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# Table of Contents:

**Historical Perspective of the Triple Nexus: The Challenges of Humanitarian, Peacebuilding, and Development Activities.....1**

*Abdullah Onder Ozkul*

**Perceptions and Experiences of Change in Practices of Masculinity among University-Educated Men of Iranian Origin in Quebec.....22**

*Zohreh Mehdizadeh*

**El balanced scorecard como herramienta estratégica para la gestión de las funciones sustantivas de los institutos superiores tecnológicos.....51**

*Carlos Augusto Marín Granda*

*Angela Alexandra Barco Morán*

*Gema Carolina Correa Verduga*

*Gladys Elizabeth Mosquera Moreno*

*Guisela Mariuxi Falconi Orozco*

**Corporate Governance, Financial Characteristics, Macroeconomic Factors and Financial Performance of Agricultural Firms Listed at the Nairobi Securities Exchange, Kenya.....71**

*Moses Odhiambo Aluoch*

**Mother Nature's Revolution and the COVID-19 Pandemic: A Scooping Review of COVID-19 and the Environment.....100**

*Endurance Uzobo*

*Stanley E. Boroh*

**Influence du prix et de la communication dans l'industrie automobile sur la perception de l'image de marque: Cas du grand Agadir au Maroc.....111**

*Amira Qanqom*

**Performance Supervision and Employees' Productivity in the Ministry of Lands, Environment and Natural Resources of Taita Taveta County, Kenya.....128**

*Dorothy Ndembo Mwasawa*

*Lawrence Wainaina*

**Mentoring Practices of Principals for Teachers' Retention in Public Secondary Schools in Anambra State, Nigeria.....142**

*Obinna Nonso Anachuna*

*Emenike Obi*

**Impact de libéralisation commerciale sur l'accumulation du capital humain en Afrique : une analyse empirique en Données de Panel.....156**

*Nabil Boubrahimi*

*Hamid Fayou*

**The Efficiency of Public Spending in Sub-Saharan Africa.....173**

*Dickson O. Wandeda*

*Wafula Masai*

*Samuel M. Nyandemo*

**Resource-Based Approaches: A Framework for Analyzing  
Competitiveness in the Context of Reverse Logistics.....194**

*Asmaa Bentamar*

*Kacem Taj*

*Omar Ourahou*

**Evaluating Organisational Change and Employee Productivity in  
Nigeria: A Case Study of Union Bank, Plc.....208**

*Patrick Ohunmah Igudia*

**Consommation du «garba» en cote d’ivoire : entre risques sanitaires et  
construction de lien social.....230**

*Aya Lydie Judicaelle Koffi*

**Conflits armés et évolution de la scolarisation primaire et secondaire en  
République Démocratique du Congo de 2005 à 2015.....247**

*Emmanuel Nkete Ziulu*

*Gratien Bambanota Mokonzi*

*Paul Masimango Vitamara*

*Augustin Awongi Issoy*





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# Historical Perspective of the Triple Nexus: The Challenges of Humanitarian, Peacebuilding, and Development Activities

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## Abstract

This paper focuses on discussing development, humanitarian aid, and peace-making notions alongside their historical backgrounds. Different development approaches and methodological dimensions of development were examined through the development process of Turkey. Humanitarian aid was also handled from a historical perspective. The natural and man-made disasters that humanity has faced in recent years and the performed humanitarian interventions were examined. The interaction points for humanitarian aid, development, and the concept of Triple Nexus, a new concept that meets this process, were also examined. According to the chronology of notions, this study first examines the concept of development with the literature research method, and then the literature research results on the concept of humanitarian aid were included. Descriptive research and observation methods, which are among qualitative research methods, were applied in this paper holistically.

**Keywords:** Economic Development, Humanitarian Aid Organizations, Humanitarian Aid Standards, Triple Nexus, Development History of Turkey, Regional Development, Development with Planning, cross cutting points of Development and Humanitarian Aid

## Introduction

Development is a notion that all positive momentum, from the first days of civilization till now, can gain access to. With the widest perspective

in human civilization, the touchstones of development could be summarized as follows: start a sedentary life, tame plants and animals, set out agriculture activities, use animal force for agriculture, stock the foods, exchange items, and trade. It also includes the invention of writing, paper, money, geographical discoveries, usage of mine, electricity, the steam engine, industrialization, internet, Internet of Things, etc.

There are many other sub-factors that affect the mentioned development stages such as wars, seasonal changes, religious activities, and societal management systems.

Therefore, it seems that development is a multi-sectoral process, and it is scaled with some global parameters today such as per capita income, average human life, baby mortality rates, and school enrollment rates.

Although, humanitarian aid has shown its first forms with a history of religions, the zakat and the charity mechanisms belong to the concepts of global religions such as Christianity and Islam. The first professional examples of the humanitarian organizations appeared at the end of the 18th century, after World War I. Also, the United Nations and many other professional humanitarian aid organizations have been established after World War II. Recently, humanitarian aid activities have been standardized step by step.

When the basic humanitarian aid activities, which were performed by religious organizations, were excluded, the human civilizations had not developed any structured and systematic humanitarian aid interventions in nature and human-based disasters or illnesses during the long ages.

Informal forms of peacebuilding activities sprung up during the war and disaster periods. However, the formal ones have appeared with the establishment of multinational organizations after World War II. The economic development-based, religious-based, geographic location-based, and security-based organizations may use their power through their networks to mitigate or stop clashes or disputes. Currently, invading a country or announcing war declarations against countries is not a bilateral issue. Nevertheless, all actors consider the opinions of other stakeholders and potential reactions of the multinational organizations. Although all multinational actors are not the direct peacebuilding organizations, their presence might help to ensure peacebuilding naturally and sustain peace keeping.

This paper focuses on underlining the crosscutting points of these concepts and also discusses the potential interaction areas. In historical flow, the studied topics have played crucial roles for the civilization process. Presently, these notions should sustain their presence with ultimate and optimal collaboration with each other.

In this paper, the interaction between the notions was studied with qualitative

research methods such as descriptive research method and observation method.

### **Historical Stages of Development and Development Based Multinational Organizations**

The historical processes that humanity goes through determines the human life, welfare level, healthy life span, livelihoods, consumption habits, etc.

Before industrialization, consumption mainly depended on the self-production of individuals. However, the industrial revolution food production has boomed, and the consumers have abandoned their producer identities. As a result of the technological inventions, majority of the population began to work in the service sector. More so, these new groups were only consumers. A century ago, the situation was not the same. This is because the producer part of the population exceeded the consumer part.

Settled life, agriculture, use of livestock, industrialization and afterward machinery-based agricultural production, developments in pharmaceutical and chemical industry, automation, internet, etc. can be considered as triggering factors of development processes. Being developed also provides the necessary atmosphere for new inventions and discoveries to occur. In terms of cause and effect relationship, the question of whether development is the cause or effect remains in a controversial area.

The development notion appeared at the global and institutional level in 1945 to eliminate war affects with different international agencies. The global level development-related international organizations include World Bank and IMF (1945) which are Bretton Woods siblings, UNDP (1965), EU (1993), EBRD (1991), and OECD (1961). There are some other organizations that work at limited geographic locations or sectors.

### **Development Models**

It is possible to see many texts describing development in the literature. Definitions are also related to the management models that authors consider as correct for social development. The economic management model adopted naturally affects the definition of development. Different definitions of development may arise in societies that prioritize liberal and private sector development or societies with planned and intensive state control. The definitions, however, do not have to be the same. Nonetheless, some of the development theories have merged to two options (state-based development or private sector-based development). The mentioned model was known as a Dual Development Model. Currently, the biggest economies of the world adopt this model such as the USA, China, European countries, etc.

According to Kaçanoğlu, communities have made an effort to make

their living conditions 'better' in the historical process. Improvement in living conditions is usually expressed in the dominant literature with the concept of “development”. Therefore, the concept of development has existed since the existence of humanity (Kaçanoğlu, 2019).

The Development Economics notions started after World War II to eliminate and mitigate war damages. However, this was limited to development differences between the countries.

*“Many of the people in the world are poor, and they don't even have the United States' standard of living a century ago. The branch of economics that deals with the problems of poor countries called developing countries is development economics.”* (Dornbusch & Fischer, 1998)

The meaning of Economic Development has changed in the chronological period. In 1950-1960, the meaning of development was close to economic growth and it was measured with data that reflected economic progress. This perception has been criticized overtime because development cannot be limited to quantitative definitions. During the 1960-1970 period, development notion has been handled with economic dependency. The development concept has also been assessed with dependent economies or countries' terms.

Development theories generally accepted in the literature are as follows:

1. Simple Stage Theory (A.G.B. Fisher- C. Clark)
2. Rostow's Theory of Growth Stages (W.W. Rostow)
3. Kaldor's Growth Laws (N. Kaldor)
4. Pattern of the Industrialization Process (W.S. Hoffmann)

#### Dual Development Models

1. Development Model with Unlimited Labor Supply (W.A. Lewis)
2. Complementarity Between Agriculture and Industry (Kaldor)
3. Harris Todaro Model Urban unemployment (J.R. Harris – M.P. Torado)
4. Social Dualism (J.H. Boeke)

#### Balanced and Unbalanced Growth

1. The Big Thrust Theory (P.R. Rodan) Balanced Growth
2. Unbalanced Growth (O. Hirschman)
3. Development Poles (F. Perroux)
4. Polarization Theory (G. Myrdal)

(<https://ekonomihukuk.com/buyume-kalkinma/kalkinma-teorileri>)

Another theory that has recently viewed the concept of development from

a different perspective is “*Human Development Theory*”. It was developed by the economist Amartya Sen, who won the Nobel Prize in Economics. Sen has taken the discussions one step forward and stated that comprehensive development needs to provide satisfaction to the society in terms of individual rights. When it comes to real development, the private sector and government collaboration is not enough in these modern times.

*“Focusing on freedom runs counter to narrower conception of development that identifies development with the growth of gross national product (GNP), increase in individual income, industrialization, technological progress or social modernization. Of course, the increase in GNP or individual revenues can be very important means of expanding the freedom that community members enjoy. However, liberties also depend on other determinants of social and economic arrangements (e.g., education and health care), as well as civil and political rights (for example, the freedom to discuss issues concerning the public and to participate in control). Likewise, industrialization, technological progress or social modernization can contribute significantly to the expansion of individual freedoms. However, freedom depends on other effects. If development enhances freedom, then there is an important reason that requires concentrating on this unifying target rather than a particular list of vehicles or a specially selected tool. Addressing development in terms of the expansion of basic freedom directs attention towards goals that make development more important than some tools that play an important role in this process, among other things.” (Sen, 1999)*

*“There is no single model that its correctness and sustainability was proved in advanced and emerging countries in the field of development. However, there is also no general model about methodology of development. The form and implementing performance of plans prepared for development, depending on political conjuncture of the world and countries, vary. In the periods where central government models have weight, models planned by center have limited auditability in terms of its comprehensiveness and results and the level of success remains very low.*

*Mentality in development policies has changed together with republican and democratic regimes. Concepts such as regional development, local development, rural development, etc. are*

*now having their places in the literature. This change has brought with itself a transition towards a mentality of regional development and regional planning by providing an understanding of planning at central level in the phase of planning in order to get expected efficiency from development moves. In implementations of development, a transition began from central organizations coordinating development process towards institutional structures found on local and watching implementations from first hand.” (Özkul, Dincer & Hacıoglu, 2015)*

### **Development in Turkey (1920s-2020)**

Turkey has also embarked on a comprehensive development initiative with the proclamation of the Republic. The Anatolian society, which constantly lost its human resources and economic resources during the Balkan wars, the World War I, and the liberation wars, initiated a restructuring move in every sector such as education, health, state administration, industrialization, banking, and agriculture together with the republic regime after 1923.

The situation analysis of the country in 1920s was presented at the Izmir Economy Congress held before the proclamation of the Republic between February 17 and March 4, 1923. The following decisions taken at the congress can be accepted as the first regulations of the new economic system and country development.

1. It is necessary to establish industry branches whose raw material can be grown domestically.
2. Handicraft and small manufacturing business should be turned quickly to factory or big business
3. The state should gradually become an organ with economic planning and also undertake sectors that cannot be established by private sectors.
4. A State Bank should be established to provide loans to private enterprises.
5. To be able to withstand foreign competition, the industry must be established collectively as a whole.
6. Monopolies established by foreigners should be avoided.
7. Industry encouragement and establishment of national banks should be ensured.
8. The Railways should be linked to the construction schedule.
9. The working people should be called workers, not laborers.
10. The Union right should be

recognized.

Most of the decisions taken in this congress have been implemented over time. However, the articles related to agriculture have not been fully achieved even today. As a result, this led to a period of intellectual development, determination of economic inventories, search for models, and implementation to a certain extent, which started with the Izmir Economy Congress. In this period, the possessions and non-possessions of the economy were determined, economic targets were determined, and the foundations of the mixed economy model were prepared ([https://tr.wikipedia.org/wiki/%C4%B0zmir\\_%C4%B0ktisat\\_Kongresi](https://tr.wikipedia.org/wiki/%C4%B0zmir_%C4%B0ktisat_Kongresi)).

One of the important decisions that was taken with the congress was that the “laborer” notion will not be used officially, but the “working people” notion will be used instead. Since the laborer refers to daily workers and does not have a regular and trustable job, there is a sociological code that contains humiliation. On the other hand, the “worker” refers to a societal class, particularly in the 1920s. The congress showed that the new Turkey will give special attention to undefined social class.

In the years following the foundation of the Republic, private sector-based development was prioritized. In other words, the private sector was adopted as the engine of development. Incentive Industry Law, enacted in 1927, is a legal arrangement made within the scope of this understanding. However, the countries' capacity was not suitable for this policy. Society had also previously gone through political stress and wars within the last 20 years. Furthermore, the Ottoman Empire had collapsed. As a result, the community was very exhausted, and the resources had mostly run out. The capital accumulation and the technical infrastructure of the private sector does not have a needed quantity and quality for being a locomotive of the country's development. As a result, the first private sector-based development policy had been turned to state-based development policy.

Due to the impact of the economic crisis in 1929, the economic development attempt of Turkey was slowed down. In 1930s, the Etatism came to the fore as an economic model. Under the Keynesian economic approach on the globe, Turkey carried out economic enhancements with state leadership. Many governmental factory investments were also performed.

As a holistic development movement, alongside the economic regulations, legal regulations (civil law, debt law, commercial law, etc.) and educational regulations (letter reform, establishing national education authority, etc.) were also implemented in this period. These realized arrangements in the social field were the complementary elements of the economic process which resulted in an integrated development.

The First Five-Year Industrialization Plan was created and well-



implemented between 1934-1938. The Second Five-Years Industrialization Plan was also prepared for the 1939-1944 period. However, it could not be realized due to World War II. Turkey was not a direct side of World War II. Nevertheless, the war-made contraction affected Turkey to a large extent. Turkey did not have any capacity to be part of the active war in these years. World War I had deeply consumed all sources of the country. The republic was established in 1923 and lots of socio-economic revolutions were conducted. The cultivated human capacity, economic, and military capacity was not enough to defend itself across strong allies.

In 1950s, foreign development policies were implemented with American Marshall Aids. Turkey was also in the plans covering 16 countries, based on a strategy to fight Communism. Turkey, positioned itself alongside the United States against the threat of another superpower, Russia. Izmir Economic Congress had been conducted with the motivation of building economic autonomy under the leadership of Ataturk, who was the founder president of Turkey. However, in the 1950s, Ataturk died and his political perception was different from founders of the republic.

1960 was a radical year for Turkey, and the country's government changed hands with a military coup. The following years were known as a planned period in terms of economy and development policies. The 5-year development plan period manifested itself in Turkey's economic history. The State Planning Organization, established in 1961, and the State Statistics Institute, founded in 1962, emerged as institutions with important functions in the planned economic period. The development units were not directly controlled by military officers. Legally, these branches were dependent on the civic Prime Ministry. However, the legal civic politicians were highly hesitant when making regulations about the opinions of the military sides. In other words, the democracy was under the military shadowy.

Unfortunately, the 5-year development plan could not provide the desired efficiency most of the time due to the political turmoil between 1960-1980. There were periods that democratic administration was interrupted such as the military memorandum of 1971, the American sanction of 1974, and the military coup of 1980. These periods resulted in economic recessions and economic crisis. In 1960, 1971 and 1980, the democracy was wounded with military interventions and all politicians were arrested, imprisoned, defined as politically banned, etc. The first elected civic prime minister had been hanged in 1960. Turkey could also not take the needed international support to defend its democracy. This is still a controversial issue if there were big countries behind the military interventions or not.

January 24, 1980, is an important date for the economic history of Turkey because the economic system of the country was changed. The import substitution industrialization model was abandoned and the export-oriented



industrialization model was introduced. After 1980, the national economy integrated with the international markets. The foreign exchange freedom started and regional development plans like GAP were scheduled. In this scope, 5 years of national development plans were prepared. However, the development plans could not be put into practice with 100% efficiency due to the political changes and populist investment approaches. The Liberal economic policies were promptly activated. The politicians could have performed this transition period more professionally if they prioritized their political concerns.

Turkey was faced with high inflation and borrowing between 1990-2001. This came to the forefront of inefficient public investment and public banks' duty losses (due to populist disbursed loans) undertaken by the Treasury. Thus, this period was finalized with the 1994 and 2001 economic crisis. The 1999 earthquake further increased the fragility of the economy and became a factor that increased the negative impact of the 2001 economic crisis.

Between 2002-2010, there was a global monetary expansion in the world. Additionally, the newly elected government gave priority to the European Union full membership regulations. The negotiations that were carried out in the scope of the EU membership process positively affected the economy. Turkey experienced serious annual economic growth rates such as 7% and 8% in these years.

After 2010, the EU full membership negotiations lost motivation because economic growth figures dropped by half, regional economic balances turned negative with the Syrian war, and TL depreciated continuously. Turkey missed the most efficient way of positive status in the period 2002-2010, and could not direct their investments to value-added and productive sectors. On the contrary, highway constructions and low productive investments were prioritized (Yeldan et al., 2013). [Major questions: what policies/factors were responsible for these losses? What role policy-makers played? Why was the democratic opposition suppressed? Who benefitted from this national crisis so that it persisted by repression as documented by international human rights organization and the Turkish Press?]

As a result, Turkey has faced the “Middle Income Trap” and this means annual income per capita did not go above 10.000 USD. The negative sided aggressive movement of the exchange rate, booming unemployment rate, and foreign exchange deficit pressed Annual income per capita to decrease. It dropped to almost 8.000 USD levels.

**Table 1.** The periods in Turkey's Economy (Eğilmez, 2019)

<b>Years</b>	<b>[Specialty] of Period</b>
1923-1929	Establishing free trade
1930-39	Great Depression, Ottoman Debts, Statism
1940-49	Second WW, Famine, Import limitations, Asset tax
1950-59	Multi-Party Political life, Liberal Policies, and Marshall Supports
1960-69	Planned period, Import substitution
1970-79	Petroleum price crises, Cyprus Army Operation, Economic embargo
1980-89	Free economic period, Open to foreign bazaar and neoliberal policies
1990-99	Open to foreign bazaar, 94 crises and IMF support, Rehabilitation
2000-09	2001 crises, IMF program and support, EU rapprochement liberal policies
2010 +	Collapse the EU rapprochement, Intervention to market, Politics problems

One of the development moves carried out within the scope of EU full membership negotiations was the Development Agencies model. In Turkey, 26 regional development agencies were established in 2005-2010 within 26 statistical regions units. The national level coordination was provided by the General Directorate of Regional Development and Structural Adjustment within the State Planning Organization, which was active in those years.

Development Agencies, which have a state unit status, legally prepared a 5-year regional development plan for their hinterlands. These regional development plans formed the base of the 5-year national development plan prepared by the State Planning Organization (later known as the Ministry of Development).

In addition to preparing a Regional Development Plan, development agencies work to support regional development by declaring grant programs in proportion to their annual budgets allocated from the national budget (Ministry of Development budget).

The principal aim of the agencies was to mitigate the regional development disparities among the sub-regions and ensure regional development by using EU funds. However, they have lost their synergies when Turkey was away from full membership chance to the EU. It seems that although some regulations were realized in the scope of full membership negotiations, some other requested regulations clashed with the political concerns of the Turkish state such as the governmental transparency, legal regulations, decentralizations, etc.

Thus, the regional development agencies have lost their motivation. The grant schemes they implemented with limited annual budgets are inadequate to realize the expected performance from this formation.

### **Historical Periods of Humanitarian Aid and International Samples**

The first examples of humanitarian aid were practices put forward

by faith-based organizations. The missionary formations of Christianity and the concept of Zakat of Islam are examples of religious-based humanitarian movements. It is not a criticized issue in this paper, but it was the main starting point of the studied topic.

Consequently, the first and second world wars were the first periods when the rehabilitation of the societies was carried out with a governmental perspective. These studies were of course not human-oriented, but side-oriented. Human-oriented aid activities do not regard national, ethnic, or religious identities. On the contrary, side-oriented activities try to relieve specific groups, ethnicities, believers, etc. In other words, the first humanitarian aid activities aimed to eliminate the bad effects of war from their societies, and not from all the people affected. Hence, they were not impartial.

Along with the multinational organizations, partiality has been overcome, and organizations such as UN, Red Cross, and Red Crescent have handled humanitarian aid processes with a more global vision.

*“Having said, the root of aid for a relief mission, known as religious humanitarian aid, goes back to 17th-century philanthropy, though humanitarianism has emerged as a component of the global response to disaster or conflict zone areas. The hardship caused by human-led or natural-based disasters was a significant area for action in humanitarian practice. Several NGOs' were initially formed in response to emergency needs, such as the Red Cross in Italian unification and Oxfam in the Greek famine of 1942. In fact, due to the influence of Cold War politics, much humanitarian aid was confined to the periphery of conflicts, until the 1980s. The rise of multilateral humanitarian aid and the recent shift in grant foreign aid through the 1990s have been accompanied with the thawing of Cold War relations and the humanitarian issue has emerged as a significant aid component. This idea finds a place in the categorization of aid by changing the traditional implication of humanitarian aid. That is to say, even though most of the early practices of humanitarian aid basically ran through the auspices of central states, humanitarian aid today is often practiced without the consent of central states in war-torn countries, such as Afghanistan and Ethiopia. In the name of protecting human rights and liberal values, military interventions to Somalia, Bosnia, and Haiti were launched to address the humanitarian consequences of wars. In part reflecting this trend, NGO-oriented humanitarian aid has been gradually accelerated, to now become a significant*

*player in several humanitarian experiments conducted under the umbrella of the U.N. In parallel to the enhancement of NGO-based humanitarian aid, total humanitarian aid has increased. Looking over a more extended period, despite its low share of aid, only increasing from 5% to 10% of the total aid in the last 30 years, humanitarian aid has increased at a far faster rate annually than total official aid. For instance, within a decade (from 1990 to 2000) the volume of official humanitarian assistance nearly tripled from \$2 billion to \$5.9 billion, which is equivalent to increasing the proportion of ODA (Official Development Assistance) from 5.83 percent to 10.5 percent. In other words, starting from three decades prior to the beginning of the 21st century, there has been a seventeen-fold increase in humanitarian aid, whereas ODA has just increased two and a half times. Because of its direct focus on human life, humanitarian aid is treated as one of the fast-growing types of aid in terms of scope and budget, therefore NGOs and DAC (Development Assistance Committee) donors disbursed over 16,7 billion USD public flow as humanitarian aid in 2016.” (Turhan, 2019)*

In the Syrian war, for example, Turkey has the largest borderline. There are some historical ties and kin relations among the communities. The open border policy was not a fault decision during the hot clash days in Syria. The Turkish authorities did not forecast such a long-term authority gap in Syria. In the current situation, to solve the refugee problems collaborating with the related international actors will decrease management stress of the Refugee issue.

*“While the humanitarian gesture – the will to alleviate the suffering of others – is centuries old and genuinely global, the development of the international humanitarian system as we know it today can be located both geographically and temporally. Its origins are in the Western and especially European experience of war and natural disaster yet it is now active across the world in a range of operations: responding to needs in situations of conflict or natural disasters, supporting displaced populations in acute and protracted crises, risk reduction and preparedness, early recovery, livelihoods support, conflict resolution and peace-building. Over time, the efforts of the most prominent international actors – states, nongovernmental organizations (NGOs),*

*international agencies, the Red Cross/Red Crescent Movement – have coalesced into a loosely connected ‘system’, with links on the level of finances, operations, personnel and values. They work in collaboration, complementarity or competition with other providers of humanitarian assistance, such as affected communities themselves, diaspora groups, religious organizations, national actors, militaries and the private sector.” (Davey, Borton & Foley, 2013)*

In recent years, international humanitarian aid operations should be carried out with the collaboration of central governments. The international legal regulations and the presence of multinational organizations, such as the U.N. and E.U., may facilitate the mentioned humanitarian aid operations. The success and effectiveness of activities depend on the quality of operations and the big organizations which implement these activities. As a result, standardization appeared as an indispensable need for humanitarian aid operations. The globally accepted four standards were written as another sentence in the paper.

The NGO's take more roles in the humanitarian aid activities. Globally, U.N. performs a critical role on this ground. The representation role of 193 member countries play a special role. Another big regional multinational organization is E.U., and its quality-based approaches and fiscal power makes it a prominent actor on this ground.

Turkey tries to manage the refugee situation in collaboration with UN organizations and EU organizations.

For example, in the Syria crisis, the Turkey government takes huge funds from the EU organization, i.e., the D.G. ECHO (Directorate-General for European Civil Protection and Humanitarian Aid Operations). Its abbreviation of this fund is ESSN (The Emergency Social Safety Net). This fund is transferred via the KIZILAY (Red Crescent) which is a Turkish-based aid organization. The fund appeals to Syrian Refugees and it has well-defined selection criteria. The NGOs perform a critical role during the implementation disseminated to ESSN among the target group and enlightens the Refugees about the criteria. For more information, visit the web page ([https://ec.europa.eu/echo/essn\\_en](https://ec.europa.eu/echo/essn_en)).

The state unit and the NGOs are not rivals in this context, but they are complementary bodies. Furthermore, the ESSN fund does not cover all the financial needs of Refugees. However, it is a good implementation example for NGO and state partnership.

According to Heather Rysaback-Smith, underpinning humanitarian action are several major principles of humanitarian law, specifically the rules set out by the Geneva conventions of 1949. While not directly addressing

aid organizations, they provide some justification for the provision of relief to civilians and wounded military. They also impose upon the ratifying countries the obligation to allow assistance to be provided. They also insist upon the provision of aid to be impartial, humanitarian, and without favoring one particular side of the conflict, thus strengthening the principles of neutrality and impartiality.

Currently, aid workers face an increasingly complex environment fraught with controversy, political battles, and multiple international organizations. This is a brief introduction to some of the history and principles of humanitarian aid. As conflicts and disasters become more frequent and increasingly geopolitical, adherence to the basic four principles becomes even more important. Alleviating suffering and mitigating the effects of disasters is at the forefront for the provision of aid (Rysaback-Smith, 2015).

The basic four principles of humanitarian aid are Humanity, Neutrality, Impartiality, and Independence.

### **The Role of Civil Society in Humanitarian Aid**

Humanitarian relief activities started with the individual works of the states in the historical flow. However, the need for multinational humanitarian organizations emerged to respond to global or large-scale problems. Although the states are members of international humanitarian aid institutions, practically, States are not always seen as reliable structures in the eyes of multinational humanitarian organizations. Undoubtedly, the economic and political conjuncture that states were in at that time was the determining factor. In addition, there were concerns for religious entities as well as public demands. The need for other reliable and auditable organizations in cases where states have a problem of trust in the vision of international humanitarian organizations has paved the way for civil society to find a place in the humanitarian sector.

The state is an organization in which politics can be very decisive, and its controllability may be less when compared to civil society. The governmental power may differentiate the implementation with the argument of compliance to national interests. At this point, non-governmental organizations are accepted as transparent formations that can be easily controlled and directed by international organizations. For example, the Turkey government does not ban the humanitarian actors operating in Turkey about the Syria crisis. However, responsible state units observe their activities and request collaboration with the governmental counterparts. The governmental authorities shares the validated foreign NGO/INGO on their web page. There are 135 validated INGOs on the web page of the Ministry of Interior Affairs (<https://siviltoplum.gov.tr/turkiyede-faaliyetine-izin-verilen->



yabancı-stklar).

In 1950s and 1960s, the first examples of multinational humanitarian organizations were seen. In the following years, the NGO's started to show itself actively in the humanitarian sector as a partner of multinational organizations. The United Nations and the European Union have assumed the role of a roof organization in this field, and many non-governmental organizations working in sync with these organizations have specialized in various sub-sectors of humanitarian aid and continued their activities. Moreover, non-governmental organizations were able to find their place within the organizational structures of religious institutions. The funding sources of these organizations, which act with religious motivation, are the organizations they belong to and the donations of the believers.

In addition, some companies and capital owners operating globally, especially in the 2000s, established their own corporate humanitarian organizations or allocated a certain fund from their annual budgets to humanitarian aid. This includes Google, Microsoft, Goldman Sachs, JP Morgan, Johnson & Johnson, Bill Gates, etc. Tax incentives by governments for such activities are also a factor in this regard.

### **Intersection of Development and Humanitarian Aid and Triple Nexus**

There is a natural relationship between development and humanitarian work. The dates when both concepts emerged in the historical process are almost the same. The period after the Second World War is the time when both development work and humanitarian aid work emerged within the institutional structures with multinational organizations. This argument may be demonstrated with an example of UN sister organizations. Their establishment dates are close to each other. This was shown in another text in the paper.

The intersection of Development and Humanitarian Aid led to re-establishment, especially after long wars, civil wars, and natural disasters with high destructive dimensions such as World War II. The spread of disadvantaged situations results in a number of negative outcomes such as chronic unemployment, poverty, malnutrition, lack of education, lack of basic health needs, increased infant mortality rates, increased crime rate in the community, etc.

It was almost impossible for countries to come out of the vicious cycle of underdevelopment without radical administrative transformations and without applying widespread conscious development models over time. Societies such as South Korea and Japan succeeded after World War II. Many other countries were badly affected by long wars. An example of such were African countries who struggled to survive by enduring the most negative results of this problematic process. At this point, humanitarian organizations

carry out their activities to meet the basic needs that people need. This need can sometimes be clean water, clean food, shelter, vaccine, and medicine. In some cases, there may be a need for school, health center, psychological support, and livelihood.

In essence, all needs are the results of underdevelopment and being underdeveloped. Humanitarian organizations and their activities are the short-term response tools of the mentioned problems. For long-term and permanent solutions, broad-basis planned development models should be used.

Undoubtedly, the emergence of development and humanitarian efforts on the same dates was not a result that came about within a plan, but it was a natural result due to the nature of both activities.

Furthermore, the United Nations was created to sustain the conflict-free process after World War II. It has expanded its institutional structure with subsidiaries that specialize in every field in need.

The organization, which was established as an economic cooperation organization between the 6 states with the 1958 Treaty of Rome, has turned into an economic and political formation called the European Union with 27 members and a common currency. The European Union includes sub-organizations such as DGECHO, which is focused on humanitarian aid, and economic sub-organizations such as EBRD, which focuses deeply on specialized areas.

In human-oriented organizations such as the EU, sub-working groups emerge as a natural result. Over time, sub-disciplines become specialized in their field by discussing their models and methodologies. Through this process, the sub-organizations are perceived as different study areas as long as they move away from the origin.

In addition, there is an internationally accepted Humanitarian Standards text for Humanitarian Aid studies. Unfortunately, there is no generally accepted model and standard in development. Since humanitarian aid involves more micro-scale, short-term, measurable immediate impact and concrete primary human needs, it is relatively possible to set up and reconcile standards. A development is a process that requires macro analysis, multi-factor, and multi-disciplinary effect which can appear in decades. Also, it has a direct and/or indirect interaction with the political and economic management systems of countries.

A common goal, such as enhancing human well-being, melts both notions into the same pot and they turn each other around.

The excessive institutionalization of international organizations, NGOs working in these areas, and the transformation of the organizational functioning into an excessive bureaucracy has distanced the actors from each other and brought them to a conclusion as if they were separate work areas.



At this point, actors working in the field of humanitarian aid and actors working in the field of development have begun to rediscover each other around a new concept termed “Nexus”.

There is an inverse correlation between development and Humanitarian Aid. The need for Humanitarian Aid organizations emerged after disasters and emergencies and can last until the basic needs are met and human life standards are restored. This process can be considered as the beginning of the main areas conceptually faced by development and humanitarian aid.

The higher the level of development of countries exposed to emergencies such as war, earthquake, fire, flood, etc., the lower the need for humanitarian assistance regarding the incident.

Being developed means that the country has the expected infrastructure, equipment, financial resources, and professional human resources in terms of humanitarian capacity. In other words, humanitarian infrastructure should be considered as one of the basic parameters of development such as education infrastructure, health infrastructure, and transportation infrastructure.

*“The idea is not new. The nexus is a continuation of long-running efforts in the humanitarian and development fields, such as ‘disaster risk reduction’ (DRR); ‘linking relief rehabilitation and development’ (LRRD); the ‘resilience agenda’; and the embedding of conflict sensitivity across responses. Unlike previous efforts, however, the nexus dialogue goes beyond a programmatic or conceptual approach. It relates to ongoing structural shifts across the aid system that are changing how aid is planned and financed. These will have profound implications for what we do, how we do it and with whom we do it. Along with the opportunities, Oxfam and other aid agencies need to be aware of the potential challenges with a nexus approach. Determining the right mix between humanitarian, development and peace pillars, and the way in which they are integrated, is critical.*

*However, it is clear that the move towards a humanitarian-development-peace nexus has profound implications not just for what organizations do, but how and with whom they do it.”*  
(OXFAM, 2020)

Tronc, Grace, and Nahikian have defined this new notion in their study “triple nexus,” which is also referred to as the “New Way of Working”. This is a policy concept that aims to forge linkages between

humanitarian, development, and peacebuilding initiatives. The overarching aim of the “triple nexus” is to facilitate collaboration, coordination, information sharing, and joint planning and analysis between practitioners engaged in humanitarian, development, and peacebuilding activities. According to one report, the notion undergirding this concept reveals that peacebuilding, development, and humanitarian actors “all have the same broad objective, i.e., to contribute to the protection and well-being of affected populations and to improve their resilience to external and internal shocks.” Furthermore, effectiveness can be stymied, as another report notes specifically of humanitarian action and development work, due to the fact that the “aid architecture is governed by a rigid compartmentalization of humanitarian and development aid”. Therefore, “aid is often programmed according to sectoral silos.” In addition, 132 Analysts have written that, due to the fact that “the humanitarian development aid architecture is strictly segregated, divided by mandates and rules that were originally designed to meet different kinds of needs,” there is a risk that “this rigidity is hampering the aid system’s ability to manage risks and rapidly respond to shocks and stress (Tronc, Grace & Nahikian, 2019).

The Somalia famine in 2016-2018 is a well-known natural disaster. All humanitarian and development actor worked together to eliminate the effects of the disaster. The produced activity report, *Supporting longer term development in crises at the nexus Lessons from Somalia*, demonstrate the collaboration needs of the sectors.

*The successful intervention of the humanitarian sector in averting famine after prolonged drought in 2016 and 2017 fostered greater acknowledgement that humanitarian assistance alone cannot provide a sustainable or cost-effective solution to recurring shocks in Somalia. Donors and the UN community recognise that development efforts should be increased to prevent and build resilience to future economic, climate and conflict-related shocks. Donors are investing in longer term forecasting, anticipatory action, risk reduction and resilience, and, more recently, in recovery, safety nets and social cohesion, but more is needed to move towards sustainable and lasting solutions. This requires substantial development investment and strengthened synergies between humanitarian, development and peace actors.*

([https://reliefweb.int/sites/reliefweb.int/files/resources/Supporting\\_longer\\_term\\_development\\_in\\_crisis\\_at\\_the\\_nexus\\_Lessons\\_from\\_Somalia.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/Supporting_longer_term_development_in_crisis_at_the_nexus_Lessons_from_Somalia.pdf))

The other good example of the inter-sector collaboration for humanitarian aid and development sectors is the 3RP. The 3RP stands for

Regional, Refugee, and Resilience Plan. The Syria Crisis remains the largest displacement crisis in the world, with over 5.6 million registered refugees and over six million people displaced within Syria. The Regional Refugee and Resilience Plan (3RP) offers a strategic, coordination, planning, advocacy, and programming platform for humanitarian and development partners to respond to the Syria crisis at the regional level and in host countries. It comprises one regional plan, with standalone country chapters covering Turkey, Lebanon, Jordan, Egypt, and Iraq. While strategy, planning and programming are country-led processes, regional coherence is pursued to ensure consistency in response planning and implementation. This is done in order to promote common tools, standards, and innovation and to enhance advocacy efforts at global and regional levels (<http://www.3rpsyriacrisis.org/>).

