2012), which can be replicated or funded on varied scope which affirms the respondents view in this study findings.

Response by the key informants when interviewed on monitoring and evaluation practices was cutting across various project management components particularly financial management and leadership skills. When asked concerning an existing Youth conservation livelihood monitoring and evaluation framework by the Directorate of youth, this is what he had to say;

*“We have already existing monitoring and evaluation forms designed to track the implementation of youth projects. We monitor attendance of the youth trainings using a designed list of participant which does not necessarily capture disaggregated data. We monitor the training sessions, the mode of delivery and the environment on which the youth capacity building sessions takes place. We take data on the number of participants’ attendance per training on life skills or on Core Business Training skills and key them on our Government provided Note pads; then send to the Headquarters for their analysis”.*

## Inferential analysis of Monitoring and Evaluation Practices and performance of Youth conservation livelihood Projects

Correlation, regression analysis and hypothesis testing were conducted to determine the relationship between Monitoring and Evaluation Practices and performance of Youth conservation livelihood Projects. These are further discussed in subsequent themes:

### Correlations Analysis of Monitoring and evaluation practices and Performance of Youth conservation livelihood Projects

Table (1.2), the correlation output table shows that monitoring and evaluation practices characteristics were statistically significant (P-values under significant 2-tailed were all less than  $\alpha=0.05$ ) towards performance of youth conservation livelihood projects.

**Table 1.2** Correlations Analysis of Monitoring and evaluation practices and of Performance Youth conservation livelihood Projects

		Performance	MnEpractice
Performance of Youth conservation livelihood projects	Pearson Correlation Sig. (2-tailed)	1	0.196** 0.002
	N	248	248

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From table 1.2, the correlation index between monitoring and evaluation and performance was positive and significant,  $r(247) = 0.196$ ;  $p \leq 0.05$ . This implies that as the level of monitoring and evaluation increases, the performance also increases.

Similarly, in order to determine the level of influence of monitoring and evaluation on performance, a regression analysis was performed on the variables as shown in table 1.3 on Regression analysis.

**Table 1.3** Regression analysis of Monitoring and evaluation practices and Performance of Youth conservation livelihood Projects

Model Summary									
Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
				R Square Change	F Change	df1	df2	Sig. F Change	
1	0.196 <sup>a</sup>	0.038	0.034	0.54041	0.038	9.777	1	246	0.002

a. Predictors: (Constant), MnE practice

From this analysis, it was observed from the model summary table 0.196 with an R square of 0.38 implying that monitoring and evaluation practices variable could explain about 0.34 percent of the total variance in performance of youth project. This implies that monitoring and evaluation practices alone is not necessarily a good fit measure on performance. The

findings established that 66 percent of the total variance is influenced by other culturally responsive monitoring and evaluation practices that are based on axiological philosophical paradigms that may collectively increase performance within a project significantly.

To test whether this model was significant in enabling predictions containing the moderating variable and dependent variable, the ANOVA table was produced and the results are as shown in Table 1.4

**Table 1.4** ANOVA Table showing Regression Model of Monitoring and evaluation practices and Performance of Youth conservation livelihood Projects

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.855	1	2.855	9.777	.002 <sup>b</sup>
	Residual	71.843	246	.292		
	Total	74.698	247			

a. Dependent Variable: Performance  
b. Predictors: (Constant), MnEpractice

The ANOVA table showed that in the global model, monitoring and evaluation practices had significant prediction on performance of Youth conservation livelihood projects, This implied that the levels of monitoring and evaluation practices possessed by youths may be a good predictor of performance of youth conservation projects; though not very significant  $F(5,242) = 9.777$   $p \leq .05$

**Table 1.5** Coefficientsa Regression table of Monitoring and evaluation practices and Performance of Youth conservation livelihood Projects

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	2.612	.323		8.086	.000
	MnEpractice	.354	.113	.196	3.127	.002

The Table 1.5 of regression coefficient showed that the unstandardised beta coefficient for: monitoring and evaluation practices to be 0.354. The T value for monitoring and evaluation was significant,  $T(247) = 3.127$ .

### Hypothesis testing

The study sought to investigate on Monitoring and evaluation practices and Performance of Youth conservation livelihood Projects. Pearson correlation coefficient was used to test the relationship between Monitoring and evaluation practices and Performance of Youth conservation livelihood Projects. This was done at 95% level of confidence. In order to prove the validity of this claim, both correlation and regression analysis were run on the SPSS programme version 22 based on the decision criterion that any P-value less than the threshold of  $\alpha=0.05$  would be considered significant and subsequently lead to the rejection of the null hypothesis and acceptance of the

alternative hypothesis or fail to reject the null hypothesis when the P-value obtained is greater than the threshold of  $\alpha=0.05$  while failing to accept the alternative hypothesis. From the findings of regression and correlation analysis, it can be depicted that Monitoring and evaluation practices significantly influenced the level of performance of youth conservation project,  $F(5,242) = 9.777$   $p \leq .05$ . This therefore rejects the null hypothesis which stated that:

$H_0$ : There is no significant relationship between monitoring and evaluation practices on performance of youth conservation projects in Nairobi; and accepted the alternative hypothesis:  $H_1$ : There is a significant relationship between monitoring and evaluation practices and performance of youth conservation projects in Nairobi County.

## **Conclusion**

The objective in this study was basically to assess the extent to which monitoring and evaluation practices affect the performance of Youth conservation livelihood projects. The study findings provided the evidence that the level of performance increases as monitoring and evaluation practices intensifies, implying that levels of monitoring and evaluation knowledge and practices possessed by youths may be a good predictor of performance in projects implementation. Following statistical analysis, the study therefore concluded that there is a significant relationship between monitoring and evaluation practices and performance of Youth conservation livelihood projects.

## **Recommendations**

Based on this finding, the following suggestions were recommended:

- I. The study recommends monitoring and evaluation practices that include basic research; status assessment; and effectiveness measurement, performance evaluation framework, by developing a Theory of change Project Management Model (ToCPMM). The purpose of this performance model is to illustrate a sequence of cause-and-effect relationships discussion between different stakeholders groups on the context any initiative seeks to influence including other actors able to influence change.
- II. The study also recommends Policy actions by government to link youths to industry with an aim to learn, nature and practice monitoring and evaluation skills through mentorship programs from National and County firms public entities and other Corporates so as to incubate their skills for effective and gainful projects performance.

## References:

1. Afon, A. (2012). "A survey of operational characteristics, socioeconomic and health effects of scavenging activity in Lagos, Nigeria", *Waste Management and Research*, 30(7). Angen, M. J. (2000). Evaluating interpretive inquiry: Reviewing the validity debate and opening the dialogue. *Qualitative Health Research*
2. Awiti and Scott (2016); Aga Khan University Bruce Scott. The Kenya Youth Survey Report
3. Bagele Chilisa, Thenjiwe Emily Major, Michael Gaotlhobogwe & Hildah Mokgolodi (2016): *Decolonizing and Indigenizing Evaluation Practice in Africa: Toward African Relational Evaluation Approaches*; University of Botswana.
4. Carlos Hernandez Ferreira (2017): *Monitoring and Evaluation and Learning Practices; the UCLG Capacity and Institution Building (CIB) Working Group: The Hague (Netherlands)*
5. Carson-Cheng, E. & Jones, M. (2013). *Using Focus Groups to Enhance your Evaluation*. Centre for Community Health and Evaluation, USA: Healthcare Community Georgia Foundation Publication.
6. Craig Valters, 2014, *Theories of Change in International Development: Communication, Learning, or Accountability*.
7. Dale, R. (2004). *Evaluating development programmes and projects* (2nd ed.). Thousand Oaks, California: Sage Publications Inc.
8. Directorate of Youth Affairs (2016); Ministry of Public Service, Youth and Gender Affairs
9. Hood, S. (2009). "Evaluation for and by Navajos: A Narrative Case of the Irrelevance of Globalization." In K. E. Ryan and J. B. Cousins (Eds.). *The SAGE International Handbook of Educational Evaluation* (pp. 447–463). Thousand Oaks, CA: Sage,
10. ILO (2017): *Methodology of the global estimates of child labor*, (Geneva, International Labor Organization.
11. Irene Gujit. (2013). *Working with Assumptions in a Theory of Change Process TOC: Copyright 2016 Innovations for Poverty Action*
12. Kathryn E. Newcomer, Harry P. Hatry and Joseph S. Wholey (2015) *Handbook of Practical Program Evaluation, Fourth Edition*.
13. McNamara, C. (2009). *Basic Guide to Program Evaluation*. (Retrieved from [http://managementhelp.org/evaluatn/fnl\\_eval.htm](http://managementhelp.org/evaluatn/fnl_eval.htm)).
14. Michael, B. (1994). *Monitoring and evaluating social programs in developing countries*, Washington D.C: World Bank:
15. Nyonje, R., Ndunge, D. & Mulwa, S. A. (2012) *Monitoring and Evaluation of Projects and Programs: A Handbook for Students and Practitioners*. Nairobi: Aura Publishers.

16. Oduor Stephen Okoth, Simeon Okelo, Fredrick Aila, Abiud Ochieng Awiti, Maria, Onyango, Martin Odhiambo Odera, Ogutu (2013) Effects of the Youth Enterprise Development Fund on Youth Enterprises in Kenya; Journal article
17. Okot-Okumu, J. (2017). Solid waste management in African cities— East Africa. In L. F. Marmolejo Rebello; (Ed.), Waste management— an integrated vision. Available [online]: <http://www.intechopen.com/books/waste-management-an-integrated-vision/solid-waste-management/>. (16/02/2018).
18. Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods*. 3rd edition. Sage Publications, Inc.
19. Patton, M. Q. (2010). *Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use*. New York: Guilford Press.
20. Rist, R. C., & Stame, M. (2006). *From studies to streams: Managing evaluation systems; comparative policy evaluations volume XII*. New Jersey: Transaction publishers.
21. Rist, R. C., Bolly, M. H., & Martin, F. (2012). *Influencing change: Building of evaluation capacity to strengthen governance*. Washington DC: World Bank.
22. Villard, J. A. (2010). *Use of Focus Group: An Effective Tool for Involving People in Measuring Quality and Impact*. Leadership educators.org Villard retrieved on 6th March 2017 Vol. 29(1), 48 - 82.



ESJ Social Sciences

### **Mwikamba Tumaini Mutugi**

Department of Economics, Accounting and Finance  
Jomo Kenyatta University of Agriculture and  
Technology, Nairobi, Kenya

### **Willy M. Muturi**

Department of Economics, Accounting and Finance  
Jomo Kenyatta University of Agriculture and  
Technology, Nairobi, Kenya

### **Oluoch J. Oluoch**

Department of Economics, Accounting and Finance  
Jomo Kenyatta University of Agriculture and  
Technology, Nairobi, Kenya

---

Submitted: 07 October 2020  
Accepted: 05 November 2020  
Published: 30 November 2020

Corresponding author:  
*Tumaini Mutugi*

DOI: 10.19044/esj.2020.v16n31p319

 Copyright 2020 Tumaini Mutugi et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
*OPEN ACCESS*

---

## **Residential Mortgage Default Risk and Market Returns of Public Mortgage Originator Firms in Kenya**

### **Abstract**

The mortgage market plays a vital role in the development of the real estate sector. The mortgage industry in Kenya has experienced tremendous growth since the year 2000. Despite this growth, Kenya's mortgage debt to GDP ratio is still relatively low when compared to other economies like South Africa. Default risk has been revealed as one of the risks that significantly impacts on the profitability of mortgagees. However, literature is inconclusive with reference to the relationship between default risk and the market returns of mortgage firms. Consequently, this study sought to determine the extent to which residential mortgage default risk influences the market returns of publicly listed mortgage firms in Kenya. Default risk in this case was measured using the non-performing loans ratio: the ratio of non-performing residential mortgage loans to total residential mortgage loans and advances. The study adopted descriptive and quantitative forms of research design. A census was conducted on the eleven NSE listed mortgage originating firms. A panel data regression model was utilized to draw inference from the secondary data collected. Descriptive statistical findings revealed a mean of 0.0796 with a standard deviation of 0.04219 for residential mortgage default risk. Inferential statistics revealed an R square value of 0.2794 between residential mortgage default risk and market returns of publicly listed mortgage originators. In addition, there was significant effect between default risk and the market returns of public mortgage originators. Consequently, mortgagees should develop strategies of reducing non-performing loans. For instance, mortgage firms can improve their credit rating

### **How to cite this article**

Mutugi T. et al. (2020). Residential Mortgage Default Risk and Market Returns of Public Mortgage Originator Firms in Kenya. *European Scientific Journal, ESJ*, 16(31), 319. <https://doi.org/10.19044/esj.2020.v16n31p319>

systems.

**Keywords:** Mortgage Financing, Real Estate, Market Returns, Default Risk

---

**Subject:** Marketing, Economics

## 1. Introduction

Venturing in real estate development, be it residential or commercial – requires a huge amount of capital investment (Long, 2011). According to Sirota (2004), mortgage financing is one of the financing options that can be utilized by investors venturing into real estate development. Mortgage financing comes with high risk implications for both the mortgagee and the economy (Sirota, 2004; Long, 2011). For the economy, Lang and Jagtiani (2010), identified the housing market crisis particularly in the mortgage market in the US as the main onset cause of the 2007-2008 global financial crisis. Similarly, Acharya and Richardson (2009) argue that mortgage risk is one of the major factors that significantly contributed to the global financial crises in 2007. According to Shiller (2012), the 2007 financial crisis in the US can be traced back to the mortgage origination process. This suggests that there are various risks that arise during the mortgage origination process. In the same vein, Demyanyk and Hemert (2011) argue that for six consecutive years before the global financial crisis the quality of mortgage loans deteriorated. They attributed this to poor vetting mechanisms – poor mortgage origination processes – by mortgage originators. For the mortgagee, Barth (2009) notes that mortgagees whose borrowers default face the following risks: loss of the principal, interest, and higher collection costs.