Another contemporary example of the triple nexus notion is seen in the Syrian crisis, according to World Food Program (WFP) Syria 2020 Annual Country Report. The WFP implements a range of projects under Strategic Outcome 2 of the Syria Interim Country Strategic Plan (ICSP), which is designed to boost livelihoods, reconstitute resilience, and support local communities. These efforts contribute to Sustainable Development Goal (SDG) 2 (Zero Hunger). This is in addition to having significant positive multiplier effects towards SDGs 1 (no poverty), 4 (quality education), and 5 (gender equality). To ensure that interventions have sustainable impacts, WFP made significant shifts in its strategy for Strategic Outcome 2 in 2020 by pivoting from a focus on interventions at the individual and household-level towards community-level asset and value chain support projects. This approach, built on four pillars, contributes to SDG targets 2.1 (end hunger), 2.3 (agricultural productivity), and 2.4 (sustainable food systems). It also aligns directly with the three nodes of the humanitarian-development-peace ‘triple nexus’ by: 1) providing food assistance to save lives and avoid asset depletion; 2) restoring food systems to re-build livelihoods and enable sustainable food security; and 3) promoting social cohesion by strengthening the resilience of local communities in previously conflict-affected areas (<https://reliefweb.int/sites/reliefweb.int/files/resources/WFP%20Syria%202020%20Annual%20Country%20Report%20-%20PDF%20version.pdf>).

## Conclusion

The two concepts that emerged from the origin of increasing human welfare on the same date developed sub-disciplines, different models, and international standards in their own fields and also rediscovered each other 50-60 years later in order to achieve their common goal. They expressed the intersection points as “triple nexus” by including the concept of

peacebuilding.

The collaboration need appears particularly in geographies, where humanitarian crises have become chronic over the years. In recent years, Mali, Afghanistan, Rohingya, and Syria were good examples of this. To solve such multi-factorial problems, the actions should be created with common sense. Humanitarian aid, development, peace facility, reconstruction, the establishment of political systems, and short-term emergency assistance should be carried out in harmonization.

Turkey is a relevant stakeholder of the Syrian crisis, since it hosts almost 4 million Syrians. During the first years of crises, urgent humanitarian aid interventions were performed well. In the following years, a permanent social integration requirement has emerged. On the other hand, Turkey has a unique economic problem such as a high unemployment rate and an overly worthless exchange rate. These factors make it difficult to manage the social cohesion. Finalizing their dependency situations and their socio-cultural integrations can now be interpreted as the process is gradually shifting from the focus of humanitarian aid organizations to the focus of development organizations.

COVID-19 is another good example that promptly paralyzed both developed and underdeveloped countries. The health infrastructures of countries passed through a real stress test. The business sector is also faced with bankruptcies and lockdown regulations. Therefore, economic development assistance needs have begun for the private sector. More so, refugees, disabled people, and unemployed people get frontlines because of their vulnerabilities. The humanitarian actors promptly scheduled their response programs. As a result, the humanitarian aid sector and development sector have come together again to increase human welfare one more time.

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## Perceptions and Experiences of Change in Practices of Masculinity among University-Educated Men of Iranian Origin in Quebec

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### Abstract

Through 19 qualitative interviews with university-educated men of Iranian origin living in the province of Quebec, this article sets out to examine their perceptions and experiences of performing masculinity in a new social setting. The Life Course theoretical approach has been applied to analyze how a shift in the social, cultural, and family context run by different ideals of manhood impacts the practices through which men expressed their masculinity. Thematic and comprehensive analyses of the data revealed gender roles apportioned to men in the society of origin, conjugality, and legal standards of the host society to be the main domains where changes and challenges were experienced. The results help us understand that masculinity, like femininity, is a contextually situated trajectory constructed in an ongoing interaction between the larger social structures and individual agency; like any other pathways of individuals' lives, masculinity is a continuous process of rethinking and reinventing certain configurations, including the gender relevant attitudes and behaviors establishing what manhood is about and how it should be in a given societal context (Carpenter, 2010; West & Zimmerman, 1987). Masculinity is also a situated act as it evolves in a sociocultural context that has already defined some expressions of gender identities as ideal (West & Zimmerman, 1987).

**Keywords:** Masculinity, Immigration, Marital dynamics

## Introduction

Changes in Canada's immigration policies since 1960 and the introduction of a point system for selecting immigrants has contributed to a shift in migratory tendencies, from a predominantly European immigration source to one coming primarily from Asian countries. The newcomers of European origins that once accounted for 61.6 % of total immigrants admitted in 1971, represented just 11.6 % of those who arrived in 2016. Instead, there has been a rise in immigration from Asian and the Middle Eastern countries, especially from the Philippines, India, China, Iran, Pakistan, Syria and South Korea, constituting 61.8% of recent immigrants to Canada between 2011 to 2016 (Statistic Canada, 2017). This raises the question as to what we know about the post-migratory experiences of these groups while adjusting to the new social context. As many of these recent immigrants come from Asian countries, usually maintaining traditional conceptions on gender, one may wonder how masculinity or femininity will be performed when faced with new social standards on gender-relevant roles and behaviors. Immigration has been identified as a gendered process, with men and women of the same family experiencing differently their encounters with the social structures of their new setting (Farahani, 2012). Many aspects of family arrangements may go through changes, including how femininity or masculinity are performed, and thus leading to changes in the ways interpersonal relations are organized between members (Farahani, 2012; Hondagneu-Sotelo, 1992).

The domains of family that seem to be understudied among immigrant families of ethnic origins in Canada are their gender trajectory, particularly for men and masculinity (Farahani, 2012; Khosravi, 2009). Using semi-structured interviews with 19 immigrant men of Iranian origin living in greater Montreal and Quebec City, this qualitative study intends to shed light on their perceptions and experiences of change in performing masculinity. Studying men— who are usually in a dominant cultural position— is not contributing to strengthening the inequalities women have been subjected to in most parts of the world or stepping away from “feminist projects.” On the contrary, it should be understood “as a complementary endeavor, indeed one that is organically linked” (Sinclair-Webb, 2006, p. 8). The fact is that most literature examining gender-related experiences of Iranians in diaspora have been conducted among women (Farahani, 2012; Khosravi, 2009). Questions remain as to how masculinity is perceived or performed when men are faced with new gender-relevant schemas following immigration. Departing from this lapse in the research on immigrants of Iranian origin, the central questions this paper seeks to answer are: (a) What are the post-migratory changes experienced by men in their practices of masculinity?; and, (b) How do these changes affect their marital dynamics? To answer these questions, this qualitative study draws on the life course theoretical perspective. The focal point of the life course



approach is that life trajectories, including gender, are situated phenomena, formed in an ongoing interaction between two key factors: social and biographical context (Elder, 1985; Elder, Johnson, & Crosnoe, 2003; Furstenberg, 2003; Macmillan & Copher, 2005; Mayer, 2004; Thomas & Znaniecki, 1984). Immigration means that the interplay between the biographical context and societal structures are transferred to a setting run by different sociohistorical circumstances. The effects of this transition may be experienced on multiple levels, including in their gender trajectory (Farahani, 2012; Khosravi, 2009).

This article begins with outlining the theoretical directions used to conduct the study. A description of the methodology is provided afterwards. The paper concludes by presenting the results, followed by closing discussions.

## **Framework**

This study is structured within the life course analytical perspective. Life course refers to an ensemble of trajectories (such as family, educational, professional, residential). Trajectories consist of roles, attitudes, behaviors, movements, events, and transitions that are socially situated phenomena (Elder et al., 2003). In carving out their pathways, individuals are usually inspired by the directives that social institutions provide them with. These social scripts are used as guidelines, exempting people from defining new situations that may emerge along the developmental path of their trajectories. They are socially defined and transferred through the institutions of family, work, or education (Elder et al., 2003; Furstenberg, 2003; Gaudet, 2013; Macmillan & Copher, 2005; Mayer, 2004; Thomas & Znaniecki, 1984). Embedded in larger social structures, life trajectories of individuals reflect to some extent the cultural meanings attached to certain ways of doing and thinking (Furstenberg, 2003; Macmillan & Copher, 2005). However, this does not imply that people are passive receivers of social scripts. On the contrary, they are actively involved in the development of their life course, the latter taking place in an interactive process between the context (social, cultural, institutional) and the agency that social subjects exercise in making choices. The latter usually manifest itself in, among other things, selecting some social directives, resisting others, and thinking about certain ways of being and doing (Carpenter, 2010; Elder et al., 2003; Gaudet, 2013; Macmillan & Copher, 2005; Mayer, 2003).

The current study is focused on gender trajectories. Gender as a life trajectory has been recently a subject of study from the life course perspective (Carpenter, 2010). It is a trajectory because “doing gender” is an ongoing process of working on one’s identity (Carpenter, 2010; West & Zimmerman, 1987). West and Zimmerman (1987) reject any idea of gender as solely an



ensemble of “roles” or “traits.” On the contrary, gender is a dynamic ensemble of performances, an act that takes place within the constraints set by the socioeconomic, political, and cultural contexts in which lives are entrenched. It is a “doing” within a structural context that has already defined a certain model of womanhood or manhood as the ideal and natural ways of one’s male or female identity. More precisely, gender “is the activity of managing situated conduct in light of normative conceptions of attitudes and activities appropriate for one’s sex category” (West & Zimmerman, 1987, p.127).

Life course trajectories, including gender, are characterized by continuity and stability. However, changes are encountered at some stage along the pathway. Defined as transition, it could be a change in roles, status, or social setting. Some transitions could be a turning point for individuals living the phenomenon, in the sense that they alter the daily routine of the affected trajectory, reorienting them into constructing new ones (Elder et al., 2003; Gaudet, 2013; Gherghel, 2013; Mayer, 2004). Immigration has been defined as a transition (Gherghel & Saint-Jacques, 2011). Individuals’ life course being a situated phenomenon, a move in social setting means changes in contextual scripts guiding the unfolding of pathways (Elder et al., 2003; Thomas & Znaniecki, 1984). It changes the context of dialogue between social structures and gender identity (Khosravi, 2009). Performing masculinity and femininity cannot continue unchanged. As for masculinity, Connell (2005) defines it as a position along a gender trajectory that men try to situate themselves into through a set of practices. Like other social identities, masculinity involves an ensemble of social arrangements that are embedded in time and space (Connell, 2005). Consequently, immigration may cause a transition in the gender trajectory of men in terms of the ways masculinity is performed (Khosravi, 2009).

## **Methods**

This qualitative study is based on thematic and comprehensive analysis of 19 life stories (*récits de vie*), collected through interviews with university-educated men of Iranian origin living in the Province of Quebec. Life stories are a commonly applied technique for data collection in qualitative studies. They provide researchers with effective tools for gathering information on individuals’ subjective and objective experiences of different social phenomenon, according to Bertaux (2005). Through life story interviews, centered on the ways of doing gender among immigrants of Iranian origin residing in Quebec, this article aims at exploring their perceptions and experiences of changes in their roles as man and husband following immigration to Quebec. Semi-structured interviews were chosen to conduct all the interviews. However, interviews were restructured where needed, for instance when gathering information on respondent’s social backgrounds.

Questions were structured around several major themes generated by the research questions and its objectives: roles and responsibilities of man and woman in family, transition in roles, expressions of masculinity and femininity in both society of origin and the host country, gender split of tasks, decision of immigration, challenges encountered as a couple in the migratory context, difficulties experienced in the job market, and changes introduced in couple's relations since their arrival in Quebec.

**Table 1.** Characteristics of participants\*

Pseudonym	Age	Matrimonial Status	Category of immigration	Arrival year	City	Education before immigration	Education after immigration	Occupation before immigration	Present occupation
Mansoor	38	Married	Skilled worker	2010	Montreal	Masters	Bachelors	Architect	Dentist
Said	36	Married	Skilled worker	2014	Montreal	Masters	Masters	Legal Consultant	Unemployed
Arsya	33	Married	Work permit	2016	Montreal	Post doctorate	-----	Postdoctoral researcher	Postdoctoral researcher
Amin	40	Married	Family reunification	2012	Laval	Associate degree	-----	Dental technician	Dental technician
Moein	36	Married	Skilled worker	2017	Montreal	PhD	Masters	Oil contracts consultant	Student
Alireza	41	Separated	Skilled worker	2011	Montreal	Bachelors	-----	Export director	Unemployed
Khosro	43	Married	Skilled worker	2014	Montreal	Masters	-----	Journalist	Art/Video specialist
Arya	37	Married	Skilled worker	2015	Montreal	Bachelors	-----	Engineer	Unemployed
Mazyar	38	Separated	Skilled worker	2015	Montreal	Associated degree	-----	Project director	Self-employed
Hadi	40	Separated	Skilled worker	2015	Montreal	Masters	-----	Engineer	Writer

Hooman	34	Married	Skilled worker	2015	Montreal	Masters	Bachelors	Engineer	Student
Anoosh	41	Separated	Skilled worker	2014	Montreal	Bachelors	Masters	Engineer	Student
Sajaad	47	Separated	Skilled worker	2016	Montreal	Masters	-----	Translator and director of an investment firm	Unemployed
Mani	38	Married	Skilled worker	2014	Quebec City	Associate Degree	-----	Human resource personnel	Pizza delivery man
Shayan	32	Married	Study permit	2014	Quebec City	Masters	PhD	Engineer	PhD Student
Mahmood	39	Married	Work permit	2008	Quebec City	Bachelors	Masters	Engineer	Technician
Armin	38	Married	Skilled worker	2015	Quebec City	Bachelors	Masters	Director of an insurance firm	Student
Aryan	45	Married	Skilled worker	2010	Levis	PhD	-----	University Professor	Naval Architect
Rezvan	46	Married	Skilled worker	2014	Quebec City	Bachelors	-----	Engineer	Engineer

\*Presentation based on the chronological time of interviews.

## **Participants**

Participants were recruited through the social media accounts of Iranians living in the province of Quebec, mainly through Facebook (Infos pratiques sur Montréal, Les Iraniens à Québec) and Telegram pages. Some were also recruited through the researchers' personal contacts with the Iranian community. The snowball sampling technique also proved to be a fruitful strategy, providing the researcher with some additional research participants. With the consent of all participants, interviews were recorded and then transcribed. All interviews were conducted in Persian. In fact, the participants were asked whether they preferred to be interviewed in Persian, French, or English. All chose Persian, their mother tongue, feeling more comfortable to express themselves in that language. The meetings were preceded by a brief presentation of the project, its objectives, and the signing of consent forms. Most of the participants were interviewed in public places, such as coffee shops, and libraries. Two of them preferred to have the meetings at their home. In total, 19 men were interviewed, including 13 in the greater Montreal area and 6 in the metropolitan area of Quebec City. This uneven proportion was not deliberately sought. Indeed, this is not particularly surprising given that Montreal itself is the main place of residence for 77.1% of the Iranians in Quebec, who numbered 25,535 individuals in 2016, according to data provided by Ministère de l'Immigration, de la Francisation et de l'Intégration (MIFI, 2019). The participants in this sample were aged between 32 and 47, with a median age of 39 years. Of all the 19 respondents recruited for this study, 14 were living with a partner, and 5 were separated at the time of the interview. The majority, 15 of them, came to Quebec on an economic plan of immigration; one was admitted under the family reunion program; one came with a study permit; and another one came as a post doctorate researcher. The sample also had a participant who came to Quebec with a temporary work permit to accompany his wife who was doing her PhD in the province. While one of the participants had settled in Quebec in 2008, all others arrived between 2010 and 2017. 52.6% of the respondents had more than 17 years of education before immigration, which is 10 out of 19 individuals. More precisely, seven participants held a master's degree, two of them had a doctorate, and another one had started a second post-doctorate. Six participants held a bachelors degree as the highest level of their education, while three others had associate degrees. Out of 19 interviews, only seven participants had jobs related to their expertise or training; four of them were unemployed, one had a general job as a pizza delivery man, another one was self-employed, one man was working as a writer with temporary source of revenue, and four of them had gone back to school.

## **Data analysis**

Thematic and comprehensive methods were used to analyze the data. Paillé and Mucchielli (2008) define “themes” as the words or phrases reflecting the apparent or latent meanings conveyed through participants’ words, feelings, and thoughts. Taken directly from their testimonies or constructed by the researcher but faithfully reflecting the content of respondents’ information, themes provide researchers with tools to adequately answer the research questions. The thematic analysis— as pointed out by Paillé and Mucchielli— has two major objectives: identifying themes, then documenting them. The first one highlights the process of generating codes, then thematizing the encoded data, while the latter involves regrouping themes in relation to their resemblance and differences before proceeding to prioritizing the clusters of themes based on their importance. The latter is determined in accordance with the recurrences of themes and the relevance of their information to the subject being investigated. Departing from thematic analysis developed by Paillé and Mucchielli (2008) as well as by Nowell, Norris, White and Moules (2017), this paper resorts to a hybrid form, combining deductive and inductive thematic coding; the former combines an ensemble of predefined themes taken from the theoretical and conceptual directions of life course theory as well as from research conducted on similar subjects. New themes were also constructed inductively all along the coding process. After themes were identified, they were subsequently grouped according to their affinities under a heading, the latter referring to the common pattern discerned between them. The thematic schemas were supported by direct quotations from respondents to illustrate their content more profoundly, as suggested by Nowell et al. (2017). To interpret themes and explain the social mechanisms they conveyed, the comprehensive model of Kaufmann (2016) was adopted in this article. The interpretative step is an important phase of the qualitative study. In fact, the production of sociological knowledge is to a great extent the outcome of such explanatory moments aimed at understanding and interpreting respondents’ knowledge about the research phenomena, and their experiences in this matter. Theory, analytical concepts, and comparing the results with those of other studies —as proposed by Kaufmann— were used to verify the validity of the analysis. Kaufmann states that there will always be the risk of subjectivism in such mode of analysis. However, the force of the latter could be mitigated by researchers’ control over their preconceptions and distance from their personal views regarding the interviewee and the subject of the study.

## **Findings**

Findings will be discussed around four major themes: provider, protector, conjugality, and masculinity at a disadvantage. The themes will

address experiences of post-migratory changes in practices of masculinity. Some elements of the new social settings that participants in this study believed had emasculating consequences on their position as a man or husband will also be introduced.

### *Provider*

In Iranian society, manhood is closely tied with adequately fulfilling the role of a provider. Men growing up with this cultural perception on masculinity may encompass it as part of their masculine identity (Mahdi, 1999). When asked about practices of masculinity in Iran, most participants reported that providing for family was significant and essential in being viewed as a good and respected man and husband. One respondent asserted:

...In the Iranian society, there is a lot that is expected of men. Some chores are specifically for men to do, such as financially supporting the family. And if they fail to do so, they lose face in the society.... (Arsya)

As for women in Iran, they are not socially viewed as responsible for the family's economic upkeep. This point was echoed in most participants' accounts of running their family finances. In fact, all men interviewed for this study were university-educated who used to have well-paid jobs before immigration. Apart from one participant, all were married to well-educated women, some of whom were also building careers. However, their wives were not considered as the provider of the family, neither by their husbands nor their family. This approach to women's economic contribution is embedded in a social context that labels as "powerless head" a man who may depend on his wife's work or who is outearned by his partner, representing him "as a castrated chief (*akhte*)" (Hojat, Shapurian, Foroughi, Nayerahmadi, Farzaneh, Shafieyan, & Parsi, 2000, p. 431). Thus, it is not surprising that most men in this research perceived securing the financial well-being of the family as an indispensable male role. One of them commented:

I believe the greatest role of a man is the financial role that he assumes. The way I learned it from my own family, moms oversee rearing children and their education; dads are in charge of running the financial affairs of the family, usually not involved in their children's education.... (Said)

Transition to a new social setting following immigration means a shift in situated practices of masculinity. For some immigrants, a geographical move could turn into an opportunity to renegotiate and redefine some aspects thus far essential for their gender identity (Farahani, 2012; Khosravi, 2009; Shahidian, 1999). Providing for the family is one of the areas prone to change

(Mahdi, 1999). The widely held, culturally rooted, conception of man being responsible for the material needs of the family decreases in importance in a society such as Quebec where the traditional binary model of “*mere-ménagère*” and “*père-pourvoyeur*” designating men and women with rigid conventional gendered roles has been replaced since 1960 by shared family responsibility (Dandurand, 1994). Faced with new social scripts on gender roles, participants in this study –apart from two of them– mentioned that they were amenable to such change. And this was mostly because it was perceived as less economic responsibility, hence less stress for them:

There is a great deal of social security here for both men and women, even for immigrant men. If immigrants could adapt themselves to such an atmosphere, they will have more security. I mean social security for men. The daily pressures on men in Iran do not even allow them to cry. They are constantly reminded of what they should do and what they cannot do... Men have heavy responsibilities in Iran... Because of social equality attributed to both men and women here in Quebec, men have lesser responsibilities such as economic roles. So, they could breathe here. (Arya)

Despite showing resilience towards changes in their role as a provider following their immigration to Quebec, participants explained that they still did not expect their wives to be concerned with family finances, because providing for the family’s livelihood was a man’s job rather than being a woman’s responsibility:

...It could be because of my experiences in Iran that I consider myself to be responsible for my family’s economic situation. I believe that if my family needs something or if our financial situation is not good enough, I am the one who should take care of it. I do not expect my wife to be responsible for such needs. When talking about equality, I believe it should exist. But, when it comes to outside home, I think my responsibility is heavier... (Mansoor)

Only one man expressed that he did not consider providing for the family as a unilateral male job anymore, and that women should contribute as well if working:

I have a preference now. Before, I only knew one model but since we came here, I have known two. I cannot accept anymore that my wife works and does not expend her revenue for household



expenses. She cannot expect me to be the only one providing for family while she is working too... (Alireza)

Of the two men resisting women sharing economic responsibility with them, one indicated that “man has a kind of power that means he must work and support others; not be supported. It won’t fly that a man be dependent on his wife; and consequently, hold a lower status than her” (Anoosh). The other preferred himself as the primary wage earner because “... providing financially for the family is a man’s responsibility, not a woman’s. A woman’s work outside home means sacrificing herself and her family...” (Said). Such a stand on women’s professional activities is mostly related to the authority that comes with men overseeing family finances and resources. This monopoly could be threatened by women’s economic autonomy, the one associated with boosting their social status (Darvishpour, 2002; Kian-Thiébaud, 2005), and likely to initiate change in marital power dynamics (Darvishpour, 2002). Usually, immigration means a transition in “traditional bases of men’s authority”, including them being defined as primarily responsible for the family’s economic upkeep (Mahdi, 1999, p.61). Difficulties met by immigrants –particularly immigrant men from non-European sources of immigration– in Canadian labor market have been well documented. De-professionalization, the lengthy process of assessing their international credentials and work experience, the lack of work-specific language skills, and racial discrimination have been identified as the main obstacles to a successful professional integration of immigrants in the short-term (Boudarbat & Grenier, 2014; Boulet & Boudarbat, 2015; Cousineux & Boudarbat, 2009). The financial instability caused by an uncertain professional future could negatively impact immigrant men’s self-esteem and increase the stress experienced while going through the adjustment to the new social setting (Kennedy & McDonald, 2006). As in these studies, some of the men interviewed for this study expressed that the challenges of the labor market since their arrival in Quebec had spawned negative implications on their self-confidence and marital relations. Difficulties in entering the qualified labor force had obliged five of them to return to their studies to get Canadian credentials, and others to take courses or training programs. For these men, immigration had created a turning point along their professional trajectories, since they had to reorganize it or start a new one so that it could meet the standards of the labor market in the host society. Some had to accept unqualified jobs, others lived on government financial aid. Only two men could find a relevant job to their area of expertise a few months after they settled in Quebec. They all described it as a stressful situation, mainly because their social status had decreased following this shift in their professional path.

Consequently, some of them had started to question their decisions to immigrate:

I used to have a much more prestigious job back in Iran... Then, I came here and turned into an unskilled worker. It is and has been excruciatingly unbearable. It has created a huge paradox in my mind as to whether it was worth it at all to leave an opportunity behind and come here and start from scratch... (Mani)

As for the impacts of precarious professional and financial situation on marital life, only one respondent believed that not being able to adequately provide for family was the main element making his ex-wife dissatisfied with their marriage, thus leading to separation. Others perceived it as a stressor for themselves and their wives, negatively influencing their self-esteem and sometimes causing dispute in their relationships. This was mainly noticed among respondents performing unqualified jobs. Jobs below their level of expertise, poorly paid jobs, and long shifts were mentioned as factors negatively impacting their family relations. One man voiced the following:

The job opportunities I had here left negative impacts on me and my family life. I must work longer hours and spend less time at home. I am tired most of the time and do not spend enough time with my family. I have done my best so it would not affect my relationship with my child but some of it is inescapable. (Mani)

### *Protector*

Achieving their role as family protector is another defining aspect of manhood in Iranian society (Khosravi, 2009; Shahidian, 1999). It usually involves men assuring the moral behaviors of family members, particularly women. The authority that comes with it allows men to control women's activities. The following quote illustrates this point:

...I have no idea how it would be possible for me not to know where my wife is for a whole day, or how we can have two separate cars, one of which she can take and drive off on her own, all independent. If I knew this were a possibility I would never get married ....(Said)

The protector role was challenged in the Quebecois society, which is guided by ideals of equality between both sexes and individual autonomy. In prior research on Iranian families living the migratory phenomenon (Darvishpour, 2002; Khosravi, 2009; Moghissi, 1999; Moghissi & Goodman, 1999; Shahidian, 1999), a few changes have been singled out as key elements diminishing men's traditionally defined role as the protector. Among these, the most influential ones are the decrease in male professional status while

women experience an increase in their occupational activities. Though many women experience challenges in the labor market too, immigration for most Iranian women –as noted by these studies– generally means access to better professional opportunities than before, to more governmental financial aid and to better social rights. Gaining usually more social and economic autonomy than they used to have before immigration, Iranian women may develop more assertiveness about their aspirations and expectations of marital relations. Similar to the findings of these studies examining the impacts of immigration on marital dynamics of Iranians in diaspora, the social and economic independence achieved by women appeared to have changed the power hierarchy in some couple's relations and diminished men's say over their wives' lives. The following quotes reflect this point:

She finished some training related to her field of study and got a job. Her behavior changed shortly after. She wanted more independence to do things her way, return home whenever it pleased her, or buy a car. I asked her why a car? We do not need a car. We were living in downtown Montreal. She said she liked to go to work by her own car. I told her that I cannot pay for this one thing. I was the one paying the rent and more than half of the household expenses. I told her I could not pay for her car as well. However, she bought a car and paid for it herself. She got the car and went to work; so was lost the little respect she had for me. I could not ask her where she was or when she would come back.  
(Hadi)

It emerges from this account that the ex-wife's economic independence played a major role in the couple's separation. Such an outcome could be related to a woman's financial autonomy paving the way to her being more assertive about her individual aspirations, a challenge to the authority her husband used to exercise over her socioeconomic activities as the one primarily responsible for family issues and as its protector.

The analysis of the interviews reveals that women achieving social and sexual liberties in Quebec represented a major challenge to perceptions some men had of their role as the protector of the household. Generally, Iranian women have been identified as more resilient towards changes in social or sexual behaviors following immigration. Being raised in a socially conservative context that defines good women as chaste, preserving their sexual desires for their husbands and dedicated to the latter, Iranian women usually welcome social liberties met in their new environment. Absence of taboos around women having extra marital sexual relations and the fact that women are provided by better protection of their individual rights after immigration relieve Iranian women from the restrictions imposed on their

sexual and social freedom (Darvishpour, 2002; Hojat et al., 2000; Mahdi, 1999; Shahidian, 1999). This topic was brought up by some participants. The latter believed Iranian women usually abuse such rights in Quebec or were manipulated by the illusions of freedom. It seemed the adoption of more social and sexual freedom opposed how these men perceived womanhood, dedicated to family goals and more modest in sexual behaviors. One man explained:

In Canada, as much as women are given liberties, they are expected to shoulder some of the social responsibilities. Iranian women, I'm afraid, do not have a good understanding of this point. They were in a socially limited situation, now their chains are broken, and they think they can experience liberty and independence, which is not a bad thing per se. However, for Iranian women, this is the source of their misunderstandings. Experiencing independence at what cost?! (Khosro)

Another one believed:

Montreal seems to be full of women (Iranian or otherwise) who have feminist tendencies and raise these illusions in women's minds that they might be even homoerotic...I know a lot of divorced couples where the woman under such impressions initiated the divorce process in spite of the husband's providing a stable financial situation... (Hadi)

Surely, men could gain some benefits from immigration too. Immigration could provide immigrants with opportunities to negotiate and redefine situations that are likely to enhance their position in the family and in the larger society (Froner, 1997), including some aspects of their gender identity (Farahani, 2012; Khosravi, 2009; Shahidian, 1999). As such, a few men interviewed for this study perceived immigration to Quebec as an important transition in their gender trajectory, relieving them from traditionally assigned duties associated with manhood, such as their role as the family protector and provider. The following quote illustrate this point:

...I am glad about my decision to immigrate because it has relieved me from many pressures. Of course, we are still officially married, but this does not make it any of my business where she is at any certain time. She comes home very late very often. And if we were in Iran, and she was seen walking alongside someone else, I would be asked a lot of questions; my honor and dignity would be under question. These things mattered to me in Iran. I do not care about it now. In such matters, the Iranian society exerts immense pressures on men... (Hadi)

### *Conjugality*

As an important part of family reconfiguration that followed modernity— meaning its democratization— conjugality is based on three main pillars: individualization of each member of the couple, equalization of relations, and intimacy between partners (Neyrand, 2016). The first concept highlights the individual's emancipation from traditional family ties and obligations. An outcome of modernity, individualization means greater freedom for every member of a couple vis-à-vis the responsibilities imposed on them by the traditional family order. As a result, the ideals of autonomy, self-fulfillment and intimacy have become new components of modern marital unions (Belleau & Vézina, 2013; Neyrand, 2016). Nonetheless, the scope of changes is limited to certain parts of the world, mainly to Western societies. In societies where family life is guided by traditional ideals, dedication to collective family goals is still favored over individual aspirations, and pursuing individual desires are mostly viewed as selfish acts. This issue was frequently brought up by participants in this study. Most of them identified themselves as collectivistic rather than individualistic when it came to family life. As one man put it:

Here in family relations, people care more about their own selves, and this can be an upside at times. I had the same experience from living in Europe. What I mean is when one prioritizes himself, which is not that common in Iran. We spend so much energy on unimportant matters. In our culture, sometimes, sacrifice for the family is preferred to self-preservation. (Arsya)

Though most men explained that they did not favor the individualistic approach to marital life in Quebec, only a few of them perceived it as a negative influence on their personal couple dynamics. In fact, when discussing post-migratory changes lived in their marital relations, some participants in this study talked about their wives pursuing individual goals such as working or continuing education (which required husbands being more involved in household matters) rather than staying at home and taking care of children, as a cause for concern, contributing to conflicts in their union. For instance, one of the separated men voiced concern:

A couple of months after we immigrated to Canada, we had a kid, and our troubles began. She treated me differently. She behaved differently. And she decided to continue her studies. I had to take care of a two-month-old baby so that she could go to university and study... (Anoosh)

With individual autonomy and self-fulfillment becoming a value in modernity comes the ideal of equality between all citizens (Neyrand, 2016).

However, the principle of modernity was not applied to family relations at the beginning, notes Neyrand (2016). In fact, the family sphere, particularly when gender relations were still run by assumptions taking nature and biology as a reference to legitimize the unequal positioning of men and women, led to the continuity of a binary that apportioned women with inside tasks and household matters while making work, public space, and authority as men's realm. Equalization of the position between men and women took place in the 1970s, according to Neyrand; women achieving higher education, their paid work outside household, and the introduction of modern means of contraception gave women control over their sexuality and reproduction rights and prepared the way for more gender equality in the family. In traditional societies such as Iran, the cultural conceptions of gender relations are still highly embedded in biological differences between sexes, thus differential role distribution for men and women. Boys and girls are socialized into specific gender roles (Shahidian, 1999). Men taking part in household tasks could be negatively labeled as feminine. As one man explained:

My family has always been patriarchal, but I found out about it when I was around 16-17. Books that I read on the issues of gender relations had a great effect on me. I would tell my dad how he treated his wife and daughters was wrong and probably even un-Islamic; it is very patriarchal. From the time I was 16, I would get into fights with my dad over such issues. My dad would get upset and would ask me to leave the room. He would tell me I was not a man yet... When my brother helped with the dishes, my dad would tell him he should be ashamed for doing such an unmanly chore. (Amin)

For many Iranian families, marriage is still regarded, borrowing from Neyrand (2016), as a symbiotic union. Complementarity of gender roles are prioritized over equalization of positions (Shahidian, 1999). Transitioning to a social setting governed by egalitarian principles of gender relations can challenge marital dynamics of the couples coming from such a social milieu (Mahdi, 1999). The issue of gender role division was frequently discussed by participants in this study when reflecting on changes experienced in their marital dynamics. As observed in their accounts, all participants were the ones primarily responsible for the family finances before immigration while their wives, even though working, were the ones mostly taking care of household chores. When asked what changes they had encountered in this regard after immigration, a few of them reported being more involved in household matters than before. As one man explained:

Radical changes have taken place in our relations. Here, we do not have the arrangements we had concerning household chores anymore. Cooking, washing dishes and other tasks at home are shared. We have an unwritten contract between us, according to which each of us is responsible for some domestic tasks. This applies also to financial matters. Right now, it is mostly me taking care of the household's finances. Because of her work situation, my wife will have temporary contracts for a couple of years and I should probably work more. But we know that such a situation is temporary. (Mansoor)

Others talked about having a hectic working schedule or the wives' own interest in being the sole caretaker for inside matters as elements limiting their contribution to household chores:

I would like to help more at home. If the situation allows, I will do everything and there is nothing that I will not do at home. These days, I am very occupied at work. Thus, my wife is doing most of the household chores. I return home around 6 or 7 and she is doing much of the domestic jobs. (Arsya)

Asked how they perceived the ways responsibilities were assigned to men and women in Iran, a few participants reported that the traditional distribution of tasks was not a negative element per se, and that it could be viewed as an advantageous arrangement for women. Arya for instance expressed that:

The gender equity that exists here lessens the economic responsibilities delegated to men. This could sometimes threaten the stability of the family. When men do not have any responsibilities, women could feel more pressure... Things could get complicated with equality. Division of duties could weaken men's responsibilities, and this is not good. I think rules originating from tradition could be beneficial but have been badly applied in Iran. For instance, laws regulating dowry cause men to owe women. True that men get power from such laws, but they are always indebted to women. With power attributed to men comes responsibilities that protect the family... (Arya)

Changes in the patterns of gender roles were experienced by some participants. This was mainly because the wives of these men had started working in Quebec, thus contributing to family finances and being more involved in the financial decision-making processes, a role that was thus far



undertaken solely by men. Such transformation was reported as an element occasionally causing some disagreements over financial expenditures. For instance, one participant explained that:

We have been experiencing changes in our financial responsibilities since we came here. Back in Iran, I took care of most economic matters. But now, because my wife works, this role has changed. I think it is normal to have such a change. When a woman works, she wants to have a say in household matters. And this is because, compared to men, women are not that much interested in taking risks. My wife wants to spend in a very precise and calculated way. I tell her not to worry, that everything is going to be alright. We have a joint account now and do not have any problems. However, we sometimes have disagreements over how to spend or if one of us has not taken care of a matter he/she was responsible for... (Mahmood)

For the separated men, however, changes in gender division of roles were perceived as the main trigger for marital conflicts. Being asked by their wives to split up the household matters while these men were still the ones primarily responsible for family's finances was reported as a major cause of difficulties experienced among couples:

...I saw it as an insult to share the domestic tasks. She was at home the whole day and was not working. So, she could take care of the household chores. However, it happened a lot that she did not do it. For instance, she did not wash the dishes for a couple of days and they remained in the sink all that time. (Anoosh)

As for intimacy and expressing affection, it should be noted that with the demise of traditional family arrangements and the prevalence of individual autonomy, they have become the core of union formation (Belleau & Vézina, 2013). For Iranian men, this could be an area of challenge. They come from a culture where both men and women are expected to conform to certain gender-specific social behaviors (Shahidian, 1999); men as tough and introverted because they are the ones who face the hardships of the outside world, while women are expected to be more expressive about their feelings and good at handling household chores. The latter is embedded in cultural expectations of their role as wife and mother, explains Shahidian (1999). The question of intimacy and expressing affection for their wife was brought up by most participants. Some believed that they did not know how to be emotionally expressive towards women. This resulted in disputes between some couples. For instance, one of the separated participants indicated that this issue was one of the elements that had dismantled his marital relationships: "I did not know



how to express myself to my wife. I am still not good at it with women in general. Our conflicts were partly due to financial problems, partly to emotional issues” (Hadi). Many participants believed that Iranian men are very conservative in terms of self-disclosure and expressing love. They favored the emotional expressiveness observed among Quebecois partners and showed themselves willing to introduce a change in this matter in their marital dynamics.

### *Masculinity at a disadvantage*

A study conducted by a group of researchers in Quebec (Antonious, Lynhiavu, Dion, Antonious, Djaout, & Gagné, 2008) reports that mass media’s stigmatization of Muslim’s cultural belonging weighs negatively on their daily life in the province. The authors argue that by frequently bringing up the issues of political violence in the Middle East, radical groups, social conservatism, or terrorist figures related to the region, and this mostly when deliberating on the question of accommodating Muslim immigrants in Quebec, some print media in the province have created a context in which violence is viewed as inherent to their cultures. “Islamité”, and cultural differences form the centerpiece of their representations of Muslims, the latter having been consequently depicted as fundamentally different, and a threat to society. Antonius et al. (2008) state that the media’s imprint on daily social interactions is inevitable when they take a position on a given group. By reducing Muslim immigrants to a single culture and essentializing the latter, the media have contributed to the uneasiness immigrants of Muslim origin and the host society feel in their daily social interactions (Antonius et al., 2008; Khosravi, 2009). Consistent with these findings, men interviewed for this study brought up the topic of being visible as immigrants in the Quebecois society, looked upon as strangers, or questioned over their national origin as elements making them feel uncomfortable in their social interactions within the new setting. For instance, one respondent said that “I have never tried to hide my nationality. But I really do not like when people here ask where I am from, or what my origins are. And I am frequently asked these questions...” (Mansoor). Another participant reflected that:

...In order to integrate, one of the most important conditions is how you are viewed in the host country or how you are judged. I feel like there is a lot of discrimination going on here. I feel like there is a bias towards people of Middle Eastern origin. And this upsets me beyond measure. We offer all our qualified contributions. But all in all, the reaction I usually get is a cold one. In my daily interactions, I feel this coldness. (Arsya)

The *us* versus *them* dualism— stigmatizing men of Middle Eastern origin as traditional and violent, and women as submissive— has contributed to a rise in discriminatory behaviors against Muslims in Quebecois society (Antonious et al., 2008). Discrimination is defined as negative behaviors directed against members of a group one may maintain prejudices towards. Discrimination could express itself through fear, disdain, or hostility in the presence of the *other* (Bourhis, Montreuil, Helly, & Jantzen, 2007). Being the target of discriminatory behaviors was frequently talked about by participants in this study. Such acts mainly occurred against them in the public sphere. One participant revealed that: “I was accosted by an elder woman and was called loudly an idiot. I believe it was because I visibly looked like an easterner” (Hadi). Another man said that: “I was spat at several times in the street. I have been badly treated in public transport by some people. However, I have never reacted to such acts” (Arya).

Being exposed to discrimination in legal institutions was also a frequent theme discussed by the men interviewed for this study. A Canada-wide study conducted by Statistics Canada and Canadian Heritage on ethnic diversity, integration, and discrimination in 2003 revealed that being discriminated against by police or in the courts was reported by 8% of anglophones and 12% of allophones elsewhere in Canada while it raised to 23% among anglophones (visible minorities whose maternal language is English) and 8% of allophone populations in Quebec (Bourhis et al., 2007). In the same vein, recent studies on the question of discrimination and racism in Quebec show an increase in police discriminatory behaviors against visible minority groups, particularly indigenous peoples, Blacks, Asians, North Africans, Middle Easterners, and Latinos (Armony, Hassaoui, & Mulone, 2019). For instance, concerning police stops, analysis conducted by Armony et al. (2019) reveal that between 2014 and 2017, racial groups, especially indigenous peoples and Arabs, faced more stops than white people. To address this issue of discrimination, the Quebec government constituted a group of specialists in 2020— *Groupe d'action contre le racism*— whose mandate was to outline a set of measures that will enable the province to combat racism in more effective ways.

Discussing their experiences of discrimination, participants in this study assumed that their visibility as men of eastern origin put them in a vulnerable position in the legal system. Such perceptions stemmed mostly from the negative impressions they thought existed in Quebec about Muslim men. One of the participants who had experienced police intervention in his marital disputes explained that:

In my experience, my ethnicity played a great role in court when going through the divorce and child custody process. During the process, I asked my lawyer why I am being judged this way. And

he answered because you are a man from the East and your wife is in hijab. And the judge unconsciously thinks that you have pushed hijab on her, and consequently this lady could be under oppression. (Alireza)

Overall, two elements related to legal standards of the new social milieu were mostly singled out as the disruptor of family unions and as negatively affecting their position as man, and husband: *police intervention in family matters* and *laws regulating divorce*.

### *Police Intervention*

Police mediation in family conflicts, though put in place to provide members with safety, is largely viewed as one of the interrupting elements of family life among immigrants, particularly those coming from societies with strong values attached to traditional family principles and its privacy (Thomas & Znanięcki, 1984). In these societies, the larger family is the primary mediator when it comes to conflict between partners. Protection of marital unity is the first concern of such intervention. On the contrary, in societies where states' institutions are thought to meddle in family matters as an arbitrator among partners, the latter are usually "treated officially and unofficially as contesting parties..." (Thomas & Znanięcki, 1984, p. 277). Thomas and Znanięcki explain that police interference in marital disputes—mostly ending up with men being, often temporarily, transferred to prison so that the case is processed—could hurt the perception they hold on their "masculine dignity". The fact that strangers intervened in an issue considered a private matter, and that the man was put in prison and treated the same way as those charged with criminal acts, is considered as emasculating (1984, p. 279). Consistent with these arguments, for the men in this study, police meddling in family issues was considered an element creating a sense of insecurity for them in the family:

...The intervention of police on behalf of children is a good thing, as it should be... As for women, we should say that they are not weak as children are. They are adults and they think. If need be, they can get themselves into a police station. I believe there is a need for a legal system so that domestic violence is eradicated. But if this intervention is exaggerated and I as the husband do not feel secure, then I would rather leave that relationship. If for every trivial thing women call the cops on their husbands, this interferes with the sense of the security that a family should provide... (Moein)

### *Laws of Divorce*

As for the laws of divorce, it should be mentioned that men's unilateral rights to divorce have been reinstated in Iran since 1979 (Gerami, 2003; Kian-Thiébaud, 2005; Moghissi, 2008). Mir-Hosseini's study (1993) on the laws of divorce in Iran reports that women's demands to divorce have been largely limited and contingent on meeting some conditions, such as the man being diagnosed with "impotency" or "insanity", incapable of providing for his family, condemned to long-term prison, married for second time while not having his first wife's consent, or being physically violent towards her. The latter is only recognized in cases judged as endangering her life. Of course, none of these terms are feasible without the husband giving his consent upon marriage, as indicated by Mir-Hosseini (1993). Immigration is a great transition in this matter for Iranian men and women. Some changes encountered in their family patterns after immigration allow Iranian women to leave an unhappy marriage. Most important among them are the absence of social taboos surrounding a divorced woman, absence of larger family interference when conflicts emerge among couples, having more access to socioeconomic resources to support themselves after separation, and having equal rights to initiate divorce (Darvishpour, 2002). One man commented:

So, one of the reasons why we got separated here was that my wife felt like no family of hers is around to ask why her relationship has gone bad. On the other hand, the negative aura around a divorcé is not a thing here in Quebec. Of course, number of divorces has skyrocketed in Iran recently, but it is still socially frowned upon... Here, nobody asks women if they are divorced or if they are homosexuals. And this absolves them from any social pressure they would have had in Iran. (Hadi)

Dowry (Mehrieh) could be another element complicating the process of divorce for immigrant men of Iranian origin. It is the payment transferred to the bride by the groom after their marriage. As described by Mir-Hosseini (1993), dowry in Iran is paid either in cash or property. Woman can claim it any time after the marriage is consummated. It could be regarded as a sum paid to women so that men could exert complete control over their independence or as means of providing women with some ways of financial support after divorce. The World Health Organization (WHO) defines such social practices as mechanisms of women's exploitation (2009). Mir-Hosseini (1993) argues instead that with men having unilateral rights to divorce and child custody, such a practice has been used as a tool by many women in Iran to negotiate terms of marriage and divorce. However, some respondents in this study believed it was men who were under pressure by the dowry since not only its existence was a heavy economic burden on their shoulders, but it also

exposed them to being negatively evaluated in court when going through a divorce process in Quebec. Moreover, as noted by these respondents, dowry caused them a problematic situation because women had the rights to initiate divorce here in Quebec on the one hand and file a suit against them in Iran to reclaim their dowry on the other. They also thought it usually gives the court the impression that the marital relation is an arranged marriage and that the woman has been forced into. One of the separated men bringing up the question of dowry explained that:

In court, the woman says I have a dowry and my husband does not pay it. The judge asks what is a dowry, anyway? And the woman says it is the money indebted to her by him through marriage and the judge asks me what is this money about? So, how can I explain it to him? Should I say this was a guarantee so she would not think of divorce? And then the judge says if she did not have any rights to divorce that would mean she was in an arranged marriage. And I have to explain that this was not an arranged marriage. This was a sum of money that I owed her according to the marriage laws of Iran. And this lady can legally pursue it at any moment back in Iran. Such difference has not been defined in their legal system and .... A man might be judged in two systems, that of the origin and the host, and also lose all his privileges...(Alireza)

## **Conclusion**

Masculinity like femininity is mostly about socially arranged practices through which individuals try to reflect their gendered selves (Connell, 2005). In Iranian society, masculinity is largely embedded in culturally rooted ideals of manhood as the protector and provider of the family (Mahdi, 1999). Keeping up with these conceptions of manhood after immigration– as noted in other studies exploring masculinities among Iranian immigrants (Farahani, 2012; Khosravi, 2009)– turned out to be challenging for some participants; difficulties met in the labor market, and thus the decrease in their social status, were reported by this study’s participants as changes that had weakened their ability to keep up with their economic responsibilities. Many of them underwent a transition in their role as primary wage earners of the family following difficulties encountered in the Quebecois labor market. Such a shift was believed to negatively impact their self-esteem, since they could not adequately fulfill a role that was considered important to their responsibilities as man. However, most participants did not perceive the transition in the provider role as a disruptor of their marital union per se. In fact, immigration– as highlighted by Farahani (2012), Khosravi (2009) and Shahidian (1999)– could mean an opportunity for immigrants to redefine certain aspects of their gender identity. Consistent with the findings of these studies, some

participants in the present research expressed their flexibility towards changes in certain practices they viewed specifically apportioned to men in Iran, such as the provider role, thus sharing it with their wives. Despite this resilience, when asked whether women were equally responsible for the family economy, most men did not consider their wives as primary wage earners because meeting the family needs was still understood as a man's job.

Social liberties and sexual freedoms of women in Quebec were reported by some men as elements likely to disrupt couple's relations. This could be because such changes were closely tied with men's role as the protector and head of the family, the one allowing them to exercise control over women's activities and social relations. For instance, one of the separated participants (who was widely quoted in the section analyzing the protector role) felt that a decrease in men's responsibility as the protector was a loss for men, causing him to lose respect in their marital relations because his wife saw herself as no longer obligated to abide by her husband's opinions. While analyzing the conversations, the researcher noticed a recurrent theme emerging in the men's accounts of changes experienced in their role as the provider and protector: the redefinition of conjugal relations. The social scripts guiding marital life in the new setting, including the individualization of each member, the equalization of gender relations, and new ideas about intimacy, had impacted the marital union of some men. Gender relations were the most talked about topic by participants. The fact is that with their wives starting to work, returning to studies, or taking short-term training programs, and having access to governmental financial aid, on the one hand, and the difficulties encountered by these men during the process of professional integration, on the other hand, their role as primary wage earner of the family faded away. As well, with women being active in public life, men were expected to split up household chores. Moreover, with the new financial resources likely to help them gain some economic independence, women became more involved in the household decisions, such as economic expenditures. As it could be noted in quotes provided in the analysis of the findings, some men perceived these changes as a positive influence on their marital relations, while a few of them reported negative outcomes for their marriage. Life course being a contextual phenomenon, a shift in social milieu means that the socially arranged behaviors, attitudes, and roles used so far for the unfolding of trajectories need to be defined, reconstructed, and negotiated in the new setting so that life course can function (Carpenter, 2010; Elder et al., 2003; Furstenberg, 2003; Gaudet, 2013; Macmillan & Copher, 2005; Mayer, 2004; Thomas & Znaniecki, 1984). Put in this perspective, failing to reconstruct their masculinity in the face of changes regarding marital relations, some participants— mostly the separated ones— experienced the disruption of the conjugal trajectory; their marriage could no longer function with their wives



being open to transformations expected to enhance their position, while men chose to hold on to the old traits. With their marriage broken, a move to new social settings thus appeared to be a turning point in their marital trajectory.

The main concern for most men in this study— as in Khosravi’s research (2009)— seemed to be their visibility as immigrants with Middle Eastern roots. Immigration to Quebec was believed to have put them in a disadvantageous position as men. They thought being visible as Middle Eastern men had resulted in them being treated as strangers in daily social interactions, thus making them feel unease in the new social milieu. This visibility was believed to make them vulnerable in the face of the legal standards in the host society, as well. The legal standards regulating family laws in Quebec were perceived by most respondents as affecting them negatively on an individual and family level. With family being considered a private matter and them being delegated as its protector, states’ interference in family affairs meant strangers being involved in their privacy, on the one hand. On the other hand, the way police treated them following a family dispute (e.g. being cuffed in kids’ presence)— borrowing from Thomas and Znaniecki (1984)— hurt their “masculine dignity”.

### **Potential Implications for Social Policies**

This study contributes to a better understanding of masculinity as a trajectory. It is a trajectory because like any other pathway of an individual’s life, masculinity is a continuous process of rethinking certain social scenarios, such as the ones regarding gender roles and relations that are used as guidelines to develop gender identities. It is also a situated act evolving in a context that has already established some models of masculinity or femininity as socially valued; the model of men as provider or protector in Iranian society, physically strong and emotionally introverted. Finally, masculinity is a trajectory because it is marked by transitions (in roles, statuses, and positions) that are perceived as a positive change by some immigrant men (e.g. feeling less socioeconomic stress since they are liberated from the traditional duties apportioned to them as men or becoming emotionally more expressive towards their wives because they are no longer labelled as feminized) or a negative shift by some others (e.g. losing authority at home, and, hence control over women’s individual and social activities). Overall, the transitions and changes experienced by participants in this study on an individual and marital level confirm that immigrant family is a malleable phenomenon whose form and content can adjust to new situations when the context changes (Froner, 1997). The difference remains in the scope of the changes from one family to another and one member to another.

For many new immigrants, immigration is a strategy aimed at providing a better socioeconomic future for all the family members (Vatz

Laaroussi, 2003). However, the challenges encountered along the process of integration into the new social setting could hinder the achievement of such family goals; difficulties in finding a qualified job, confusion about marital roles and responsibilities as well as the family laws of the host society are the main challenges faced by men in this study. As discussed earlier in this paper, a more difficult integration pathway for men has been reported by literature on immigrant families of Iranian origin (Darvishpour, 1999, 2002; Mahdi, 1999; Moghissi & Goodman, 1999; Shirpak et al., 2011). Based on these studies and the findings of the present research, some initiatives are needed to implement more effective integration policies, easing the process of readjusting life in the new social environment.

- a) As debated before, even though most participants in this study come from the economic class of immigration, many experienced difficulties in finding jobs commensurate with their expertise. The fact is that Quebec's immigration policies are above all strategies to ensure a better social and economic growth. This objective could be more easily achieved if the province benefits from the skills of its new residents. This makes essential a faster professional integration of the newcomers. Achieving this objective poses the challenges of redefining the present policies of economic integration and of defining new measures that address the obstacles to a faster recognition of foreign credentials. Such a change could shorten the period of professional transition undergone by many new immigrants, hence the impacts of a precarious economic situation on their marital life.
- b) Police intervention in family matters was a cause of concern for participants in this study. For immigrants of Iranian origin, as for many others coming from Asian, Middle Eastern and North African societies, family affairs are regarded as private. In case of conflicts, it is the primary family members who intervene to prevent the breaking down of the marriage. Police interference can create a sense of insecurity for immigrant men coming from such societies (Thomas & Znaniecki, 1984). Some participants mentioned that if they do not feel safe because of the police interference in conjugal disputes they would rather get out of their marital relationship. It seems that for situations of marital conflicts, long before the police have the mandate to intervene, there should be some mediatory processes preferably managed by individuals who have done mediation or social work in that particular community.
- c) A high percentage of participants in this study expressed concern over their own lack of practical, legal knowledge of how familial disputes are treated by Canadian law or what exactly constitutes their rights or prerogatives. It is the contention of this study that a governmental



service is needed which provides essential information based on the needs of newcomers who may not know their constitutional rights and boundaries regarding a range of social issues. Such a service could be provided online, through phone, or in-person.

### **Limits of the Study**

Given the increase in Iranian immigration to Canada and Quebec, more studies of this community are needed to provide insights on challenges faced by members of immigrant families, how they reconstruct their trajectories, and the way changes impact their family relations. This study is based on 19 life stories of men living in Quebec. Thus, it cannot be assumed to be the reality of all immigrant men of Iranian origin. Certain limitations of the study should be noted such as a small research sample, the majority of whom came from the middle or upper classes, were university-educated, and were admitted under the economic immigration category. The fact that all participants in this research hold university degrees could convey the idea that these are voices of educated people, and thus not an adequate representation of the family patterns maintained by many Iranians. In this regard, it should be explained that this proportion of university-educated participants in the sample is not surprising, given that Quebec has a point-based immigration system that selects its immigrants mainly according to their education, work experience and language skills. The other point that should be taken into consideration is that there is not necessarily a correlation between level of studies and prevalence of modern family behaviors. Some individuals coming from the middle or upper class in this study adhere to what has been defined in this paper as traditional family patterns. Despite all these limits, the heterogeneity of the sample—corresponding to categories of age, arrival year, social milieu, immigration status, level of studies and marital status—represents, to a great extent, the diversity of marital experiences among Iranian immigrants finding themselves in the same social world, that is the integration into the mainstream family life of Quebecois society.

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## **El balanced scorecard como herramienta estratégica para la gestión de las funciones sustantivas de los institutos superiores tecnológicos**

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### **Resumen**

Este trabajo contiene los componentes fundamentales de la Herramienta Cuadro de Mando Integral CMI o Balanced Scorecard, propuesto por Kaplan y Norton (2009) como fundamento teórico y práctico que permite realizar un modelo basado en las funciones sustantivas y aplicable en los Institutos Tecnológicos Superiores, utilizando todos los conceptos básicos del Plan Estratégico bajo cuatro puntos de vista: Docencia, Investigación,

Vinculación con la Comunidad y Administrativo-Financiero. La adopción de modelos de gestión estratégica apropiada en las instituciones de educación superior es de excepcional importancia, por ende se buscó evaluar la gestión y proponer un modelo de administración basado en el CMI en el Instituto Tecnológico Superior Juan Bautista Aguirre. La metodología aplicada fue de enfoque cualitativo con un diseño no experimental y de alcance descriptivo. La muestra estuvo compuesta por directores y educadores, elegidos mediante un muestreo no probabilístico. La gestión institucional se evaluó mediante análisis FODA y encuestas aprobadas por el alfa de Cronbach, adquiriendo como tabla resultados estrategias que incorporan y dinamizan la misión y visión institucional a través del CMI y el mapa estratégico cuyos indicadores podrá medir el desempeño de los objetivos relacionados desde las perspectivas estratégicas. Se concluye que la evaluación detecto insatisfacción del personal en relación con el sistema de gestión y el CMI propuesto establecerá los objetivos, indicadores y metas estratégicas con un adecuado alineamiento lo que daría como resultado una mejora de la gestión estratégica de esta institución.

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**Palabras Claves:** Cuadro de Mando Integral, gestión, funciones sustantivas, institutos, herramienta estratégica

## **The Balanced Scorecard as a Strategic Tool for the Management of the Substantive Functions of the Technological Institutes**

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### **Abstract**

This work contains the fundamental components of the CMI Balanced Scorecard Tool, proposed by Kaplan and Norton (2009) as a theoretical and practical foundation that allows a model based on substantive functions and applicable in Higher Technological Institutes, using all the basic concepts of the Strategic Plan under four points of view: Teaching, Research, Community Relations and Administrative-Financial. The adoption of appropriate strategic management models in higher education institutions is of exceptional importance, therefore it was sought to evaluate the management and propose a management model based on the CMI at the Juan Bautista Aguirre Higher Technological Institute. The applied methodology was of a qualitative approach with a non-experimental design and descriptive scope. The sample was made up of principals and educators, chosen through non-probability sampling. Institutional management was evaluated through SWOT analysis and surveys approved by Cronbach's alpha, acquiring as a table results strategies that incorporate and dynamize the institutional mission and vision through the CMI and the strategic map whose indicators will be able to measure the performance of the related objectives from strategic perspectives.

It is concluded that the evaluation detected dissatisfaction of the personnel in relation to the management system and the proposed CMI will establish the objectives, indicators and strategic goals with an adequate alignment, which would result in an improvement of the strategic management of this institution.

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**Keywords:** Balanced Scorecard, management, substantive functions, institutes, strategic tool

## Introduction

Una de las más relevantes dificultades a las que se enfrentan en este momento las fundaciones públicas de la educación avanzada en la nación es la mejora de la calidad. Para lograrlo, es vital ejecutar nuevas gestiones administrativas que suplanten los viejos planes y logren el mejoramiento de capacidades considerables, para que la oferta instructiva reaccione y brinde calidad a las necesidades y aperturas para la ordenación de los recursos humanos en el país. Además, por lo tanto, pueden cumplirse sus propósitos esenciales. El enfoque de calidad, detallado por el Ministerio de Educación, gira en torno a cuatro metodologías básicas: combinación del Sistema de Aseguramiento de la Calidad en todos los niveles, ejecución de proyectos para el avance de habilidades, perfeccionamiento competente de instructores y supervisores y avance de la exploración (Ministerio de Educación, 2018).

Estos sistemas buscan reforzar las organizaciones instructivas, con el objetivo de que sean espacios donde todos puedan aprender, crear habilidades y coincidir tranquilamente. En conclusión se busca que las instituciones de Educación Superior fortalezcan su gobierno universitario, mejoren su gestión, fomenten el uso de buenas prácticas en materia de transparencia institucional, se apropien de la información para la toma de decisiones, y adopten estrategias y mecanismos para el uso eficiente de los recursos en el sector (Ministerio de Educación, 2018).

La planificación estratégica es una definición antigua que se remonta al comienzo de las asociaciones militares. Según una variedad de argumentos, fueron los militares quienes anteriormente utilizaron una forma esencial de lidiar con la organización. La planificación estratégica apareció durante la década de 1940 en el acontecimiento de la administración estratégica. Durante la década de los sesenta del siglo XX, su utilización se extendió hasta convertirse en un instrumento de mejora jerárquica destacado por supervisores y jefes de organizaciones. En la década de 1970, las personas comenzaron a discutir la administración vital, incluida la organización de componentes y el significado de los planes operativos. La principal justificación de esta redefinición fue que una disposición esencial como se propuso entonces no era suficiente (Orozco Carrillo & Aguagallo Cando, 2018).

Podemos decir que hacía principios de los ochenta, la planificación estratégica había pasado a ser vista como un instrumento útil que requería condiciones autorizadas y una hábil administración en su aplicación para asegurar un resultado positivo. Esta es la forma en que se logró una descripción práctica y objetivo de los arreglos clave, lo que hizo que adquiriera reputación y rastreara su área exacta entre las disciplinas reguladoras y de la junta. Desde finales del siglo XX, la educación superior ha pasado esencialmente por un restablecimiento, lo que es significativamente más que un cambio. Tales cambios pasan por la definición de nuevos puestos de trabajo y dificultades, ya que el desarrollo social y monetario, derivado de la globalización, presenta niveles de competencia más significativos (Orozco Carrillo & Aguinaldo Cando, 2018).

En este marco, los organismos mundiales, como la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO), y las asociaciones internacionales de quienes imparten la educación superior, se han visto enfocados en el avance que se busca obtener en las estrategias institucionales, todo para garantizar la calidad y niveles más elevados de competencia de la educación superior (UNESCO, 2017).

Los cambios propuestos a este nivel en los últimos años han desarrollado un mayor dinamismo entre la institución y la comunidad, por lo que estas instituciones están obligadas a crear nuevos elementos que puedan operar de manera autónoma, pero los resultados se han integrado en los intereses comunes de la comunidad académica. Por tanto, la responsabilidad social es la carta general de las instituciones de educación superior (IES) frente a la sociedad. Esto los lleva a plantearse diferentes interrogantes en el contexto de una gestión administrativa eficaz. Esto se debe a que los cambios tecnológicos inciden directamente en la competitividad de la organización, es decir, en el contexto de la planificación estratégica, se ha desarrollado desde la era industrializada hasta la tecnológica. Desde la década de 1990 se han implementado diferentes modelos de gestión, que tienen en cuenta planes estratégicos relacionadas con el aprendizaje de los socios, procesos, clientes y perspectivas financieras (Kaplan & Norton, 2007).

En esta estructura, los ejecutivos y dispositivos de avance jerárquico son significativos a la luz de que se han convertido en una pieza focal del público que pretende mejorar este grado de formación. Entre estos dispositivos, sobresale el arreglo vital, en la Secretaría y el Ministerio de Educación, al igual que en los especialistas y los grupos de supervisión institucional en las universidades de todo el planeta, el arreglo vital ha involucrado constantemente un lugar comprobable. En este momento, los arreglos esenciales se han convertido en una necesidad para las universidades, ya que son asociaciones con ciclos de conciencia alucinante e interconectada



y están sujetos a una progresión de necesidades excepcionalmente poderosas (Garbanzo-Vargas, 2015).

La dirección estratégica orientada a la calidad debe responder a este dilema. Esto requiere abrir procesos de reflexión sobre la naturaleza de las acciones, así como incluir las mismas orientaciones de mediano y largo plazo en la agenda. Por tanto, la dirección estratégica significa concebir la universidad, mirando hacia el medio ambiente, a partir de un futuro factible a alcanzar (Almuiñas Rivero, 2012).

De acuerdo con la perspectiva de las especulaciones gerenciales, las asociaciones, al fin y al cabo, tratan de lograr ciertos fines a partir del trabajo facilitado entre individuos, utilizando métodos accesibles. A pesar de su tipo, tienen tres cualidades distintivas: I) están hechos a propósito y según un arreglo (la mayoría de las veces) para lograr ciertos objetivos; ii) tienen una construcción y solicitud limitante, y iii) con la asistencia de esta solicitud o diseño, se puede componer la actividad de los individuos y los bienes accesibles para cumplir con los objetivos. Esto es algo sencillo de comprender en la teoría, sin embargo, cuando comenzamos a romper la opinión de los miembros en elaborada por una asociación como la Universidad, esto puede ser extremadamente desconcertante. Lo más importante, a la luz del hecho de que estas asociaciones son desarrollos sociales, con numerosos impactos y ciclos transformadores separados, en los que coinciden diferentes intereses. El problema es que es importante lograr acuerdos, definiciones y ejercicios completos que nos sometan jerárquicamente a cosas de las que no estamos completamente persuadido (Ojeda Ramírez, 2013).

Por tanto, para el examen actual, se centra en la introducción de un aparato conocido como Balanced Scorecard creado por Norton y Kaplan en la década de los 90 como Herramienta Estratégica para la Gestión de las Funciones Sustantivas de los Institutos Tecnológicos Superiores, en el que dispone de manera extensa en consecuencia, todas las normativas y los ciclos escolares se alinearon con los puntos de vista esenciales de los subsistemas de dicha técnica y finalmente con los ciclos y marcadores controlados por el Consejo para la evaluación, acreditación y afirmación de la calidad de la educación superior, que se introduce en el informe general de la evaluación de los mayores establecimientos especializados y mecánicos. En el caso de que se vincule con la mejora de la calidad, el Cuadro de Mando Integral se considera el más adecuado, por tratarse de una fundación de Educación Superior y particularmente por el hecho de que este aparato de administración permite actualizar el procedimiento institucional en el corto y largo plazo e incluye a todas las autoridades de la sustancia que persiguen objetivos básicos (Kaplan & Norton, 2009).

Robert S. Kaplan y David P. Norton, construyeron otro marco de estimación que permite a los jefes ver la organización desde puntos de vista



alternativos todo el tiempo, cuyas consecuencias se distribuyeron sin precedentes en enero de 1992 en Harvard Business Review, en el artículo llamado *Balanced Scorecard: Measures That Drive Performance*, alude que el BSC, es un marco que permite construir un plan que interprete la misión y los objetivos clave de la organización en estimaciones explícitas que, además de incluir medidas monetarias que reflejen las secuelas de las actividades realizadas con anterioridad, incorpora tres arreglos de medidas operativas que demuestran la fidelidad del consumidor, medidas internas y la capacidad de la asociación para aprender y mejorar (Roncancio , 2019).

La capacidad del Cuadro de Mando Integral es mostrar a los líderes dónde deben centrar sus esfuerzos y activos; Bajo este trabajo, los directores seleccionan estos marcadores, sin embargo, además de ser un marco para medir la ejecución, al enfocarse en el logro futuro de la organización, el Cuadro de Mando Integral se puede utilizar como un marco de administración único que lleva a cabo la metodología corporativa. El marco se centra en crear e impartir a todas las personas de la asociación una imagen completa, una visión detallada sobre los objetivos esenciales, por ejemplo, utilizando la información adquirida a través de la experiencia y la adaptabilidad que se espera del marco para hacer frente al negocio en evolución climática (Alveiro Montoya, 2011).

Nils Goran (1999), alude que la motivación fundamental detrás del *Balanced Scorecard* es la producción de una asociación de aprendizaje que permita evaluar qué tan bien se están cumpliendo los supuestos. Kaplan y Norton describen la interacción como un ciclo, en el que la visión se caracteriza y se comparte; se imparte en cuanto a objetivos o impulsos. Estos se utilizan para dirigir los esfuerzos de los representantes, designar activos y proponer objetivos.

El BSC es un instrumento que muestra consistentemente cómo es la organización, comparable a los resultados y objetivos caracterizados en el arreglo esencial, es un aparato de administración que ayuda a tomar impulsos importantes para satisfacer la misión y visión de la organización es un valioso dispositivo de administración para la administración de la organización y como tal para cumplir con los propósitos de corto, mediano y largo plazo y su aplicación está legitimada desde la perspectiva financiera, lícita, social y laboral (Nils-Goran, 1999).

### **Marco Teórico**

#### **Marco Referencial**

La realización del marco conceptual brinda bases científicas para justificar la realización de cualquier proyecto de ingeniería. En cuanto al trabajo en específico, la revisión de literatura pretende hacer una búsqueda de artículos científicos, trabajos de grado y otras fuentes. De esta forma, definir

de forma breve y manejar adecuadamente los conceptos relacionados con la propuesta de mejora (Pareja Lora & Blume, 2019).

González, Salazar, & Ortiz (2019) en la actualidad, las asociaciones necesitan comprender la administración clave, enfocándose en que no se trata de una cuestión de giro anual útil de eventos, esta metodología debe crearse de manera consistente, transformándola en una actividad de periodicidad, que se completa como una razón para la era del avance vital, a través de estrategias, procedimientos e instrumentos equipados para consolidar efectividad, eficiencia y seriedad en la asociación con una ampliación de diversas condiciones que deben ser controladas exhaustivamente.

Quintero (2008), diseña un esquema que ilustra un modelo donde integra los procesos tanto administrativos como académico basándose en los parámetros determinados por las perspectivas estratégicas del Balanced Scorecard. Por tanto, para los Institutos Tecnológicos Superiores y otras organizaciones puede el Balanced Scorecard presentarse como una herramienta dinámica que integre los ejercicios académicos y de gestión como también ampliar el valor adicional de la institución. Llama la atención sobre que los modelos de administración agresivos, por ejemplo, el Balanced Scorecard también están equipados para ser aplicados en fundaciones universitarias innovadoras, mejorando de esta manera el carácter académico y gerencial de estas organizaciones, ya que le dan el oficio para ingresar a un mundo esencial.

El creador razona que el plan de este modelo permite la mejora, a medio plazo, de los procedimientos dependientes de la visión, misión y cualidades de la fundación. Cifuentes (2013), en su trabajo “Cuadro de Mando Ajustado para Instituciones de Educación Superior de Bolívar, Colombia” reflexiona sobre la trascendencia de llevar a cabo el modelo para ajustar el procedimiento de preparación y tener un dispositivo de estimación y control que las convierta en la Educación Superior más razonable (Cifuentes , 2013).

Para el creador, el diseño del Cuadro de Mando Integral permitirá a las IES impulsar sus objetivos en función de los marcadores propuestos en el tablero. Cifuentes plantea, que las ventajas que realmente querrán obtener como Departamento es que mejorará la provincia de Educación Superior en su exhibición, calidad, importancia, entre otras, así como en realidad querrán centrarse en una manera en el cumplimiento de sus destinos y efecto (Cifuentes , 2013).

En el trabajo “El Cuadro de Mando Integral como aparato de administración para el avance en las asociaciones globalizadas”, Velásquez (2007), afirma que los Sistemas de Indicadores Ajustados le dan a los jefes el hardware que necesitan para explorar hacia futuros logros como también metas para que el Cuadro de Mando Integral empodere la administración y los factores académicos mostrando una integración armoniosa de los procesos,

razón por la cual presenta una propuesta de Cuadro de Mando Integral como un dispositivo para atender y mejorar las funciones sustantivas de los institutos tecnológicos.

González, Salazar, & Ortiz (2019), propone unos marcadores y objetivos para cada meta esencial propuesta por la Dirección de Planificación de la Universidad Militar Nueva Granada, que son importantes para el desarrollo del Cuadro de Mando Integral de la Institución. El estudio concluye que, contrario a la medición que se hacía en la mayoría de las organizaciones hasta finales de los años ochenta, el desempeño de las mismas no debe medirse sólo en términos financieros sino a través de la integración de las diferentes perspectivas del modelo del Balanced Scorecard.

## **BALANCED SCORECARD**

El Balanced Scorecard (BSC) o también llamado Balanced Scorecard, es un procedimiento creado por Kaplan y Norton (Kaplan & Norton, 2007), que lo caracteriza como "un conjunto de medidas que proporciona a los directores de ranking una perspectiva rápida pero completa de la asociación". Por otra parte, de la definición dada por Kaplan y Norton han surgido muchas más definiciones conectadas a la primera, por ejemplo, la dada por Tobar et al. (2018) :

“la adaptación de un modelo de gestión empresarial a uno institucional como la educación superior deben estar alineando cada factor relevante de tal forma que presente el control de los procesos integrados de todas las áreas administrativas como académicas y que los resultados satisfagan y guarden una estrecha relación con la evaluación realizada periódicamente por el organismo de evaluador, utilizando los mismos indicadores”(pág. 332).