According to Cusatis and Thomas (2005), mortgagees have a number of options when it comes to closed mortgage loans. For instance, they can securitize the mortgage by issuing debt with the mortgage payment as collateral, they can keep them in their portfolio, or they can sell the loans to a third party. However, Taff (2003) argues that mortgage firms which face the highest risk are those that maintain mortgage portfolios till they mature. This is attributed to the fact that the risk of default by mortgagors is not transferred to a third party.

Default risk is also referred to as credit risk (Apostolik & Donohue, 2015). It is the likelihood that a borrower will not be able to meet their payment obligations when they fall due. According to Apostolik and Donohue (2015), creditors and lenders are exposed to credit risk on every form of credit extension. Mortgage originators whose borrowers default face the following risks: loss of the principal, interest, and higher collection costs. According to Barth (2009), mortgage risk encompasses the risk from the mortgage origination stage to when the mortgage is fully settled by the mortgagor.

There are a number of conflicting theories that explore the concept of credit risk management. For instance, application of the title theory by

mortgage originators can be applied to significantly manage default risk. However, mortgage originators default risk cannot be significantly reduced through the application of the lien theory. In addition, mortgage securitization is a tool that can also be used to manage credit risk. Despite the applicability of these theories, industry performance of mortgage originators is still adversely affected by default risk. Empirical literature is similarly inconclusive with reference to managing default risk. For instance, Wu, Li and Hong (2017) carried out a study whose findings revealed that default risk significantly influences the financial performance of financial institutions. However, a study by Kithinji (2010) gave contrary findings. In addition, literature is inconclusive with reference to the relationship between default risk and market returns.

Kenyan mortgage originators hold the mortgages they sell to borrowers in their portfolio (Mwaniki, 2017). However, various mortgage originators in the Kenyan market are in talks with the Capital Markets Authority (CMA) and the Nairobi Securities Exchange (NSE) to introduce mortgage-backed securities in Kenya's capital market (Mwaniki, 2017). For this reason, they face more risks in addition to mortgage origination risks. One of additional risks mortgage firms encounter is default risk. For instance, Housing Finance Group Limited reported a figure of Ksh. 5 billion for non-performing loans in the financial year ending 2015 (Wasuna, 2016). Similarly, Njiraini and Anyanzwa (2018) identify increase real estate loan defaulting and mortgage defaults as one of the main contributors to high non-performing within commercial banks and financial institutions in Kenya. It is against this backdrop that this study sought to find out the extent to which residential mortgage default risk influences the market returns of publicly listed mortgage originating firms in Kenya.

This study is likely to be of significance to the following stakeholders: theoretical literature, empirical literature, mortgage originators, and investors. For theoretical literature, the study is likely to reveal the applicability of title and lien theory to the mortgage industry in Kenya. Subsequently, theoretical modeling relating to mortgage financing can be enhanced and developed. In addition, the existing body of knowledge and literature has been enhanced since the study bridges the empirical gap relating to the relationship between default risk and market returns of mortgage firms. The study findings are also likely to motivate mortgage firms to better manage their default risk in order to improve their market returns. Furthermore, investors can utilize the study findings to make better and more informed investment decisions relating to mortgage firms.

## II. Literature Review and Hypothesis

The title theory was propagated from the lawful interpretation of contracts as developed by Williamson Evers and Murray Rothbard. The title theory states that the borrower (mortgagor) transfers title of a property to the lender (mortgagee) who holds title to the property until the mortgage is paid off; at which time title passes to the borrower (Karp & Klayman, 2003). The financier holds title to the property as a collateral and the title is only transferred to the borrower when he/she clears all payments due. However, title of the property remains with the borrower of the mortgage – according to the lien theory. However, the mortgage becomes a lien on the property. In this case, it becomes difficult for the lender to foreclose the property because it does not hold the title to the property (Karp & Klayman, 2003).

Bhattarai (2016) carried out a study in Nepal which sought to determine the influence of credit risk on the financial performance of commercial banks. The study adopted a descriptive and causal comparative form of research design. The study sampled Nepalese banks for the period between 2010 and 2015. The study used the regression model to analyze the financial statements from 14 banks. The findings revealed that non-performing loan ratio has a negative influence of the financial performance of banks.

Similarly, Davis and Zhu (2009) conducted a study that sought to determine the relationship between commercial property prices and bank performance. The study sourced its data from various banks in industrialized economies. The findings revealed that there is a positive relationship between these two variables. However, the findings of the study revealed that there was a negative relationship between commercial property price and bad loan ratios and net interest margin.

Mayer, Pence and Sherlund (2009) conducted a study which sought to identify the factors that cause a rise in rates of mortgage defaults. The study identified the following as the causes of rise in mortgage default: poor underwriting standards, decline in property prices, and rise in loan-to-value ratios. Mayer *et al.* (2009) argue that poor underwriting standards are the major cause of rise in mortgage default rate. Consequently, they argue that when mortgage firms implement proper underwriting standards mortgage default rates should decline significantly.

Similarly, Wu, Li and Hong (2017) conducted a study which sought to determine causes of defaults among home mortgages. The study identified the following as the factors which cause default among home mortgage borrowers: terms of lending contract, characteristics of the borrowers, and macroeconomic factors. Wu *et al.* (2017) argue that mortgage lenders need to

adopt effective credit risk management techniques in order to effectively manage their default rate which can adversely affect their profitability.

Ntiamoah *et al.* (2014) carried out a study which sought to determine the influence of default loan rate on financial institution financial performance. The study adopted by a quantitative and qualitative research design. The study sourced its data from various microfinance institutions in the Republic of Ghana. Correlation and regression models were utilized to draw inference from the data collected. The study findings revealed a significant positive correlation between profitability and loan default rate.

Alshatti (2015) conducted a study to determine the influence of credit risk management on the financial performance of Jordanian banks. The study sourced its data from 13 Jordanian banks. The study sourced for panel data from the financial statement reports 2005-2013 of 13 Jordanian banks. A panel regression model was utilized to draw inference from the data collected. The findings of the study revealed that there is a positive relationship between credit risk indicators of non-performing loans on bank profitability. Alshatti (2015) argues that financial institutions should enhance their credit risk management abilities in order to increase their financial performance.

Canepa and Khaled (2018) conducted a study in a number of countries whose main objective was to identify the relationship between various housing market variables and credit risk. The study identified the following as some of the determinants of credit risk in housing markets: house or real estate prices, financial liberalization, regulations in the property market, and macroeconomic variables. Canepa and Khaled (2018) argue that decline in property prices has the effect of reducing the quality of banks' assets which in turn affect their lending capacity. In addition, decline in property prices has the effect of lowering the value or quality of securities held by financial institutions in terms of real estate. In addition, financial liberalization of the mortgage industry significantly affects both the credit risk of financial institutions and the housing market (Canepa & Khaled, 2018). For instance, financial liberalization within the mortgage industry could result in increased competition, new risky opportunities for mortgage firms, and poor vetting mechanisms for clientele. Regulations in the real estate market in terms of government policy can have adverse effects on real estate and mortgage financing, all of which can result in increase in non-performing loans by financial institutions and mortgage firms. According to Canepa and Khaled (2018), expansionary and contractionary business cycles within an economy significantly influence the real estate sector which in turn affects non-performing loans within financial institutions.

In Kenya, Muriithi, Waweru and Muturi (2016) conducted a study which sought to examine the influence of default risk on the performance of banks. Credit risk was measured by loan loss provision, asset quality, capital

to risk weighted assets, and loan and advance ratios. The study derived its data from 43 registered banks. According to Muriithi *et al.* (2016), default risk has a negative effect on bank financial performance. The study recommended that banks should adopt thorough credit analysis and have clearly outlined credit policies in order to manage non-performing loans.

Kauna (2016) carried out a study in Kenya which sought to determine the influence of credit risk management on bank financial performance. The study noted that default risk was one of the major precipitates of financial institution failure. The study obtained financial statements from 39 commercial banks for the period 2011-2015. Data was analyzed using a regression model. Findings revealed a positive relationship between credit risk monitoring and credit risk identification and bank financial performance. According to Kauna (2016), banks can significantly enhance their financial performance by managing credit risk.

Muguchia (2012) carried out a study which sought to examine the influence of flexible interest rate on the growth of mortgage financing in Kenya. The study collected its data from 26 commercial banks and HFCK. The study findings identified non-performing loans as one of the factors which negatively influenced mortgage financing.

However, various studies contradict this findings. Kithinji (2010) carried out a study in Kenya which sought to determine the influence of credit risk management on the financial performance of Kenyan banks. The study sourced its data from banks for the period ranging 2004 and 2008. A regression model was utilized to draw inference from the data collected. The findings of this study revealed that there was no significant relationship between the level of non-performing loans and bank profitability.

On the contrary, Kipyegon and Matanda (2019) conducted a study in Kenya which sought to determine the relationship between mortgage uptake and volatility of interest rates. The study adopted a descriptive form of research design. The target population for the study was 44 commercial banks. The study utilized both primary and secondary data collection techniques to source for data. The findings revealed that mortgage uptake is significantly influenced by inflation rate, loan demand, and gross domestic product. However, findings revealed that credit risk has an insignificant effect on mortgage uptake.

Empirical literature focuses on the influence of default risk on the financial performance of financial institutions. However, literature is inconclusive with reference to the relationship between default risk and market return. Consequently, the  $H_{01}$  for the study was: Residential mortgage default

risk has no significant effect on market returns of publicly listed mortgage originators in Kenya.

### III. Methodology

The study adopted a descriptive form of research design. A quantitative research approach was further utilized. The target population for the study was the eleven NSE listed mortgage originating firms. These were selected because they form the majority share of Kenya's mortgage market. The eleven mortgage originating firms listed at the NSE were: Barclays Bank Limited, The Co-operative Bank of Kenya Limited, Diamond Trust Bank Kenya Limited, HF Group Limited, I&M Holdings Limited, KCB Group Limited, National Bank of Kenya Limited, NIC Bank Limited, CFC Stanbic Holding Limited, and Standard Chartered Bank Kenya Limited. A census was conducted on the target population. Secondary data was utilized to validate the study's research hypothesis. Secondary data for the period 2007 to 2017 was sourced from: CBK bank supervision reports, and the NSE. A panel data regression model was utilized to draw inference from the data collected. The statistical software STATA and SPSS were utilized for statistical analysis.

Default risk in this case was measured using: the non-performing loans ratio. The non-performing loans ratio was measured as the ratio of non-performing residential mortgage loans to total residential mortgage loans and advances.

$$\begin{aligned} \text{Non - Performing Loans Ratio} \\ &= \frac{\text{Non - Performing Residential Mortgage Loans}}{\text{Total Residential Mortgage Loans and Advances}} \end{aligned}$$

Below is the representation of the model for the study:

$$Y_i = \beta_0 + \beta_1 X_{1,t} + \epsilon_i$$

$\beta_1$ , represent the specific beta coefficient.  $X_1$  represents default risk.  $\epsilon_i$  represents the error term in the model.  $\beta_0$  represents the constant while  $Y_i$  represents market returns. Stock market return refers to the returns that stockholders generate out of securities they hold in the stock market (Johnson, 2014). Knight and Bertoneche (2000) argue that stock market return can be measured in terms of dividends and gains made from changes in stock market prices. In this case, stock market return was measured from stock market prices. Market return was measured using the ratio displayed below.

$$\text{Market Return} = \frac{\text{Ending Price} - \text{Starting Price}}{\text{Starting Price}}$$

The study carried out two diagnostic tests: the Hausman Specification Test and the normality test. The Hausman specification test was carried out to determine which of the two panel data regression models – Random Effect

Model (REM) or Fixed Effects Model (FEM) to use. The normality test was carried out to determine if the data for the study variables had a normal distribution. The results from the two diagnostic tests would determine if the assumptions of panel data regression model were satisfied.

#### IV. Findings and Discussions

**Table 1: Descriptive Statistics**

	N	Mean	Std. Deviation	Coefficient of Variation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Default Ratio	121	.0796	.04219	53.00251	.828	.220	.019	.437
Expected Market Return	121	.0905	.04198	46.38674	.484	.220	.659	.437
Valid N (listwise)	119							

From the findings presented in Table 1, the mean for residential mortgage default risk for the eleven NSE listed mortgage originating firms was 0.0796 with a standard deviation of 0.04219. This suggests that the average residential mortgage default risk for mortgage loans for publicly listed mortgage originators stands at 7.96%. Table 1 further reveals the average for market return for the eleven firms was 0.0905 with a standard deviation of 0.04198. This suggests that the average market return for publicly listed mortgage originators is 9.05%. In addition, the standard deviation results - 0.04219 – suggest that the variation of residential mortgage default risk among public mortgage originators is not overly dispersed. Thus, residential mortgage default risk is a major concern to all publicly listed mortgage originators. Similarly, the standard deviation results for the variation of market return among public mortgage originators - .04198 – is not overly dispersed.

Table 1 further presents the skewness of the residential mortgage default risk and market return frequency distributions as 0.828 and 0.484 respectively. Deep (2006) argues that symmetric distributions (normally distributed) have a skewness of zero. This suggests that the frequency distribution for default risk and market return does not significantly deviate away from a normal distribution. Findings presented in Table 1 further reveals a coefficient of variation and kurtosis of 53.00251 and .019 respectively. In addition, the findings further revealed a coefficient of variation of 46.38674 for the market returns of public listed mortgage originators in Kenya.

**Table 2:** Test of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Default Risk	.229	121	.501	.898	121	.079
Market Return	.227	121	.067	.884	121	.064

Table 2 presents the results for the test of normality for the data collected. Gray (2016) argues that a sig. value of more than 0.05 for the Kolmogorov-Smirnov test signifies normality in a distribution. Thus, the study variables – default risk and market return – had a sig value of more than .05 which suggests that the two study variables were normally distributed. In this light, a panel data regression model could be utilized to analyze the secondary data collected. This is based on the fact that the data collected satisfied the normality assumption in a panel data regression model. In addition, the study carried out a Hausman Specification Test. Based on the results from the test, the Random Effect Panel Model (REM) was utilized.