El BSC permite a los supervisores observar la asociación desde cuatro puntos de vista clave para evaluar la exposición de la metodología de la asociación, que son: el punto de vista monetario, el punto de vista del cliente, el punto de vista de los ciclos internos y el punto de vista del aprendizaje y desarrollo, que veremos a continuación: (Kaplan & Norton, 2007)

- **Perspectiva financiera:** Esto nos permite conocer todo el salario real y el límite presupuestario de la asociación. Esta es la razón por la que todas las opciones deben afectar el punto de vista monetario.
- **Perspectiva del cliente:** Orienta sus actividades en técnicas que buscan el cumplimiento, mantenimiento y captación de nuevos clientes, lo que afectará la exhibición monetaria de la asociación.
- **Perspectiva de Procesos Internos:** Nos permite conocer el funcionamiento de los ciclos interiores, para construir actividades que aseguren su productividad.

- **Perspectiva de Aprendizaje y Crecimiento:** Esto busca generar estima a partir de las mejoras en la asistencia, la base física e innovadora y las actualizaciones en los recursos humanos.

### **Metodología**

Para esta investigación se realizó un estudio con enfoque cualitativo en función en primera instancia a la percepción y aceptación de quienes participan de forma activa en la ejecución de una planificación estratégica a nivel de gestión educativa. Por lo tanto, con un diseño no experimental por el cual los investigadores por medio de un alcance descriptivo determinaron la integración de estrategias a nivel académico y administrativo en relación con las perspectivas estratégicas y las funciones sustantivas, en consecuencia se determinará una propuesta a nivel estratégico que dinamiza la gestión educativa y la planificación estratégica.

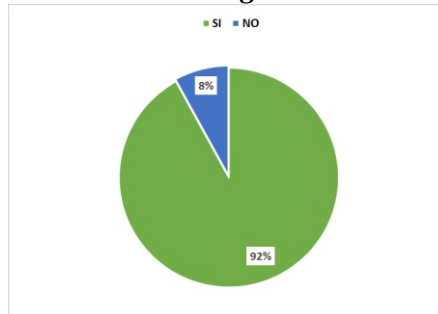
Como unidad de análisis se determina la comunidad académica del Instituto Superior Tecnológico Juan Bautista Aguirre del cual se derivan los procesos administrativos y académicos y que serán integrados por una perspectiva estratégica dentro de un Cuadro de Mando Integral. En consecuencia la población de estudio se delimita a los docentes y autoridades (82 docentes más 2 autoridades). Cabe recalcar que los docentes a más de cumplir funciones pedagógicas también realizan actividades administrativas como coordinadores, entre otras. Debido a que la población es relativamente pequeña se realizó un muestreo no probabilístico por conveniencia.

### **Técnicas E Instrumentos De Recolección De Datos**

Se utilizó la encuesta para realizar la aceptación y la necesidad de establecer una planificación estratégica relacionada con las funciones sustantivas. Por medio de un análisis documental se definirá nuevas estrategias para el desarrollo de un Cuadro de Mando Integral.

## Analisis De La Encuesta

### *Ítem 1: ¿Conoce Ud. de la existencia de la misión, y visión del Instituto Superior Tecnológico Juan Bautista Aguirre?*



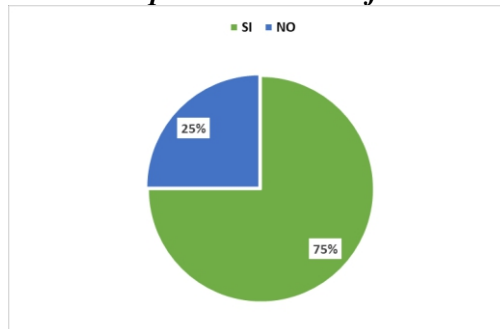
**Figura 1:** Existencia de misión y visión en el ISTJBA.

**Elaborado por:** Los autores

#### Interpretación:

Según datos obtenidos el 92% o 77 docentes del Instituto Superior Tecnológico Juan Bautista Aguirre conoce y afirma la existencia de una misión y visión en la institución, lo que da una idea de uno de los objetivos de la misma.

### *Ítem 2: ¿Conoce Ud. de la importancia de las funciones sustantivas?*



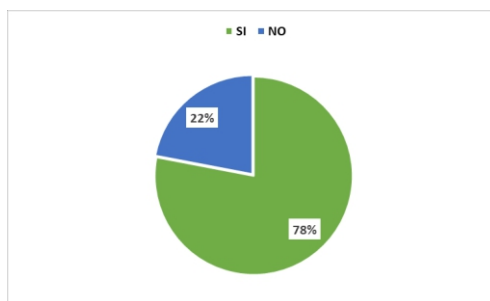
**Figura 2:** Importancia de las funciones sustantivas.

**Elaborado por:** Los autores

#### Interpretación:

De acuerdo con la interrogante sobre la importancia de las funciones institucionales para los docentes, el 75% o 63 de ellos coincidieron que son muy significativas las funciones sustantivas, sin embargo un 25% mencionaron que no lo es.

**Ítem 3: ¿Conoce Ud. de la existencia de una socialización entre las funciones sustantivas y objetivos estratégicos dentro de la Institución Educativa?**



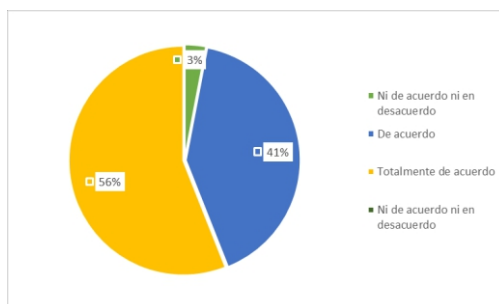
**Figura 3:** Existencia de una socialización entre las funciones sustantivas y objetivos estratégicos.

**Elaborado por:** Los autores

**Interpretación:**

Así pues, cuando se les preguntó sobre si conocían la existencia de una posible socialización entre las funciones sustantivas y los objetivos estratégicos, en su mayoría con un 78% mencionaron y afirmaron que existe, sin embargo, un 22% o 18 docentes dijeron no conocer de su posible existencia.

**Ítem 4: ¿Estaría de acuerdo en que se integre una herramienta estratégica para la gestión de las Funciones Sustantivas de los Institutos Superiores Tecnológicos?**



**Figura 4:** Disposición a la integración de una herramienta estratégica para la gestión de las funciones sustantivas.

**Elaborado por:** Los autores

**Interpretación:**

Ahora bien, en cuanto a si los docentes del ISTJBA estarían de acuerdo con que se implemente una herramienta estratégica para la gestión de las funciones administrativas, el 56% o 47 maestros dijeron estar totalmente de acuerdo ya que ayudará a mejorar y corregir las falencias que se presentan en la institución educativa; el 49% o 41 pedagogos mencionaron estar de acuerdo y un 39% o 33 catedráticos indicaron estar ni de acuerdo ni en desacuerdo con la propuesta.

**Ítem 5: ¿Qué tan de acuerdo está con que se adapte una herramienta para la planificación estratégica que integre las funciones sustantivas y los objetivos estratégicos en la Institución?**



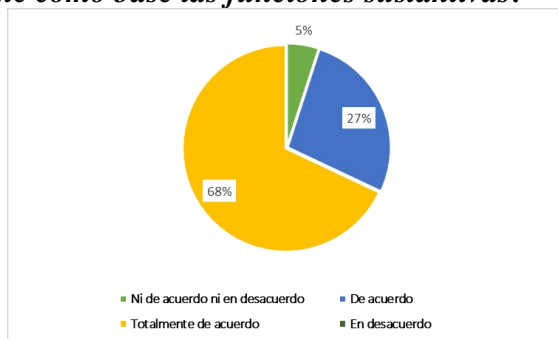
**Figura 5:** Disposición a la adaptación de una herramienta estratégica que integre las funciones sustantivas y los objetivos de la Institución.

**Elaborado por:** Los autores

**Interpretación:**

Por consiguiente, se cuestionó a los docentes del ISTJBA si estarían de acuerdo con que se adapte una herramienta para la planificación estratégica que integre las funciones sustantivas y los objetivos de la institución, el 49% o 41 maestros dijeron estar de acuerdo; el 39% o 33 pedagogos mencionaron estar ni de acuerdo ni en desacuerdo y un 12% o 10 catedráticos indicaron estar de acuerdo con la propuesta.

**Ítem 6: ¿Qué tan de acuerdo está en que la planificación estratégica institucional tome como base las funciones sustantivas?**



**Figura 6:** Las funciones sustantivas como base de la planificación estratégica institucional.

**Elaborado por:** Los autores

**Interpretación:**

En consecuencia, con respecto a si los docentes del ISTJBA estarían de acuerdo en que las funciones sustantivas sean tomadas como base para la planificación estratégicas, el 68% o 57 maestros dijeron estar totalmente de acuerdo ya que promueve el cambio, y precede y preside la acción para la toma

de decisiones en la institución educativa; el 27% o 23 pedagogos mencionaron estar de acuerdo y un 5% o 4 catedráticos indicaron estar ni de acuerdo ni en desacuerdo con la propuesta.

## Análisis FODA

### *Fortalezas:*

<b>Factor</b>	<b>Peso</b>	<b>Calificación</b>	<b>Peso ponderado</b>
F1: Personal académico con experiencia en participación en redes y programas de gestión de investigación, innovación y vigilancia tecnológica.	0,45	4	1.8
F2: Procesos de acreditación internacional de carreras, lo que provoca una alta demanda de carreras de grado y posgrado.	0,25	4	1
F3: Alto compromiso de la alta dirección en fortalecer los diferentes procesos administrativos.	0,2	3	0,6
F4: Existencia de infraestructura tecnológica	0,1	2	0,2
<b>Total</b>	<b>1</b>		<b>3,6</b>

### *Oportunidades*

<b>Factor</b>	<b>Peso</b>	<b>Calificación</b>	<b>Peso ponderado</b>
O1: Automatización de procesos	0,4	4	1.6
O2: Posibilidad de lograr alianzas estratégicas	0,3	3	0,9
O3: Facilidad acceso tecnológico	0,2	3	0,6
O4: Desarrollo de programas para plataformas digitales.	0,1	2	0,2
<b>Total</b>	<b>1</b>		<b>3,3</b>

### *Debilidades*

<b>Factor</b>	<b>Peso</b>	<b>Calificación</b>	<b>Peso ponderado</b>
D1: Falta de organización.	0,4	4	1.6
D2: Falta de planes estratégicos.	0,35	3	1,05
D3: Escasa formación pedagógica	0,15	2	0,3
D4: Falta de compromiso de parte de la parte administrativas.	0,1	2	0,2
<b>Total</b>	<b>1</b>		<b>3,15</b>



### ***Amenazas***

<b>Factor</b>	<b>Peso</b>	<b>Calificación</b>	<b>Peso ponderado</b>
A1: Escasa cultura de los jóvenes frente a la educación superior	0,4	4	1.6
A2: Inestabilidad económica de las familias de los estudiantes	0,4	4	1,6
A3: Inestabilidad política y económica del país.	0,1	2	0,2
A4: Peligros biológicos (virus, pandemias) que limitan la movilidad académica.	0,1	2	0,2
<b>Total</b>	<b>1</b>		<b>3,6</b>

### **FO-FA-DO-DA**

<p><b><u>MATRIZ DE ANÁLISIS ESTRATÉGICO</u></b></p>	<p><b>F1: Personal académico con experiencia en participación en redes y programas de gestión de investigación, innovación y vigilancia tecnológica.</b>  <b>F2: Procesos de acreditación internacional de carreras, lo que provoca una alta demanda de carreras de grado y posgrado.</b>  <b>F3: Alto compromiso de la alta dirección en fortalecer los diferentes procesos administrativos.</b>  <b>F4: Existencia de infraestructura tecnológica</b></p>	<p><b>D1: Falta de organización.</b>  <b>D2: Falta de planes estratégicos.</b>  <b>D3: Escasa formación pedagógica</b>  <b>D4: Falta de compromiso de parte de la parte administrativas.</b></p>
<p><b>O1: Automatización de procesos</b>  <b>O2: Posibilidad de lograr alianzas estratégicas</b>  <b>O3: Facilidad acceso tecnológico</b>  <b>O4: Desarrollo de programas para plataformas digitales.</b></p>	<ul style="list-style-type: none"> <li>• Implementar nueva forma de trabajo virtual aprovechando las herramientas tecnológicas implementadas.</li> <li>• Aprovechar el diseño curricular actualizado y acorde a la realidad, que posee la universidad para satisfacer la alta demanda de carreras de grado y posgrado</li> <li>• Potenciar el modelo existente de internacionalización institucional para incrementar los convenios y cooperación en el ámbito de vinculación con</li> </ul>	<ul style="list-style-type: none"> <li>• Desarrollar e implementar un plan estratégico para fomentar el desarrollo de temas relacionados a innovación y vigilancia tecnológica los cuales favorecerán a los procesos de acreditación nacional y acreditación internacional de carreras</li> <li>• Formar alianzas estratégicas con instituciones de formación para capacitar a los colaboradores de la Institución de tal manera que haya una capacitación del personal docente en herramientas tecnológicas implementadas</li> </ul>

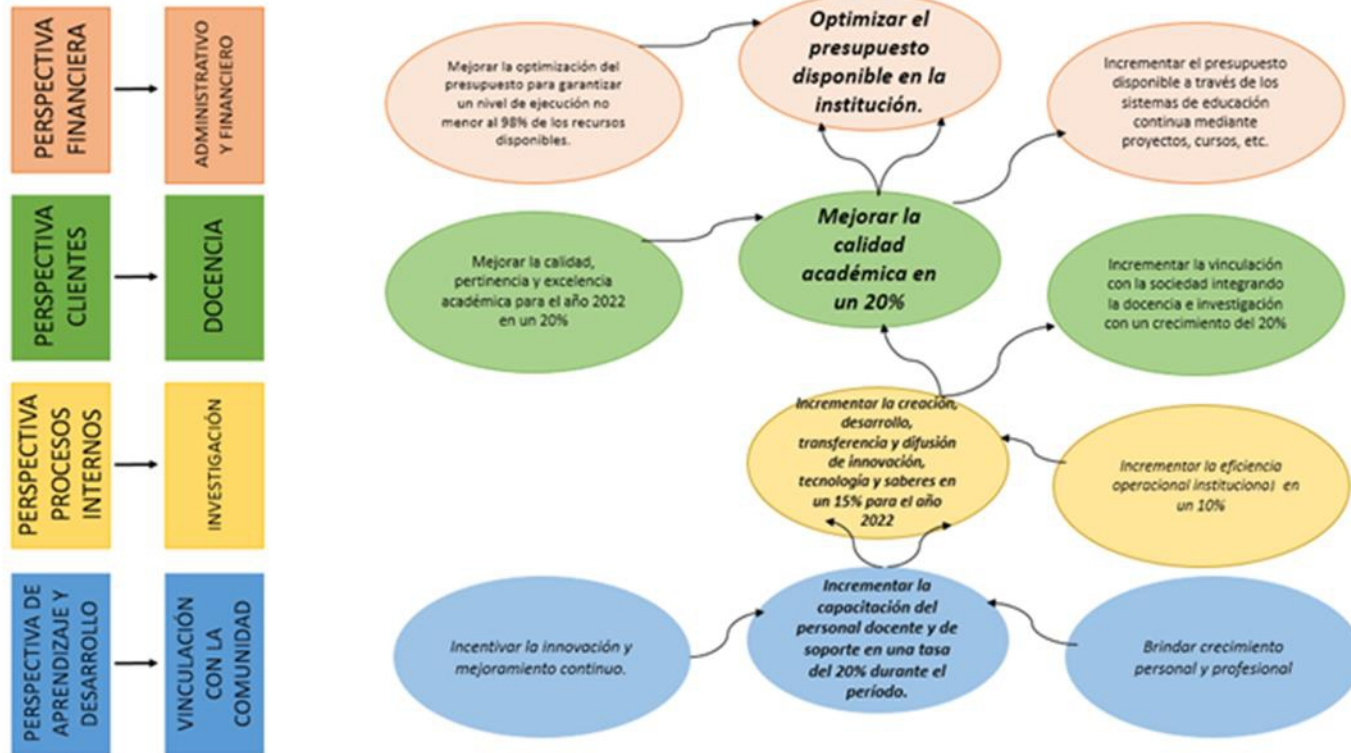
	<p>organizaciones nacionales e internacionales.</p>	<p>para maximizar el rendimiento de las actividades sustantivas.</p> <ul style="list-style-type: none"> <li>• Rediseñar y fortalecer la articulación de las dependencias involucradas en los procesos, además de incrementar el número de docentes PhD en áreas de conocimiento específico, incrementando también la capacidad operativa y estructura para responder a las necesidades de la sociedad e institución de tal manera que se pueda satisfacer la alta demanda de carreras de grado y posgrado.</li> </ul>
<p><b>A1: Escasa cultura de los jóvenes frente a la educación superior</b>  <b>A2: Inestabilidad económica de las familias de los estudiantes</b>  <b>A3: Inestabilidad política y económica del país.</b>  <b>A4: Peligros biológicos (virus, pandemias) que limitan la movilidad académica.</b></p>	<ul style="list-style-type: none"> <li>• Crear perfiles más exigentes con habilidades y conocimientos que le den un valor agregado a la organización.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacitación del personal en herramientas tecnológicas implementadas para maximizar el rendimiento de la operación.</li> <li>• Fomentar la gestión del cambio como fundamento para adaptar nuevas formas de trabajo.</li> <li>• Continuar mejorando e implementando herramientas que automaticen los procesos repetitivos de la organización.</li> </ul>

## Cuadro de Mando Integral

CUADRO DE MANDO INTEGRAL O BALANCED SCORECARD								METAS				
PERPECTIVA	SISTEMAS	OBJETIVOS ESTRATÉGICOS	ACCIONES	ACTIVIDADES	RESPONSABLE	FINANCIAMIENTO	INDICADORES	2022	2023	2024	2025	2026
FINANCIERA	ADMINISTRATIVO Y FINANCIERO	Optimizar el presupuesto disponible en la institución.	Mejorar la optimización del presupuesto para garantizar un nivel de operación no menor al 98% de los recursos disponibles.	Implementar procesos para el control y seguimiento de la ejecución presupuestaria.	Unidad de formación académica	\$ 1.000,00	Control continuo del POA programado = Porcentaje de ejecución presupuestaria	100%	100%	100%	100%	100%
			Incrementar el presupuesto disponible a través de los sistemas de educación continua mediante proyectos, cursos.	Incremento de nuevas carreras universitarias	Analista de TTHH	Nivel de crecimiento de carreras nuevas = (Nº de carreras existentes - número de carreras año anterior)						
CLIENTE	DOCENCIA	Mejorar la calidad académica en un 20%	Mejorar la calidad, pertinencia y cobertura académica para el año 2022 en un 20%	Promover la investigación como una práctica generalizada en docentes y estudiantes del ISTEBA, que fomente su participación en el debate y en la producción del conocimiento	Unidad Técnica de Control Académico	\$ 1.000,00	Porcentaje de nuevos procesos de selección = (Nº de procesos periodo actual - Nº de procesos periodo anterior / Nº de procesos periodo anterior) X 100	10%	20%	20%	20%	20%
			Incrementar la vinculación con la sociedad integrando a la docencia e investigación con un crecimiento del 20%	Mejorar la docencia en el ingreso de personal docente en el ISTEBA	Analista de TTHH	Porcentaje de capacitaciones a docentes y estudiantes = ((Nº de investigaciones periodo actual - Nº de investigaciones periodo anterior) / Nº de investigaciones periodo anterior) X 100						
PROCESOS INTERNOS	INVESTIGACIÓN	Incrementar la creación, desarrollo, transferencia y difusión de innovación, tecnología y saberes en un 15% para el año 2022	Incrementar la eficiencia operacional/institucional en un 10%	Reformar la oferta académica basada en un sistema de planificación y proyección consensuado.	Comisión de Gestión Universitaria - Comisión de Diseño Curricular	\$ 1.000,00	Nivel de crecimiento de docentes con título PhD = (Nº de docentes con PhD en el año actual - Nº de docentes con PhD en el año anterior) / Nº de docentes con PhD en el año anterior X 100	10%	10%	10%	10%	10%
			Incrementar la eficiencia operacional/institucional en un 10%	Rediseñar el proceso de selección de docentes	Jefe de TTHH - Comisión de contrataciones	Porcentaje de reformas = (Nº de reformas periodo actual - Nº de reformas periodo anterior) / (Nº de reformas periodo anterior) X 100						
APRENDIZAJE Y DESARROLLO	VINCULACIÓN CON LA COMUNIDAD	Incrementar la capacitación del personal docente y de soporte en una tasa del 20% durante el período.	Incentivar la innovación y mejoramiento continuo.	Realizar capacitaciones a los docentes	Coordinador de TICS	\$ 1.000,00	Porcentaje de capacitaciones en estrategias colaborativas = ((Nº de capacitaciones periodo actual - Nº de capacitaciones periodo anterior) / Nº de capacitaciones periodo anterior) X 100	10%	15%	20%	20%	20%
			Impulsar crecimiento personal y profesional	Mejorar el sistema de tecnologías de información y crear un proceso para el desarrollo profesional docente que favorezca estrategias colaborativas que sirvan para promover la práctica profesional bajo una óptica de investigación y desarrollo.	Analista de TTHH	Actualización e implementación de plataformas = (Nº de plataformas existentes periodo actual - Nº de plataformas periodo anterior)						

### Mapa Estrategicos

Una vez analizadas las vistas, primero nos llevará a desarrollar un mapa estratégico, que nos permitirá impulsar estrategias que ayudarán a desarrollar paneles de control.



## Conclusion

Los resultados obtenidos de este estudio identificaron aspectos en la gestión de la educación superior que son consistentes con la acreditación institucional que todas las instituciones de educación superior esperan lograr. Los parámetros son evaluados y establecidos por CEAACES y certificados por CES. El plan estratégico de ITSJBA está diseñado desde la perspectiva de tareas, visiones y metas a corto y largo plazo. De manera similar, CMI se estableció con base en las fortalezas, debilidades, oportunidades y amenazas de la universidad.

En consecuencia, para analizar los factores que obtienen la certificación desde el panorama de la docencia, la investigación, la vinculación con la comunidad y la administración financiera, se propone un modelo de gestión como método para cumplir los objetivos, el Balanced Scorecard o CMI; se proponen cuatro objetivos estratégicos que serán evaluados. Estos indicadores se utilizan con base en las evaluaciones de CEAACES con base en un punto de vista estratégico consistente con los objetivos estratégicos.

Es fundamental evaluar continuamente todos los factores externos e internos directamente relacionados con el funcionamiento de la universidad, que ayudarán a la entidad a mejorar sus procesos o crear nuevos. De acuerdo con el plan estratégico, es importante incrementar las acciones y planificar nuevas estrategias que ayuden a la entidad a lograr más alianzas nacionales e internacionales, para que la universidad se ubique entre los primeros en educación superior del Ecuador y se convierta en el primer egresado de secundaria.

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# Corporate Governance, Financial Characteristics, Macroeconomic Factors and Financial Performance of Agricultural Firms Listed at the Nairobi Securities Exchange, Kenya

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## Abstract

This study sought to examine the relationships between corporate governance, financial characteristics, macroeconomic factors and financial performance of agricultural firms listed at the Nairobi Securities Exchange, Kenya. The specific objectives were to establish the effect of corporate governance on financial performance; to determine the intervening effect of financial characteristics on corporate governance and financial performance; to establish the moderating effect of macroeconomic factors on corporate governance and financial performance of listed agricultural firms; and to establish the joint effect of corporate governance, financial characteristics, macroeconomic factors and financial performance of listed agricultural firms in Kenya. This study is anchored on agency theory, transaction cost theory; political theory and cash conversion cycle theory. The study used census approach and a target population of seven agricultural firms listed at the Nairobi Securities Exchange between 2002 and 2016 was incorporated. The study used panel data. Corporate governance, financial characteristics and financial performance data was extracted from annual reports of the individuals firms while macroeconomic factors data was extracted from Central Bank of Kenya and Kenya National Bureau of Statistics economic reports. The study employed longitudinal descriptive research design.



Descriptive and panel data regression analysis were conducted. Corporate governance had significant effect on financial performance of listed agricultural firms in Kenya; the intervening effect of financial characteristics on the relationship between corporate governance and financial performance was not determined; the moderating effect of macroeconomic factors on the relationship between corporate governance and financial performance was confirmed; and the joint relationship between corporate governance, financial characteristics and macroeconomic factors on financial performance was established. The study recommended a review of corporate governance principles and directors to comply with corporate governance structure and practices to enhance financial performance of firms.

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**Keywords:** Corporate Governance, Macroeconomic Factors, Financial Characteristics, Financial Performance, Listed Agricultural Firms

## **Introduction**

Agriculture has been the pillar of Kenyan economy for many years, contributing to about 30 percent of Gross Domestic Product (GDP) and more than 80 percent of National Employment. The sector contributes more than 60 percent of total Kenyan exports and contributes more than 40 percent to the government revenues (PWC, 2019). However, financial performance of listed agricultural firms in Kenya has posted different results over the period of the study due to various factors such as corporate governance, financial management, macroeconomic factors, weather patterns, agricultural activities, general political environment, oil prices and global a pandemic among others. The association between corporate governance and performance of agricultural firms has attracted several studies all over the world with different results (Roudaki, 2018; Zhan, 2021). Listed agricultural firms' committed to good corporate governance normally post good financial performance, and this is subject to favourable financial characteristics and macroeconomic factors (CMA, 2015). Major financial management variables normally intervene in the association between corporate governance and financial performance of listed agricultural firms. Financial management variables (financial characteristics) when judiciously managed should positively influence on the relationship between corporate governance and performance of listed agricultural firms (Aluoch, Iraya, Kaijage & Ogutu, 2020). Macroeconomic factors affect macroeconomic environment and determine the level of performance of listed agricultural firms due to cost of capital benefits arising from favorable interest rates, inflation rates and exchange rates prevailing in the country (Hopt, 2021).

The above conceptualization on the relationships between corporate governance, financial characteristics, macroeconomic factors and financial



performance of listed agricultural firms is explained by Agency theory by Jensen and Meckling (1976); Transaction cost theory by Coase (1973); Political theory by Pound (1992); and Cash conversion cycle theory by Richards and Laughlin (1980). The Agency theory is an arrangement between principals and agents in a firm. It is based on different relationships between shareholders and various agents. These agents perform various activities on behalf of shareholders (Jensen & Meckling, 1976). Transaction cost theory examines how directors enter into agreements for their sources of goods and services as this reduces uncertainty as they have everything they need for the foreseeable future (Coase, 1973), Political theory brings the approach of developing voting support from shareholders, rather than by purchasing voting power. Hence having a political influence may direct corporate governance positively within an organization (Pound, 1992). Cash conversion cycle theory represents the interaction between the components of working capital and the flow of cash within a company and can be used to determine the amount of cash needed for any sales level (Richards & Laughlin, 1980).

Corporate Governance is the process of governing the corporate, creation of corporate policies while keeping the vision and mission in mind, as well as catering to the interests of all the stakeholders including: shareholders, employees, government, suppliers, customers, creditors, management, and environment, among others. Corporate Governance, in its simplest form means, a set of laws, rules and regulations to govern the functioning and growth of a business (Agarwal, 2021). Corporate governance refers to 'the system by which companies are directed and controlled'. This direction and control can come from inside or outside the organisation. Internal corporate governance refers to government and control by the organs of the corporations. External corporate governance can be understood as the disciplinary effects exercised in a particular way by the takeover market on the directors but also, to a certain degree, effects exercised by the markets for directors, products and services (Hopt, 2021). Corporate governance policies and practices used in this study are: board composition which comprises both executive and non-executive directors, gender and ethnicity, board skills, experience and occupational expertise, board age, board size, board tenure, board tools, board ownership, board meetings and board compensation.

Injecting colossal sums of money to firms without training them on acceptable financial management practices is pitiable. Firms that access funds often collapse due to unacceptable financial management practices. Financial management functions are: investment function, financing function, dividend function and liquidity function which have direct influence to firm performance (Mwosi, Mutesigensi & Ebong, 2018). Investment function involves efficient allocation of funds on viable ventures to generate wealth for

a firm. It is the acquisition of capital assets to generate future cash flows to a firm and taking short term contingent opportunities in the financial market to generate more wealth. Financing function is the acquisition of funds for investment and operation activities. It deals with financial leverage that is proposition debt and equity in the capital structure of a firm. Dividend function deals with dividend policy that is the pattern of divined payments of a firm for a given period of time. Liquidity function is the ability of the firm to use current assets to pay current obligations (Brigham & Davis, 2018).

Economic factors affect the performance of firms. Microeconomic factors exist within the company and are under the control of management; they include product, organizational culture, leadership, manufacturing or operations (quality), demand and factors of production. Macroeconomic factors exist outside the firms and are not under the control of management; they include social, environmental, political conditions, suppliers, competitors, government regulations and policies. Key macroeconomic factors include the Consumer Price Index (CPI), unemployment, gross domestic product (GDP), stock market index, corporate tax rate and interest rates. Macroeconomic factors can pose a positive or negative threat to the performance of a firm and are beyond the control of management (Dioha, Mohammed & Okpanach, 2018; Egbunike & Okerekeoti, 2018). The macroeconomic factors for this study are Gross Domestic Product (GDP), interest rates and inflation rates.

Financial performance is multi-faceted, and the appropriate measure selected to assess financial performance depends on the type of organization to be evaluated, and the objectives to be achieved through that evaluation. Financial performance is a measure of overall well-being of a firm in terms of wealth creation over a given period of time. It measures how a firm can use investment in long and short term assets to create wealth. Measures of financial performance can further be achieved using either accounting or market metrics with different theoretical foundation. Each of the two metrics has specific predispositions. Financial performance measures can be established on book value or market value. In this study Return on Assets (ROA) and Tobin's Q were used as measures of firm performance. ROA is a main ratio of firm performance of profitability (Saseela, 2018; Egbunike & Okerekeoti, 2018; Aluoch *et al.*, 2020).

Nairobi Securities Exchange (NSE) was established in the year 1954 as the main stock market in Kenya, with deliberate intentions by brokers of shares traded in listed organizations within the confines of societies act. It rebranded its name from Nairobi Stock Exchange to Nairobi Securities Exchange to reflect its wider functions into a full service organization that aids in commercial exchanges, clearance and transfer of equities among other

financial assets and traded instruments. NSE is the only securities market in Kenya having different platforms for the listing and multiple securities trading. The market has an obligation to guarantee effective trading in securities and derivatives and enhances economic development. The firms are grouped into twelve different sectors agricultural segment being one of them. The current code of corporate governance sets out 19 principles and specific recommendations on structure and processes which companies should adopt in making good corporate governance part of their business dealings and culture (CMA, 2015). The financial performance of listed agricultural firms has been diverse in terms of profitability and value since the introduction of corporate governance framework by Capital Markets Authority (CMA, 2002). This is further influenced by financial characteristics and macroeconomic factors (Aluoch *et al.*, 2020).

### **Problem Statement**

The relationship between corporate governance and financial performance of listed and non-listed agricultural firms is contradicting in most countries (Zheng ,2021; Oleh Pasko, Chen, & Wang,2021; Tleubaye, Bobojonov,Gagalyuk,García Meca & Glauben,2020; Roudaki, 2018). The same trend has been experienced in Kenya where listed agricultural firms have realized varied results since the introduction of corporate governance framework by Capital Markets Authority (CMA, 2002). The new code sets out 19 principles and specific recommendations on structure and processes which companies should adopt in making good corporate governance part of their business dealings and culture (Shikanga, Mukanzi and Musiega, 2018; Ngwenze & Kariuki,2017; CMA, 2015).

There were 7 listed agricultural firms at the Nairobi Securities Exchange as at 31st December, 2016. The financial performance of listed agricultural firms has been different since the commencement of corporate governance policies and practices. Kakuzi Limited had increased operating profit from KES 232,799,000 in the year 2014 to KES 757,779,000 in the year 2016. Kapchorua Tea Company Limited had increased operating profit from KES 182,079,000 in the year 2014 to KES 336,007,000 in the year 2016. Eaagads Limited posted operating loss of KES (58,676,000) in the year 2014 to profit KES 9,691,000 in the year 2016. Limuru Tea Company Limited had a decreased in operating profit from KES 2,078,000 in the year 2014 to operating loss of KES (26,731,000) in the year 2016. Rea Vipingo Plantations Limited delisted in the year 2016 had operating profits of KES 647,992,000 in the year 2013 to KES 2,117,386,000 in the year 2015. Sasini Limited posted operating profit of KES 61,793,000 in the year 2014 to KES 1,020,758,000 in the year 2016. Williamson Tea Kenya Limited posted operating profit of KES

1,041,033,000 in the year 2014 to KES 940,445,000 in the year 2016 (NSE, 2017).

## **Literature Review**

### **Theoretical Review**

Agency theory was developed by Jensen and Meckling (1976). The theory is grounded on the separation of ownership and control as well as the relationship between principals and agents. It is based on short term gains where principals delegate decision making authority to their agents; who are to use resources given by the principals to enhance principals' benefits. Agents however, may commit moral hazard by substituting principals' interest with their own (Fama & Jensen, 1983). The principals normally monitor the activities of agents to ensure that they act on the interest of the firms. Monitoring costs are normally expensive and adversely affect the principals' income (Agrwal & Knoeber, 1996). Agency theory has been applied to today's firms since shareholders have realized that firm performance depends crucially on having the right managers at the helm and incentivizing them properly (Anderson, Bustamante, Guibaud, & Zervos, 2018). The theory however has been criticized on its narrow perspective and it ignores other stakeholders. Daily, Dalton and Canella (2003) argue that there are two features that influence the prominence of agency theory. First, the theory is conceptually simple theory that reduces the corporation to two participants of managers and shareholders. Second, the theory suggests that employees or managers in organizations can be self-interested. However employees and managers must constitute a good governance structure rather than just providing the needs of shareholders. Bhimani (2008) argues that the agent may be succumbed to self-interest, opportunistic behavior and falling short of congruence between the aspirations of the principal and the agent's pursuits. Today's firms have adopted various compensation structures to motivate the managers hence avoiding agency costs and conflicts as a result of principal-agency relationships.

Transaction Cost Theory (TCT) originated from Coase (1937) premised on why companies exist and grow to be so large. The TCT was later theoretical described and exposed by Williamson (1996). The TCT attempts to view the firm as an organization comprising of people with different views and objectives. Transaction costs are incurred in spending time researching, negotiating and agreeing a transaction. The TCT examines how directors would rather enter into agreements for their sources of goods and services as this reduces uncertainty as they have everything they need for the foreseeable future. By doing this the time and expense of sourcing materials is avoided. The unit of analysis in TCT is the transaction and it occurs when dealing with internal and external parties. TCT and agency theory essentially deal with

same issues and problems of corporate governance. Whereas agency theory focuses on an individual agent, the TCT focuses on individual transactions which can be quantifiable. The Agency theory looks at the tendency of directors to act in their own best interests, pursuing salary and status; Transaction cost theory considers that managers (or directors) may arrange transactions in an opportunistic way and shareholders are residual receivers, concern about safety of their investment.

Political theory has a very long foundation. However, political theory and corporate governance was initiated by (Pound, 1992). Political theory brings the approach of developing voting support from shareholders, rather than by purchasing voting power. Hence having a political influence in corporate governance may direct corporate governance within the organization. Public interest is much reserved as the government participates in corporate decision making, taking into consideration cultural challenges (Pound, 1993). The political model highlights the allocation of corporate power, profits and privileges are determined via the governments' favor. The political model of corporate governance can have an immense influence on governance developments. Over the last decades, the governments have been seen to have a strong political influence on firms. As a result, there is an entrance of politics into the governance structure or firms' mechanism (Hawley & Williams, 1996).

Cash Conversion Cycle theory was developed by Richards and Laughlin (1980). It is a wider framework of analysis known as the working capital cycle. It represents the interaction between the components of working capital and the flow of cash within a company and can be used in determining the amount of cash needed for any sales level. Cash Conversion Cycle (CCC) is used as an all-inclusive measure of working capital as it shows the time lag between spending for the purchase of raw materials and the collection of sales of finished goods. It is determined by adding stock conversion period in trade debtor's collection period and subtracting trade creditor's deferral period (Padachi, 2006). The number of days trade debtors; stock and trade creditors are used in the operationalization of the management of trade creditors and stock (Sharma & Kumar, 2011).

### **Empirical Review**

Zheng (2021) examined empirical analysis of listed agricultural corporate governance structure and corporate performance in China, using a sample of a-share agricultural listed companies in Shanghai and Shenzhen stock markets from 2013-2018. The study used multiple regression model to verify the three aspects of corporate governance structure and found that the relationship between corporate performance and research results shows that the relationship between equity concentration, equity balance, executive

compensation and corporate performance of agricultural listed companies in China is in a “U” shape, and the size of the board of directors is significantly positively correlated with corporate performance to some extent, while the correlation between other governance structural factors and firm performance is not significant. The study however used three variables of corporate governance and a short period of time. This study used for a long period time from the year 2002 to the year 2016 and incorporated many variables of corporate governance to determine the relationship between corporate governance and firm performance of listed agricultural firms in Kenya.

Oleh Pasko *et al.*, (2021) studied the relationship between board characteristics and financial performance: Evidence from Chinese listed agricultural companies. The study investigated the data of Chinese agricultural listed companies from 2008 to 2017, using multiple regression and found that CEO duality and board size are significantly positively correlated with financial performance as measured by ROA, ROE, and EPS and board independence had no significant impact on financial performance in China. The study’s findings enrich the understanding of linkage “board structure–firm performance”, especially in China. The study concentrated on board structure, this study however incorporates both board structure and board activities.

Tleubaye *et al.*, (2020) examined corporate governance and firm performance within the Russian agri-food sector: does ownership structure matter? The study employed unique panel data obtained from 203 companies for the years between 2012 and 2017. A random effects model was used to analyse the impacts of ownership concentration and ownership identity on the firms’ financial performance, measured by return on assets and return on sales. The results indicated an inverse U-shaped association between ownership concentration and firm performance, with average level of ownership concentration found to be on the descending range of the inverse U-shaped curve. The study also observed a similar quadratic relationship between ownership concentration by government and directors and firm performance. On average, ownership by directors was found to be on the ascending range and below the peak point, suggesting a potential for further performance improvement, while the impact of agro-holding ownership was found to be linear and positive. The study concentrated on ownership concentration, however this study include board structure and board activities of listed agricultural firms in Kenya.

Roudaki (2018) studied corporate governance structure and firm performance in large agricultural corporations in New Zealand. The study included external auditor remuneration and board characteristics such as board ownership, board compensation, board independence, board gender diversity in the context of agricultural companies by applying agency theory. The study



used balanced panel data and generalized least squares regression analysis of 80 firms for a period of the year 2012 to year 2015 and found different results. External auditors' remuneration, board compensation, board independence has no association with agricultural companies' performance, while board gender diversity and board ownership were negatively but significantly associated with firm performance. The study used many corporate governance mechanisms to determine the relationship between corporate governance and performance of agricultural firms in New Zealand, however the study period was short, this study used for a long period time from the year 2002 to the year 2016 and incorporated intervening and moderating variables to determine overall effect on the relationship between corporate governance and firm performance of listed agricultural firms in Kenya.

Shikanga *et al.*, (2018) examined influence of corporate governance on financial performance of listed agricultural firms in the Nairobi Securities Exchange, Kenya . The study used descriptive survey design, descriptive statistics and regression analysis. The study found that despite tight regulatory framework, corporate agricultural firms listed Kenya has experience decline in performance and some have been delisted. Financial and governance problems have made some firms to be put on statutory management. The study further established direct relationship between corporate governance and dimensions of financial performance as significant. The study however is not clear on the period of study, delisted firms and mechanisms of corporate governance. This study is for a period between the year 2002 to the year 2016, using specific mechanisms of corporate governance and Tobin's Q and ROA as measures of firm performance.

Ngwenze *et al.*, (2017) studied effects of corporate governance practices on financial performance of listed agricultural firms in the Nairobi Securities Exchange, Kenya using corporate governance characteristics as board of directors' composition, board size, independence of board and board audit committees. The study used descriptive correlation research design to determine the relationship between corporate governance and financial performance of listed agricultural firms from the year 2012 to the year 2014. Data was analyzed using a regression model and the study established that corporate governance has no significance influence on performance as measured by Return on Equity (ROE) and Return on Assets (ROA), but has significance influence on capital structure. The study used a short period time and a few mechanisms of corporate governance to determine the relationship between corporate governance and financial performance of listed agricultural firms. This study however used along period from the year 2002 to the year 2016, used many corporate governance mechanisms and intervening and moderating variables to establish the relationship between corporate governance and financial performance of listed agricultural firms.

## Research Methodology

This study used a census approach given a few number of agricultural firms listed in Kenya and therefore a target population of 7 listed agricultural firms at the NSE between years 2002 and 2016 were used. These listed agricultural firms were targeted because they need to adhere to Kenya Capital Markets Authority (CMA) guidelines to corporate governance for continuous listing at the Nairobi Securities Exchange. The firms were screened against various factors which included availability of data for the period under review and the integrity of data. Data was extracted from annual reports of listed agricultural firms from CMA; published financial statements from NSE; and economic reports from Central Bank of Kenya (CBK) and Kenya National Bureau of Statistics (KNBS).

This study used descriptive and panel data regression in analyzing the relationships between corporate governance and financial performance of agricultural firms listed at the NSE. Descriptive analysis was carried out to measure central tendencies and dispersion of variables and coefficient of variation was used to disclose the volatility in relationships of the variables under study. A panel data regression analysis was conducted using random effects model which allowed the listed agricultural firms to have a common mean value of intercept and to determine whether corporate governance affect financial performance of agricultural firms. Coefficient of determination ( $R^2$ ) and p-values were used to interpret the regression functions at a level of significance of 0.05 (Bryman & Cramer, 1997). The respective individual regression coefficients were also tested for their statistical significance using the t-test.

Direct relationship between Corporate Governance and Financial Performance of listed agricultural firms: simple regression model were used to test hypothesis one ( $H_{01}$ ): Relationship between Corporate Governance (CG) and Financial Firm Performance (FP).

$$FP_{it} = \beta_0 + \beta_1 CG_{it} + \epsilon'_{it} \dots \dots \dots \text{Equation 1.}$$

The intervening effect of Financial Characteristics on the relationship between Corporate Governance and Financial Performance of listed agricultural firms: stepwise regression model was used to determine these relationships. The following models were used to test hypothesis two ( $H_{02}$ ). This was achieved by determining the intermediating effect of firm characteristics by relying on four steps of statistical analysis (Baron & Kenny, 1986).



Step one: Relationship between Corporate Governance (CG) and Financial Performance of listed agricultural firms (FP) holding Firm Characteristics (FC) constant.

$$FP_{it} = \beta_0 + \beta_1 CG_{it} + \epsilon'_{it} \dots \dots \dots \text{Equation 2}$$

(a).

Step two: Relationship between Corporate Governance (CG) and Financial Characteristics (FC), holding Performance of listed agricultural firms (FP) constant.

$$FC_{it} = \beta_0 + \beta_2 CG_{it} + \epsilon'_{it} \dots \dots \dots \text{Equation 2}$$

(b).

Step three: Relationship between and Financial Characteristics (FC) and Financial Performance of listed agricultural firms (FP), holding Corporate Governance (CG) constant.

$$FP_{it} = \beta_0 + \beta_3 FC_{it} + \epsilon'_{it} \dots \dots \dots \text{Equation 2}$$

(c).

Step four: Intermediation among Corporate Governance (CG), Financial Characteristics (FC) and Financial Performance of listed agricultural firms (FP).

$$FP_{it} = \beta_0 + \beta_4 CG_{it} + \beta_5 FC_{it} + \epsilon'_{it} \dots \dots \dots \text{Equation 2}$$

(d).

Moderating effect of Macroeconomic Factors on the relationship between Corporate Governance and Financial Performance of listed agricultural firms: Multiple regression models were used to determine this relationship. The moderating model was used to test hypothesis three (Ho<sub>3</sub>). This was achieved by determining the moderating effect of

$$FP_{it} = \beta_0 + \beta_1 CG_{it} + \beta_2 GDP_{it} + \beta_3 INF_{it} + \beta_4 INR_{it} + \beta_5 GDP_{it} * CG + \beta_6 INF_{it} * CG + \beta_7 INR_{it} * CG + \epsilon'_{it} \dots \dots \dots \text{Equation 3.}$$

Relationship among Corporate governance, Financial Characteristics, Macroeconomic Factors and Financial Performance of listed agricultural firms: Panel data regression model of random effects was used to determine the relationship among Corporate Governance (CG), Financial Characteristics (FC), Macroeconomic Factors (MF) and Financial Performance (FP). These models were used to test hypothesis four (Ho<sub>4</sub>), the joint effect:

$$FP_{it} = \beta_0 + \beta_1 CG_{it} + \beta_2 FC_{it-1} + \beta_3 MF_{it-1} + c_i + \epsilon'_{it} \dots \dots \dots \text{Equation 4.}$$

Where for all the relationships:  $FP_{ij}$  is Financial Performance of listed agricultural firms; CG is Corporate Governance; FC is Financial Characteristics; MF is Macroeconomic Factors;  $c_i$  unobserved variable;  $\beta_0$  is the intercept;  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are regression coefficients for Corporate Governance, Financial Characteristics and Macroeconomic Factors for firm  $i$  in time  $t$ ; and  $\epsilon$  is error term. The study's null hypotheses were rejected when calculated p-values exceeded 0.05 significance level adopted by the study (Aluoch ,Iraya, Kaijage & Ogutu, 2019).

## Results And Discussions

### Descriptive Statistics of Study Variables

Table 1 shows the descriptive statistics of the variables under study. The results shows the mean standard deviation, minimum, maximum of corporate governance variables, financial characteristics variables, macroeconomic factors and financial performance variables of listed firms in agricultural firms in Kenya.

**Table 1:** Descriptive Statistics of Study Variables

Variable	N	Mean	Standard Deviation.	Minimum	Maximum
Board Independence	104	0.66909	0.213475	0.25	1
Gender diversity	104	0.011218	0.034625	0	0.125
Occupational Expertise	104	3.903846	1.438171	1	6
Board Age	104	56.69423	4.966346	46.5	69.7
Board Size	104	5.586538	1.978577	2	9
Board Tenure	104	3	0	3	3
Board Ownership	104	0.005624	0.010501	0	0.0391
Board Tools	104	2.605769	1.185825	0	4
Board Meeting	104	3.346154	1.459946	0	6
Number of Board Committees	104	1.692308	1.231283	0	3
Committees Meeting	104	4.317308	3.388342	0	12
Board Remuneration	102	0.031887	-0.25781	1.272344	2.025853
Investments	104	0.706689	0.163429	0.22458	0.992514
Leverage	103	0.28088	0.199937	0.036099	1.041919
Liquidity	103	0.187993	0.152948	-0.1441	0.573307
GDP Growth Rate	105	4.846667	2.190015	0.2	8.4
Interest Rate	105	15.06825	2.258282	12.25	19.85333
Inflation Rate	105	7.428	3.503312	0.9	15.2
ROA	103	0.192208	-0.2984	0.304929	1.797788



investment and leverage while it had a negative correlation with liquidity. Board committee meetings on the other hand were positively correlated with investment and leverage and negatively correlate with liquidity. Board remuneration had a negative correlation with financial characteristics (investments, leverage and liquidity) of listed agricultural firms in Kenya.

**Table 3: Board Activities and Financial Characteristics in Listed Agricultural Firms**

	Board Tenure	Board Ownership	Board Tools	Board Meeti ngs	Board Committ ees	Committe es Meetings	Board Remun eration	Invest ments	Leve rage	Liqu idity
Board Tenure	r 1									
Board Ownership	r -0.226	1								
Board Tools	r .424**	.197*	1							
Board Meetings Number of Board Committees	r 0.001	0.059	.365**	1						
Committees Committees Meetings	r 0.21	.524**	.314**	.443*	1					
Board Remuneration	r -.367**	.228*	.327**	.488*	.533**	1				
Investments Leverage	r -0.014	0.133	0.014	-0.022	0.07	-0.008	1			
Liquidity	r .563**	-.261**	.482**	* .643*	0.01	0.19	-0.12	1		
	r .349*	-0.001	.214*	0.082	.342**	.268**	-0.103	0.086	1	
	r 0.071	0.013	.589**	-.661**	-.292**	-.309**	-0.013	.361**	.259**	1
	N -0.349*	103	103	103	103	103	101	103	103	103

\*\* Correlation is significant at the 0.05 level (2-tailed).

### Board Structure and Macroeconomic Variables in Listed Agricultural Firms

Table 4 presents the results for board structure indicators and macroeconomic variables for listed firms in agricultural in Kenya. The findings presented showed that GDP growth rate had a negative correlation with board independence while it was positively correlated to gender diversity, occupation expertise, board age and board size. The findings further showed that interest was positively correlated with board structure indicators. Inflation had a positive correlation with board independence, gender diversity, occupational expertise and board age while it was negatively correlated board size.

**Table 4: Board Structure and Macroeconomic Variables in Listed Agricultural Firms**

		Board Indepe ndence	Gender Diversity	Occupationa l Expertise	Board Age	Board Size	GDP Growth Rate	Interest Rate	Inflation Rate
Board Independence	r	1							
Gender Diversity	r	.323**	1						
Occupational Expertise	r	.759**	.477**	1					
Board Age	r	0.009	0.036	0.137	1				
Board Size	r	.787**	.494**	.938**	0.086	1			
GDP Growth Rate	r	-0.063	0.057	0.053	.341**	0.02	1		
Interest Rate	r	0.002	0.069	0.061	.331**	0.07	-0.151	1	
Inflation Rate	r	0.01	0.093	0.022	.227*	-0.01	.262**	-0.126	1
	N	105	105	104	104	104	104	104	104

\* Correlation is significant at the 0.05 level (2-tailed).

### Board Activities and Macroeconomic Variables in Listed Agricultural Firms

Table 5 presents the findings of correlation analysis between board activities indicators and macroeconomic variables among agricultural firm listed on NSE. The findings showed that GDP growth rates, interest rates and inflation rates had weak relationship with board activities indicators for listed agricultural firms in Kenya.

**Table 5: Board Activities and Macroeconomic Variables in Listed Agricultural Firms**

		Board Tenure	Board Own ership	Board Tools	Board Meetings	Number of Board Comm it tees	Commit tees Meetings	Board Remun eration	GDP Growth Rate	Interes t Rate	Inflation Rate
Board Tenure	r	1									
Board Ownership	r	.378**	1								
Board Tools	r	.311**	.197*	1							
Board Meetings	r	-0.111	0.059	.865*	1						
Number of Board Committees	r	-0.069	.524**	.714*	.443**	1					
Committees Meetings	r	0.009	.228*	.727*	.488**	.833**	1				
Board Remuneration	r	-0.059	0.133	0.014	-0.022	0.071	-0.01	1			
GDP Growth Rate	r	-0.122	0.014	0.063	0.013	0.043	0.06	-0.067	1		
Interest Rate	r	0.176	0.036	0.095	0.032	0.071	0.04	0.077	-0.151	1	
Inflation Rate	r	-0.146	0.023	0.002	0.005	0.015	0.02	-0.108	.262**	-0.126	1
	N	104	105	104	104	104	104	104	104	104	104

\*Correlation is significant at the 0.05 level (2-tailed).

### Board Structure and Financial Performance of Firms Variables in Listed Agricultural Firms

Table 6 present the findings of correlation between board structures and financial performance of agricultural firms listed on NSE. The finding presented show that board structure variables had a weak association with ROA while had a strong correlation with Tobin’s Q. The correlation between board independence, occupational expertise and board size and Tobin’s Q was found to be very strong as shown by the finding in Table 6.

**Table 6:** Board Structure and Financial Performance of Firms Variables in Listed Agricultural Firms

		Board Independence	Gender Diversity	Occupational Expertise	Board Age	Board Size	ROA	Tobin’s Q
Board Independence	r	1						
Gender Diversity	r	.323**	1					
Occupational Expertise	r	.559**	.477**	1				
Board Age	r	0.009	0.036	0.137	1			
Board Size	r	.587**	.494**	.438**	0.086	1		
ROA	r	-0.01	-0.078	-0.067	0.143	-0.121	1	
Tobin’s Q	r	-.524**	-0.16	-.598**	-.215*	-.595**	0.14	1
	N	103	103	103	103	103	103	103

\* Correlation is significant at the 0.05 level (2-tailed).

### Board Activities and Financial Performance of Firms in Listed Agricultural Firms

Table 7 presents the findings of correlation analysis of board activities indicators and financial performance of agricultural firms listed in Kenya. The findings showed that board activities indicators had a weak correlation with ROA. However, the correlation between board activities’ indicators and Tobin’s Q was strongly. Board tools, board meetings, no board committees and committees meetings had strong negative correlation with Tobin’s Q while board tenure had a positive correlation with Tobin’s Q.

**Table 7:** Board Activities and Financial Performance of Firms in Listed Agricultural Firms

		Board Tenure	Board Ownership	Board Tools	Board Meetings	Number of Board Committees	Committees Meetings	Board Remuneration	ROA	Tobin’s Q
Board Tenure	r	1								
Board Ownership	r	-0.111	1							
Board Tools	r	-0.069	.197*	1						
Board Meetings	r	0.009	0.059	.865**	1					
Number of Board Committees	r	-0.059	.524**	.714**	.443**	1				
Committees Meetings	r	0.047	.228*	.727**	.488**	.833**	1			

Board										
Remuneration	r	0.041	0.133	0.014	-0.022	0.071	-0.008	1		
ROA	r	0.034	.310**	-0.186	-.237*	0.062	-0.074	0.04	1	
									0.14	
Tobin's Q	r	.443**	-0.188	-.795**	-.778**	-.579**	-.587**	-0.02	1	1
	N	103	103	103	103	103	103	101	103	103

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Financial Characteristics Variables and Financial Performance in Listed Agricultural Firms

Table 8 presents the findings of correlation analysis between financial characteristics and financial performance of agricultural firms listed at NSE. The findings showed that investments had a strong positive correlation with both ROA and Tobin's Q. Leverage had a weak correlation with both ROA and Tobin's Q while liquidity had strongly and positive correlation with Tobin's Q while weak correlation with ROA of listed Agricultural firms at NSE.

**Table 8:** Financial Characteristics Variables and Financial Performance in Listed Agricultural Firms

		Investments	Leverage	Liquidity	ROA	Tobin's Q
Investments	r	1				
Leverage	r	0.086	1			
Liquidity	r	-.861**	-.259**	1		
ROA	r	.504**	0.143	.447**	1	
Tobin's Q	r	.567**	.260**	.615**	0.141	1
	N	103	103	103	103	103

\*\* Correlation is significant at the 0.05 level (2-tailed).

### Macroeconomic Variables and Financial Performance Variables in Listed Agricultural Firms

Table 9 presents the correlation analysis of macroeconomic variables and financial performance indicators of agricultural firms listed on NSE. The results presented showed that GDP growth rates, interest rates and inflation rates had a weak correlation with both ROA and Tobin's Q of listed agricultural firms in Kenya.

**Table 9:** Macroeconomic Variables and Financial Performance Variables in Agricultural Firms

		GDP Growth Rate	Interest Rate	Inflation Rate	ROA	Tobin's Q
GDP Growth Rate	r	1				
Interest Rate	r	-0.151	1			
Inflation Rate	r	-.262**	-0.126	1		
ROA	r	0.136	0.012	0.167	1	
Tobin's Q	r	-0.027	-0.086	0.059	0.141	1
	N	103	103	103	103	103

\*\*Correlation is significant at the 0.05 level (2-tailed).

### Regression Analysis

#### Hypothesis One (H<sub>01</sub>): Corporate Governance and Financial Performance of Listed Agricultural Firms

Table 10 shows both models used to link corporate governance variables to ROA (Prob>Chi2 =0.0010) and Tobin's Q (Prob>Chi2 =0.0000) were statistically significant which implied that corporate governance variables were significant predictor of financial performance of listed agricultural firms in Kenya. The findings further revealed that only occupational expertise ( $\beta=0.1759128$ ,  $p=0.043$ ), board age ( $\beta=0.013589$ ,  $p=0.035$ ), and board tools ( $\beta= -0.2199084$ ,  $P=0.014$ ) significantly affected ROA of firms in agricultural sector. However board tools had a significant and negative effect on ROA, the rest of the corporate governance variables had an insignificant effect on ROA on listed agricultural firms in Kenya. On the other hand, only board tenure ( $\beta=1.101152$ ,  $p=0.000$ ) and board meetings ( $\beta=-0.31549$ ,  $p=0.000$ ) significantly affected the Tobin's Q, the rest of the corporate governance variables had an insignificant effect on Tobin's Q on listed agricultural firms in Kenya. Table 11 presents the Random Effect (RE) regression results of the models fitted to test the relationship between CG composite and performance of firms (ROA and Tobin's Q) of listed agricultural firms in Kenya. The results revealed that the models fitted were statistically insignificant which implied that Corporate Governance (CG) composite was insignificant predictors of financial performance of firms (ROA and Tobin's Q) of listed agricultural firm in Kenya.



**Table 10:** Corporate Governance Variables and Financial Performance of Listed Agricultural Firms

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
Foreign Director	-.0014214	0.972	0.044167	0.658
Women Director	-.0764923	0.650	0.445122	0.284
Occupational Expertise	.1759128	0.043	0.190736	0.373
Board Age	.013589	0.035	0.007012	0.659
Board Size	-.0897128	0.213	-0.23348	0.188
Board Tenure	-.1507205	0.225	1.101152	0.000
Board Ownership	8.17801	0.057	-8.74278	0.409
Board Tools	-.2199084	0.014	-0.34776	0.115
Board Meetings	.0272355	0.566	-0.31549	0.007
Number of Board Committees	.0100104	0.892	-0.06929	0.704
Committees Meetings	.0254509	0.406	0.012576	0.868
Board Remuneration	.0365292	0.748	0.019105	0.946
Cons	0.0000		0.0000	
	Wald Chi2(11)= 31.38		Wald Chi2(11) = 205.06	
	Prob>Chi2 = 0.0010		Prob>Chi2 = 0.0000	
	R-Sq:= 0.2607		R-Sq:= 0.6973	

**Table 11:** Model Corporate Governance Composite and Financial Performance of listed Agricultural Firms

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
	0.00007		-	
CG	87	0.158	0.0000202	0.900
cons	0.17242			
	57	0.000	1.2159	0.003
	Wald chi2(1)= 2.00		Wald chi2(1) = 0.02	
	Prob > chi2 = 0.1577		Prob > chi2 = 0.9001	
	R-sq: = 0.0545		R-sq: = 0.0126	

**Hypothesis Two (Ho2): Intervening Effect of Financial Characteristics on the Relationship between Corporate Governance and Financial Performance of Listed Agricultural Firms**

Intervention is deemed when corporate governance predicts financial performance of listed agricultural firms, corporate governance predicts financial characteristics and financial characteristics predicts financial

performance of listed agricultural firms, additional corporate governance should predict financial performance of agricultural firms in presence of financial characteristics.

The first step of testing the intervening involves fitting a model for independent variables and dependent variables while ignoring the intervening variables. The study fitted a Random Effect (RE) effect model to test the relationship between CG composite and financial performance of listed agricultural firms' measures using ROA and Tobin's Q. Table 12 presents the RE regression results of the models fitted to test the relationship between CG composite and performance of firms (ROA and Tobin's Q). The regression coefficient further revealed an insignificant relationship between CG Composite and financial performance of firms (ROA) ( $\beta=0.000$ ,  $p=0.1577$ ) and Tobin's Q ( $\beta=0.000$ ,  $p=0.9001$ ).

**Table 12:** Step One Random Effect Regression Results: Corporate Governance and Financial Performance

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
CG	0.0000787	0.158	-0.0000202	0.002
_cons	0.1724257	0.000	1.2159	0.003
	Wald chi2(1)= 2.00		Wald chi2(1) = 0.02	
	Prob > chi2 = 0.1577		Prob > chi2 =0.9001	
	R-sq: = 0.0545		R-sq: = 0.0126	

Step two involved testing the relationship between independent variable (corporate governance) and intervening variables (financial characteristics) as dependent variables. The results are presented in Table 13. The results revealed that first model that tested the relationship between CG and investments was statistically insignificant (Prob >chi2= 0.6456). The second model fitted to test the relationship between CG and leverage was statistically insignificant (Prob > chi2 = 0.7449). The third model fitted to test the relationship between CG and liquidity was also statistically insignificant (Prob > chi2 = 0.5267).

**Table 13:** Step Two Random Effect Regression Results: Corporate Governance and Financial Characteristics Variables

	<b>Investments</b>		<b>Leverage</b>		<b>Liquidity</b>	
	Coef.	P> z	Coef.	P> z	Coef.	P> z
CG	0.0000118	0.646	-0.0000122	0.745	-0.0000166	0.527
Cons	0.7041394	0.00	0.2753321	0.00	0.1897765	0.00
Wald chi2(1)= 0.21		Wald chi2(1) = 0.11		Wald chi2(1)= 0.40		
Prob > chi2 = 0.6456		Prob > chi2=0.7449		Prob > chi2 =0.5267		
R-sq: = 0.0295		R-sq:= 0.0002		R-sq:= 0.0046		

Step three in testing for the intervening involved regression effect of the intervening variables with dependent variables without the independent variables. The study also conducted diagnostics tests before fitting the models. The results presented in table 14 revealed that financial characteristics variables (investment, leverage and liquidity) had a significant effect on ROA and Tobin's Q. The two models fitted to link Financial Characteristics Variables to both ROA and Tobin's Q was statistically significant.

**Table 14:** Step Three RE Regression Results: Financial Characteristics Variables and Performance

	<b>ROA</b>		<b>Tobin's Q</b>	
	Coef.	P> z	Coef.	P> z
Investments	-0.939179	0.004	-3.326821	0.002
Leverage	-0.1568998	0.258	-0.6173152	0.096
Liquidity	-0.0452337	0.899	-1.378709	0.0215
_cons	0.9070948	0.003	3.989556	0.00
Wald chi2(3) = 35.51		Wald chi2(3) = 19.77		
Prob > chi2 = 0.0000		Prob > chi2 = 0.0002		
R-sq:= 0.264		R-sq:= 0.2844		

Step four in testing for intervening effects of financial characteristics involved fitting model to link independent variables and dependent variables in presence of intervening variables.

**Table 15:** Step Four RE Regression Results: Corporate Governance, Financial Characteristics Variables and Financial Performance

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
CG	0.0000781	0.097	0.0000898	0.558
investments	0.6815775	0.065	3.428609	0.002
leverage	0.1553226	0.326	0.7722257	0.072
liquidity	0.2227522	0.584	1.464623	0.211
_cons	0.6550839	0.064	4.139829	0.00
	Wald chi2(4) = 35.47		Wald chi2(4)= 21.06	
	Prob > chi2 = 0.0000		Prob > chi2= 0.0003	
	R-sq: = 0.2901		R-sq: = 0.3213	

### Summary Intervening Effect of Financial Characteristics in Listed Agricultural Firms

The summary in table 16 shows that all the four steps for testing the intervening effects of financial characteristics on the relationship between corporate governance and financial performance of firms of listed agricultural firm in Kenya were not achieved the study concluded that intervention of financial characteristics was not fully achieved. Therefore the study failed to reject the null hypothesis that H<sub>02</sub>. Financial characteristics do not significantly intervene in the relationship between corporate governance and financial performance of agricultural firms listed at the Nairobi Securities Exchange.

**Table 16:** Summary of the Intervening Effect of Financial Characteristics in Listed Agricultural Firms

Steps	Independent Variable	Dependent Variable	Result	Intervention
1	CG	ROA	Insignificant	Not Achieved
		Tobin's Q	Insignificant	Not Achieved
2	CG	Investment	insignificant	Not Achieved
		Leverage	insignificant	Not Achieved
		Liquidity	insignificant	Not Achieved
3	Investment	ROA	significant	Achieved
		Tobin's Q	significant	Achieved
	Leverage	ROA	insignificant	Not Achieved
		Tobin's Q	insignificant	Not Achieved
	Liquidity	ROA	insignificant	Not Achieved
		Tobin's Q	significant	Achieved
4	CG	ROA	Insignificant	Not Achieved
		Tobin's Q	Insignificant	Not Achieved
	Investment	ROA	insignificant	Not Achieved
		Tobin's Q	significant	Achieved
	Leverage	ROA	insignificant	Not Achieved
		Tobin's Q	insignificant	Not Achieved

Liquidity	ROA	insignificant	Not Achieved
	Tobin's Q	insignificant	Not Achieved

**Hypothesis Three (H<sub>03</sub>): Moderating effect of Macroeconomic Factors on the Relationship between Corporate Governance and Financial Performance of Listed Agricultural Firms in Listed Agricultural Firms**

This section presents for moderating effect of macroeconomic factors on the relationship between corporate governance variables and financial performance of agricultural firms listed on NSE in Kenya. Table 17 and Table 18 show that macroeconomic variables increased the explanatory power of corporate governance on financial performance of firms of listed agricultural firms in Kenya since the R-squared increased from 0.1165 and 0.1641 in the first model while increased from 0.0264 to 0.0345 in the second model. These results implied that macroeconomic variables positively enhanced the relationship between corporate governance and financial performance of listed agricultural firms in Kenya. The findings further implied that friendly macroeconomic variables enhance the effect of corporate governance on financial performance of listed agricultural firms in Kenya. Therefore the study rejected the null hypothesis that H<sub>03</sub>: Macroeconomic factors do not significantly moderate the relationship between corporate governance and financial performance of agricultural firms listed at the Nairobi Securities Exchange. The first step of testing the intervening involves fitting a model for independent variables and dependent variables while ignoring the intervening variables, while the second step includes all intervening variables. The study fitted a Random Effect (RE) effect model to test the relationship between CG composite and financial performance of listed agricultural firms’ as measured using ROA and Tobin’s Q.

**Table 17:** Step One, Models Fitting for Moderating Effect of Macroeconomic Factors in Listed Agricultural Firms

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
CG	0.0000736	0.184	0.00000139	0.993
GDP growth rate	0.026699	0.044	-0.0156382	0.615
Interest rate	0.0091354	0.462	-0.0434667	0.136
Inflation rate	0.0201881	0.014	0.012657	0.51
Cons	0.243523	0.303	1.844694	0.015
	Wald chi2(4)= 9.93		Wald chi2(4) = 3.30	
	Prob > chi2 = 0.0416		Prob > chi2 = 0.5085	
	R-sq: = 0.1165		R-sq: = 0.0264	

**Table 18:** Step Two, Models Fitting for Moderating Effect of Macroeconomic Factors in Listed Agricultural Firms

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
CG	-0.00079	0.134	0.0003276	0.88
GDP Growth Rate	0.0260577	0.079	-0.0191769	0.754
Interest Rate	0.0009856	0.943	-0.0296874	0.598
Inflation Rate	0.0164138	0.074	0.0147889	0.696
IT1	0.0000139	0.624	0.000028	0.810
IT2	0.0000467	0.072	-0.0000418	0.696
IT3	0.0000185	0.275	-0.00000948	0.892
Cons	0.1001064	0.697	1.705919	0.107
	Wald chi2(7)=18.26		Wald chi2(7)= 2.52	
	Prob > chi2 = 0.0109		Prob > chi2 = 0.9254	
	R-sq:= 0.1641		R-sq:= 0.0345	

**Hypothesis Four (H<sub>04</sub>): Joint Effect of Corporate Governance, Financial Characteristics, and Macroeconomic Factors on Financial Performance of Listed Agricultural Firms**

The study analysed the effect of corporate governance, financial characteristics, and macroeconomic factors on financial performance of firms of listed agricultural firms in Kenya. At the point of the study NSE had a total of 7 agricultural firms listed therefore data for these 7 firms was used in this analysis. This section sought to test the hypothesis; H<sub>04</sub>-Corporate governance, financial characteristics and macroeconomic factors do not significantly jointly affect financial performance of agricultural firms listed at Nairobi Securities Exchange.

The results presented in Table 19 revealed that both model 1 linking Corporate Governance, Financial Characteristics, Macroeconomic Factors and ROA (Prob>chi2=0.0000), and Model 2 linking Corporate Governance, Financial Characteristics, Macroeconomic Factors and Tobin’s Q (Prob>chi2=0.0000) were statistically significant. These findings implied that Corporate Governance, Financial Characteristics, Macroeconomic Factors were good predictors of financial performance of listed agricultural firms in Kenya.

**Table 19:** Joint Effect of Corporate Governance, Financial Characteristics, Macroeconomic Factors on Financial Performance of Listed Agricultural Firms

	ROA		Tobin's Q	
	Coef.	P> z	Coef.	P> z
CG	-0.00003923	0.965	1.08E-08	0.881
Investments	-1.155	0	-1.386	0.225
Leverage	-0.214	0.115	-0.836	0.085
Liquidity	-0.305	0.389	3.177	0.013
GDP Growth rate	0.00802	0.014	-0.03	0.491
Interest Rate	0.005	0.663	-0.082	0.045
Inflation Rate	0.022	0.005	0.008	0.776
_Cons	0.339	0.032	3.157	0.01
	Wald chi2(7)=	7.096	Wald chi2(7)=	10.263
	Prob > chi2=	0.0000	Prob > chi2 =	0.0000
	R-sq: within =	0.343	R-sq: within =	0.431

**Model 1**

$$FP_{it} (ROA) = 0.339 + -0.00003923 CG_{it} + -1.155 IN_{it-1} + -0.214LE_{it-1} + -0.305 LI_{it-1} + 0.0080215GDP_{it-1} + 0.005 INR_{it-1} + 0.022IFR_{it-1} + c_i + \hat{\epsilon}_{it}$$

**Model 2**

$$FP_{it} (Tobin's Q) = 3.157 + 0.0000000108 CG_{it} + -1.386 IN_{it-1} + -0.836LE_{it-1} + 3.177LI_{it-1} + -0.030GDP_{it-1} + -0.082INR_{it-1} + 0.008 IFR_{it-1} + c_i + \hat{\epsilon}_{it}$$

Where;

CG =Corporate Governance; IN = Firm Investments; LE= Firm Leverage;  
 LI= Firm Liquidity;  
 GDP = GDP growth Rate; INR = Interest Rates; IFR= Inflation Rate; ε =Error Term

**Summary and Conclusion**

The study established significant relationship between corporate governance and financial performance of listed agricultural firms in Kenya as measured by both ROA and Tobin's Q. However only occupational expertise, board age, board ownership and board tools had significant effect on financial performance as measured by ROA and; board tenure and board meetings had significant effect on financial performance as measured by Tobin's Q. Remaining corporate governance variables had insignificant effect of financial performance as measured by both ROA and Tobin's Q. The intervening relationship financial characteristics on the relationship between corporate governance and financial performance (investment, investments, leverage and liquidity) were not determined under the four steps of Baron and Kelly (1986)

original model. The study confirmed the moderating effect of macroeconomic factors (GDP growth rate, interest rate and inflation rate) on the relationship between corporate governance and financial performance of listed agricultural firms in Kenya. The study finally established the significant relationship between corporate governance, financial characteristics and macroeconomic factors on financial performance of listed agricultural firms Kenya.

The study concluded that corporate governance had significance effect on financial performance of listed agricultural firms in Kenya. Good corporate governance structure and activities positively affect financial performance of firms. Financial characteristics (investment, investments, leverage and liquidity) did not intervene in the relationship between corporate governance and financial performance of listed agricultural firms in the original model of Baron and Kelly (1986) where all the four steps must be achieved. However in the reviewed model where we may consider the achievement of some steps, we can conclude that there was some intervention and financial characteristics intervened on the relationship between corporate governance and financial performance (Aluoch *et al.*, 2020). The study further concluded that macroeconomic factors (GDP growth rate, interest rate and inflation rate) had a moderating effect on the relationship between corporate governance and performance of listed agricultural firms in Kenya. This means favorable macroeconomic factors enhance performance of firms in Kenya. The study finally concluded that corporate governance, financial characteristics and macroeconomic factors had significant effect on performance of listed agricultural firms in Kenya. These findings confirm the empirical results of (Zheng, 2021; Oleh Pasko *et al.*,2021; Tleubaye *et al.*, 2020; Roudaki, 2018; Shikanga *et al.*, 2018; Ngwenze & Kariuki, 2017).