**Table 3:** Panel Model Modelling for the effect of Default Ratio on Market Return

```

-----
Random-effects GLS regression              Number of obs   =      121
Group variable: panels                    Number of groups =       11

R-sq:  within = 0.2488                    Obs per group:  min =       11
                                     overall = 0.2794                                     avg   =      11.0
                                                         max   =       11

corr(u_i, X) = 0 (assumed)                Wald chi2(1)    =      40.06
                                           Prob > chi2     =       0.0078
-----
MarketReturn |      Coef.   Std. Err.   z    P>|z|    [95% Conf. Interval]
-----+-----
DefaultRatio |  -.4852519   .0766681   -6.33  0.000   .3349851   .6355186
   _cons     |   .4789169   .1011164    4.74  0.000   .2807324   .6771015
-----+-----
                                     sigma_u |   .31404091
                                     sigma_e |   .18972361
                                     rho     |   .73261091 (fraction of variance due to u_i)
-----

```

Table 3 above presents the bivariate regression results on the effect of residential mortgage default risk on the market returns of publicly listed mortgage originators. The findings reveal an R square value of 0.2794 between residential mortgage default risk and market returns of publicly listed mortgage originators. This suggests that 27.94% of variation in market returns for publicly listed mortgage originators is explained by residential mortgage default risk. Table 3 further presents the beta coefficient with reference to the effect of residential mortgage default risk on market returns of publicly listed mortgage originators. The findings reveal a beta coefficient of -0.4852519. This implies that a unit change in residential mortgage default risk will cause a decrease of -0.4852519 in market returns for public mortgage originators.

Table 3 further reveals a significance value of .000 which is less than .05. This suggests that residential mortgage default risk has a significant effect on the market returns of publicly listed mortgage originators. Thus, we reject the study's null hypothesis ( $H_{01}$ ) – Residential mortgage default risk has no significant effect on market returns of publicly listed mortgage originators in Kenya. Consequently, we accept the alternative hypothesis which states that residential mortgage default risk has a significant effect on the market returns of public mortgage originators.

From the findings of the study, residential mortgage default risk has a significant effect on the market returns of publicly listed mortgage originators. Similarly, Onchomba, Njeru and Memba (2018), conducted a study whose findings revealed that real estate loans have a positive impact on bank profitability. However, this relationship is significantly impacted by the rate of default risk. Similarly, Ajayi (1992) carried out a study in Nigeria whose findings revealed that default risk significantly influences the financial performance of mortgage firms. The study further revealed the following as some of the factors that influence default risk: borrower's age, market value of property, monthly repayment amounts, annual income of borrower, and loan to value ratio. In China, Isanzu (2017) conducted a study on China's five largest banks for a period between 2008 and 2014. The study sought to determine the influence of default risk on bank financial performance. Credit risk was measured using: loan impaired charges, impaired loan reserve, capital adequacy ratio, and nonperforming loans. The study utilized a balanced panel data regression model to draw inference from the data collected. The findings revealed that non-performing loans significantly impact of bank financial performance. Similarly, findings are proposed by Noor and Abdalla (2014) who argues that credit risk significantly influences firm financial performance.

## Conclusion

Existing literature focuses on the relationship between default risk and the financial performance of financial institutions. Empirical literature – Bhattarai (2016), Wu *et al.* (2017), Isanzu (2017), Ajayi (1992), Muriithi *et al.* (2016), and Njeru and Memba (2018) reveals that default risk has a significant negative influence on the financial performance of financial institutions. However, literature has been inconclusive with reference to the relationship between default risk and market returns for mortgage firms. Consequently, the overall objective of this study was to determine the relationship between default risk and market returns for publicly listed mortgage originators in Kenya.

From the findings of the study, it was evident that residential mortgage default risk has a significant effect on the market returns of publicly listed mortgage firms. In addition, the relationship between default risk and market

return had a negative beta coefficient. This implies that default risk negatively influences the market returns for public mortgage firms in Kenya. As a result, mortgage originators should develop strategies of reducing their non-performing loans in order to buffer against variations in their market returns. For instance, mortgage firms can improve their credit rating systems to only offer mortgage products to clients with good credit ratings. In addition, mortgage firms can implement the recommendations of the title theory. Mortgage firms can further securitize their assets and pass the risk to third parties.

The findings of the study can be regarded as limiting based on the fact that the study sample does not constitute of all the mortgage originators within the Kenyan market. The study only sampled publicly listed financial institutions offering residential mortgages. However, there are other mortgage originating firms that offer residential mortgages which are not listed at the NSE. The study recommends the following area for further studies: effectiveness of credit risk management strategies adopted by mortgage firms.

#### References:

1. Acharya, V. V., & Richardson, M. (2009). Causes of the financial crisis. *A Journal of Politics and Society*, 21(2-3), 195-210.
2. Ajayi, C. A. (1992). An analysis of default factors in residential mortgages of the Federal Mortgage Bank of Nigeria. *African Review of Money Finance and Banking*, 2, 203-216.
3. Alshatti, A. S. (2015). The effect of credit risk management on financial performance of the Jordanian commercial banks. *Investment Management and Financial Innovations*, 12(1), 338-345.
4. Apostolik, R., & Donohue, C. (2015). *Foundations of financial risk: An overview of financial risk and risk-based financial regulation*. New Jersey: John Wiley & Sons.
5. Barth, J. (2009). *The rise and fall of the US mortgage and credit markets: A comprehensive analysis of the market meltdown*. New Jersey: John Wiley & Sons.
6. Bhattarai, Y. R. (2016). Effect of credit risk on the performance of Nepalese Commercial Banks. *NRB Economic Review*, 28(1), 41-64.
7. Canepa, A., & Khaled, F. (2018). Housing, housing finance and credit risk. *International Journal of Financial Studies*, 6(50), 1-23.
8. Cusatis, P., & Thomas, M. (2005). *Hedging instruments and risk management: How to use derivatives to control financial risk in any market*. New York: McGraw-Hill Professional.
9. Davis, E. P., & Zhu, H. (2009). Commercial property prices and bank performance. *The Quarterly Review of Economics and Finance*, 49(4), 1341-1359.

10. Deep, R. (2006). *Probability and statistics*. California: Elsevier Inc.
11. Demyanyk, Y., & Hemert, O. (2011). Understanding the subprime mortgage crisis. *The Review of Financial Studies*, 24(6), 1848-1880.
12. Gray, E. D. (2016). *Doing research in the business world*. London: Sage.
13. Isanzu, J. S. (2017). The impact of credit risk on financial performance of Chinese Banks. *Journal of International Business Research and Marketing*, 2(3), 14-17.
14. Johnson, R. S. (2014). *Equity markets and portfolio analysis*. New Jersey: John Wiley & Sons.
15. Karp, J., & Klayman, E. (2003). *Real estate law*. (5<sup>th</sup> Ed.). Chicago: Dearborn Financial Publishing, Inc.
16. Kauna, E. K. (2016). *Effect of credit risk management practices on financial performance of commercial banks in Kenya*. Unpublished MBA dissertation. University of Nairobi, Nairobi.
17. Kipyegon, C. N., & Matanda, J. W. (2019). Effect of interest rate volatility on mortgage uptake among selected commercial banks in Kenya. *Strategic Journal of Business & Change Management*, 6(2), 1887-1901.
18. Kithinji, A. M. (2010). *Credit risk management and profitability of commercial banks in Kenya*. Retrieved March 29, 2017, from <[http://erepository.uonbi.ac.ke/bitstream/handle/11295/40437/aibum\\_a2011-submission232.pdf?sequence=1](http://erepository.uonbi.ac.ke/bitstream/handle/11295/40437/aibum_a2011-submission232.pdf?sequence=1)>.
19. Knight, R., & Bertoneche, M. (2000). *Financial performance*. Amsterdam: Elsevier.
20. Lang, W. W., & Jagtiani, A. J. (2010). The mortgage and financial crises: The role of credit risk management and corporate governance. *Atlantic Economic Journal*, 38(3), 295-316.
21. Long, C. (2011). *Finance for real estate development*. Washington: Urban Land Institute.
22. Mayer, C., Pence, K., & Sherlund, S. M. (2009). The rise in mortgage defaults. *Journal of Economic Perspectives*, 23(1), 27-50.
23. Muguchia, L. (2012). *Effect of flexible interest rates on the growth of mortgage financing in Kenya*. Unpublished MBA dissertation. University of Nairobi, Nairobi.
24. Muriithi, J. G., Waweru, K. M., & Muturi, W. M. (2016). Effect of credit risk on financial performance of commercial banks in Kenya. *Journal of Economics and Finance*, 7(4), 72-83.
25. Mwaniki, G. (2018). Effect of insider trading prohibitions: Regulation on security market returns in Kenya. *The University Journal*, 1(2), 77-96.

26. Noor, J. M., & Abdalla, A. I. (2014). The impact of financial risks on the firm's performance. *European Journal of Business Management*, 6(5), 97-101.
27. Ntiamoah, E. B., Oteng, E., Opoku, B., & Siaw, A. (2014). Loan default rate and its impact on profitability of financial institutions. *Research Journal of Finance and Accounting*, 5(14), 67-72.
28. Onchomba, S. M., Njeru, A., & Memba, F. (2018). Real estate loans and financial performance of commercial banks in Kenya. *International Journal of Economics, Commerce and Management*, 6(8), 322-334.
29. Shiller, R. J. (2012). *Finance and the good society*. New Jersey: Princeton University Press.
30. Sirota, D. (2004). *Essentials of real estate investment*. Wisconsin: Dearborn Real Estate Education.
31. Taff, L. G. (2003). *Investing in mortgage securities*. Washington: St. Lucie Press.
32. Wu, W. W., Li, J. F., & Hong, C. Y. (2017). Verifying the determinants of the mortgage defaults on home mortgage. *International Journal of Economics and Financial Issues*, 7(5), 266-273.



ESJ Social Sciences

### **Marya Bouanis**

Centre régional des Métiers de l'Éducation et de Formation Casablanca-Settat An.El Jadida/  
Equipe : Employabilité des Sciences dans l'éducation et la formation/Maroc  
Université Chouaib Doukkali / Faculté des Sciences d'El Jadida/Maroc

### **Aafaf Essedaoui**

Centre régional des Métiers de l'Éducation et de Formation Casablanca-Settat An.El Jadida/  
Equipe : Employabilité des Sciences dans l'éducation et la formation/Maroc  
Université Chouaib Doukkali / Faculté des Sciences d'El Jadida/Maroc

### **Aziz Boukhair**

Centre régional des Métiers de l'Éducation et de Formation Casablanca-Settat An.El Jadida/  
Equipe : Employabilité des Sciences dans l'éducation et la formation/Maroc  
Université Chouaib Doukkali / Faculté des Sciences d'El Jadida/Maroc

### **Abdelali Bitar**

Université Chouaib Doukkali / Faculté des Sciences d'El Jadida/  
Equipe : Physiopathologies Nutritionnelles et Toxicologie/ Maroc

## **Rôle des évaluations continues dans la prédiction des performances des élèves au secondaire collégial**

### **Résumé**

La présente étude traite l'effet de l'évaluation continue (contrôle continu) sur les performances des élèves lors des examens de fin de semestres (examen local, examen régional et note globale d'évaluation) en Mathématiques et en Sciences physique. Pour ce faire, un échantillon de plus de 2600 élèves de la troisième année du secondaire collégial des établissements scolaires de la direction provinciale d'El Jadida, Académie Régionale d'Éducation et de Formation de Casablanca-Settat (Maroc) a été choisit. Les données collectées sont analysées à l'aide du coefficient de corrélation de Pearson ainsi que le test t de student. Les résultats obtenus montrent des valeurs élevées des coefficients déterminés et qui sont statistiquement significatifs ( $p < 0,05$ ). Cela implique que l'évaluation continue influe positivement les performances des élèves en examen local et en note globale d'évaluation pour les deux matières étudiées. Sur la base de ces résultats, il est plus judicieux que l'évaluation continue reçoive une attention plus sérieuse de la part des enseignants.

**Mots clés:** Evaluation continue, secondaire collégial, corrélation, performance des élèves.

Submitted: 24 October 2020

Accepted: 23 November 2020

Published: 30 November 2020

Corresponding author:

*Aafaf Essedaoui*

DOI: 10.19044/esj.2020.v16n31p332



Copyright 2020 Aafaf Essedaoui et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
OPEN ACCESS

### **How to cite this article**

Essedaoui A. et al, (2020). Rôle des évaluations continues dans la prédiction des performances des élèves au secondaire collégial. *European Scientific Journal, ESJ*, 16(31), 332. <https://doi.org/10.19044/esj.2020.v16n31p332>

# Role of Continuous Assessments in Predicting Student Performance in Secondary School

*Marya Bouanis, Enseignante chercheur*  
*Aafaf Essedaoui, Enseignante chercheur*  
*Aziz Boukhair, Enseignant chercheur*

Centre régional des Métiers de l'Éducation et de Formation Casablanca-Settat An.El Jadida/ Equipe : Employabilité des Sciences dans l'éducation et la formation/Maroc. Université Chouaib Doukkali / Faculté des Sciences d'El Jadida/Maroc

*Abdelali Bitar, Enseignant chercheur*

Université Chouaib Doukkali / Faculté des Sciences d'El Jadida/  
Equipe : Physiopathologies Nutritionnelles et Toxicologie/ Maroc

---

## Abstract

This study examines the effect of continuous assessment on the performance of students in end-of-semester exams (local exam and regional exam), and the global assessment scores in Mathematics and Physical Sciences. To do this, a sample of more than 2,600 pupils of secondary school of the provincial direction of El Jadida, Regional Academy of education and training of Casablanca-Settat (Morocco) was chosen. The data collected is analyzed using the Pearson's Product Moment Correlation Coefficient ( $r$ ) as well as the student's  $t$  test. The results obtained show high values of the determined coefficients which are statically significant at 0.05. This implies that continuous assessment positively influences student performance in the local exam and the global assessment scores for the two subjects studied. However, this continuous assessment did not have a strong impact on the learning progress of the students in the regional exam. Based on these results, it is more appropriate for the continuous assessment of students to receive more serious attention from the teachers.