### **Recommendations**

Based on the findings, the study recommended that listed agricultural firms in Kenya should enhance corporate governance practices to improve financial performance of their firms. Capital Markets Authority of Kenya should review corporate governance principles. Not all principles are effective in improving financial performance. Board occupational expertise, board age, board ownership, board tools, board tenure and board meetings are important corporate governance characteristics in enhancing financial performance of firms.

Directors of listed agricultural firms should diligently improve their financial management practices especially in investments; financing and liquidity to boost financial performance of listed the firms. Macroeconomic variables positively and significantly affect performance of listed agricultural firms; directors therefore should take advantage of favourable macroeconomic environment to increase activities of their firms with the sole aim to improve



financial performance. Financially Directors of listed agricultural firms take into consideration the joint effect of corporate governance, financial characteristics and macroeconomic factors to achieve higher financial performance of their firms. However there are several factors affecting financial performance of agricultural firms in Kenya such costs of agricultural inputs, general political environment, changes in weather patterns, marketing of agricultural produce, changing prices of global oil and related products given that agricultural production in Kenya is diesel intensive, global pandemics such as Covid-19 among others. There is a need for further research in the relationship between corporate governance and financial performance in Kenya to solve the conflicting results.

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ESJ Social Sciences

## **Mother Nature's Revolution and the COVID-19 Pandemic: A Scoping Review of COVID-19 and the Environment**

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### **Abstract**

Many studies have solely focused on the negative impact of the coronavirus while ignoring the fact that the coronavirus was also a blessing in disguise to certain institutions. This study focuses on an exploration of some of the environmental-related benefits accruing from the outbreak of the coronavirus, which eventually led many countries of the world to declare a national lockdown. The study utilised secondary sources from 21 articles gleaned from hand-searched literature from various web pages and online news, accessed through google web page (google.com) between March to September 2020. Key search words used in the search were COVID-19 and the environment, benefits of COVID-19 to the environment, the environmental impact of COVID-19, and the environmental behaviour during COVID-19. The study reported that some positive benefits of COVID-19 concerning the environment from China, the United States of America, Europe, and Africa. Findings from the review indicated that almost all the continents in the world have experienced improve environmental quality as a result of the outbreak of the coronavirus. The study further added that one of the most important dividends arising from the outbreak is the positive change in behaviour in people towards the environment. It was, therefore, recommended that there is a need for nations of the world to leverage the

window of opportunity provided by the coronavirus to encourage green economic behaviour to save the environment.

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**Keywords:** Coronavirus, Environmental behaviour, Lockdown, Air quality, Greenhouse gases

## Introduction

“And six days thou shalt sow thy land, and shalt gather in the fruits thereof: But the seventh year thou shalt let it rest and lie; that the poor of thy people may eat: and what they leave the beasts of the field shall eat. In like manner thou shalt deal with thy vineyard, and with thy olive yard” (Exodus 23:10-11).

God had earlier given the Jews the above instruction which is known as the Sabbatical year or Shmita by the Jews to allow regeneration of the earth. However, the Israelites disobeyed this instruction and one of the punishments which followed was that they were carried into captivity. In like manner, some environmentalist attributes the current outbreak of the coronavirus to be Mother Nature’s revolution against unending and unabated plundering of earth’s resources without alternative plans for regeneration. While this might just be an expression to support measures beyond human control to reclaim earth’s resources, there is no doubt that during the period of the coronavirus outbreak, the earth has to some extent breathe a sigh of relief.

Historically, up to 2020, increases in the number of greenhouse gases produced since the beginning of the industrialisation era caused average global temperature on the Earth to rise, causing effects including the melting of glaciers and rising sea levels (Madhav, et al., 2017). In various forms, human activity caused environmental degradation and anthropogenic impact. Also, before the COVID-19 pandemic, researchers argued that reduced economic activity would help decrease global warming as well as air and marine pollution, allowing the environment to slowly flourish (Kopnina, et al., 2018; Rull, 2016).

Globally, one of the major threats to humanity has remained environmental-related social problems such as; global warming, climate change, desert encroachment, etc. These problems have spanned numerous environmental movements including Friends of the Earth, Green Peace, etc whose efforts at fighting for nature have achieved minimal or no success. Nonetheless, with the outbreak of the coronavirus between November and December 2019 in Wuhan China, the narratives have changed to some extent as the environment has accomplished some form of Succour.

Contrastingly, while most scholars have focused on the negative socio-economic and health impact of the coronavirus, there is also a need to explore

the positive environmental benefits of the pandemic. Thus, this paper aims to explore some positive environmental-related benefits emanating from the outbreak of the coronavirus disease especially during the period of the lockdown.

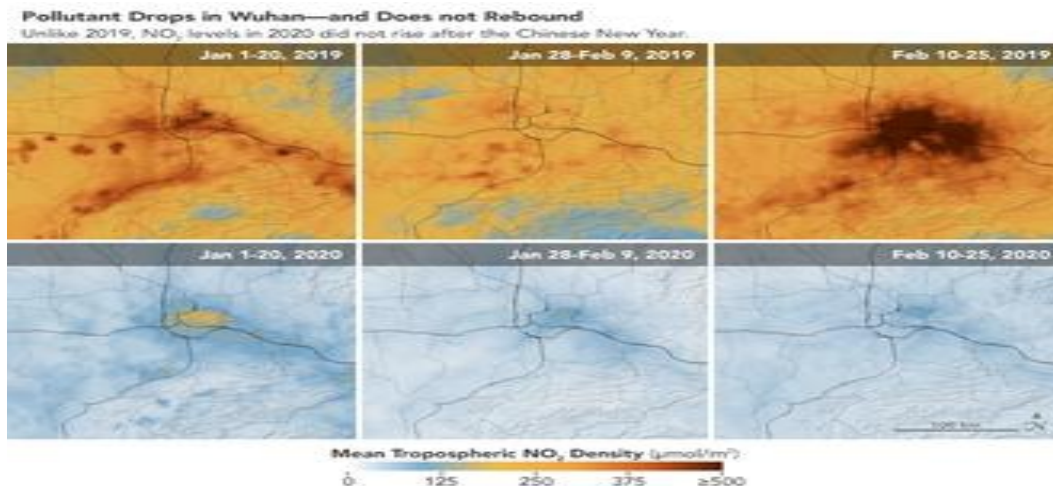
### **Material and Methods**

This study is a scoping review. Given the nature of this study as a scoping review, published articles used in this study were gleaned from secondary sources and grey literature hand-searched from google. In the literature search, this study narrowed its focus on the articles published on the subject matter between March to September 2020. Key search words used in the search were COVID-19 and the environment, benefits of COVID-19 to the environment, the environmental impact of COVID-19, and the environmental behaviour during COVID-19, etc. The search for each of the key phrases was tailored towards continental-based scenarios. The search was generally conducted through the Google website ([www.google.com](http://www.google.com)). After this process, articles that did not properly address the main objectives of the study were excluded from the study. The search was generally conducted by the two authors (EU and SEB). After the two authors reached a mutual decision on selected articles, successful articles were reviewed for the study. Thus, the authors considered only articles that contained information addressing the positive impact of COVID-19 on the environment. Although, a few articles addressing how behavioural changes during pandemic situations were also reviewed. At the end of the screening of articles from the search, 21 articles were found to be very relevant to the study. They were therefore used in this scoping review.

### **China**

As industries, transport networks, and businesses closed down in China, findings have indicated that there was a sudden drop in carbon emissions. In China, emissions fell 25% at the start of the year as people were instructed to stay at home, factories shuttered and coal use fell by 40% at China's six largest power plants since the last quarter of 2019. The proportion of days with "good quality air" was up 11.4% compared with the same time last year in 337 cities across China, according to its Ministry of Ecology and Environment (Henriques, 2020). Images from the NASA Earth Observatory show a stark drop in pollution in Wuhan, China, when comparing NO<sub>2</sub> levels in early 2019 (top) and early 2020 (bottom).





**Fig. 1:** Comparing Air Quality in Wuhan between 2019 and 2020  
Source: Earth Observatory (2020)

The Centre for Research on Energy and Clean Air reported that methods to contain the spread of coronaviruses, such as quarantines and travel bans, resulted in a 25% reduction in carbon emission in China (Myllyvirta, 2020; Venter, Aunan, Chowdhury, & Lelieveld, 2020) and 50% reduction in nitrogen oxides emissions, (Zhang, et.al., 2020) which Earth systems scientists estimated may have saved at least 77,000 lives over two months (Burke, 2020; McMahon, 2020).

In the first month of the lockdowns, China produced approximately 200 million fewer metric tons of carbon dioxide than the same period in 2019, due to the reduction in air traffic, oil refining, and coal consumption. In the Hubei province of China, due to the coronavirus-related restrictions on industrial plants, facilities, and carbon-emitting machinery, there was a drastic reduction in the level of concentration of nitrogen dioxide (NO<sub>2</sub>) and particulate matter (Zambrano-Monserrate, Ruano, & Sanchez-Alcalde, 2020). This to a large extent improved the air quality and reduced air pollution.

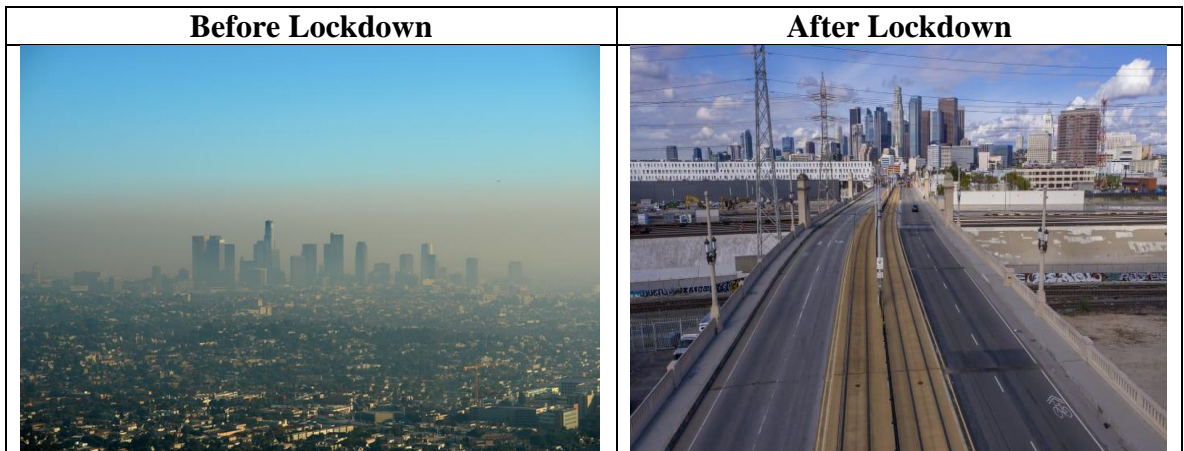
### United States

In the United States, it was recorded that greenhouse gas emissions and pollution dropped compared to previous years. For instance, pollution in New York was said to have dropped by nearly 50%. Los Angeles was also said to have witnessed the best air quality in the past four decades (Shutterstock, 2020) [See Fig 3]. In Florida, researchers found out that both leatherback sea turtles and loggerhead turtles are thriving after a long time due to reduced human presence and waste in the water bodies (see Fig. 2).



**Fig. 2:** A drone view of an empty Hollywood Beach, Florida, amid the COVID-19 lockdown.

Source: [Shutterstock](#) (2020).



**Fig. 3.** A layer of Los Angeles before and After Lockdown

Source: David McNew (cited in Ghansiyal, 2020).

## Europe

In Europe, satellite images showed that nitrogen dioxide (NO<sub>2</sub>) emissions were fading away in some parts of Italy, Spain and the UK. Giving reasons for the decline, Kimberly Nicholas, a sustainability science researcher at Lund University in Sweden, stated that this might have been a result of transport decline as transportation makes up to 23% of global carbon emissions (Henriques, 2020). It has previously been stated that driving and aviation are key contributors to emissions from transport, contributing about 72% and 11% of the transport sector's greenhouse gas emissions respectively (Henriques, 2020).



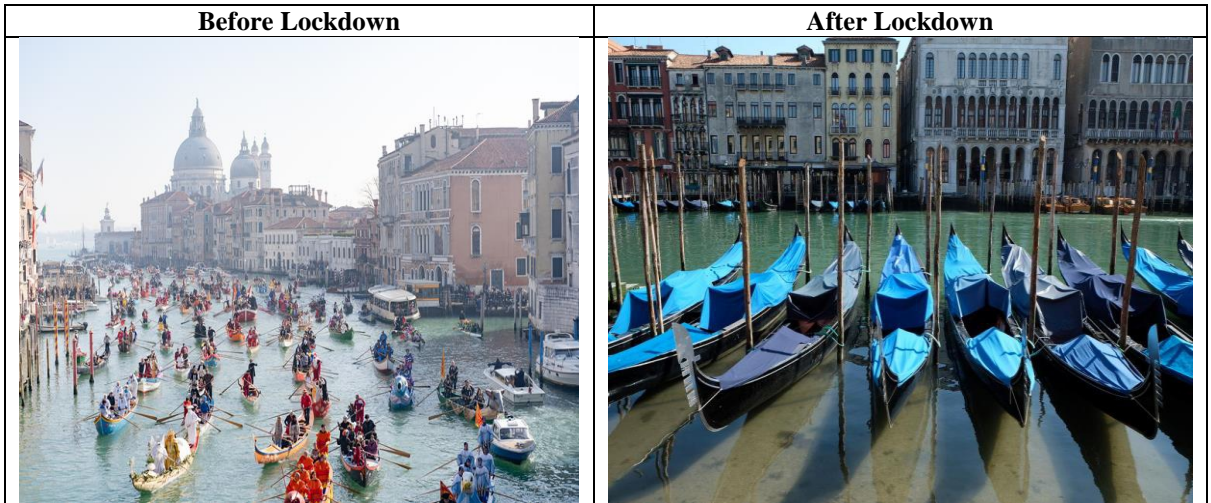
Green (2020) also found out that between 1 January and 11 March 2020, which coincided with the lockdown in some European countries, the European Space Agency observed a marked decline in nitrous oxide emissions from cars, power plants, and factories in the Po Valley region in northern Italy. In Italy, a combo picture shows the skyline of Murcia, Spain, days before the national lockdown, amid the COVID-19 pandemic (See Fig. 4).



**Fig 4.** Skyline of Murcia, Spain before and after lockdown, *February 2019 (left), April 2020 (right)*.

Source: Maarcial Guillen (cited in Shutterstock, 2020).

In Venice, Italy, as the number of tourists vanished from the waters due to the outbreak of the coronavirus, the canals cleared and experienced greater water flow and visibility of fish to the amazement of the residents (Saadat, Rawtani, & Hussain, 2020) [See Fig 5]. Also, for the first time in a very long time, a beautiful jellyfish was spotted serenely swimming through near-transparent waters in the canals of Venice. This would have been an unthinkable sight just years ago (CNN, 2020). Additionally, Swans and dolphins were seen in the canals swimming playfully (Srikanth, 2020)



**Fig 5.** The waters of Venice before and after Lockdown  
Source: Manuel Silvestri (cited in Ghansiyal, 2020).

### *Africa*

Africa is not left out in counting the environmental benefit that accrued to the continent due to the outbreak of the coronavirus. For instance, in April, the breathtaking Mount Kenya became visible from Nairobi, an occurrence so rare that many believed photos of the event had been Photoshopped (See Fig. 6). After one photo went viral, older residents weighed in, remembering that, once upon a time, the air had been clear enough to see it regularly (Shutterstock, 2020).



**Fig. 6:** The City of Nairobi before and after Lockdown  
Source: Osman Siddiqui (cited in Ghansiyal, 2020).

Manfred Braune, University of Cape Town (UCT) Director of Environmental Sustainability stated that while lockdown has been difficult for many sectors, including higher education, it yielded a range of interesting, unintended positive effects on the environment in Africa. Some of the positive benefits he outlined included a significant reduction in electricity and water consumption (by more than 50%), near-zero vehicle and air travel emissions, and an almost complete reduction in waste generated (UTC, 2020).

### **Behavioural Change to the Environment**

One of the most important benefits of the coronavirus outbreak to the environment is an increasing behavioural change towards the environment. While the current window of opportunity received by the physical environment will not last long as people go back to their normal lives, the behavioural changes might last a little longer if not permanent to most households. This is because as Kimberly Nicholas has opined (cited in Henriques, 2020), 'interventions are more effective if they take place during moments of change.' In other words, change can lead to sustained behaviour. Thus, during the COVID-19 lockdown, environmentally friendly behaviour might be travelling less, cutting down on food waste due to food shortages experienced in households, less environmental pollution, etc.

A study by Moser, Blumer and Hille (2018) buttressed this point when posited that, when people are unable to drive their cars due to certain problems, and they are given free e-bike access instead, they drove much less when they eventually get their car back. In a similar study by Fujii and Garling (2003), it was found out that when a motorway closed due to construction and other reasons forcing drivers to use public transit when the road eventually reopens, people who had formerly been committed drivers move less frequent personal cars, rather they rely on public transportation more frequently. We can assume that the restriction of car movement during the coronavirus is likely to change peoples' behaviour as some might drive less or take public transportation. Also, Jribi et al. (2020) study indicated that people whose social activities were limited during the coronavirus period were conscious of food waste, reduces waste, and displayed behaviours to prevent food waste.

### **Conclusion**

While we try to leverage the environmental gain from the coronavirus, it should be noted that the fight to reclaim the earth from pillaging and plundering is far from being over. It just gives hope that the earth could be redeemed with positive environmental behaviour. Hence, the battle is up to every person living on the planet to decide whether to return to old habits or institute permanent changes in human routines. For instance, as the period of the coronavirus have illustrated, we do not need to drive to work or travel by

air frequently as we can telecommute using platforms like *Zoom* or *GoToWebinar* app.

There is no doubt that the positive environmental outcome of COVID-19 is only for a short moment, as was seen during the drops in emissions in the period of the global financial crash of 2008, which saw emissions rebounding in 2010. Thus, the situation might soon return to its initial state as countries and cities reopen. It is, therefore, wise for governments of various nations to support green energy through economic stimulus programs.

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## **Influence du prix et de la communication dans l'industrie automobile sur la perception de l'image de marque: Cas du grand Agadir au Maroc**

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### **Resume**

Cet article tente de tester l'influence du prix et de la communication sur la perception de l'image de marque automobile. En effet, nous présentons une brève analyse du concept de l'image de marque, ainsi qu'une description du secteur de l'automobile dans notre pays et dans notre région. Enfin, nous exposons les résultats de l'étude quantitative réalisée, sur un échantillon de 385 personnes, composé de consommateurs et de non consommateurs de produits automobiles. Les résultats obtenus par la méthode des modèles d'équations structurelles montrent les liens entre les variables prix et communication avec la perception de l'image de marque automobile. En effet, nous avons pu prouver que la variable prix rentre dans le processus de construction de l'image de marque chez le consommateur. Contrairement à la communication dont la relation avec l'image de marque a été réfuté.

**Mots clés :** Image de marque, automobile, perception, prix, communication

## **Influence of Price and communication on the automotive brand image perception: Greater Agadir case**

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### **Abstract**

The aim of the article is to test the influence of price and communication on the perception of automotive brand image. Indeed, we present a brief analysis of the brand image concept, as well as a description of the automotive field in the country, and also in the region. Finally, we report the results of the survey, based on a sample of 385 persons of automotive products' consumers and non-consumers. Using the structural modeling technique, the results reveal the effect of price and communication on the automotive brand image perception. Indeed, we have proved that the variable price is part of the process of developing a brand image for the consumer. Unlike communication, the relation with brand image hasn't been proven in our case of study.

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**Keywords:** Brand image, automotive, perception, price, communication

### **Introduction**

Il est incontestable que les marques représentent un élément incontournable de notre société de consommation. Elles sont partout autour de nous, et font partie de notre quotidien, au travail, à la maison, dans la rue, impossible d'y échapper. Nous entretenons une relation avec les marques qui est de plus en plus forte. Ainsi, nous ne mangeons pas un yaourt ou une gaufrette, mais un *Danone* et un *Tonic*; pour acheter une lessive on demande à l'épicière du coin un *Tide*, car c'est le synonyme de la propreté. Force est de constater qu'elles se sont littéralement immiscées dans nos vies, nous pouvons être sensibles, fidèles ou encore attachés à une marque. En effet, la question qui se pose est : Pourquoi choisit-on une marque au lieu d'une autre ? Si vous avez la réponse, sachez que vous ferez l'objet de convoitise pour les stratèges du marketing. Avant de tenter de répondre à une question aussi complexe, intéressons nous à l'image de marque.

L'image de marque, selon Aaker (1994), et Aghekyan-simonien et al. (2012), est un construit complexe et intuitif. Cependant, même si elle a été reconnue comme un concept pertinent dans le marketing, il y a une absence de consensus autour de sa mesure et de sa modélisation Salciuvienė et al. (2007).



Rappelons que Keller (1993) définit l'image de marque en tant que perceptions d'un ensemble d'associations relatives à la mémoire des consommateurs. En outre, Keller (1993, 2009) indique que l'image de marque est définie non seulement par ses associations, mais également par sa qualité d'association (positive ou négative) dans l'esprit du consommateur, l'intensité ou la force d'association (forte, faible, inexistante), et de l'unicité (association unique, non partagé avec d'autres marques). L'image de marque est reflétée par un ensemble d'images perçues par les clients Dobni et Zinkhan (1990). Dans une autre optique, la perception d'image de marque est un ensemble de pensées, sensations et attentes relatives à une marque donnée, Huang (2010). Malgré l'apport managérial et théorique des recherches existantes, il subsiste une carence au niveau des recherches empiriques spécifiques, ayant pour but de comprendre la construction de la perception des consommateurs des marques, Schmitt (2012). En effet, Cian (2011) stipule qu'au niveau de la formulation théorique d'image de marque, il est logique de penser que ses techniques de mesure ne sont pas encore normalisées. En raison du nombre élevé d'éléments qui déterminent l'image de marque, sa mesure demeure difficile à réaliser. Cela est principalement dû au fait que les perceptions qui composent l'image d'une marque sont multiples et peuvent se référer à des aspects tangibles et intangibles qui, en outre, dépendent de « l'évaluation interne » de chaque individu, Aaker (1994). Pour mener notre étude, nous avons choisis le secteur automobile comme champs d'application.

### **Le secteur automobile comme champs d'étude**

Notre choix s'est porté sur le secteur de l'automobile en raison de la pertinence de ce champ d'étude et de sa richesse. En effet, selon Morisse, (2004), ce secteur est souvent sujet aux théories du management et du marketing, Soulez (2005). De plus, la marque y détient une place importante et entraîne un impact sur la construction du pouvoir de marché des constructeurs, Morisse (2004). D'un autre côté, selon le même auteur, qu'il soit question du marché de véhicules neufs, ou d'occasion, l'image de marque et la réputation constituent des antécédents directs dans la décision d'achat.

En effet, Voelckner et Satler (2005) ont réalisé des études, qui ont révélé l'importance de l'image de marque, comme étant un facteur clé de la réussite d'une entreprise. Ces déductions affectent tout particulièrement le secteur de l'automobile. Le problème majeur auquel il fait face, est que les marques automobiles offrent des performances et des caractéristiques assez proches, et perdent ainsi leur capacité de se différencier. Ainsi Les constructeurs automobiles considèrent l'image de marque comme facteur fondamental de différenciation.

Depuis 2010, nous avons commencé à remarquer l'évolution de l'image de plusieurs constructeurs; nouveaux logos, nouveaux efforts

publicitaires, nouvelles ambitions. Tout cela est fait dans le but de créer une perception positive de la part du public. Ainsi, en moins de deux ans, une véritable course au « relooking » visuelle a été entamée : *Audi, Citroën, BMW...* tout le monde s'y est mis. Bref, il est clair que l'industrie automobile l'a bien compris, il faut travailler son image pour vendre.

En ce qui concerne le Maroc, l'industrie automobile a connu un essor considérable, nous avons aujourd'hui une capacité de fabrication de 650.000 véhicules par an, et faisons partie des grands fabricants de l'automobile dans le monde, avec l'objectif d'atteindre 1 million de véhicules. En ce qui concerne les ventes, les statistiques de l'AVIAM (Association des importateurs de véhicules automobiles) démontrent qu'elles sont en constante progression. Cela vient récompenser les efforts fournis par les marques automobiles dans le but de véhiculer une image positive auprès du public.

D'un autre côté, Le Maroc compte aujourd'hui plus de 33 millions d'habitants<sup>1</sup>, et nous sommes connus pour être un peuple dont les habitudes et les comportements sont assez diversifiés selon les régions. Pour ces raisons, et pour que nous puissions mener une étude en bonne et due forme, nous allons limiter notre étude sur le grand Agadir.

Suite à la croissance considérable que le secteur automobile connaît dans notre pays, la région du Souss Massa en général, et le grand Agadir en particulier, représente un relais intéressant, selon le président de l'Association Marocaine pour l'industrie et le Commerce de l'Automobile (M. Hakim Abelmoumen).

Enfin, selon les statistiques révélées par l'Association des importateurs de véhicules automobiles, le grand Agadir est en quatrième position des ventes de voitures privées au Maroc, au titre de l'année 2016. Elle a été classée derrière les villes de Marrakech, Rabat et Casablanca.

Il serait pertinent de mener notre étude au niveau national (Maroc), cependant il est difficile de toucher un échantillon représentatif, du fait que la taille de la population est trop importante. De ce fait, notre étude portera sur la population du grand Agadir.

### **Typologie de l'image de marque**

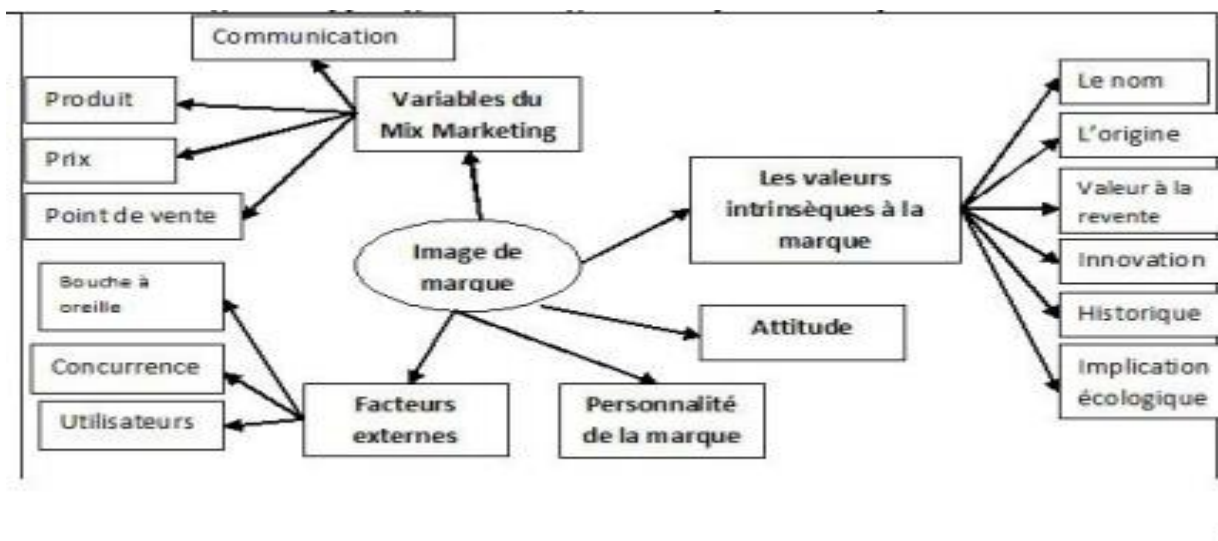
Avant d'entamer l'étude réalisée, nous présentons la typologie de l'image de marque basée principalement sur les associations à la marque, en d'autres termes, ce sont des nœuds qui y sont liés Korchia (2001). Les associations peuvent être aussi définies comme les nœuds informationnels liés au nœud de la marque dans la mémoire et contiennent le sens de la marque par le consommateur, Keller (1993).

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<sup>1</sup> Selon le haut commissariat au plan : <https://www.hcp.ma/> (Consulté en avril 2018)

La typologie ci-dessous, a été le résultat d'une étude qualitative que nous avons préalablement menée, moyennant des entretiens semi directifs et suivant un guide d'entretiens. Ce dernier a été élaboré en se basant sur le travail de Korchia (2001) et également sur la procédure d'élicitation libre<sup>2</sup>. L'échantillon était composé de 23 personnes, ce nombre a été déterminé suivant le principe de saturation. Agés entre 23 et 58 ans, ayant le permis de conduire et possédant ou désirant posséder une voiture. Toutes ces personnes ont un intérêt pour l'automobile, connaissent les différentes marques qui existent sur le marché, et sont donc des consommateurs ou futurs consommateurs. Il est à noter que 5 d'entre ces interviewés sont des professionnelles de l'automobile.

**Figure 1:** typologie de l'image de marque retenue par l'étude



Source: Qanqom (2018)

A présent intéressons nous à l'influence du prix et de la communication sur la conception de l'image de marque automobile.

### Hypothèses de l'étude

Pour la catégorie de prix, la littérature en Marketing le considère comme un facteur qui peut influencer l'image de marque. En effet, du point de vue du consommateur, le prix constitue un indicateur de la qualité, Erickson et Johansson (1985) ; Rao et Monroe (1989) ; Dodds, Monroe et Grewal (1991) ; Kim et Hyun (2011). Selon les travaux de ces auteurs, il aurait une

<sup>2</sup> La méthode d'élicitation libre est définie par (Olson et Muderrisoglu, 1979), comme « une procédure dans laquelle les répondants sont entièrement libres de dire tout ce qui leur vient à l'esprit lorsqu'on leur présente un stimulus de départ ».

relation directe avec la perception du consommateur de la marque. Sur la base de ces points, nous pouvons émettre l'hypothèse suivante : **H1** : le prix influence la construction d'image de marque par le consommateur.

Concernant la communication, l'impact des effets de la publicité, les événements promotionnels, la vente directes, sur la perception de la marque ont été analysés dans plusieurs recherches, Simon & Sullivan (1993); Yoo & Donthu, 2001; Yoo et al. (1993). Les événements promotionnels avec des objectifs à long terme pourraient construire une image de marque positive en offrant une expérience réelle du produit, ce qui aide à créer des associations « *fortes, favorables et uniques* » Keller (2009). Dans le marketing industriel, des activités promotionnelles telles que des brochures et les sites Web sont fréquemment mentionnés comme des outils influençant la valeur que le consommateur donne à la marque, Sharma, Krishnan, et Grewal (2001); van Riel et al. (2005). Sur la base de ces éléments, la 2<sup>ème</sup> hypothèse de recherche est la suivante : **H2** : la communication influence la construction d'image de marque par le consommateur.

### **Opérationnalisation des variables**

Nous développons ci-après l'ensemble des items utilisés pour collecter les données. Tous ces items sont issus d'échelles fiables, de sources fiables, ou encore de propos tenus par les répondants lors de phase qualitative. Pour ce travail, nous allons présenter les variables prix et communication.

### **Mesure de la variable « Prix »**

Les voitures ne font pas l'objet d'achats fréquents, c'est en grande partie dû à l'importance primordiale du prix lors de l'achat. Il sera donc question de mesurer l'importance du prix par rapport à la perception de l'image de marque. À cet égard, il existe une échelle développée par Sproles et Sproles (1990), qui se compose de trois items : achat des produits en solde, achat des produits ayant le prix le plus bas, et le rapport qualité prix<sup>3</sup>.

Nous nous référons donc à cette échelle, en complément des résultats de l'étude qualitative. Cette variable est automatiquement associée à la qualité, de ce fait nous l'avons mesuré par le rapport qualité/prix. A côté de cela il existe, le prix de la voiture et les coûts engendrés (entretien, vignette, assurance).

### **Mesure de la variable « Communication »**

Dans la littérature, ce concept est très large. En ce qui concerne ces échelles de mesures, elles sont plus relatives à l'efficacité de la communication

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<sup>3</sup> Nous n'avons pas réussi à trouver « alpha de Cronbach » relatif à cette échelle dans cet article de référence, Cependant, sa source est fiable et nous accepterons donc cette échelle (Journal of Consumer Affairs).

par exemple, ou son influence sur le consommateur. Beaucoup d'auteurs se sont intéressés à cette mesure, Aaker et al (1986) ; Zinkhan et Fornell, (1985), qui se résume à établir une liste d'adjectifs pour pouvoir identifier les dimensions sous-jacentes de la réaction du consommateur aux actions de communications des marques et en particulier la publicité.

Dans le cas de notre étude, nous avons réussi à mettre la main sur les principales techniques de communications considérées par les répondants dans le domaine de l'automobile : publicité, courriers, e-mails, SMS, actions de parrainage et presse spécialisée. Il sera donc question de mesurer le degré d'influence de ces outils, par rapport à la construction de l'image de marque dans l'esprit du consommateur. Cela est fait moyennant une échelle de Likert en 5 échelons.

Nous avons également utilisé diverses mesures de plus, qui nous permettront de contrôler des sources de variances. En effet, il nous paraît utile de connaître si les répondants sont en possessions ou non du produit dont ont sollicité le jugement. Elles nous permettent également de stratifier notre échantillon.

Le tableau suivant résume les items correspondants à chaque variable.

**Tableau 1** : Liste des items correspondant à chaque variable

Les variables indépendantes	Les items correspondants
Prix: 3	le rapport qualité/prix. le prix de la voiture et les coûts engendrés (entretien, vignette, assurance),
Communication: 4	La publicité, les actions de communication de la marque en général, à savoir (les courriers, e-mails, SMS), le parrainage et la presse spécialisée.

### Validité du questionnaire

Une fois que le questionnaire fut établi ; nous avons réalisé ce que l'on appelle la « *validité faciale du questionnaire* ». Ceci revient à valider son contenu, de façon à ce que les items traduisent effectivement les variables mesurées, dans le contexte du marché marocain. A ce titre, nous l'avons soumis à un directeur de concession automobile, ayant une longue expérience dans la vente des voitures, et une grande connaissance du consommateur marocain de ce genre de produits. Suite à cet examen, il nous a été conseillé de reformuler certaines questions, afin qu'elles puissent être mieux et facilement assimilées par les répondants. Mais, globalement, le questionnaire a été validé en totalité.

### Définition de l'échantillon

A ce stade, nous précisons quelle sera la population étudiée, son unité d'analyse, la stratégie pour constituer un échantillon et la taille de cet échantillon. Dans la majorité des cas, la population choisie par le chercheur

sera trop large pour que ce dernier puisse envisager de recueillir des données auprès de tous les éléments qui la composent. Selon (Evrard et al, 2000), le choix de la population de base se fait, généralement, à partir de deux grandes catégories de méthodes de sondage ou d'échantillonnage. La différence entre les deux méthodes tient à la nature de la population étudiée. On distingue : Les méthodes aléatoires ou probabilistes et les méthodes non probabilistes ou non aléatoires.

Pour des raisons liées au mode d'administration du questionnaire, notre échantillon s'inscrit dans la catégorie des échantillons non aléatoires ou non probabilistes. Nous avons utilisé dans notre recherche, la méthode du choix raisonné. Le recours à cette méthode donne de bons résultats lorsqu'on cherche à tester des propositions théoriques. Les échantillons sélectionnés par cette méthode sont fréquemment rencontrés dans les recherches en sciences sociales. C'est une méthode rapide, moins coûteuse et permet de choisir de manière très précise les éléments de l'échantillon, chose qui rend facile le respect des critères fixés par notre recherche. Par conséquent, nous avons déterminé les points suivants relatifs à l'échantillonnage :

### **Population de référence**

La population de cette étude est composée de plusieurs strates. La première concerne les personnes possédant une voiture et la deuxième concerne ceux qui n'en possèdent pas. En effet, il nous a paru clair à travers l'étude qualitative préalablement réalisée, que les personnes peuvent avoir une vision très nette de l'image de marque automobile, sans pour autant en posséder une. Il faut aussi préciser que pour des raisons de commodité, nous allons nous concentrer sur la population du grand Agadir.

### **Méthode d'échantillonnage**

Pour respecter la logique que nous venons d'exposer, nous allons donc utiliser la méthode d'échantillonnage stratifié non proportionnel.

L'administration du questionnaire à notre échantillon se fera dans différents endroits pour pouvoir toucher toutes les strates (personnes motorisées et non motorisées).

Pour les deux strates, nous allons cibler les grandes surfaces, les administrations, les institutions de formation ainsi que toute autre lieu qui pourrait présenter une opportunité pour collecter les informations désirées.

### **Taille de l'échantillon**

Selon les lois de la statistique, un échantillon est considéré comme statistiquement significatif dans la mesure où il compte au moins 30 répondants choisis de façon aléatoire. Cependant, plus la taille de l'échantillon

est grande, plus l'analyse sera précise. Mais encore, l'analyse ne sera pas 2 fois plus précise, si notre échantillon est 2 fois plus grand.

Ainsi, la détermination de la taille de l'échantillon est une étape cruciale dans une étude. Trois facteurs déterminent particulièrement la taille de l'échantillon :

- La prévalence estimative d'une variable étudiée : dans notre cas, nous prendrons la variable concernant la question 12 de notre questionnaire (la proportion estimative des personnes de la population qui pourraient être influencées par l'image de marque pour changer leur comportement d'achat.),
- Le niveau de confiance visé,
- La marge d'erreur acceptable.

Pour notre cas d'échantillonnage, nous pouvons calculer la taille d'échantillon en appliquant la formule suivante.

$$n = \frac{Z_{\alpha/2}^2 \times p \times (1-p)}{e^2}$$

- n : taille de l'échantillon attendu.
- $Z_{\alpha/2}$  : niveau de confiance. Généralement, on prend un niveau  $Z_{\alpha/2}$  de 1,96 qui lié à un taux de confiance de 95%,
- p : proportion estimative de la population présentant la caractéristique étudiée dans l'étude. Lorsque cette proportion est ignorée, une pré-étude peut être réalisée ou sinon un p égal à 0,5 sera retenue.
- e : marge d'erreur (traditionnellement fixée à 5%).

Une application numérique nous permet d'estimer la taille globale de notre échantillon.

$$n = \frac{1.96^2 \times 0,5(1-0,5)}{0,05^2} \qquad n = \frac{0,9604}{0,0025}$$

n = 384,16 E 385 personnes

Suite donc à nos calculs, nous allons choisir un échantillon global de 385 personnes qui seront réparties comme suit selon les strates expliqués dans les lignes précédentes :



**Tableau 2 : Répartition des strates de l'échantillon**

Strates	Nature des informations souhaitées	
<b>Personnes motorisées</b>	Perception de l'image de la marque de voiture qu'elles possèdent.	Influence de leur perception sur le comportement d'achat
<b>Personnes non motorisées</b>	Perception de l'image de marque automobile en général.	

Source : Conception personnel

Cet échantillon n'est pas constitué de professionnels de l'automobile, car la nature des informations que nous ciblons se situe au niveau des consommateurs non experts. Toutes les personnes sont âgées d'au moins 18ans, et disposent obligatoirement d'un permis de conduire. Enfin, ce sont des consommateurs, ou futurs consommateurs d'automobiles.

### Analyse et résultats

L'objectif de ce point est de présenter l'analyse exploratoire des réponses des interviewés à notre questionnaire (concernant les variables retenues pour cette étude). Nous allons alors vérifier la validité et la fiabilité des items/construits à travers le logiciel SPSS. Cette tâche sera effectuée principalement par le biais de l'analyse factorielle (ACP) et de l'analyse de fiabilité qui nous permettront d'aboutir à l'épuration de notre modèle de recherche. Commençons par présenter les résultats pour le prix en vérifiant son unidimensionnalité et sa fiabilité.

### Variable Prix

**Tableau 3 : Résultats de l'ACP sur les échelles de prix**

Items	Test de caractère factorisable	Communauté	Facteur	Valeur propre	% de la variance	Contributions factorielles
Prix 1 voit	KMO=0,648 Test de Bartlett Sig=,000	,610	1	1,740	57,994	,781
Prix 2 qualité		,593		,671		,770
Prix 3 coûts		,537		,589		,733

Source : Conception personnelle à partir de SPSS

Au vu de ces résultats, les indices de communauté sont supérieurs et la représentation factorielle est satisfaisante, avec un pourcentage de variance totale expliquée de 58%. L'unidimensionnalité des items de prix est donc confirmée.



**Tableau 4:** Analyse de la fiabilité des items du prix

<i>Items</i>	<i>Moyenne</i>	<i>Ecart-type</i>	<i>Corrélation entre les items et le score de l'échelle</i>	<i>Coefficient Alpha si l'item est éliminé</i>
Prix 1 voit	4,05	,997	,410	-
Prix 2 qualité	4,32	,892	,358	-
Prix 3 coûts	3,75	1,124	,341	-

Source : Conception personnelle à partir de SPSS

Le calcul de l'indice de fiabilité Alpha de Cronbach nous donne : 0,637.

Au vu de ces résultats, les indices de communauté sont supérieurs et la représentation factorielle est satisfaisante, avec un pourcentage de variance totale expliquée de 58%. L'unidimensionnalité des items de prix est donc confirmée.

### Variable Communication

**Tableau 5:** Résultats de l'ACP sur les échelles de communication

<i>Items</i>	<i>Test de caractère factorisable</i>	<i>Communauté</i>	<i>Facteur</i>	<i>Valeur propre</i>	<i>% de la variance</i>	<i>Contributions factorielles</i>
Comm 1 pub	KMO=,702 Test de Bartlett Sig=,000	,522	1	1,967	49,165%	,723
Comm 2 courrier		,353		,803		,594
Comm 3 parrain		,524		,679		,724
Comm 4 presse		,567		,551		,753

Source : Conception personnelle à partir de SPSS

Les résultats de l'ACP montrent des seuils moyens pour les indices de communautés et pour les contributions factorielles mais elles démontrent néanmoins l'unidimensionnalité des items de la communication.

**Tableau 6:** Analyse de la fiabilité des items de communication

<i>Items</i>	<i>Moyenne</i>	<i>Ecart-type</i>	<i>Corrélation entre les items et le score de l'échelle</i>	<i>Coefficient Alpha si l'item est éliminé</i>
Comm 1 pub	2,98	1,293	0,289	0,568
Comm 2 courrier	2,52	2,025	0,316	0,654
Comm 3 parrain	2,67	1,275	0,395	0,573
Comm 4 presse	2,91	1,200	0,419	0,549

Source : Conception personnelle à partir de SPSS

Le calcul de l'indice de fiabilité Alpha de Cronbach nous donne : 0,652.

Les résultats de l'ACP montrent des seuils moyens pour les indices de communautés et pour les contributions factorielles mais elles démontrent néanmoins l'unidimensionnalité des items de la communication.

### Validation des échelles

Cette étape a consisté à analyser la contribution factorielle (loading) et le t-student de chaque item, la variation restituée par chaque dimension (AVE), la fiabilité composée (CR) et l'Alpha de Cronbach ( $\alpha$ ). Les résultats obtenus sont présentés dans les tableaux suivants :

**Tableau 7 :** Résultats de la validation des variables du Prix

<i>Paramètres</i>		<i>Modèle 1</i>
Contributions factorielles (t-student)	Prix 1 (prix voit)	0.751 (17.982)
	Prix 2 (quali prix)	0.722 (14.789)
	Prix 3 (coût)	0.740 (17.494)
<i>Indicateurs</i>		<i>Modèle1</i>
<i>AVE</i>	Prix	0.5441
<i>CR</i>	Prix	0.7816
<i>Alpha de Cronbach</i>	Prix	0.5809

Source : Conception personnelle à partir de SmartPLS

**Tableau 8 :** Résultats de la validation des variables de Communication

<i>Paramètres</i>		<i>Modèle 1</i>
Contributions factorielles (t-student)	Communicat 1 (pub)	0.638 (12.129)
	Communicat 2 (courrier, email, sms)	0.824 (33.772)
	Communicat 3(parrainage)	0.821 (28.91)
	Communicat 4 (presse)	0.750 (20.331)
<i>Indicateurs</i>		<i>Modèle1</i>
<i>AVE</i>	Communication	0.5805
<i>CR</i>	Communication	0.8457
<i>Alpha de Cronbach</i>	Communication	0.7551

Source : Conception personnelle à partir de SmartPLS

Les indices de fiabilité de l'ensemble des échelles de mesure montrent que ces construits possèdent une cohérence interne élevée (CR et Alpha dépassant 0,7). En définitive, l'analyse factorielle confirmatoire nous a permis de valider et d'améliorer la représentativité des construits latents par leurs indicateurs réflexifs. Ainsi, elle a confirmé le caractère unidimensionnel des facteurs identifiés dans la première phase d'analyse. Par ailleurs, elle a permis de mieux « épurer » les échelles de mesure.

De façon générale, rappelons qu'un bloc de construit est dit réflexif, si l'on considère que les variables manifestes reflètent la variable latente,

qu'elles en sont une conséquence. Un construit est dit formatif, si la variable latente est représentée par l'ensemble des variables manifestes, qu'elle en est une conséquence. Le test de nos deux hypothèses à travers PLS nous donne les résultats suivants :

**Tableau 9 : Test des hypothèses en PLS**

Hypothèses		Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics ((O/STERR)	Intervalle de confiance valeurs de p <sup>4</sup>	
H 1	Prix -> Image de marque	0.0941	0.0873	0,0577	1.6406	0.0467	<b>Sign</b>
H 2	Communication -> Image de marque	0.0275	0.0335	0,0448	0,6147	0.4605	<b>Pas sign</b>

Source : Conception personnelle à partir de SmartPLS

Remarquons que pour des tests bilatéraux (en two-tail) et avec des degrés de liberté de 999 (puisque nous avons utilisé 1000 échantillons/samples dans le ré échantillonnage) nous avons obtenus des intervalles de confiance significatifs. A cet égard, nous rappelons également que le construit est dit statistiquement significatif au seuil de 1%, 5% et 10% si et seulement si son T de Student est supérieur à la valeur absolue de 2,57, 1,96 et 1,64 respectivement. Au dessous de ces seuils, la significativité des hypothèses semble être réduite (faible lien entre les variables supposées être explicatives et expliquées).

Par conséquent, Le prix influence la perception d'image de marque avec un test de student significatif (t= 1,64) mais l'ampleur de cet effet est réduite (original sample= 0,09). Le prix est un facteur explicatif de l'image de marque.

Le tableau suivant synthétise nos résultats :

<b>Prix</b>	Concept unidimensionnel mesuré par des items liés au prix des voiture, le rapport qualité prix et les coûts engendrés.	Le lien est statistiquement significatif.	Cela appuie notre hypothèse concernant le prix et prouve que ce dernier détient une importante place pour la construction de l'image de marque automobile.
<b>Communication</b>	Concept unidimensionnel mesuré par des items liés à la publicité, les courriers, le parrainage et presse spécialisée.	Le lien n'est pas statistiquement significatif.	Les supports de communication ne représentent pas pour le consommateur un moyen de construire un image de marque automobile.

**Conception personnelle**

<sup>4</sup> Les valeurs de p peuvent être calculées sur Excel directement en utilisant la formule suivante:  
 = DISTT(t-value; degrees.of.freedom-1; 2).

## **Effet du prix sur la formation de l'image de marque**

Le prix est représenté dans notre étude par la gamme de prix des voitures, les coûts engendrés et le rapport qualité prix. A travers ces éléments, le consommateur Gadiri peut construire une image concernant les marques automobiles. Ce résultat est appuyé par celui de (Ratier, 2006), qui a également prouvé le rôle important du prix par rapport à la formation de l'image de marque, qui occupe pour le cas de son étude, la place de premier support de perception. Par conséquent, contrairement à un consommateur français qui se construit une image de marque automobile principalement à partir de son prix. Ce dernier se trouve en troisième place en matière de construction d'image de marque dans notre contexte d'étude.

## **Conclusion**

Pour conclure, Le rôle de la communication par rapport à la formation de l'image de marque automobile, pour les consommateurs du grand Agadir a été infirmé. Par conséquent nous avons rejeté l'hypothèse selon laquelle la communication puisse avoir une influence sur la conception de l'image de marque. Nous avons donc constaté que les consommateurs ne se fient pas aux publicités en particulier, mais aussi aux autres actions de communication qu'une marque automobile peut faire. Dans la littérature concernant la publicité par exemple, on démontre qu'elle a un rôle de persuasion, qui peut être un processus cognitif ou affectif Holbrook et Batra (1987). En outre, selon Batra et al (1995), l'efficacité de la publicité peut être évaluée à partir de son effet sur les ventes, à court terme. Elle exerce également un impact plus important sur la formation de l'image du produit et l'image de marque Aaker et Carman, (1982). Enfin, selon Ratier (2006), qui a mené une étude assez similaire en France, il a affirmé le rôle de la publicité comme support de perception de l'image de marque. Dans notre cas, cette confirmation n'est pas applicable, du fait que les résultats de l'enquête menée attestent du contraire.

Par ailleurs, pour le choix de leurs voitures, les consommateurs marocains prennent en considération en premier lieu la marque, suivie de la motorisation et ensuite le prix<sup>5</sup>. Tout comme c'est un critère de choix pour les consommateurs marocain, le prix est l'un des supports de perception de l'image de marque. En effet, le consommateur prend en considération le prix de la voiture pour se construire une image de marque. Plusieurs études d'agences de communication<sup>6</sup>, ainsi que la notre, révèlent que les trois marques allemandes « Mercedes, Audi et BMW », ont les meilleures images

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<sup>5</sup> Selon une étude de marché menée par FLANDERS INVESTMENT & TRADE MARKET SURVEY, en 2015.

<sup>6</sup> Dont l'agence de communication Euro RSCG C&O. celle-ci a créé un outil de mesure de la valeur des marques, et a réalisé en 2010 une étude sur les marques automobiles auprès d'un échantillon de 1 000 personnes.

de marque. Leur seul déficit serait le rapport qualité/prix. Les marques devraient réussir à allier le prix à leur qualité. D'ailleurs plusieurs marques s'y sont lancées. A l'exemple de Mercedes qui propose aujourd'hui des modèles à des prix abordables, ainsi que la marque « Jaguar », qui a revu considérablement ses prix à la baisse.

### ***Apports de l'étude***

Nous considérons que cette étude détient un apport managérial très important. En effet, nous estimons avoir fourni aux managers des concessionnaires automobiles au niveau d'Agadir, un outil assez simple mais efficace, qui leur permettra de mieux positionner leur offre et surtout, la différencier par rapport aux concurrents, sur la base de l'image de marque.

### ***Limites de l'étude***

Il convient de préciser que notre travail présente certaines limites que nous tenons à évoquer. Il existe tout d'abord une limite liée à la validité externe de la recherche. Nos résultats sont obtenus sur la catégorie de produits automobiles, elles ne sont donc pas généralisables sur d'autres domaines. D'autre part, Notre enquête a porté sur un échantillon de convenance, plutôt que sur un échantillon représentatif de la population. De plus et pour des raisons de commodité, nous avons mené cette enquête uniquement au niveau d'Agadir, ce qui fait que les résultats peuvent être tout à fait différents dans d'autres villes, ou dans un pays différent.

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## **Performance Supervision and Employees' Productivity in the Ministry of Lands, Environment and Natural Resources of Taita Taveta County, Kenya**

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### **Abstract**

The objective of the study was to find out the effect of performance supervision on employees' productivity in the Ministry of Lands, Environment, and Natural Resources in Taita Taveta County. Goal-setting theory and equity theory form theoretical frameworks. A descriptive research design was adopted in this study. The target population was 262 employees. Stratified random sampling was implemented to produce a sample for the study. To ascertain its level of reliability, the research instrument was pilot tested before the actual data collection. Respondents were requested to correct the contents of the questionnaire and experts were consulted to enhance the instrument's validity. Questionnaires were issued to respondents and recollected thereafter for analysis. Sorting was conducted on the collected data. Descriptive statistics and inferential statistics were employed to analyze quantitative data. The study established that performance supervision had a positive connection with employee productivity. Therefore, the study recommended that institutions need to strive towards achieving effective supervision since it provides a safe environment for employees to reflect on their practice, as well as to develop skills and knowledge. The delivery of effective supervision is heavily dependent on the organizational context due to the dynamics surrounding the role of supervision. For the Ministry to realize high output, the outcome points in the direction of good supervision, which is



believed to contribute to increased job satisfaction, increased job and organizational commitment among staff, and reduced employee turnover.

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**Keywords:** Performance supervision, monitoring, objectives, Employee productivity

## **Introduction**

### **Background of the study**

There have been ample studies done globally and in Africa on the association between supervision and employee productivity, (Koske & Atambo, 2018,). The abilities associated with the supervisor's character have a significant influence on an employee's performance as well as his behavior, which includes professional and moral support as well as creating a comprehensive workplace that aids in the improvement of subordinates' performance (Min, Iqbal, Khan, Akhtar, Anwar, & Qalati,2020).An investigation into what makes public institutions productive and efficient is a subject that has given academicians and human resource management consultants sleepless nights for decades, (Paula, Sanna, Juhani & Helina, 2014). Furthermore, low employee productivity reported in state-owned institutions is not only instigated by a lack of work experience and expertise, but also comes from management, work inspiration, and capabilities, (Syamsuddin, Kadir, & Alam, 2020). Production of quality goods and services by applying the idea of all-purpose administration alignment to public services, is the demand by broader community. This has catalysed changes in present-day state owned organizations. (Hamid, Haming, Semmaila & Bijang,2020)

Supervision is an activity that involves getting the job done with an established plan and a desired result (Lubis, 2015). The supervisor needs to ensure that duties and responsibilities are assigned to an employee who has attained minimum qualifications and the roles are clearly understood. Performance supervision is intended to improve learning from experience and learning through doing, guided by the policies and procedures governing the institution. Improvement in efficiency to achieve competitive advantage is among the many ways in which organizations make use of their employees, (Ataullah & Sahota, 2014). In the management of employees' performance by increasing and sustaining high output continuously, flexibility has proven to be a vital intervention tool for leaders and human resources. This not only supports the development of good work but aims to concretize supervision management in an organised harmonious work environment, (Kelly, Rofcanin, Heras, Ogbonnaya Marescaux & Bosch,2020).

Employee productivity is an evaluation of an employee or employee's effectiveness and it is the actual element that has a direct effect on the

company's profits, (Hanaysha,2016). Productivity is the state of accomplishing organizational intentions and objectives by converting inputs into outputs efficiently for humanity's advantage. The success and image of any institution depend on the workers, who are the most treasured factor in its production. They have an impact on the company's quality of service delivery, which contributes to customer satisfaction. Therefore, for organizations to attain competitive advantage, HRM plays a vital part in managing labor (Riaz, 2017).

## **Literature Review**

### **Theoretical Framework**

#### **Goal setting Theory**

Assurance of the goals, plus, given sufficient capability, the higher the goal, the higher the performance. This is because individuals typically modify their level of effort to the difficulty of the goal, (Latham & Locke,2017). Attainment of set goals and targets has a positive effect on one's self esteem and contributes to self-confidence and productivity, (Ime, Victor, Osemudiamen & Efiok, 2015).

Excellence in performance depends on precision in setting goals and targets which are realistic and measurable. Human resources are a firm's vital possessions alongside application of supervision as well as operative functions to realize company goals set through appropriate human resource management (Sinambela 2016). The significance of goals as a morale booster for any institution offers the workforce precision and quantifiable targets that can be realized with ease, (Kopaneva & Sias, 2015). The perception of goal setting theory is that employees who have goals which are SMART attain superior performance as compared to those who develop ambiguous goals or none, (Kihama & Wainaina, 2019). The importance of performance management in formulating and implementing SMART goals which can be managed with ease is reinforced by goal setting theory.

#### **Equity theory**

John A. Stacy, (1963), propounded the equity theory, which is related to the perceptions people have about how they are being preserved in relation to relevant others. Equity is the way an employee evaluates the state of affairs based on inputs and outcomes, (Bell & Martin 2012,). Equity is achieved when one is fairly treated equitably in comparison with another relevant person. The dominance of equity in an institution creates an environment of security which employees need to be productive. Employee demoralization is exacerbated by a lack of equity, which discourages employees from performing to expectations. This leads to an organization reporting low productivity (Benowitz, 2017). Tension and distress occurs when employees observe or

feel unevenness in the proportion of their input-outcome in relation to relevant others. Organizations at large should put more effort into eliminating inequalities and unevenness as this assures employees a secure environment for optimum performance, which leads to superior and improved efficiency, (Inuwa, 2017).

For supervisors to develop clear job accountabilities and expectations, operational performance management structures must be put in place to facilitate a worker's development in line with his/her behavior, aiming towards the institution's planned goals and objectives (Okeke et al 2019). Supervisors need to create an environment which equally enables employees to perform excellently by clearly passing on information concerning what the job requires and instituting reasonable as well as reliable performance goals for the entire workforce, (Tara,2016). When the relevant authority manages and treats employees with equity, there will be no tension amongst employees. Hence, they will all work towards attaining the goals of the ministry.

### **Empirical Review**

In the study done by (Hannang, Salju & Qamaruddin,2020), they adopted a quantitative descriptive approach with the objective of determining the effect of Supervision Levels on Employees' Performance Levels in the City of Manpower Office of Palopo. The researchers suggested that leaders carry out repetitive assessments of subordinate workstations, carryout consultations, and evaluations to determine obstacles to employee performance. Further, the study concluded that the level of supervision has a positive influence on employee performance at the Palopo City Manpower Office.

Lee & Kusumah, (2020) examined the effect of supervision on employee performance with work motivation as an intervening variable. It was an empirical analysis that used a quantitative approach to verify the influence of the variables under study. The outcomes of the data analysis showed that supervision has a positive influence on employee performance through work motivation as an intervening variable. This research recommended businesses to embrace methods and formulate strategies that stimulate enthusiasm, create effective and resourceful supervisory practices to enhance employee performance, as well as advance business performance according to previously agreed business goals.

Asrizal and Lesmana, (2018), investigated the influence of work discipline and supervision on increasing employee productivity in Citra Robin Sarana Medan. It was causal associative research using a quantitative approach. The results positively showed that, simultaneously, work discipline and supervision had a momentous influence on workers' productivity. Supervisory functions undertaken by supervisors and managers should be

more effective in accordance with the standards set by the company, was the conclusion made by the research.

Supervision of the performance of an organization is largely determined by the employees who work in it. Employees are the driving force behind an organization's operations; thus, as employee performance improves, so does organizational performance (Syamsuddin et al 2020). Supervisors are responsible for the work environment of employees related to work (Hamida et al 2020). The involvement of supervision in work also enriches employees' experience in terms of quality. Rulandari (2017) confirmed that some of the managerial recommendations for improving workforce performance included matching work results with standard controls, improving the execution of regular supervision, and performing critical counteractive actions. Additionally, increasing the level of understanding of the job assigned, work assertiveness and work plans for the staff. It was evidently proven that there was an affirmative influence of supervision and professionalism on workers' performance in the office under investigation.

## **Research Methodology**

### **Research Design**

A research design is an all-purpose plan for how the investigator will go about collecting data and analysing it, guided by the objectives of the study. A descriptive research design was adopted for the study. This design involves measuring phenomena in their natural environment. It allows the amalgamation of quantitative and qualitative techniques. The design is useful as it offers a truthful and exact explanation of actions in the study area (Babbie, 2013).

### **Target Population**

The study was conducted in the Lands, Environment and Natural resources sector of Taita Taveta County. The target population was heterogeneous and incorporated different directorates. The total population of employees in this sector was 262.

### **Sampling Technique**

The sample size of the study is a minor portion of the target population. There was a need to cautiously select a sample that was representative of the whole population. It involved dividing the population into strata (groups). These strata had equal probabilities of an employee being selected in addition to each stratum of the sample. In this case, the stratum consisted of 5 directorates in the ministry.

## Sample Size

Sample size refers to a predetermined number of people carefully chosen from the targeted population in order to establish a sample for the purposes of data collection. The sample size was collected as a result of efficiency, effectiveness and reliability. The formula adopted for the study was Naissuma, (2008).

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

Where:  $n$  = required sample size

$N$  = population

$C$  = a constant of discrepancy in the range of  $21\% \leq C \leq 30\%$

$e$  = standard error in the range of  $2\% \leq e \leq 5\%$

Therefore, at  $C = 28\%$  and  $e = 3\%$ :  $n = \frac{262(0.28)^2}{0.28^2 + (262 - 1)0.03^2}$

$$n = \frac{262 \times 0.0784}{0.0784 + 261(0.0009)}$$

$$n = 20.5408 = 65.56$$

$$n = \frac{65.56}{0.3133} = 66$$

## Data Collection Instrument

A questionnaire with a Likert scale was used to generate primary data. A Likert scale was incorporated into the questionnaire and it contained a series of statements, inviting the respondent to respond to each question based on one's own perspective on a sliding scale of 1-4 (1=strongly agree, 2 agree, 3 disagree and 4 strongly disagree). Questionnaires are instruments for collecting primary data. They can be issued with ease to a huge population without the presence of researchers.

## Reliability

The use of a questionnaire was more reliable in the study. Once the questionnaire had been filled in by the respondent, it was handed over to the researcher within one week. The reliability of a research instrument is judged after that instrument produces consistent results after being administered to different samples drawn from the target population, (Warrens, 2015).

## Validity

In qualitative research, validity refers to the suitability of the procedures, processes, instruments, and data used in the study (Leung, 2015). Content validity establishes whether the items in the data collection instrument

are in agreement with the objectives of the research. To ensure only what is planned for is measured by the questionnaire, respondents were allowed to air out their views, suggestions and highlight the questions which needed to be rephrased and amendments were made where necessary.

### Data Collection Procedure

Literature reviews from related studies, scholarly journals and questionnaires were sources of data for the study. A well designed questionnaire facilitated the collection of primary data. Trusted employees of the ministry under study assisted in the data collection process. In order to get permission from the Ministry of Education to collect data, written permission was obtained from the university. Questionnaires with a designed Likert scale were issued to a sample of selected employees of the Ministry of Land, Environment & Natural resources and Mining directorates and recollected after two weeks. In order to give respondents confidence in open-ended questions, the data collection instrument was anonymous. Questionnaires that had been duly completed were collected for analysis.

### Data Analysis, Findings and Conclusion

Kothari, 2004; Wainaina, (2015), clarifies that manipulation of collected data from the study area with the motive of obtaining answers to research questions is what data analysis refers to. The Statistical Package for Social Sciences (SPSS version 20.0) aided in analysing the collected data.

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where: Y= Employee Productivity;  $\beta_0$ = Constant;  $\beta_1$ = Regression coefficient component;  $X_1$ = Performance supervision;  $\epsilon$  = Error term

**Table 1:** Response Rate

	Issued questionnaires	Filled and returned questionnaires	Percentage
Respondents	66	61	92.4%

Source: Author (2021)

66 employees of Taita Taveta County, Ministry of Lands, Environment and Natural resources, were targeted as a sample for the study and were issued with the questionnaires, but only 61 questionnaires were filled in and returned, translating to a response rate of 92.4%, which was sufficient for the research analysis. A response rate of above 70% is considered to be excellent, (Mugenda & Mugenda, 2002 ;Otera, (2018).

**Table 2:** Respondents' profile (Extract)

S/No.	Characteristic	Aspect	Frequency	Percentage
1.	Gender	Male	30	49.2
		female	31	50.8
2.	Age category	20-30	28	45.9
		31-40	26	42.6
		41-50	6	9.8
		Above 51	1	1.6
3.	Education	Others	1	1.6
		Masters	6	9.8
		Bachelors	10	16.4
		Diploma	20	32.8
		Certificate	7	11.5
		KCSE	15	24.6
		KCPE	2	3.3
4.	Duration in service	above 6 years	17	27.9
		4-6 years	24	39.3
		1-3 years	20	32.8
5.	Staff cadre	Junior staff	30	49.2
		Senior staff	25	41.0
		Top level	6	9.8

**Table 2:** Respondents views on whether Performance Supervision influence their daily activities

	Frequency	Valid Percent	Cumulative Percentage
Yes	56	91.8	91.8
No	5	8.2	100.0
Total	61	100.0	

Source: Researcher (2021)

According to the analysis, 91.8% of respondents agreed that the ministry supervisors influenced their performance, whereas 8.2% disagreed.

**Table 3:** Mean Interpretation Table

Weight average	Result	Result interpretation
1 - 1.79	Strongly agree	Very influential
1.80-2.59	Agree	Influential
2.60-3.39	Neutral	Neutral /Do not know
3.40-4.19	Disagree	Uninfluential
4.20-5	Strongly Disagree	Very uninfluential

Source: Alonazi, Beloff &White (2019)

Responses to the statements below were done by ticking the options that best fitted respondents' opinions in relation to their experiences of practices in the organization. Where: **Strongly Agree (1), Agree (2), Disagree (3), Strongly Disagree (4).**

**Table 4:** (Extract) Descriptive Statistics for Performance Supervision

	N	Min	Max	Mean	Std. Dev
The Ministry has rules and regulations	61	1	4	1.95	.384
My performance is monitored from time to time	61	1	4	1.93	.403
There is relationship between my qualification and my job	61	1	4	2.77	.990
Ministry's policies and procedures are clear and up to date	61	1	4	2.77	1.007
My duties and responsibilities are clear	61	1	4	2.15	.573
I work in a well-managed sector	61	1	4	2.15	.792
Aggregate mean				2.287	
Aggregate std.dev					0.6915

Valid N (list wise)  
 Source: Researcher (2021)

According to the table above, respondents (mean 1.80-2.59) agreed with the statements: The ministry has rules and regulations, my performance is monitored on a regular basis, my duties and responsibilities are clear, and I work in a well-managed sector. With statements, respondents chose to be neutral (mean 2.60-3.39): There is a relationship between my qualification and my job, and the ministry's policies and procedures are clear and up to date.

### Correlation Analysis

**Table 5:** Relationship between Performance Supervision and Employee Productivity

		Performance Supervision	Employee Productivity
Performance Supervision	Pearson Correlation	1	.535**
	Sig. (2-tailed)		.000
	N	61	61

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 Source: Author (2021)

The table reveals the link between performance supervision and employee productivity, which is a moderate positive effect ( $r=0.535$ ). This clearly indicates that supervision has an influence on the level of productivity among employees. Occasionally, the gentleness of the supervisory role is misinterpreted without regard for the enormous consequences it can have on workforce output. It plans to capitalize on its achievements in the future. It is unsurprising that supervisors in workplaces have proven to be the primary impediment to achieving credible success in organizations. (Omisore, 2014)



## Regression Models

**Table 6:** Performance Supervision ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.402	1	4.402	23.640	.000 <sup>b</sup>
	Residual	10.987	59	.186		
	Total	15.389	60			

a. Dependent Variable: Employee Productivity

b. Predictors: (Constant), Performance Supervision

Source: Author (2021)

The ANOVA test in the table above shows the significance of F-statistics. 0.000 is less than 0.05, meaning that there is a relationship between performance supervision and employee productivity.

**Table 7:** Performance Supervision and Employee Productivity regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.535a	.286	.274	.4315294	.286	23.640	1	59	.000

a. Predictors: (Constant), Performance Supervision

Source: Author (2021)

From the findings, the value of the coefficient of R is 0.535, representing 53.5.0%. This shows that there is a strong coefficient between the study variables. The value of R<sup>2</sup> is 0.286, which represents 28.6% and indicates that there are other factors other than performance supervision that affect employee productivity.

**Table 8:** Performance Supervision Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.719	.366		1.961	.055
	Performance Supervision	.834	.172	.535	4.862	.000

a. Dependent Variable: Employee Productivity

source :Researcher(2021)

$$Y = 0.719 + 0.834X_1$$

The results on beta coefficients of the resulting model on performance supervision show that the constant  $\alpha = 0.719$  is significantly different from 0, since the p-value = 0.000 is less than 0.05. The coefficient  $\beta = 0.834$  is also significantly different from 0 with a p-value = 0.000, which is less than 0.05. This implies that there is a positive relationship between performance supervision and employee productivity.

At the 95% level of significance, performance supervision is significant at 0.000, and employee productivity has a beta coefficient of 0.834. This explains that performance supervision has an effect on employee productivity.

### **Findings**

Based on the results, the ministry has supervisors in its sub-sections, with 91.8 percent of employees agreeing to the fact that supervisors influence their productivity levels. The employees agreed that monitoring of employee performance is carried out within the ministry. Rules and regulations govern the conduct of employees. Duties and responsibilities were also clear and employees believed they were working in a well-managed sector. However, employees choose to be neutral concerning the relationship between their qualifications and the assigned job as well as the ministry's policies and procedures being clear and up to date.

### **Conclusion**

Coordination and directing of activities to realize the established goals depends on the success of the supervisors. Having great supervisors ensures that communication channels are kept open in both directions, resulting in a safe, industrious, and hardworking environment. Performance supervision is critical in matters of employee productivity and supervisors need to be empowered to control and direct their subordinates towards the ministry's goals. The fact that employees chose to be neutral concerning the matching of their qualifications and the assigned jobs, proved that most of the employees were not properly placed. The ministry has outdated policies and procedures that need to be revised in order to deal with the problems that have arisen, particularly with land issues.

The ministry needs to strive towards achieving effective supervision by having proper policies and procedures which will guide supervisors in their daily activities. This offers an innocuous environment for employees to cultivate their abilities and an understanding of their job, as well as to reflect on their own practice. Changing aspects revolving around the supervisory role make its delivery heavily rely on the organizational framework. Providing them with relevant training and support and allowing them to properly place their subordinates will reduce the challenges they encounter while executing their mandate.

### *The study's implications and limitations*

For the Ministry to realize high output, the outcome points in the direction of good supervision, which is believed to contribute to increased job satisfaction, increased job and organizational commitment among staff, and reduced employee turnover.

When used on a large scale, case studies have proven to be very expensive and time-consuming,(McLeod,2019), hence the small sample size.

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## **Mentoring Practices of Principals for Teachers' Retention in Public Secondary Schools in Anambra State, Nigeria**

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### **Abstract**

The seeming teacher turnover in secondary schools in Nigeria necessitated this study on mentoring practices of principals for teachers' retention in public secondary schools in Anambra State. The study adopted the descriptive survey research design. One research question guided the study. The population of the study comprised 256 principals and the entire population was used for the study. Researchers' developed questionnaire was the instrument used for data collection. The instrument was validated by three experts, two in Educational measurement and evaluation, Department of Educational Foundation and the other in Educational planning and management, Educational Management and Policy, all in the Faculty of Education Nnamdi Azikiwe University, Awka. The Cronbach's alpha method was used to determine the internal consistency of the items which yielded a reliability coefficient of 0.75. The researchers with the help of ten research assistants distributed and successfully collected 256 copies of the questionnaire administered. The research question was answered using the arithmetic mean. It was found among others that principals in public secondary schools in Anambra state use formal and informal mentoring to a very low extent for teachers' retention. Based on the findings of the study, it was recommended among others that government should provide adequate resources necessary for effective mentoring programme in secondary schools

in Anambra State.

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**Keywords:** Mentoring, Teachers' retention, mentee, mentor

## **Introduction**

Education is a tool for strengthening ones' intellectual power, building character, maintaining emotional balance as well as moral and cultural empowerment of individuals to bring about positive development in the society. The skills and potentials of individuals for self-reliance and actualization could be developed through education. Nigeria, just like other countries of the world, acknowledges the fact that education is a vital instrument for national development and social change and as such has joined other countries of the world in the march towards worthwhile educational investments and reforms. Consequently, one of the goals of education according to the Federal Republic of Nigeria (FRN) (2013) is the development of appropriate skills, mental, physical, and social abilities and competencies to empower the individual to live in and contribute positively to the society. The purpose of any of the three levels of formal education (Basic, Secondary or Tertiary) in Nigeria is to effect changes in children's behaviour by exposing them to relevant experiences through systematic presentation of skills, attitudes, concepts, and principles. Therefore, this study focuses on public secondary level of education in Nigeria.

Secondary school education is the form of education children receive after nine years of basic education and before the tertiary stage. Secondary education is concerned with the acquisition of fundamental principles and knowledge for the study of different disciplines at tertiary level of education (Ofojebe & Nnebedum, 2016). The importance of secondary education lies in its position both as the bridge between the basic and tertiary education and also as the agent for preparing individuals for useful living in the society (FRN, 2013). Basically, there are two categories of secondary schools in Nigeria; public and private secondary schools.