---

**Keywords:** Continuous assessment, Secondary School, Correlation, Students performances

## 1. Introduction

Au Maroc, le système éducatif a connu des changements profonds pour accroître son efficacité et répondre aux défis de la société d'aujourd'hui. Sa réforme est entreprise avec la promulgation en 1999 de la « Charte Nationale

d'Éducation et de Formation » qui a pour objectifs l'amélioration du fonctionnement des apprentissages en plaçant l'apprenant au centre de l'action pédagogique et la généralisation de l'enseignement fondamental.

Cette charte définit, dans son levier 5, les différents principes d'évaluation des apprentissages et préconise, dans son article 106, la mise en place de l'approche par compétence. Ces directives recommandent de réviser le système d'évaluation et de le mettre en cohérence avec l'approche par compétence pour mener à une refonte des modalités d'évaluation et de formation (CNEF, 1999).

Ainsi, l'évaluation des compétences est basée sur deux types d'évaluations : évaluation sommative (contrôle continu CC) et évaluation certificative (examen final Ex). Cette évaluation s'inscrit généralement dans une perspective de jugement et de prise de décision et reflète des objectifs explicites ou implicites des systèmes éducatifs (Akrim et al., 2010).

Par ailleurs, le passage des élèves du secondaire collégial au secondaire qualifiant (lycée) est certifié par une formule combinant les évaluations sommatives et certificatives suivantes :

- La note d'examen normalisé régional à la fin du cycle collégial (40%) ;
- La moyenne d'évaluation continue (30%) ;
- La note d'examen normalisé local (30%) organisé par l'établissement à la fin du premier semestre.

La conception et la notation des épreuves d'évaluation par les enseignants suit des cadres référentiels et des guides élaborés par le centre national d'évaluation et d'examens afin d'assurer l'uniformité et la normalisation du processus d'évaluation.

Selon le rapport pédagogique de la direction provinciale d'El Jadida - région Casablanca-Settat (2019), le taux moyen d'obtention du diplôme en fin du cycle collégial est de 45% entre 2012 et 2018. Au niveau du secondaire qualifiant, le taux moyen de réussite ne dépasse pas 50%. Il devient alors essentiel de revoir le système d'évaluation pour améliorer les performances des élèves et augmenter les probabilités d'obtention du diplôme en cycle secondaire.

## **II- Cadre contextuel :**

L'évaluation des apprentissages est définie comme toute procédure ou activité conçue pour recueillir des informations sur les connaissances, l'attitude ou les compétences de l'apprenant ou du groupe d'apprenants. L'évaluation est donc un processus par lequel la qualité du travail ou des performances d'un individu est jugée (Greaney, 2001). Parmi les multiples formes d'évaluation recommandées dans le système éducatif marocain, on cite l'évaluation formative continue et sommative.

Les résultats des évaluations contribuent à garantir que tous les élèves progressent dans leurs apprentissages tout au long du cycle scolaire, améliorant ainsi leurs résultats scolaires. En outre, cela aide à favoriser les relations entre les enseignants et les élèves. L'évaluation certificative prend la forme d'un examen peut être décrite comme une évaluation à enjeux critiques, au sens où les décisions qui seront prises par l'enseignant peuvent avoir un impact sur la suite du parcours scolaire de l'élève. (Bélaïr & Dionne, 2009).

Quant à l'évaluation continue, c'est un mode d'évaluation formative qui sous une forme idéale, est systématique, complète, objective et guidante. En raison de ces caractéristiques, l'évaluation continue est reconnue comme une méthode progressive et objective d'évaluation des acquis des apprenants par rapport à l'enseignement en classe (Anikweze, 2010). Un grand nombre de praticiens de l'éducation ont signalé la valeur particulière de l'évaluation continue comme condition de base pour un apprentissage efficace (Black, & William, 1998 ; Bloom, et al, 1971). Il sert de complément aux examens, offrant une méthodologie pour mesurer les performances des élèves et utiliser ces résultats pour améliorer la réussite des élèves.

La Direction de l'Evaluation du Système Educatif (DESE) a mené plusieurs évaluations (2011), notamment par des tests transnationaux du genre TIMSS-R (Trends In International Mathematics and Science Study- Repeat), MLA (*Monitoring learning achievement - suivi régulier des acquis scolaires*), CTL (*Conditions of teaching and learning*), PIRLS6 (*Programme international de recherche en lecture scolaire*), afin de percevoir les acquis des élèves de niveaux comparables. Il ressort de ces études que le niveau des élèves marocains en mathématique (un score de 371 points) et en Sciences (un score de 376 points) reste nettement en dessous de la moyenne internationale (un score de 500 points) (Zerrouqi, 2015)

Caractérisé par la grande disparité entre milieux et entre sexes, le système d'éducation au Maroc se retrouve comme handicapé par cet écart des niveaux, économique et social, qui se répercute de façon négative sur le rendement scolaire détecté par les instances internationales (UNESCO, 2009).

### **III- Problématique et objectifs**

Etant donné le rôle des contrôles continus dans l'évaluation des performances des élèves afin de prendre des décisions concernant la mise en place des procédures de remédiations, cette étude s'est penchée à chercher si l'évaluation continue (CC) est un excellent prédicteur de la performance des élèves en Mathématiques et en Sciences Physique au secondaire collégial.

Menée auprès des élèves de la 3<sup>ème</sup> année secondaire collégial issues de huit établissements scolaires dans la province d'El Jadida –Maroc, cette étude a pour objectifs spécifiques, d'une part, à identifier le type de corrélation qui existe entre les performances des élèves à l'examen de fin de

semestre 1 et 2 et aux tests d'évaluation continue et d'autre part, à de calculer le pourcentage d'élèves qui ont réussi la matière en fonction des notes d'évaluation continue. Conséquemment, cette étude cible l'enseignement des Mathématiques et des Sciences physique à la dernière année du secondaire collégial au sein des établissements scolaires.

Une corrélation importante et positive entre l'évaluation continue (CC) et les notes d'examen (Ex) des élèves indique une association étroite entre les deux, tandis qu'une faible corrélation suggère une mauvaise fiabilité de l'évaluation. La littérature ne donne aucune indication quant à la valeur de corrélation qui constitue une relation forte et positive entre le CC et l'Ex. Cohen (1988) considère que pour un nombre minimum de candidats considérés par école (quinze), une corrélation de +0,513 implique une confiance de 99% qu'il existe une relation significative entre les deux ensembles de notes; c'est-à-dire qu'il n'y a qu'une probabilité de 1% que cette corrélation se produise par hasard si les notes du CC étaient générées de manière aléatoire.

#### **IV- Méthodologie :**

Pour atteindre les objectifs visés, un échantillon aléatoire de 2608 élèves, issu d'un panel d'élèves scolarisés durant l'année scolaire 2016/2017, en 3<sup>ème</sup> année du secondaire collégial a été retenu. Cet échantillon est réparti dans 08 établissements notés E1, E2, E3, E4, E5, E6, E7, E8 de la province d'E1 Jadida (Maroc) région Casablanca-Settat. Cette recherche analyse plusieurs aspects des résultats scolaires des élèves à savoir :

- Les performances des élèves dans les deux semestres 1 et 2 en déterminant l'écart des moyennes entre l'évaluation continue et l'examen de fin de semestre. Le poids de note pour les trois types d'évaluations CC, Ex1 et Ex2 est égales à 20 points.
- La corrélation entre les notes des examens de fin de semestre 1, les notes des évaluations continues et la note d'évaluation globale en Mathématiques et en Sciences physique.
- Le pourcentage d'élèves qui ont réussi la matière en fonction des notes d'évaluation continue et la note d'évaluation globale.

Ainsi, les paramètres de recherche utilisés lors de cette étude sont l'examen local de fin de semestre 1 (Ex1), l'examen régional de fin de semestre 2 (Ex2), la moyenne de toutes les évaluations continues du semestre 1 (CC1) et 2 (CC2) et la note d'évaluation globale (NG) de chaque matière obtenue à partir des moyennes pondérées des notes d'examen 1 et 2 et les notes des évaluations continues.

Des analyses statistiques (test de Student, test de Pearson) ont été réalisées pour interroger la significativité des relations entre les paramètres

étudiés (Okoro, 2002). Ainsi, le calcul des fréquences et des pourcentages est utilisé pour organiser et décrire les caractéristiques des variables éducatives en termes quantifiables et significatifs (Daramola, 2006). Par ailleurs, le coefficient de corrélation est souvent utilisé pour détecter la force de l'association entre les variables (Owie, 1996). Une corrélation importante et positive entre l'évaluation continue et l'examen final indique une association étroite entre les deux. Notons que l'étude statistique des données a été réalisée à l'aide du logiciel «Microsoft Excel»

## V- Résultats et Discussion

### a- Performance des élèves en Mathématiques et en Sciences Physiques au cours des deux (2) semestres

Les tableaux 1 et 2 représentent les performances des élèves pour les deux semestres, calculées en utilisant la moyenne, l'écart des moyennes entre les contrôles continus (CC1 et CC2) et l'examen de fin de semestre (Ex1 et Ex2) pour chaque matière. Comme indiqué pour l'ensemble des matières et dans tous les établissements étudiés, les élèves renforcent leur effort et réussissent mieux dans les activités d'évaluation continue, mais ils obtiennent des moyennes plus faibles en examens de fin de semestre et surtout en Ex2.

**Tableau 1 :** L'écart entre la note moyenne du CC et l'examen local et régional en Mathématiques chez les élèves du collège

Notes en Mathématiques /20								
Semestre 1								
Etablissement	E1	E2	E3	E4	E5	E6	E7	E8
Nbre élèves	188	121	71	226	402	784	344	472
CCS1	9,39	8,37	8,60	7,75	12,11	9,50	7,95	10,81
Ex 1	8,28	7,46	8,31	6,89	9,47	9,29	6,29	9,98
Ecart (%)	5,50	4,55	1,43	4,30	13,18	1,09	8,30	4,16
Semestre 2								
CCS2	9,58	8,48	9,31	8,308	11,92	10,99	8,20	10,72
Ex2	6,50	6,39	7,29	7,27	8,612	7,21	6,85	8,188
Ecart (%)	15,3	10,45	10,08	5,17	16,54	18,9	6,80	12,66

Pour les deux matières, l'écart ne dépasse pas 14 % entre le CC1 et l'Ex1 et atteint 19 % entre CC2 et Ex2 (tableaux 1 et 2). Le cas le plus extrême est celui en Mathématiques à l'établissement 6, où la note moyenne des CC2 est de 10.99/20 et la note Ex2 seulement 7.21/20, laissant un écart de plus de 18.9 %. Il est important de noter que cette différence est due à la nature de l'examen. En effet, l'Ex1 est conçu par les professeurs de chaque établissement, tandis que l'Ex2, il est élaboré par les professeurs des établissements appartenant à quatre directions provinciales.

La différence des moyennes du CC entre les établissements peut être expliquée par la différence des pratiques enseignantes en classe (Nguessan Kouamé, 2018) et (Majdoub Chtara, 2020).

**Tableau 2 :** L'écart entre la note moyenne du CC et l'examen local et régional en Sciences physique chez les élèves du collège

Notes en Sciences Physique /20								
Semestre1								
Etablissement	E1	E2	E3	E4	E5	E6	E7	E8
Nbre élèves	188	121	71	226	402	784	344	471
CCS1	10,25	9,63	9,69	11,10	11,52	10,28	9,61	10,41
Ex1	9,24	7,73	8,24	8,96	10,55	9,49	7,67	10,19
Ecart (%)	5,03	9,33	7,26	10,7	4,82	3,90	9,65	1,06
Semestre2								
CCS2	11,25	9,266	10,238	8,14	10,47	11,24	9,64	10,93
Ex2	9,853	7,6	8,65	6,4	10,1	9,52	8,28	9,15
Ecart(%)	6,98	8,33	7,94	8,80	1,90	8,60	6,80	8,92

Les écarts observés dans la présente recherche, entre l'évaluation continue et l'examen de fin de semestre dans la plupart des établissements, en Mathématiques et Sciences physique sont conformes aux données de la littérature. D'après l'étude réalisée au Ghana par Dery et Addy-Lamptey (2006), les élèves lycéens réussissaient mieux dans les évaluations continues que les examens finals en anglais et en Mathématiques.

En France (Iannone, 2015), huit élèves sur dix ont obtenu de meilleurs résultats en contrôle continu de Mathématiques qu'à l'examen final avec un écart de 22% , ainsi que 56% d'élèves ont eu une note de Français en CC supérieure à celle de l'épreuve de fin d'année avec un point d'écart de 35%. De même qu'à l'université, les étudiants ont eu un score plus élevé en évaluation continue qu'en évaluation finale (Pérez-Martínez et al, 2009).

### b- Relation entre les différents types d'évaluation

Cette section analyse d'une part, la relation entre les différents types d'évaluation utilisés dans le système à savoir, évaluation continue CC, examen semestre1 (Ex1) et examen semestre 2 (Ex2) à l'aide des coefficients de corrélation de Pearson et des tests t de Student pour déterminer la signification statistique, la corrélation est considérée comme significative lorsque  $p < 0.05$ . D'autre part, cette recherche examine si les corrélations entre l'CC, l'Ex1, Ex2 et la note d'évaluation globale NG sont significatives. La variable NG est calculée comme suit :

$$NG = (0.3 \cdot CC) + (0.3 \cdot Ex1) + (0.4 \cdot Ex2) \text{ avec } CC = \frac{CC1 + CC2}{2}$$

Les résultats obtenus (tableau 3) montrent qu'il y a une corrélation significative entre l'évaluation continue avec l'examen de fin de semestre pour l'ensemble des établissements étudiés pour les deux matières Mathématiques et les Sciences physique. La valeur moyenne de corrélation élevée ( $r= 0.71$ ) en Mathématiques et ( $r= 0.69$ ) en Sciences physique montre qu'il était très facile de prédire les performances des élèves à l'examen compte tenu de leurs notes CC. Les coefficients de corrélation ont été utilisés pour obtenir les valeurs t afin de tester la signification des relations ( $t_{cal}>t_{tab}=1.97$ ). Les valeurs t se sont toutes révélées significatives à 0.05. Cela montre que les élèves qui ont bien réussi en CC ont également obtenu de bons résultats à l'examen de fin de semestre.

**Tableau 3 :** Corrélation significative entre les notes de l'évaluation continue et les notes de l'examen de fin de semestre en Mathématiques et Sciences Physique

Mathématiques								
Nbre élève	188	121	71	226	402	784	344	471
Semestre 1								
r(CC1/Ex1)	0.78**	0.69**	0.82**	0.67**	0.71**	0.75**	0.75**	0.68**
p( bilatéral)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
t-test	5.35**	4.08**	2.01**	4.02**	17.45* *	1.99**	8.81**	6.75**
Semestre 2								
r(CC2/Ex2)	0.72**	0.67**	0.83**	0.68**	0.68**	0.64**	0.78**	0.60**
p( bilatéral)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
t-test	14.73**	9.14**	11.10**	5.00**	19.62* *	30.32**	7.75**	18.36**
Sciences Physique								
Semestre 1								
r(CC1/Ex1)	0.70**	0.72**	0.69**	0.69**	0.68**	0.60**	0.73**	0.70**
p( bilatéral)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
t-test	4.19**	8.24**	4.41**	10.81**	6.32**	23.46**	13.41**	1.99**
Semestre 2								
r(CC2/Ex2)	0.69**	0.73**	0.78**	0.75**	0.62**	0.60**	0.72**	0.70**
p( bilatéral)	0.03	0.000	0.000	0.000	0.04	0.000	0.000	0.03
t-test	32.91**	6.93**	8.96**	11.87**	1.99**	30.84**	7.95**	14.25**

\*\*Corrélation significative à  $p<0.05$ .

De plus, l'analyse du tableau 4 révèle que la corrélation ( $r$ ) entre les différents types d'évaluations (CC, Ex) en Mathématiques et Sciences physique avec la note globale est significative ( $p < 0.05$ ). Il montre clairement que CC est fortement corrélé avec la NG ( $r = 0.90$ \*\* ) en Mathématiques et en Sciences physique. On conclut qu'il existe une relation significative entre l'évaluation continue et la note d'évaluation globale des élèves en Mathématiques et en Sciences physique pour l'ensemble des établissements étudiés et que l'évaluation continue serait un exercice efficace pour garantir la qualité d'apprentissage des élèves tout au long de l'année.

**Tableau 4 :** Corrélation significative entre les différentes évaluations en Mathématiques et Sciences physique

<b>Mathématiques</b>									
<b>Etablissement</b>	<b>E1</b>	<b>E2</b>	<b>E3</b>	<b>E4</b>	<b>E5</b>	<b>E6</b>	<b>E7</b>	<b>E8</b>	<b>Moy</b>
<b>r(CC/NG)</b>	0.93**	0.89**	0.95**	0.90**	0.87**	0.84**	0.90**	0.92**	<b>0.90</b>
<b>r(Ex1/NG)</b>	0.80**	0.84**	0.92**	0.86**	0.87**	0.82**	0.88**	0.89**	<b>0.86</b>
<b>r(Ex2/NG)</b>	0.95**	0.90**	0.96**	0.88**	0.92**	0.90**	0.87**	0.95**	<b>0.91</b>
<b>Sciences Physique</b>									
<b>r(CC/NG)</b>	0.90**	0.90**	0.92**	0.91**	0.89**	0.83**	0.87**	0.92**	<b>0.90</b>
<b>r(Ex1/NG)</b>	0.91**	0.88**	0.90**	0.86**	0.88**	0.84**	0.86**	0.88**	<b>0.88</b>
<b>r(Ex2/NG)</b>	0.85**	0.92**	0.92**	0.90**	0.92**	0.89**	0.82**	0.92**	<b>0.90</b>

\*\*Corrélation significative à ( $p < 0.05$ ).

De nombreuses études ont été menées pour examiner la corrélation entre les notes d'évaluation continue et les examens. Oyedeji (1994) a étudié la corrélation entre les notes de l'évaluation continue (CC) et les notes des examens (Ex) pour 300 élèves du secondaire dans cinq matières différentes (les Mathématiques, la langue anglaise, les Sciences intégrées, les études sociales et la technologie). Cette étude a montré que les notes d'évaluation continue sont un bon prédicteur des notes d'examen. Plusieurs études (Ghani et al, 2005 et Pudaruth et al, 2013) ont montré que chez les étudiants de l'université, il y a une forte corrélation entre les notes d'évaluation continue et les notes d'examen dans la plus part des modules enseignés.

D'autres études plus récentes menées par Emmanuel & Clement (2012) et Olufemi (2014) au Nigéria ont montré qu'il y a une relation significative entre les scores d'évaluation continue des élèves et la performance globale à l'examen de certification du premier cycle du secondaire

#### **c- Performance des élèves en Mathématiques et en Sciences Physiques au cours des deux (2) semestres et notes d'évaluation continue**

La présente étude analyse le pourcentage d'élèves ayant réussi en Mathématiques et en Sciences physique (NG>8). Selon les résultats présentés dans le tableau 5, 56% des élèves ont d'abord réussi l'examen1 et 39% en examen2 mais avec 63% de réussite en évaluation continue et 54% en note finale des élèves en Mathématiques alors qu'en sciences physique 62% ont réussi en examen1 et 49% en examen2 avec 67% de réussite en évaluation continue et 59% en note finale. Cela montre que la performance des élèves en

évaluation continue n'avait pas beaucoup changé avec la performance finale en Mathématiques et en Sciences physique.

**Tableau 5 :** Pourcentage d'élèves ayant réussi en Mathématiques et Sciences physique selon les notes d'évaluation continue

Mathématiques									
Etablissement	E1	E2	E3	E4	E5	E6	E7	E8	moy
CC	62%	54%	<b>55%</b>	71%	<b>70%</b>	71%	<b>46%</b>	<b>77%</b>	63%
Ex1	52%	49%	<b>52%</b>	70%	<b>60%</b>	65%	<b>32%</b>	<b>65%</b>	56%
Ex2	30%	34%	<b>39%</b>	38%	<b>50%</b>	38%	<b>33%</b>	<b>47%</b>	39%
NG	50%	48%	<b>50%</b>	58%	<b>64%</b>	59%	<b>40%</b>	<b>61%</b>	54%
Sciences Physique									
CC	70%	65%	67%	<b>46%</b>	<b>70%</b>	70%	<b>73%</b>	<b>71%</b>	67%
Ex1	62%	56%	60%	<b>43%</b>	<b>70%</b>	70%	<b>60%</b>	<b>71%</b>	62%
Ex2	30%	43%	45%	<b>49%</b>	<b>70%</b>	41%	<b>52%</b>	<b>58%</b>	49%
NG	52%	53%	56%	<b>46%</b>	<b>76%</b>	58%	<b>60%</b>	<b>67%</b>	59%

Les résultats obtenus montrent, l'effet positif de l'évaluation continue sur les progrès d'apprentissage des élèves, tels que mesurés par leurs résultats aux examens et la note d'évaluation globale. Ceci est en accord avec la soumission antérieure de Dennis (1988), selon laquelle l'évaluation continue joue le rôle de rétroaction à la fois aussi bien au niveau des étudiants qu'au niveau des enseignants dans le processus d'enseignement et d'apprentissage.

Aussi l'affirmation d'Osokoya (2003) que l'évaluation continue est utilisée pour découvrir ce que les élèves ont acquis grâce aux activités d'apprentissage et les constatations de Mingorance (2008), Gracia & Pinar (2009), Carrillo-de-la-Peña & Pérez (2012) et Yawa Ossi (2017) montrent que la réussite d'un sujet est positivement liée non seulement au suivi d'un système d'évaluation continue, mais aussi au succès obtenu dans ce système.

## Conclusion

L'évaluation continue est généralement utilisée pour ajuster la situation enseignement-apprentissage et impliquer activement les élèves au sein de la classe. Dans cette étude, l'évaluation continue a influencée positivement les performances d'un échantillon représentatif d'élèves de la troisième année du secondaire collégial en Mathématiques et en Sciences physique de la province d'El Jadida -Région Casablanca-Settat (Maroc). Elle n'a pas eu un fort impact sur le progrès d'apprentissage des élèves en examen régional, le problème peut être lié à la nature et au type de questions posées en examen régional et qui sont différentes de celles de l'examen local et de l'évaluation continue. Il est possible que les questions d'examen régional soient également plus difficiles, ce qui a conduit les élèves à moins performer à l'examen régional qu'à l'examen local. On conclut dans cette étude que l'évaluation continue est une composante primordiale dans le processus d'enseignement et d'apprentissage au secondaire collégial. Elle devrait recevoir une attention plus sérieuse de la

part des enseignants (es) et son développement conduira à amélioré le niveau de performance des élèves dans l'évaluation finale et augmenter le taux moyen d'obtention de diplômes de fin du cycle collégial et par la suite améliorer le taux moyen de réussite au niveau secondaire qualifiant.

### References:

1. Akrim, H., Figari, G., Mottier-Lopez, L., & Talbi, M. (2010). *La place de l'évaluation dans la réforme du système éducatif marocain : questions pour la recherche*.4, (13). <http://journals.openedition.org/questionsvives/323>
2. Anikweze, CA. (2010). *Measurement and evaluation for teacher education* (2nd edition). Enugu: SNAAP Press
3. Bélair, L. M., Dionne, É. (2009). *Evaluation des apprentissages dans le contexte québécois : Entre décisions politiques et pratiques en salle de classe. Mesure et évaluation en éducation*. 32, (3) (pp. 77-100). <https://doi.org/10.7202/1024932ar>.
4. Black, P., William, D. (1998). *Assessment and classroom learning. Assessment in Education* (pp. 7-74). Abingdon, 5.
5. Bloom, B. S., Hasting, J. T., & Madaus, G. F. (1971). *Handbook on formative and summative Evaluation of students learning*. New York: McGraw-Hill.
6. Carrillo-de-la-Peña, M. T., Pérez, J. (2012). *Continuous assessment improved academic achievement and satisfaction of psychology students in Spain* (pp. 45-47). *Teaching of Psychology*, 39.
7. Charte Nationale d'Education et de Formation (CNEF), éditée en 1999 par la Commission Spéciale Education et Formation.
8. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. 2<sup>nd</sup> Edition. Hillsdale, NJ: Lawrence Erlbaum Associates
9. Daramola, S. O. (2006). *Research and statistical methods in education. Students and Researchers in Tertiary Institutions*. Ilorin, Nigeria : Bamitex.
10. Dennis, E. (1988). *Continuous Assessment in the University* (pp. 30-33). *Journal of Education Students' Association*, 5.
11. Dery, R. G., Addy-Lampsey, W. (2006). *Effects of classroom assessment scores on the final scores used in grading students at senior high schools in Ghana*. International Association for educational assessment, 36<sup>th</sup> annual conference.
12. Emmanuel, I., Clement, C. O. (2012). *Effect of Continuous Assessment Scores on the Final Examination Scores obtained by Students at the Junior Secondary School (JSS) Level in Mathematics*. *Educational Research* (pp. 706-709), 3 (9).

13. Ghani, E. K., Said, J., Ibrahim, M. K., & Ibrahim, Z. (2005). *Continuous assessments and their contribution towards students' performance and final grade achievement: a comparative analysis of the Diploma In Accountancy students.*
14. Gracia, J., Pinar, M. A. (2009). *Practical experience about competency assessment using the student portfolio and its temporary impact* (pp. 76-86). *Revista de Formación e Innovación Educativa Universitaria*, 2.
15. Greaney, V. (2001). *Using Assessment to improve the quality of Education.* International Institute for educational planning: Paris.
16. Iannone, C. (2015). *Diplôme national du brevet 2014 : près de deux tiers des candidats ont une note inférieure à la moyenne à l'épreuve de mathématiques.* note d'information, 10.
17. Mingorance, A. C. (2008). *Comparative analysis between the results of continuous and final assessment: the case of Macroeconomics.* *Revista de Investigación Educativa*, 26,(pp. 95-120).
18. Nguessan, K. (2018). *L'approche Par Competences Et La Question De La Montee Des Inegalites Scolaires En Cote d'Ivoire. Analyse Des Pratiques Des Pratiques Enseignantes En Classe Sur Le Profil De Sortie Des Eleves Du Premier Cycle Du Secondaire En Cote d'Ivoire.* *European Scientific Journal*, 14, 34, (pp. 307 – 335)
19. Okoro, O. M. (2002). *Measurement and evaluation in education.* Nsukka, Nigeria : Pacific Publisher.
20. Olufemi, A. S. (2014). *Relationship between Continuous Assessment and Junior School Certificate Examination Mathematics Scores in Ekiti State.* *International journal of liberal arts and social science*, 2, 6.
21. Osokoya, I. O. (2003). *6-3-3-4 Education in Nigeria: History, Strategies, Issues and Problem.* Ibadan, Nigeria : Laurel educational publishers
22. Owie, I. (1996). *Fundamentals of statistics in education and the social science.* Benin city, Nigeria : United Press
23. Oyedeji, O. A. (1994). *Validity of Continuous Assessment Scores as Predictors of Students' performance In Junior Secondary Examinations in Nigeria* (pp. 92). University Of Ilorin, Nigeria.
24. Pérez-Martínez, J. E., García-García, M. J., Perdomo, W. H., & Villamide-Díaz, M. J. (2009). *Analysis of the results of the continuous assessment in the adaptation of the Universidad Politécnica de Madrid to the European Higher Education Area.* In Proc. Research in Engineering Education Symposium.
25. Pudaruth, S., Moloo, R., Chiniah, A., Sungkur, R., Nagowah, L., & Kishnah, S. (2013). *The Impact of Continuous Assessments on the Final Marks of Computer Science Modules at the University of Mauritius.* Proceedings of Global Engineering, Science and

Technology Conference 3-4 October 2013, Bay View Hotel :  
Singapore

26. Majdoub Chtara, S., Ben Jomâa, H., Abdelkafi Karoui, H., Naceur, A., & Kpazaï, G. (2020). *La question du rapport au corps dans la formation en STAPS : Cas de deux enseignants universitaires tunisiens*. European Scientific Journal, 16, 10, (pp. 262-296).
27. Unesco (2009).  
<http://www.unesco.org/education/wef/countryreports/marocco>
28. Yawa Ossi, G. (2017). *Vécu Des Enfants Soldats Pendant La Guerre: Une Analyse À Partir Des Projets De l'Organisation Non Gouvernemental Caritas Makeni En Sierra Léone*. European Scientific Journal, 13, 2, (pp. 256-268).
29. Zerrouqi, Z. (2015). *Les performances du système éducatif marocain*. Revue internationale d'éducation de Sèvres, 70, (pp 22-28).



ESJ Social Sciences

### **Luz del Carmen García Arroyo**

Interdisciplinary College of Specialization, Puebla,  
Mexico

### **Montserrat Gómez-Márquez**

Higher Technological Institute of Huatusco, Mexico

### **Martha Patricia Quintero-Fuentes**

Interdisciplinary College of Specialization, Puebla,  
Mexico

### **Manuel González-Pérez**

Interdisciplinary College of Specialization, Puebla,  
Mexico

---

Submitted: 16 October 2020

Accepted: 24 November 2020

Published: 30 November 2020

Corresponding author:

*Luz del Carmen García Arroyo*

DOI: 10.19044/esj.2020.v16n31p345



Copyright 2020 Aafaf Essedaoui et al.  
Distributed under Creative Commons BY-NC-ND 4.0  
OPEN ACCESS

---

## **The Successor Training as a Success Factor in the Management and Continuity of the Family Business**

### **Abstract**

The formation of the successor is a process that begins at home from an early age, and its main objective is to preserve the family legacy and keep the company's administration in the hands of the family. The family business's continuity depends mainly on the training received by their predecessors' successors to replace them in business management when retirement them. A descriptive and cross-sectional study was carried out that identified the influence of the successors' formation to achieve success in business management and the family business's continuity. This study collected data from 15 family businesses located in southeastern Mexico. The data collection instrument used was a closed-order questionnaire that was validated using Pearson's correlation. The chi-square test of statistical independence generates the calculation of the dependency between the variables studied. The theoretical chi-square graph is the pair of variables that make up the hypothesis and its theoretical inverse function:  $p\text{-value} = 0.05$  vs. chi-square of 1 degree of freedom to observe the intersection. In conclusion, the statistical tests yielded six variables more dependent on each other. Items three and four, four and one, and two and seven associated with 95% reliability in theoretical or critical chi and 100% reliability in observed or experimental chi. Therefore, these results found are statistically significant. It observed that the training of successors influences business management's success and the family business's continuity. This hypothesis verified an observed or experimental chi value of 5.2387 and a theoretical or critical chi of 3.8415.

### **How to cite this article**

Arroyo G. et al. (2020). The Successor Training as a Success Factor in the Management and Continuity of the Family Business. *European Scientific Journal, ESJ*, 16(31), 345. <https://doi.org/10.19044/esj.2020.v16n31p345>

---

**Subject:** Management

**Keywords:** Successor Training, Family Business, Management, Continuity

## **Introduction**

Family businesses are complex organizations that face their main challenge during the succession process; when this phenomenon occurs, a high percentage of them disappear, unable to survive the next generation. Various factors such as the lack of a strategic plan, the creation of a family protocol, the adoption of corporate and institutional governance, and successors' election to successfully replace leadership positions affect its continuity.

The family business succession plan involves the family reaching agreements about the future they want for the business. The future of the family business does not depend solely on blood ties. Therefore, the family must build a shared vision with the participation of all its members. This vision contributes to the successor's formation to maintain and make the family business grow, valuing its predecessors' legacy beyond the economic benefits since it is a joint family dream.

During the generational transfer, the family business's problem must be approached, considering its three main elements: family, business, and property. The owner's family must follow a protocol created by itself, which contains the game rules to resolve conflicts that may arise in the relation between the family and the business and regulate access to family members in the administration, control, and direction of the business company.

These companies are generally led by the owners, who are characterized by filling the jobs without evaluating the family candidates' competencies. Generational transmission is different for each family business; since each family has its peculiarities and characteristics. In the findings of items four and one; in the strategic plan for the continuity of the family business, it is vitally important to consider management through corporate, institutional governance, which regulates business management by family members with appropriate values and skills.

The generational change complexity increases when the founder's retirement arrives and, consequently, his successor's election. This election represents one of the most difficult decisions to face in managing the founding shareholders because they frequently lack suitable candidates. The absence of candidates is due, in many cases, to inadequate training for potential successors. In the development of this research, it was identified in items three and four that the founders of family businesses that prepare their successors to replace them also implement corporate, institutional governance that contributes to their permanence. Therefore, the selection of suitably trained successors is crucial to achieving successful replacement in the leadership position.

The formation of the successor is a task that begins from childhood through the teachings and attitudes of parents about the family business; in this stage, the successor learns and develops the values that will strengthen him as the leader of the family business. During the training process, the successor gains skills that enhance his confidence and creativity. Hard skills, soft skills, and experience are competencies that the successor must develop before taking the family business's leadership.

Another finding found in items two and seven of this study refers to institutional family businesses where the administration is in charge of personnel with adequate training and knowledge. Family businesses are organizations characterized by the critical influence that the family exerts on the company; Therefore, the main objective in forming a successor is to preserve the family legacy and keep the business management in the family's hands. The company's continuity depends mostly on the training received by their predecessor's successor to replace him when he decides to retire and hand over the baton.

This research identified that the successor's formation influences business management's success and the family business's continuity. Furthermore, in this study, it was found that the strategic plan of the family business considers corporate governance to achieve its permanence and that the founders of family businesses who prepare their successors to replace them also implement an institutional corporate governance. Finally, we identify that in institutional family businesses, the administration is in charge of personnel with adequate training and knowledge.

### **Successor Training in Family Businesses**

The family business is an institution controlled by a family and where two or more members of it are involved in its operation (Belausteguigoitia, 1996). This type of company presents its main problem when it comes time for succession. Nonetheless, the conflicts that arise during the succession process distinguished by creating a legacy (Tápies, 2011).

The generational transfer is a process poorly known by its protagonists: parents and children. Despite being its potential successors, parents do not discuss this matter with their children due to their lack of experience (González, Benítez & Tamayo, 2017). Notwithstanding, family members feel proud of the company (Gutiérrez, Gómez, Beas & Ortega, 2018). This transfer is a delicate process that begins with the founding entrepreneur's retirement future successor's appointment. This appointment is generally for the first-born, without being subject to an evaluation of the skills required for the position, and if he or she is the person who will successfully lead the family business in the coming years (Araya, 2011).

Some authors, such as Leach (1993) and Gallo (1995), refer to the succession process as a simple baton transfer. Other authors such as Ward (1988) and Gallo (1998), and Leandro (2017), agree that the succession's arrival is much more bearable when the company begins to carry out strategic planning. According to Vassiliadis, Siakasb, & Vassiliadis (2015), generational handover is crucial in the family company's life cycle due to ownership and leadership transfers. While Brenes, Madrigal & Molina (2006) bases the premise that management and organizational structure must address vital issues to ensure family business continuity.

Leadership is a vital issue that these companies must manage to ensure their continuity; Despite this, most of them disappear during the succession process due to the absence of a continuity plan to replace the leadership position (Durán, 2019). In family businesses, 45% of leaders are over 60 years of age, which shows that retirement does not depend on reaching old age and that the founders only decide to "leave" (IPADE, 2019).

During the generational transfer, it is easy to hurt sensitivities since the new leader's election is detrimental to other candidates. Therefore, success in succession requires strategic planning; if it is left the replacement for the last moment, this will doom to disaster either due to haste, due to decisions made at an inappropriate time, or because the candidates are not prepared (Tápies, 2011).

The lack of a successor training plan is an aspect that stands out in the generational transfer of these organizations (Gutiérrez et al. 2018). For example, Quejada, Gutiérrez & Nelson (2016) mention the confusion that the successors show during this process to distinguish the family's functions and the organization. When planning the successor's formation, it is essential to know the dreams, motivations, and competencies of the potential successors and the company's needs; do not consider family members' interests often leads to failure (Belausteguigoitia, 2013). The socio-cultural aspects must also consider because the successor must prioritize the company or the family (Basurto & Campos, 2017).

Precisely in the "Training for the future" lies a large part of the success of Family Businesses. Hence their members must train with knowledge and values, and future leaders must follow a versatile, logical, and above all planned career plan (Tápies, 2011). Authors such as Gallo (1998), Posso (2008), and Schleppehorst & Moog and Gaona, de la Garza & Hernández (2014), Visser and Fuad, Sudarma & Irianto (2019) have studied the formation of the successors from different approaches.

According to Gallo (1998), in developing a person's capacity to become the chief executive officer of a family business, three stages can distinguish. The "remote" preparation, "proximate" preparation, and "on-site" (immediate) preparation stages. For Posso (2008), the successor's formation is

a stage made up of three dimensions and five influential elements. While Schlepphorst & Moog (2014) address the requirements that family successors must meet to be considered adequate from three perspectives. Gaona et al. (2018) studied that the successor's formation will depend on the time and effort that the founder dedicates to this critical task. The continuity of the family business depends on adequately educating the successors, instilling values, and attitudes. At the same time, Visser (2019) focuses his study on the successor leader's external training. For their part, Fuad et al. (2019) mention that open communication between founders and successors is key to intergenerational transfer's success.

Gallo (1998) considered the most outstanding researcher on the subject of Spanish family businesses, addresses the formation of the successor of the family business from three stages of preparation:

- 1) The remote preparation stage occurs in the childhood and adolescence of the successor, up to 18 years of age; this stage develops under two premises: *"to know to love"* and *"practice work."* The premise *"to know to love"* is based on the fact that human beings can only love what they know, and if they love, they will continue in the effort to learn more to get to love even better. The successor knows what his family business will one day be through the conversations between the predecessor and his spouse. The premise *"practice work"* refers to carrying out activities in the family business, to have the opportunity to increase human virtues and affection for the company.
- 2) In the proximate preparation stage, it is advisable for the successor to carry out part of his studies in other regions and countries, with the logical premises of learning other languages. With this same purpose, during their university studies, successors should be encouraged and helped carry out part of the internship activities in companies that do not belong to their family and even in companies outside the country, always promoting openness in acquiring experience new knowledge.
- 3) Finally, in the immediate preparation stage, it must take into account that the appropriate date for incorporating the family business's successor does not only depend on the completion of their university studies. The predecessor's age also influences the fact that the successor works in another company for a few years, which allows him to *"look outside,"* acquire greater self-confidence and superior prestige in front of unfamiliar managers and front of other members of the family.

Bringing on a successor who has gone through the *"remote,"* *"upcoming,"* and *"immediate"* stages of readiness is equivalent to hiring a young man with skills and opportunities to become a member of the senior

management team in the short term. However, incorporating a successor presents certain peculiarities since he is a young man destined to become a family business leader.

Posso (2008) investigated that in four Colombian family businesses, the formation of the successor means having better elements that allow successors to see the three dimensions of training with their five influential elements and define clear goals without inhibiting their interests and ignoring the area immerse. In the three dimensions of formation of successors, values such as honesty, respect, hard work, perseverance, independence, love for the product, the desire for the best for the work team were found by Lambrech (2005), as values that transmitted in the family business in the childhood and youth of the sons.

Leadership training can come from individual initiative, the day-to-day relationship with the predecessor, and the family-business system's internal and external environment through activities that help develop self-confidence, independence, and resilience (Drennan, Kennedy & Renfrow, 2005). The exterior work experience contributes to gradually reducing the child's dependence on the father and gaining self-confidence, which is forging a more autonomous behavior on the descendant's part, which favors their formation as a leader. Training in values and training in leadership skills should complement by training in administrative areas or in an entire technical area: formal education that gives skills to the potential successor of working in the family business.

Schlepphorst & Moog (2014) analyzed various German family businesses; these authors found that hard skills are a necessary but insufficient attribute for suitable successor candidates as soft skills are highly valued. To understand the family's succession requirements often leaves potential successors in the dark regarding their expectations; therefore, descendants may need to guess what attributes they should contribute to the company.

The requirements to correctly choose the successor follows a systematic order and ranking of importance associated with expected predecessor abilities that closely overlap with academic recommendations. The process of recruiting and selecting family successors must be systematic and well-considered, taking into account two pre-selection processes, assessment, recruitment channels, and finally, the successor's selection.

This systematic process follows a series of steps, (1) Pre-selection of successors consists of continuous monitoring of descendants interested in the private and business sphere. (2) Verification of succession needs and informal analysis of job profiles and requirements. (3) Pre-selection of eligible successors, in this step, a communication channel is opened to exchange personal dialogues with possible successors. (4) The successor's selection, capacitation, and training focus on leadership, and his integration to the

company is gradual. The personal goals must coincide with the opportunities to enter the family business. (5) Constant feedback on the expectations of the predecessor and the abilities and attitudes of the successor. To conclude the selection process, negotiation dialogues must open to the signing of an employment contract in a senior management position.

Gaona et al. (2014) interviewed eight founders of family businesses in Mexico, who stated that the formation of the successor would depend on the time and effort that the founder dedicates to this vital task and that the business continuity of the family depends on adequately educating the successors, inculcating values and attitudes.

The founder's figure has a complex and unique influence on children's emotional and intellectual development: love, example, values, and discipline are fundamental elements that the founder transmits so that the successor becomes the right person. These elements help develop healthy self-esteem that contributes to the security of the future successor.

The training that family members receive must be comprehensive and inclusive to ensure that they are on the right path, that all members agree on the founder's decisions. Identifying the successor is a process that involves a series of aspects that develop gradually; the founder must know the desired profile of the successor, who is capable of meeting the needs of the company and the demands of the family.

The successor's formation within the family business is not limited to an academic degree; it is a life-long process. The successor will develop skills like leadership, planning, organization, acceptance of the position, interest in the company, external work experience, communicating his objectives, solving problems, and decision-making. These skills are necessary to fill a position that does not yet exist, and it will be created in an age that no one can safely foresee.

The relationship between father and son is the best system to educate and promote business values and inspire and involve them for their future incorporation into the family business. The candidate will receive training according to the company's needs, gain experience in other companies, interact with the staff, and know that they will be the leader of the company very soon. The external experience helps to identify if they can face the challenge or give up. On the other hand, the founder must understand that a transition cannot be forced when the required conditions do not exist. Perhaps neither of the children has the ability or interest to run the business.

Visser (2019) focuses his study on the successor leader's external training. This author conducted his research in two Swedish companies and two German companies, identifying that the founder leader significantly affects the successor, except when the successor has had training elsewhere with an external organizational culture. In this case, experience the external

workforce and exposure to other organizational cultures significantly impact business leadership and how the new leader will shape the family business's organizational culture.

This author developed a timeline model with five essential elements; the model will incorporate the factor of external experience acquired by the successor in the incumbent leader's succession plan; these three elements result in the development of business leaders and organizational culture.

The findings found in this research indicate that the founder leader's leadership style has less effect on the successor generations' leadership style when these generations have acquired work experiences outside the family business.

The main influences on the timeline of a founding leader are the experiences that successors gain outside of the family business. External formation contributes to a more personalized leadership style in the successor. Simultaneously, successors with no external experiences adopt a leadership style identical or similar to their predecessor. This adoption of a leadership style similar to the predecessor affects the lack of organizational culture and business leadership development. As the timeline continues, the model switches to succession planning.

The model ends and is repeat with the transfer of leadership from the incumbent to the next generation. At this point, the next generation has gained experience before or during their incorporation into the succession plan.

In scenarios where the baton's handover is awarded to a successor without external training, the new leader adopts his predecessors' leadership style, resulting in a lack of organizational change, continuing the traditional corporate values adopted from his predecessors. The generation joins the succession plan, repeating the cycle.

Fuad et al. (2019) mention that open communication between founders and successors is key to intergenerational transfer success. These authors identified three fundamental obstacles that successors must face in Indonesia during the family business's intergenerational transition process. To overcome them, es indispensable an intense communication between the successors and predecessors and between the successors themselves.

The first hurdle refers to the "founder's trap," that is, the older generation's reluctance or their predecessors to hand over the company's management entirely to the next generation and act more as advisers. The second obstacle is "sibling rivalry," that is, the successors' reserve to actively participate in the family business management due to the fear they feel about the conflicts that may arise between them. Finally, the third obstacle is the "passion of the next generation". This obstacle refers to the founders' concern that their children do not have enough passion or enthusiasm to continue running the family business.

Successors must recognize these obstacles in advance to provide a positive contribution to the sustainability of the family business and adapt to changes in the business environment and help the intergenerational transition process take place whit out smoothly.

In the generational transfer, good communication between the main actors (predecessor and successor) is essential to overcome problems. Also, it is necessary to consider external parties' assistance, such as consultants who are mediators of the process.

The communication process is not easy to achieve in a country like Indonesia. In their cultural heritage, children do not disagree with their parents or younger siblings with older siblings. However, the succession process requires healthy discussions to create open communication between the founders and successors. In this case, the "discussion at the dining room table" is considered beneficial in implementing the succession process that helps to achieve the family business's continuity; in this culture, the mother's role as a mediator is significant.

For several years the succession was presented as a static event when it must treat as a process (Davis & Harveston, 1998). Ward (1994) points out that this training process has to start at home, taught directly, and through parents' behavior during their children's childhood. Then she must continue with her education at school and with her first contacts with the family business. Subsequently, the family business's connection should increase their leadership skills and motivate their experience outside the family business. The father-son succession in the leadership of a company controlled by a family involves a long-term, diachronic socialization process. The successor member is gradually preparing for administration through learning experiences (Longenecker & Schoen, 1978).

According to Walsh (2011), the future successor must enter as a candidate to assume the family business's management, with well-defined functions that contribute to the company's general operation. In choosing the successor, guidelines such as age, education, and experience are indispensable that the family members enter the business. This means that a son or daughter may have to work in another business for some time or receive specific training for the job he or she will be doing.

Candidates must succeed the leader with well-defined roles and responsibilities because if there is the feeling that the successor is chosen only because of her family situation and not because of her abilities, her credibility will be diminished, affecting the spirit of the company. Internal managers who tend to see themselves as potential successors may go against the successor (Hollerbach, 2012).

The choice of successor does not necessarily have to do with the first-born or the one who does not find a job. The founder of Bimbo declares that

he chose as his successor, the youngest of their eight sons, because: he is a person with a privileged mind and has turned out to be an excellent and timely director of the group. Since he was a child it was brilliant, possessor of order and intelligence; he was eight or nine years old when he did his work schedules for the day, and he had the hours to get ready, play, read, and to my surprise, he had left a space of his time to think. When choosing his professional career, he said: "I know Dad that I have a responsibility to you and to the business you built, I will prepare to fulfill it; this was a joy for a father and a value for our company (Cherem, 2008).

The family business's succession is not always accompanied by a strategic plan to achieve its continuity; in many cases, the presence of an event accelerates this succession and leading the successor to receive the baton without adequate training. Such is the subject of Corporación Cefa, SA; after that, the founder's death, his successor, Denisse Garnier, took the reins without any continuity plan, facing the moral commitment he felt with the family business legacy. Garnier affirms that "the success in continuity I owe to the work team that I inherited and to my work experience in national and international companies" (Pymes, 2014).

## **Methodology**

A descriptive and cross-sectional study was carried out (Tamayo, 2017). This cross-sectional research analyzes how the successor's formation influences a successful replacement in the family business's business management. This descriptive research shows the effects of the training that the successors receive from the founder to achieve success in the administration and continuity of family businesses.

This study collected data from 15 family businesses from different industries located in the southeast of Mexico. Figure 1 shows 15 companies for industry: eight services, five commercial, and 2 of production.

The study population was fifty respondents. The respondents' profile shown in figure 2 includes 15 founders, 16 successors, 6 advisors, and 13 executives.

In conducting this research, the data collection instrument was a closed-order questionnaire (Baena, 2009). Pearson's correlation coefficient uses to validate the questionnaire. The response options had an interquartile scale from one to four. The lower value answers reflect that the successor's training does not influence the business's continuity. The higher value answers reveal the influence that the successor training has to successfully replace the business management and achieve the family business's continuity.

This study includes the graph of the theoretical chi-square result of a pair of variables, with a theoretical inverse function: p-value vs. chi-square of 1 degree of freedom (González, Juárez & Romero, 2016).

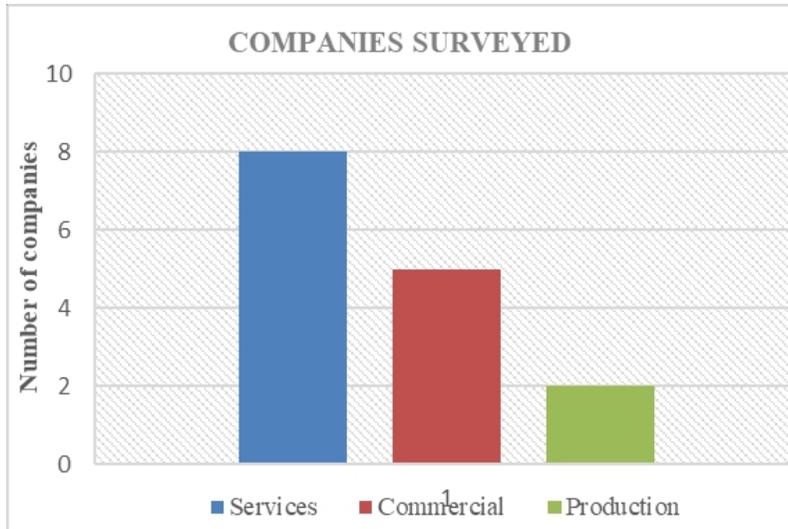


Figure 1. Graph of Surveyed Companies

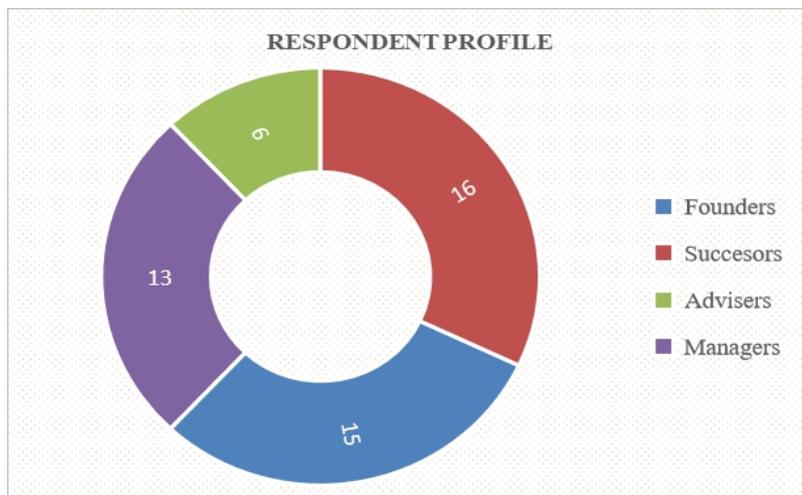


Figure 2. Graph of respondents

**Results:**

Pearson's correlation (Table 1) uses to validate the instrument.

**Table 1.** Pearson's correlation of the items

	ITEM1	ITEM2	ITEM3	ITEM4	ITEM5	ITEM6	ITEM7	ITEM8	ITEM9	ITEM10
ITEM 1	1									
ITEM 2	0.1423693	1								
ITEM 3	0.1123048	0.0365	1							
ITEM 4	0.0958367	-0.028582	0.1755162	1						
ITEM 5	-0.137374	0.0018603	-0.0568	-0.114371	1					
ITEM 6	-0.154043	0.1921861	-0.020582	-0.510199	0.2922056	1				
ITEM 7	0.1044262	0.5835261	0.0571954	0.0927175	0.0272078	0.1218961	1			
ITEM 8	0.1873172	-0.129369	-0.061718	0.0465116	0.0215699	-0.092848	-0.202721	1		
ITEM 9	0.2815323	0.0115345	0.2317877	0.3276086	-0.100371	-0.114206	0.0826262	0.0700537	1	
ITEM 10	-0.120942	-0.085785	0.0344634	-0.305986	0.0833093	0.2046085	-0.134425	0.2704769	-0.239155	1

It can observe that there is no Pearson correlation in the items of the questionnaire.

Means that:

1. The elements are not repeating.
2. Respondents did not interpret items as the same or repeated.
3. The authors designed the items independently of each other.
4. The elements do not have a natural linear or polynomial relationship.
5. Items are naturally correlated. In this case, there was no Pearson correlation

The chi-square dependency test analyzes the relationship between successors' formation from their predecessors and family members' management to achieve their continuity. This test identifies the association between two categorical variables (Dangeti, 2017).

Table 1 shows the results of the raw values taken directly from the survey. Table 2 shows the expected values, and Table 3, the statistical chi-square values. In this specific case, questions 3 and 8 compare.

Question 3) Do you consider that family businesses' continuity depends on the founders preparing their successors to replace them?

Question 8) Do you think that family businesses' success will depend on the fact that, once their founders retire, the administration is in charge of family members?

**Table 2. Contingency, questions 3 and 8**

		Variable X. Formation of successors		
		Yes	Not	Total
Variable Y Success in management by family members	Yes	4	1	5
	Not	13	32	45
	Total	17	33	50

**Table 3. Expected values, questions 3 and 8**

		Variable X. Formation of successors		
		Yes	Not	Total
Variable Y Success in management by family members	Yes	1.70	3.30	5
	Not	15.30	29.70	45
	Total	17	33	50

**Table 4. Statistical values, questions 3 and 8**

		Variable X. Formation of successors		
		Yes	Not	Total
Variable Y Success in management by family members	Yes	3.1118	1.6030	4.7148
	Not	0.3458	0.1781	0.5239
	Total	3.4575	1.7811	<b>5.2387</b>
				<b>3.8415</b>

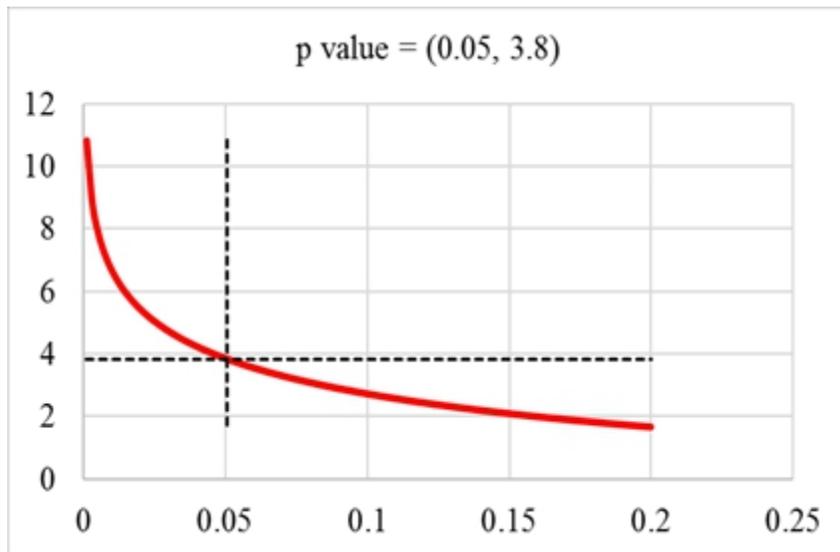
The observed or experimental chi-square results show a value of 5.2387 (Table 4), while the theoretical chi-square value shows a value of 3.8415. Only for these two variables. The validated hypothesis is:

"The formation of successors is associated with success in the management by family members" or

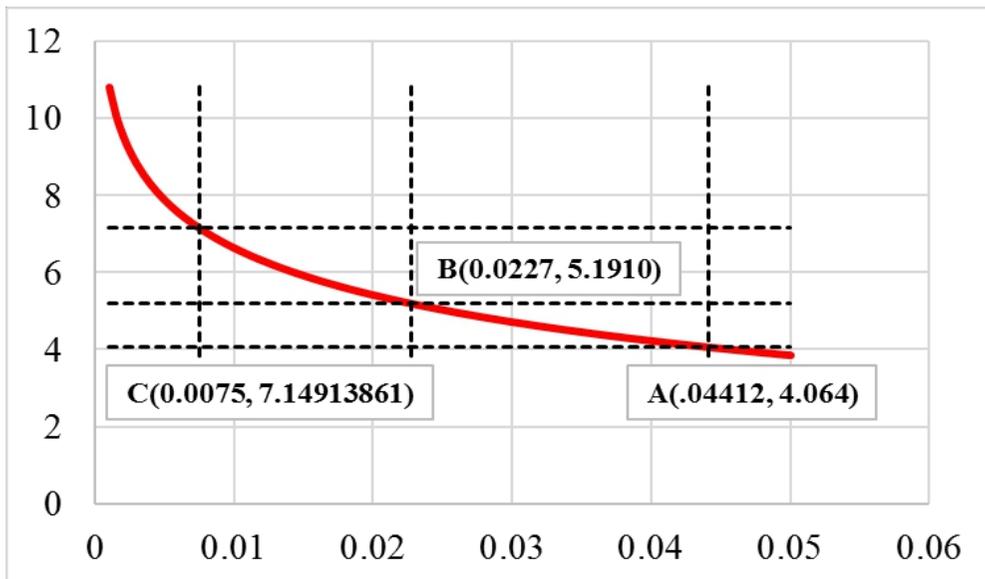
"Success in the management by family members is due to the good training of successors."

In the results of these variables that form the study hypothesis, the calculated chi is above the theoretical chi and outside the standard Pearson curve for 1 degree of freedom (Figure 3).

Figure 4 shows the graph of six other dependent variables calculated by chi-square, with a 95% requirement, that is, with a theoretical p-value of 0.05. Table 6 presents the results of these six variables associated and validated as research hypotheses.



**Figure 3.** Graph of the theoretical inverse function: p-value (0.05) vs. chi-square (3.8) of 1 degree of freedom. This function is the one most used by researchers.



**Figure 4.** A plot of the p-value of each hypothesis validated with chi square, table 5. It observes all the variables of the validated hypotheses are associated with a reliability above 95% (which is the standard value figure 3)

Table 5 presents the results of six other variables associated and validated as research hypotheses.

**Table 5.** Results of other dependent variables calculated by chi-square, with a requirement of 95% that is, with a theoretical p-value of 0.05

Independent Variable	Dependent Variable	Observed or Calculated Chi	Theoretical Chi P value (0.05)	Observation	Validated Hypothesis
Strategic Planning (1)	Government Corporate (4)	4.0643 (A)	3.8415	Variables associated with 96%	The strategic plan of family businesses includes corporate governance to achieve their permanence.
Training of successors (3)	Government Corporate (4)	5.1910 (B)	3.8415	Variables associated with 98%	Founders of family businesses preparing their successors to replace them also implement institutional, corporate governance.
Business Institutional (2)	Administration by staff with adequate training and knowledge. (7)	7.1513 (C)	3.8415	Variables associated with 99%	In institutional family businesses, the administration is in charge of personnel with adequate training and knowledge.

## Conclusion

Family businesses face their greatest challenge during generational change; succession represents their main problem, and a high percentage of these organizations do not survive this process. Various factors, such as the lack of a strategic plan and the implementation of corporate and institutional governance and adequate training of the successor, influence the generational transition's success.

The successor formation is a topic that authors from different countries have investigated over time; these authors approached this issue from different approaches. In Spain, studies show that three stages distinguish in the training of the future successor: the "remote" preparation stage, the "proximate" preparation, and the "in situ" (immediate) preparation. In Colombia, it was identified that the successors' preparation means developing the three dimensions of training: values, knowledge, and leadership. In Germany, the successor's training was analyzed, finding that the next leaders must train from three perspectives: development of hard skills, soft skills, and experience. In this same sense; in Mexico, nine founders were interviewed, who stated that the successor's formation would depend on the time and effort to educate the successors, instilling values and attitudes. Similarly, in Sweden, a study

identified that the founding leader significantly affects the successor, except when the successor has had training elsewhere with an external organizational culture. Finally, the findings found in Indonesia, through an interview with nine successors, indicate that there are three main obstacles in the intergenerational transfer: the founder's trap, the rivalry between siblings and the passion of the next generation.

The influence that the family exerts on the company makes the formation of a successor essential to preserve the family legacy and keep business management in the family's hands. These companies' continuity depends mainly on the training received by his predecessor's successor to replace him when he decides to retire and hand over the baton. This research identified that the successor's formation influences the success of the family's government in the company to achieve its continuity.

According to the results generated, it can deduce that the variables of question 3, training of the successor, and 8, success in the management and continuity of the family business, are associated.

- During this research, statistical tests use to identify six variables most dependent on each other. Items 3 and 4, 4 and 1, and 2 and 7 were found, with an association of 95% reliability in theoretical or critical chi and 100% reliability of observed or experimental chi, which forms study hypotheses for future lines research.
- The most important findings were the variables found by chi-square of items 4 and 1 that form the hypothesis "the family business's strategic plan includes corporate governance to achieve its permanence."
- The variables of items 3 and 4 form the hypothesis "the founders of family businesses who prepare their successors to replace them also implement an institutional, corporate government."
- Finally, the variables of items 2 and 7 form the hypothesis "in institutional family businesses; the administration is in charge of personnel with adequate training and knowledge."

It is concluded that the formation of the successor is a process that begins at home from an early age; In this stage, the successor learns and develops the values that will strengthen him as the leader of the family business. The successor's primary goal is to preserve the family legacy and keep the company's administration in the family's hands. Therefore, the family business's continuity depends mainly on the training received by their predecessors' successors to successfully replace them in business management when the time comes for their retirement.

This writing is a contribution to an issue that is underdeveloped in Mexico. It is necessary to point out that the study of family businesses'

succession requires a scientific treatment and an in-depth and specific knowledge of the subject.

### **Acknowledgments**

We are grateful to the group of Mexican Family Companies that answered the survey for the development of this study and the commitment they show to researching issues that contribute to this type of organization's continuity. Especially to the Founders, for their interest in the succession process experienced by family businesses in Mexico and particularly in the knowledge of a methodology and mechanisms to achieve generational success.

### **References:**

1. Araya, A. (2011). *La sucesión de empresas familiares costarricenses: factores de éxito y fracaso*. Tesis Doctoral, Universidad de Valencia, España.
2. Baena, G. (2009). *La influencia de la investigación en los procesos de la Administración*. Investigación de operaciones (26(171),331-324). México. Fondo Nacional de Cultura Económica.
3. Basurto, C. A. M., & Campos, J. L. T. (2017). *La problemática de la sucesión en las empresas familiares*. Revista Publicando, 4(11 (2), 294-305.
4. Belansteguigoitia Rius, L. (2013). *Empresas familiares: Dinámica, equilibrio y consolidación*. McGraw Hill.
5. Belausteguigoitia, Imanol. (1996). *La Singular Dinámica de las Empresas Familiares en Latinoamérica*. Artículo para la Universidad del Desarrollo.
6. Brenes, R.B., Madrigal K., & Molina N.G.E. (2006). Family business structure and succession: Critical topics in Latin American experience. *Journal of Business Research* 59, 372-374
7. Cherem, S. (2008). *Al grano vida y vision de los fundadores de bimbo*. México: Khalida editores.
8. Davis, S. P. & Harveston, P. D. (1998). The influence of family on the family business succession process: A multigenerational perspective. *Entrepreneurship Theory and Practice*, 22 (3), 31-53.
9. Dangeti, P. (2017). *Statistics for machine learning*. Packt Publishing Ltd.
10. Durán M.C. (2019, Junio 24), Continuidad, prioridad de las empresas familiares. *FORBES*, México, 2019
11. Recuperado de <https://www.forbes.com.mx/continuidad-prioridad-en-empresas-familiares/>.

12. Drennan, J., Kennedy, J. y Renfrow, P. (2005). Im- pact of childhood experiences on the develop- ment of entrepreneurial intentions. *International Journal of Entrepreneurship and Innovation*, 6 (4), 231-238.
13. Fuad, M., Sudarma, M., & Irianto, G. (2019). Exploration of obstacles faced by successors in the intergenerational transition process of family business. *Jurnal Aplikasi Manajemen*, 17(1), 20-29.
14. Gallo, M. Á. (1998). La sucesión en la empresa familiar (No. 12). " la Caixa".
15. Gaona Tamez, L. L., de la Garza Cienfuegos, S. P., & Hernández Sandoval, R. H. (2014). El Sucesor, Figura Clave en el Éxito de La Empresa Familiar (The Successor, Key Figure in the Success of the Company ousehold). *Revista Internacional Administración & Finanzas*, 7(3), 57-67.
16. Gutiérrez, M. C. P., Gómez, L. L. B., Beas, J. F. H., & Ortega, A. T. (2018).
17. Problemas que enfrentan las empresas familiares en el proceso de sucesión. *DUCATECONCIENCIA*, 17(18).D
18. González, M. A. M., Benítez, H. A. U., & Tamayo, E. J. G. (2017). Factores determinantes del éxito del proceso sucesorio en empresas familiares de Dzityá, Yucatán. *Red Internacional de Investigadores en Competitividad*, 4(1).
19. González, M., Juárez B., Silka & Romero O. Moisés, (2016). *Metodología de la redacción Científica. Un enfoque cuántico Hamiltoniano*. Columbia S.C. U.S.A.
20. Hollerbach, A. (2012). The Important Role of the Successor within the Family Succession Process. *Ekonomika a Management*, 2012(1), 28-34.
21. IPADE, 2019. "Situación y Progreso de las Empresas Familiares para lograr su Continuidad". Centro de Investigación para Familias de Empresarios, CIFEM– BBVA. Recuperado de <https://www.bbva.com/es/mx/algunos-desafios-que-tienen-las-empresas-familiares-para-lograr-su-continuidad/>
22. Lambrech, J. (2005). Multigenerational transition in the family business: A new explanatory model. *Family Business Review*, 18 (4), 267-282.
23. Leandro, A. A. (2017). Modelos de planeación estratégica en las empresas familiares. *Tec. Empresarial*, 11(1), ág-23.
24. Leach, P. (1993). *La empresa familiar*. Barcelona: Ediciones Granica.
25. Longenecker, J. y Schoen, J. (1978). Management succession in the family business. *Journal of Small Business Management*, 16 (3), 1-6.

26. Tamayo, Tamayo, M. (2017) Métodos Investigación Científica en la Administración. *Revista Investigación y Administración*, pag.228-229.
27. Pymes (2014, 6 de Junio) ¿Cómo planificar la continuidad de su empresa familiar? *El financiero*, recuperado de <https://www.elfinancierocr.com/pymes/como-planificar-la-continuidad-de-su-empresafamiliar/sglqahxsmjeo7czf7ldn27dype/story/>.
28. Posso, M. L. (2008). Elementos del proceso de formación de descendientes antes de su vinculación a la empresa familiar: un estudio de casos colombianos. *Cuadernos de Administración*, 21(37).
29. Quejada Pérez, R. F., & Ávila Gutiérrez, J. N. (2016). Empresas familiares: Conceptos, teorías y estructuras. *Revista EAN*, (81), 149-158.
30. Schlepforst, S., & Moog, P., (2014). Left in the dark: Family successors' requirement profiles in the family business succession process. *Journal of Family Business Strategy* 5 (2014) 358–371
31. Tápies, J. (2011). *Familia empresaria*. LID Editorial.
32. Vassiliadis, S., Siakas, K., & Vassiliadis, A. (2015). Passing the baton to the next generation of the Greek family businesses. *Procedia Economics and Finance*, 33, 528-534.
33. Visser, A., & Lu, D. (2019). Incumbent leaders and their effect on the successor generation in family business SME's.
34. Walsh, G. (2011). Family Business Succession. Managing the All-Important Family Component, KPMG.
35. Ward, J. L. (1994). *Cómo desarrollar la empresa familiar*. Buenos Aires: El Ateneo.
36. Ward, J. L. & Sorenson, L. S. (1988). Turning children into managers. *Nation's Business*, 76 (8), 49.

## Annexed

KEY FACTORS AFFECTING THE CONTINUITY OF THE FAMILY BUSINESS					
Objective: Evaluate the key factors that affect the continuity of the family business					
We appreciate your time and kindness in answering these questions. The purposes of this survey are exclusively academic.				Respondent Profile	
In the yellow box, please mention the kind of respondents to which you belong: Founder, Advisor, Successor, Director, Advisor.					
QUESTIONNAIRE		1	2	3	4
PLEASE MARK YOUR ANSWER WITH AN X		Never	Sometimes	Most of the time	Always
1	Do you consider that strategic planning is important in family businesses?				
2	Do you consider family businesses are institutional?				
3	Do you consider that family businesses' continuity depends on the founders preparing their successors to replace them?				
4	Do you consider that family businesses are managed through corporate, institutional governance?				
5	Do you consider that family businesses are more successful when their founders operate them?				
6	How often, in family businesses, are senior positions assigned to family members?				
7	Do you consider that administration is given to people with the right knowledge and preparation in family businesses?				
8	Do you think that family businesses' success will depend on the management being carried out by family members?				
9	Do you consider that the creation of a family protocol guarantees the continuity of family businesses?				
10	How often, in family businesses, do successors take over until the death of the founders?				