Public secondary schools are schools that are owned by the government and its agencies, and they are controlled and managed directly by public education authority, governing agencies or by a governing body (council, committees among others), most of whose members are appointed by public authority or are elected by public franchise. Private secondary schools on the other hand are schools owned, financed, and managed by private individuals, missions, corporate organizations, and non-governmental organizations (NGOs).

Irrespective of ownership, secondary schools have common objectives to achieve as stated by FRN (2013, p.17-18) as follows:



- a) Provide holders of the Basic Education Certificate and Junior Arabic and Islamic Studies Certificate with opportunity for education of a higher level, irrespective of gender, social status, religious or ethnic background;
- b) Offer diversified curriculum to cater for the differences in talents, disposition, opportunities and future roles;
- c) Provide trained manpower in the applied sciences, technology and commerce at sub-professional grades;
- d) Provide entrepreneurial, technical, and vocational job specific skills for self-reliance and for agricultural, industrial, commercial and economic development;
- e) Develop and promote Nigerian Languages, art and culture in the context of world's cultural heritage;
- f) Inspire students with a desire for self-improvement and achievement of excellence;
- g) Foster patriotism, national unity, and security education with emphasis on the common ties in spite of our diversity; and
- h) Raise morally upright and well-adjusted individuals who can think independently and rationally, respect the views and feelings of others, and appreciate the dignity of labour.

Consequently, the achievement of the above objectives has been the priority of secondary school education in Nigeria. Achieving the goals of secondary education in Nigeria is therefore indispensable if excellence is required for the human resource base needed to move Nigeria to an enviable position it ought to occupy. The secondary education level is managed by the principal who is responsible for utilizing the available school resources to enhance the attainment of the stated goals of the school. FRN (2013) maintained that no educational level in Nigeria (Secondary education inclusive) could rise above the quality of its teachers. Therefore, to be able to achieve the goals and objectives of secondary education in Nigeria, the hiring and retention of qualified and experienced teachers are of utmost importance. This is because they are the cornerstone upon which the excellence of education rests. Teachers play important roles in the achievement of the stated educational objectives and in the task of nation building for sustainable development because they turn educational policies into practice in a normal classroom setting.

From the foregoing, it could be deduced that the goals of secondary education in Nigeria cannot be achieved without the retention of adequately trained and motivated teaching staff. There is therefore the need to keep teachers satisfied with their jobs and careers so that they can remain in the teaching profession. Teaching is a highly stressful career, and teachers are



leaving the profession at an alarming rate (Hanushek, 2007; Ingersoll, & Smith, 2003). This is not a welcome development because as observed by Faremi (2017), the retention of highly qualified teachers is of great importance if the objectives of secondary education in Nigeria are to be achieved. Teacher retention, according to Masood (2011), is the act of keeping teachers on the job without being moved from one school to another and or leaving the teaching profession entirely for other professions. Texas Education Agency (TEA, 1994) maintained that teacher retention is the proportion of teachers in one year who are still teaching the following year in the same school.

Retention is about how a particular school manages its workforce or more specifically its relationship with its workforce. Retention is also an action of holding something in position or containing it. Hence, the researchers defined teachers' retention as a state or a condition of attracting and enabling teachers to work and remain with the school organization before retirement. Retention is conceptualized in terms of teachers staying and teachers leaving. The main purpose of retention is to prevent competent teachers from leaving the school organization as this could have adverse effects on productivity and service delivery.

Every school, whether public or private, strives to retain a pool of qualified, committed, and talented teaching staff that can deliver quality education to its students and in turn produce students of high quality. When qualified teachers for any reason have intentions of leaving the school system or teaching field, it would portend a negative impact on students and the institution's overall performance as well. Thus, it is essential to retain highly qualified teachers in the school system on continuous basis for quality education delivery viz-a-viz the achievement of the objectives of secondary school education. It is important for schools, through the employment process, to attract quality teachers. However, it is more important for educational managers to devise means with which to retain the talented teachers in the service of the school organizations in order for teachers to benefit from the investment already made in them (Michael, 2008). Brown and Wynn (2009) emphasized that unless schools, specifically administrators, begin to take a more proactive approach in supporting their new and veteran teachers, teachers are going to continue to leave the field and all schools and children will suffer. Therefore, retaining teachers in schools, most especially the new ones, is an important and powerful force in the betterment of schools, students, and education as a whole (Gurule-Gonzales, 1995; King, 2004).

Specifically, principals are not just supervisors within the school, but are also the leaders looked up to by teachers to listen to them, assist them, and value them (Jiang & Chan, 2007; Ladd, 2009). The principal is the central leader who sets the tone and culture of the school, serves as a role model to the teacher, and shapes the professional image of the future for the teachers

(Ladd, 2009). Principals' involvement with teachers, therefore, can be a significant factor in retaining teachers and in inspiring the passion that keeps beginning teachers from dropping out (Smith & Ingersoll, 2004). Although the leadership (principals) of the school may not have much influence over the reasons for going into teaching, principals are critical players on whether teachers decide to stay with the profession or not (ASCD, 2000; Lieberman & Miller, 1994).

Retaining highly qualified teachers should be a top priority for school principals. Principals need to implement programme and have incentives to retain highly qualified teachers (Darling-Hammond, 2003). Fullan (2003) reported that effective leaders have the ability to change organizational culture which, in turn, can create an atmosphere of job satisfaction that produces high retention rates. Secondary school principals therefore need to engage some practices towards ensuring the retention of teachers. This is due to the fact that teachers might be persuaded to take the lower salaries in exchange for better working conditions (Hanushek & Luque, 2000). One of the strategies towards ensuring teachers' retention is mentoring programme. Chisolm (2008), in agreement, maintained that factors such as principal behaviors, principal leadership, school climate/teacher morale, professional development opportunities, and teacher mentoring programs seem to positively impact teachers' decisions to remain in the profession.

Mentoring, according to Blanson (2005), is a multi-dimensional process of guiding, teaching, influencing, and supporting a teacher. In mentoring, Darling-Hammond (1996) stated that when a veteran teacher is assigned to a novice teacher to help him or her learn the philosophy, cultural values, and established sets of behavior expected by the school where they are employed in mentoring, the mentor always serves as a guide, counselor, confidant, adviser, and a role model to the mentee. It is usually expected that the relationship will enable the mentee to develop holistically. In a mentoring relationship, people learn by doing because under the guidance and direction of the mentor, the mentee is given a direct access to important insights and past experiences. In the school system, principals, vice principals, and heads of departments are the leaders and invariably the mentors. They are expected to continue to develop their leadership skills by exposing new and inexperienced teachers to the right professional knowledge and etiquettes. Teachers who are mentored always have a slightly higher retention rate than teachers who were not mentored (Breux & Wong, 2003; Gold 1999). Teachers, most especially the new ones who spend their first year in a school environment that support mentoring, are likely to have higher morale, be more committed to teaching, and plan to remain in the teaching profession (Weiss, 1996). Darling-Hammond (1999) and Feiman-Nemser (1996) maintained that mentoring is a successful strategy to ease the transition from teacher

preparation programs to in-service teaching, improve retention rates, and increase student performance. Inman and Marlow (2004) noted that when beginning teachers are mentored, they gain a sense of empowerment, feel support from their colleagues, and identify their work environment as positive. Rockoff (2008) and Borauk (2009) maintained that mentoring is important as it improves the ultimate performance of teachers. They further posited that mentoring helps to maintain the quality of teaching and learning and also to reduce the number of teachers leaving the teaching profession thereby enhancing teacher retention.

Department of Education (DOE) (2008) acknowledged two types of mentoring, namely; informal and formal mentoring. DOE (2008) maintained that informal mentoring is a natural occurrence and one person out of three will turn to another for mentoring naturally. On the other hand, DOE maintained that formal mentoring is structured and mentors are carefully selected to distribute skills and knowledge to mentees. Inzer and Crawford (2005) in concurrence maintained that informal mentoring occurs in a relationship between two people where one gains insight, knowledge, wisdom, friendship, and support from the other. They also reported that informal organizational mentoring is more beneficial than formal mentoring. Informal mentors provided higher amounts of several types of career development functions, including coaching, providing challenging assignments, or increasing mentees' exposure and visibility. Informal mentors were more likely to engage in positive psychosocial activities such as counseling, facilitating social interactions, role modeling, and providing friendship. In informal mentoring, the mentee and mentor are selective about whom they wish to approach for a mentoring relationship and it can last for years. Informal mentoring is a strong and valuable tool for developing an employee and it occurs in a relationship that is voluntarily formed by both persons (Inzer & Crawford, 2005). Raschdorf (2015) posited that there are effective variables found in various mentorship programs. Some of the variables according to Raschdorf (2015) are release time for mentees and mentors to observe each other teach, informal as well as formal visitation with mentors, fostering the mentee's perception of value, and the self-selection of the mentor. Ingersoll and Strong (2011) maintained that the time that mentors spend with their mentees should not be restricted to formal visitations. The selection of mentors, specifically mentees choosing their own mentor, is found to be a crucial component of an effective mentoring relationship (Smith & Ingersoll, 2004). Conway (2001) in tandem maintained that beginning teachers who can find their own mentor usually value and benefit more from the relationship than a teacher who was assigned one.

In formal mentoring relationships, it may be the case that the mentee has several mentors, each of whom takes on a different phase of the relationship (Raschdorf, 2015). Multiple mentors throughout the life of a mentoring program are the key to successful outcomes for the mentee. More planning time with mentors and informal mentoring meetings are also another source of satisfaction and support for new teachers. Abell, Dillon, Hopkins, McNerny and O'Brien (1995) maintained that trust and respect are far more integral to the success of the mentorship relationship. Abell et al. (1995) further stated that this trust and respect is the tie that binds the mentee to the mentor and allows the more productive mentor-mentee relationship. Also, without professional trust and respect, a relationship in which ideas are freely shared cannot be developed. Raschdorf (2015) posited that an easy way to ensure trust and respect is in place from the start is allowing teachers to choose their mentor at the onset of their formative years of teaching. The mentee's perception of the mentor's experience and knowledge about students and content contributes to the mentee's respect for the mentor. However, if teachers lack professional respect for their mentors, the relationship is perceived as less useful.

Inzer and Crawford (2005) maintained that it is important to identify who will administer the mentoring program. They argued that it is necessary that a coordinator be assigned to oversee the program development and to monitor the ongoing program. Also, there should be a committee to develop and monitor the program. This committee should be comprised of senior personnel and the targeted mentoring group. All mentors should receive formal training. Organizations should develop training according to their own unique needs. However, quality training provided by a qualified professional remains paramount to a mentoring program success. Inzer and Crawford (2005) maintained that the training should cover mentoring history, participant roles, success factors for pairing mentors and mentees, practical hints and suggestions, and general expectations mentors and mentees have of each other. They further maintained that training should also include an overview of the program structure, guidelines, policy, goals, and evaluation criteria. Both formal and informal mentoring are important variables towards ensuring teachers' retention in secondary schools. Principals therefore should ensure the implementation of the mentoring process as one of the practices towards ensuring teachers' retention which also will improve teaching and learning (Graczewski et al., 2009; Moswela, 2006).

Almost every teacher in secondary schools in Nigeria and Anambra State in particular seem to be looking for a better opportunity to leave the teaching profession for greener pastures. This is coupled with the responsibility of the principal ensuring that teachers are retained which, regrettably, some are not doing religiously. Public secondary schools'

principals in Anambra State seem not to be employing adequate management practices towards teachers' retention. Building a professional teacher corps is a process that only begins with recruiting highly qualified teachers. Once recruited, these teachers need to be mentored in order to develop a strong sense of their own efficacy based on high-quality teaching skills and experience. Student achievement is directly impacted by the number of effective teachers that remain in the profession to acquire the level of efficacy needed in their subject area to positively improve student success (Darling-Hammond, 2003). The extent to which principals use formal and informal mentoring programs towards teachers' retention is not known, hence the need for this study on mentoring practices of principals for teachers' retention in public secondary schools in Anambra State.

### **Purpose of the Study**

The main purpose of this study was to ascertain mentoring practices used by principals for teachers' retention in public secondary schools in Anambra State. Specifically, this study ascertained:

- Formal and informal mentoring practices of principal for teachers' retention in public secondary schools in Anambra State.

### **Research Questions**

The following research question guided the study:

- What are the formal and informal mentoring practices of principal for teachers' retention in public secondary schools in Anambra State?

### **Method**

The study adopted the descriptive survey research design. According to Akuezuilo and Agu (2003), descriptive research design describes and interprets what is the; opinions that are held, processes that are going on, effects that are evident or trends that are developing, and it seeks to find out the conditions or relationships that exist. The design was found appropriate for the study because it allowed for description of the mentoring practices for teachers' retention already provided for by the principals in public secondary schools in Anambra State.

The study was carried out in Anambra state. Anambra state is one of the five states in the south-east geo-political zone of Nigeria. There are six educational zones in Anambra state namely; Aguata, Awka, Nnewi, Ogidi, Onitsha, and Otuocha educational zones.

The population of the study comprised 256 public secondary school principals in the six education zones in Anambra State (information gathered from the department of Planning, Research and Statistics of the Anambra state post primary schools service commission headquarters Awka, February,

2021). There was no sample for the study as the entire population was purposively used for the study.

The instrument that was used for data collection is a structured questionnaire developed by the researchers. The instrument was developed by the researchers from views of experts and based on literature reviewed. The questionnaire adopted “Very high extent (VHE), High extent (HE), Low extent (LE) and Very low extent (VLE) response pattern.”

The questionnaire was subjected to validation using three experts; one from Educational Management and Policy and two from measurement and evaluation, Educational Foundations Department all in the Faculty of Education, Nnamdi Azikiwe University, Awka.

The reliability of the instrument was established using 20 principals in 20 secondary schools in Enugu state. Cronbach alpha method was used to determine reliability of the items. The reliability coefficient yielded overall reliability coefficient of 0.75. Frankel and Wallen (2000) maintained that items will be considered reliable and desirable for consistency level if they yield a reliability coefficient of 0.70 and above. The instrument was therefore considered reliable.

The instrument was administered to the respondents by the researchers with the help of 10 research assistants. Direct delivery method was used and 100% return rate was recorded.

The research questions was answered using the arithmetic mean. Any response with a mean score of 2.50 and above was accepted, while any mean score below 2.50 was not accepted.

## Result

**Table 1.** What are the formal and informal mentoring practices of principals for teachers’ retention in public secondary schools in Anambra State?

N= 256			
S/N	ITEMS	Mean	Decision
1	Selection of mentors in the school	2.06	Low extent
2	Provision of formal training for mentors	1.56	Low extent
3	Formal assigning teachers to mentors for mentorship	2.02	Low extent
4	Allowing teachers to choose mentors by themselves	2.50	High extent
5	Provision for peer mentoring	1.60	Low extent
6	Provision for distant mentoring	2.07	Low extent
7	Allocation of meeting time for teachers and their mentors within normal school hours	2.02	Low extent
8	Encouraging mentoring relationship after normal school hours	2.56	High extent
9	Planning time with the mentors	2.02	Low extent
10	Allowing for multiple mentors	2.02	Low extent
11	Provision of necessary resources for mentoring	2.02	Low extent
12	Selection of a committee to develop mentoring program	2.05	Low extent
13	Assigning coordinators to monitor the mentoring program	2.02	Low extent



14	Evaluation of the mentoring program through the coordinators	2.02	Low extent
15	Principal monitoring the mentoring by him/herself	2.02	Low extent
16	Evaluation of the mentoring program by the principal	2.05	Low extent
<b>Grand Mean</b>		<b>2.04</b>	<b>Low extent</b>

Table 1 above revealed that principals of public secondary schools in Anambra State only applied items 4 and 8 to a high extent as formal and informal mentoring practices for teachers' retention in secondary schools in Anambra State as their mean were 2.50 and above. However, they rated items 1, 2, 3, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, and 16 with a mean ratings below 2.50 and therefore were to a very low extent applied as formal and informal mentoring practices being used for teachers' retention in secondary schools in Anambra State.

The grand mean of 2.04 indicated that public secondary school principals in Anambra State to a very low extent apply formal and informal mentoring practices towards the retention of teachers.

## Discussion

The study revealed that principals in public secondary schools in Anambra State allows teachers to choose mentors by themselves and also encourages mentoring relationships after normal school hours. However, the study further revealed that public secondary schools principals in Anambra State do not select and provide formal training for mentors; do not formally assign teachers to mentors; do not provide an avenue for peer and distant mentoring; do not have planning time with mentors nor allocate meeting time for teachers and their mentors to meet within normal school hours; do not allow for multiple mentoring nor provide necessary resources for mentoring to take place; principals as well do not select committee to develop mentoring program neither do they assign coordinators to monitor and evaluate the mentoring program; and principals do not monitor nor evaluate the mentoring program by themselves.

The findings of this study is not in line with Inzer and Crawford (2005) who maintained that it is necessary that a coordinator be assigned to oversee the mentoring program development and monitor the ongoing mentoring program. Furthermore, the findings is not in line with McCormack and West (2006) that maintained that multiple mentors throughout the life of a mentoring program are the key to successful outcome for the mentee. On the other hand, the findings of the study is in line with Raschdorf (2015) and Smith and Ingersoll (2004) who found out among others that allowing teachers to choose their mentors is a crucial component of an effective mentoring relationship and an easy way to ensure trust and respect in the mentoring relationship. Furthermore, the finding is tandem with that of Ingersoll and

Strong (2011) that the time that mentors spend with their mentees should not be restricted to formal visitations.

The findings on mentoring practices of principals in summary indicated that public secondary school principals in Anambra State, Nigeria applied formal and informal mentoring practices to a very low extent towards the retention of teachers. This is not in line with Graczewski et al. (2009) and Moswela (2006) who posited that both formal and informal mentoring are important variables towards ensuring teachers' retention in secondary schools. One possible reason why principals in public secondary schools in Anambra State apply to a low extent formal and informal mentoring practices for teachers retention could be that they may not be aware that such could enhance the retention of teachers and or perhaps that the government failed to equip them with adequate resources necessary for a successful mentoring relationship.

### **Conclusion**

An inference that is drawn from the findings of this study is that public secondary school principals in Anambra State to a low extent apply formal and informal mentoring practices for teachers' retention. Therefore, one can conclude that the low application of these two forms of mentoring could lead to teachers leaving the teaching profession for other professions at any slightest opportunity.

### **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. The government should provide adequate resources necessary for effective mentoring programme in public secondary schools in Anambra State.
2. Principals should formally assign mentors to teachers for effective mentoring relationship.
3. Principal should appoint coordinators and form committees who will develop, monitor and evaluate the mentoring program.

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## Impact de libéralisation commerciale sur l'accumulation du capital humain en Afrique : une analyse empirique en Données de Panel

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### Résumé

Ce papier vise à évaluer empiriquement l'impact de la libéralisation commerciale sur l'accumulation du capital humain en Afrique. Nous utilisons pour cela un modèle en données de panel pour 48 pays africains durant la période 2000-2017 en adoptant la méthode FGLS (Feasible Generalized Least Squares). Cette méthode économétrique que nous avons mobilisée a permis de corriger les problèmes de l'endogénéité et de l'hétéroscédasticité obtenus par l'approche standard de Moindres Carrés Ordinaire (MCO). Nous avons abouti aux résultats selon lesquels, l'accumulation du capital humain africain est liée à une série de variables macroéconomiques indispensables tels que ; les dépenses en R&D, le PIB par habitant et l'ouverture. Ainsi, nous avons constaté que les tarifs douaniers appliqués ont un effet négatif et fortement significatif sur le capital humain. On conclut que les pays africains devraient investir dans la qualification de leur capital humain à travers l'éducation et la formation avant même de déclencher des politiques commerciales orientées vers la libéralisation de leur marché, pour pouvoir absorber les éventuels spillovers générés par l'entrée en vigueur des accords de libre-échange et plus particulièrement de la Zone de Libre-Echange Continentale Africaine (ZLECAf) en termes de transfert technologique, productivité des facteurs de production et de diffusion du progrès technique.

**Mots clés :** Libéralisation commerciale, accumulation du capital humain, FGLS, Panel

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## **The Effect of Trade Liberalization on Human Capital in Africa: An Empirical Investigation in Panel Data**

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### **Abstract**

This paper aims to assess the impact of trade liberalization on the human capital accumulation in Africa. We use a panel data model for 48 African countries during the period between 2000 and 2017 by the FGLS method to remove the endogeneity problem and heteroskedasticity obtained by the GLS Method. We have arrived at the results according to which, the human capital accumulation in Africa is linked to the macroeconomic variables such as; Research and development expenditure, GDP per capita and trade. Empirical analysis investigation reveals the negative effect of the Tariff rate applied on human capital. We concluded that African countries need to spend in their human capital through education to be able to absorb the spillover effect of the AfCFTA in terms of technology diffusion and technical progress.

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**Keywords:** Trade liberalization, human capital accumulation, FGLS estimator, Panel data

### **Introduction**

Depuis le coup d'envoi des accords du GATT en 1947 et la création de l'OMC en 1995 avec l'adhésion de 164 pays à ses principes fondamentaux (non-discrimination, transparence, interdiction des restrictions quantitatives et concurrence loyale), les politiques commerciales ont été orientées vers l'élimination des droits de douane (résultats des négociations multilatérales lors de plusieurs cycles de négociation) et l'intégration commerciale avec la notification et de l'entrée en vigueur de 288 Accords Commerciaux Régionaux (ACR)<sup>1</sup>.

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<sup>1</sup> Au cours des trois premiers trimestres de 2018, quatre ACR ont été notifiés à l'OMC, ce qui porte à 288 le nombre total d'ACR en vigueur notifiés à cette Organisation. Quatre nouveaux ACR ont été notifiés (six notifications soumises).

Or, la guerre commerciale que se livrent les Etats-Unis et la Chine au sein des instances de l'organisation mondiale du commerce (OMC) depuis 2018 a exacerbé le retour aux mesures protectionnistes (barrières tarifaires et non tarifaires au commerce).

Sur le plan africain, l'intégration commerciale demeure une priorité essentielle de la stratégie de développement, où le libre-échange entre les Etats constitue l'une des pierres angulaires de l'Agenda 2063<sup>2</sup> adopté par l'Union Africaine (UA) en mai 2013. L'objectif consiste à surmonter les défis du millénaire, réduire l'écart entre les Etats et d'investir dans les ressources disponibles (la transition démographique<sup>3</sup>, la transition énergétique et la durabilité des ressources naturelles, etc.)

Le degré d'ouverture en Afrique a fortement augmenté dès le début de ce siècle en passant en taux moyen de 56,8% en 2000 à 72,9% en 2018<sup>4</sup>. Cette tendance à la hausse devrait encore se poursuivre dans les années à venir, avec l'entrée en vigueur de la ZLECAf et de la conclusion des accords commerciaux régionaux engageant les pays africains avec l'UE (World Bank, 2020). En effet, même si la ZLECAf dont le texte de l'accord a été signé alors que sa ratification par tous les pays africains est en cours (34 sur 54 pays africains) avec même des domaines techniques toujours en négociation (règles d'origine, commerce des services, obstacles techniques au commerce, etc.). Ce cadre promet de mener à bien les réformes de fond nécessaires pour la réorganisation des marchés des pays du continent, le soutien du secteur des services, de l'industrie manufacturière et des ressources naturelles et, par conséquent, la promotion de la croissance à long terme dans les pays africains.<sup>5</sup>

Bien que la relation entre les échanges commerciaux et les politiques commerciales d'un côté et l'accumulation du capital humain d'un autre côté ait fait l'objet de plusieurs investigations empiriques (tel que les travaux de Winters, 2020 ; Ullah, 2018 ; Jie Li et al, 2019 ; Blanchard et al, 2017 ; Auer,

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<sup>2</sup> En 2013, lors des célébrations du 50<sup>ème</sup> anniversaire de la création de l'Organisation de l'Unité Africaine (OUA), le précurseur de l'Union Africaine (UA), les pays membres ont signé la déclaration solennelle, l'Agenda 2063, réaffirmant la vision panafricaine pour une Afrique intégrée, prospère et pacifique, dirigée par ses propres citoyens, et représentant une force dynamique sur la scène mondiale, dont le continent entend réaliser sur une période de 50 ans (de 2013 à 2063).

<sup>3</sup> La population de la région devrait passer à 2,1 milliards en 2050 et peut-être même à 3,8 milliards à la fin du siècle, selon l'hypothèse moyenne de baisse de fécondité de la Division de la population des Nations unies.

<sup>4</sup> Calcul effectué en se basant sur la moyenne géométrique des données annuelles de la Banque Mondiale.

<sup>5</sup> Selon le rapport de la Banque Mondiale (2020), la mise en œuvre de la ZLECAf permettrait de stimuler la croissance, réduire la pauvreté, favoriser l'égalité hommes-femmes sur le marché du travail et élargir l'inclusion économique en Afrique.

2015), les pays africains restent peu explorés dans la littérature, notamment dans le contexte contemporain caractérisé par une ouverture commerciale remarquable. Il est par conséquent opportun d'examiner dans quelles mesures les pays du continent africain tirent réellement profit de leur libéralisation commerciale pour accumuler leur stock de capital humain raison pour laquelle ce papier tente à estimer empiriquement cette relation d'ouverture commerciale-capital humain et s'intéresser, par conséquent, à la libéralisation commerciale en tant que vecteur de croissance. Après avoir développé une revue de la littérature exposant les principaux travaux ayant abordé la problématique, nous allons expliquer la démarche méthodologique avant de présenter et interpréter les résultats obtenus.

## **1. Revue de littérature**

Bien que l'analyse du lien entre les politiques commerciales et le capital humain ait toujours fait l'objet d'une attention particulière de la part des économistes et des politiciens, elle ne fait encore pas l'unanimité des économistes et les courants de la pensée économique. En effet, sur le plan théorique, Krugman (1987), Grossman et Helpman (1991), Pautrel (1997) et Pissarides (1997) mettent l'accent sur l'effet de l'ouverture sur la performance commerciale des économies. D'après ces auteurs, ledit effet dépend du capital humain accumulé par l'économie. Ainsi, pour Krugman (1987) et Grossman et Helpman (1991), la libéralisation peut entraîner des distorsions et des répercussions négatives sur le capital humain et aussi sur la capacité productive des économies disposant d'un faible niveau technologique. Selon Pautrel (1997), l'ouverture permet aux pays en développement d'accéder aux dernières technologies avancées et innovantes. Pour sa part, Pissarides (1997) montre que la libéralisation commerciale facilite le transfert technologique et l'innovation.

Sur le plan empirique, le lien entre l'ouverture commerciale et l'accumulation du capital humain reste ambigu. Par exemple, Cieślík, (2014) a abouti à montrer la relation positive et statistiquement significative entre la libéralisation et le développement du capital humain pour les économies en transition durant la période 1971-2010. Haq et Luqman (2014) ont utilisé un modèle de croissance néoclassique (Solow augmenté) pour tester l'hypothèse selon laquelle le commerce international contribue à la croissance à travers l'accumulation du capital humain dans neuf pays asiatiques au cours de la période 1972-2012. Les résultats obtenus confirment que, dans les pays considérés, le commerce international favorise l'accumulation du capital humain et contribue de sa part à stimuler la croissance. Jadoon, et al. (2015) ont examiné l'effet de la libéralisation sur le capital humain et la croissance économique pour un échantillon de pays asiatiques regroupés en pays à faible revenu (Inde, Indonésie, Pakistan et Sri Lanka) et pays à revenu élevé (Japon,



Malaisie, Singapour et Corée du Sud). Les outputs montrent que l'ensemble des pays profitent de la croissance économique tirée par l'ouverture durant la période examinée (1981-2012). Par ailleurs, bien que l'impact de l'ouverture commerciale sur le capital humain soit positif pour les deux groupes de pays, il n'est significatif que pour les pays à revenu élevé.

Mtiraoui (2015) a utilisé la méthode des moments généralisés pour étudier l'interaction entre capital humain et ouverture commerciale d'un côté et leur contribution à la croissance économique dans les pays de la région MENA sur la période allant de 1994 à 2006 de l'autre côté. Bien que l'étude révèle l'existence d'une relation à long terme entre ces trois variables, il semble que le développement du capital humain n'a d'effet sur la croissance que lorsque le degré d'ouverture commerciale est important. Ali et al. (2016) ont proposé, à cet effet, un modèle de cointégration de 20 pays européens durant la période allant de 1995 à 2010 pour analyser les *spillovers* liés aux flux d'IDE et aux importations sur la productivité des facteurs de production. Leurs résultats montrent non seulement une complémentarité entre les *spillovers* générés par les importations et les IDE entrants, mais aussi un effet direct positif exercé par ces derniers sur la productivité des facteurs. Les auteurs ont trouvé également que les pays ayant un capital humain hautement qualifié bénéficient d'une capacité d'absorption importante et d'un transfert de connaissances par les deux canaux de transmission.

Jawaid et Waheed (2017) ont adopté un modèle de cointégration pour étudier l'effet du commerce extérieur au Pakistan à la fois de façon agrégée (tous les secteurs confondus) et désagrégée (par secteur et par branche d'activité) sur le développement du capital humain durant la période 1980-2013. Les résultats montrent que les échanges commerciaux ont une relation positive et significative avec l'accumulation du capital humain, à l'exception des importations de produits destinés à la consommation et les exportations de produits semi-finis.

Blanchard et Olney (2017) démontrent, à travers l'utilisation d'un modèle de gravité en données de panel concernant 102 pays durant la période 1965-2010 (données quinquennales), l'effet bénéfique des exportations de produits à forte intensité de technologie et de qualification sur le capital humain à long terme (représenté par le taux de scolarisation). En s'appuyant sur des données provinciales, Ma et al. (2019) ont examiné l'effet de l'ouverture commerciale sur le capital humain en Chine durant la période 1995-2015. Les résultats obtenus montrent que l'ouverture commerciale en Chine exerce une influence positive et significative sur l'accumulation du capital humain.

Si pour les auteurs mentionnés ci-haut, l'impact de la libéralisation commerciale est un facteur crucial pour l'accumulation du capital humain des pays, d'autres chercheurs ne partagent pas ce point de vue notamment lorsqu'il



s'agit d'analyser l'impact de l'ouverture commerciale sur les pays en développement et ceux en transition. Ainsi, bien que l'ouverture économique soit en principe un véritable vecteur de transmission de savoirs et transfert de technologies, le niveau faible de capital humain des pays en développement et ceux en transition peut brider les transferts technologiques découlant de l'ouverture commerciale, souligne Pautrel (1997).

Vlastou (2010) examine la relation entre l'ouverture commerciale et la croissance économique pour un échantillon de 34 pays africains sur la période 1960-2003 et parvient à des résultats qui révèlent l'impact négatif de l'ouverture commerciale sur les performances économiques des pays étudiés. De son côté, Berrached (2013) a examiné l'effet de la politique commerciale sur la croissance économique d'un panel de 80 pays en voie de développement via une double estimation : en coupe transversale et en données de panel (sur la période 1980-2003). Bien que les résultats du modèle en coupe transversale confirment l'existence d'un lien positif avec le capital humain, l'estimation du modèle en données de panel montre que l'ouverture commerciale exerce un impact négatif sur le capital humain et la croissance économique.

Quant à Kurihara et Fukushima (2016), ces auteurs ont fait remarquer que la libéralisation commerciale est plus avantageuse, en termes d'accumulation de capital humain, aux pays développés qu'au sein des pays en développement. Dans le même ordre d'idées, Li (2018) trouve que l'expansion des exportations due à la réduction des tarifs douaniers accélère la demande d'une main-d'œuvre moins qualifiée et augmente le taux d'abandon scolaire.

Plus récemment, Li et al. (2019) démontrent, à travers un modèle en coupe transversale, que la libéralisation des échanges commerciaux en Chine a eu une incidence négative sur le capital humain à long terme. Les auteurs proposent d'adopter des politiques éducatives susceptibles de renforcer le taux de scolarisation et de formation notamment en faveur des jeunes ayant des emplois précaires et peu qualifiés dans le secteur manufacturier. Le but étant d'améliorer leur productivité et, par conséquent, la compétitivité internationale des produits chinois.

Alam, K. J., & Sumon, K. K. (2020), ont montré qu'à travers une estimation de cointégration d'un panel de 15 pays asiatiques sur des données allant de 1990-2017, l'ouverture commerciale et la croissance ont une relation positive à long terme à l'exception de l'Inde, dont le coefficient n'est pas statistiquement significatif. Le modèle de correction d'erreur vectorielle (VECM) a révélé une causalité bidirectionnelle entre la croissance économique et l'ouverture commerciale.

Compte tenu de l'ambiguïté de la relation entre l'ouverture commerciale et l'accumulation du capital humain notamment dans les pays en développement, ce travail vise à examiner la relation entre la libéralisation

commerciale et le capital humain en Afrique sur la période allant de 2000 à 2017.

**Tableau 1** : Récapitulatif des travaux d’auteurs et méthodologies mobilisées

Auteurs	Période analysée	Méthodologie mobilisée	Résultats obtenus
Cieslik, (2014)	1971-2010.	Modèle de gravité dynamique sur un échantillon de pays de l’Europe centrale et orientale	Relation positive et statistiquement significative entre la libéralisation et le développement du capital humain pour les économies de l’étude.
Haq et Luqman (2014)	1972-2012.	Estimation de GMM en système basée sur le modèle de croissance néoclassique (Solow augmenté) sur la base d’un panel de pays asiatiques	Les pays considérés, le commerce international favorise l’accumulation du capital humain et contribue de sa part à stimuler la croissance.
Jadoon, et al. (2015)	1981-2012	Estimation d’un modèle à effets fixes sur un échantillon de pays asiatiques regroupés en pays à faible revenu (Inde, Indonésie, Pakistan et Sri Lanka) et pays à revenu élevé (Japon, Malaisie, Singapour et Corée du Sud).	L’ensemble des pays profitent de la croissance économique tirée par l’ouverture. L’impact de l’ouverture commerciale sur le capital humain est positif pour les deux groupes de pays et il n’est significatif que pour les pays à revenu élevé.
Mtiraoui (2015)	1994 - 2006	Modèle dynamique à l’aide de la méthode GMM en système permet d’étudier l’interaction entre capital humain et ouverture commerciale d’un côté et leur contribution à la croissance économique dans les pays de la région MENA de l’autre.	L’étude révèle l’existence d’une relation à long terme entre ces trois variables et il semble que le développement du capital humain n’a d’effet sur la croissance que lorsque le degré d’ouverture commerciale est important.
Ali et al. (2016)	1995-2010	Modèle de cointégration de 20 pays européens pour analyser les <i>spillovers</i> liés aux flux d’IDE et aux importations sur la productivité des facteurs de production.	Leurs résultats montrent non seulement une complémentarité entre les <i>spillovers</i> générés par les importations et les IDE entrants, mais aussi un effet direct positif exercé par ces derniers sur la productivité des facteurs. Les auteurs ont trouvé également que les pays ayant un capital humain hautement qualifié bénéficient d’une capacité d’absorption importante et d’un transfert de connaissances par les deux canaux de transmission.
Jawaid et Waheed (2017)	1980-2013	Modèle de cointégration ARDL pour étudier l’effet du commerce extérieur au Pakistan à la fois de façon agrégée (tous les secteurs confondus) et désagrégée (par secteur et par branche d’activité) sur le capital humain	Les résultats montrent que les échanges commerciaux ont une relation positive et significative avec l’accumulation du capital humain, à l’exception des importations de produits destinés à la consommation et les exportations de produits semi-finis.
Blanchard et Olney (2017).	1965-2010	Modèle de gravité en données de panel concernant 102 pays	Effet bénéfique des exportations de produits à forte intensité technologique et qualification sur le capital humain à long terme.

Ma et al. (2019)	1995-2015	Estimation GMM en système durant la période allant de 1995–2015 sur des données provinciales chinoises	Les résultats montrent que l'ouverture commerciale en Chine exerce une influence positive et significative sur l'accumulation du capital humain.
Vlastou (2010)	1960-2003	Etude de cointégration en séries chronologiques pour tester la relation entre l'ouverture commerciale et la croissance économique pour un échantillon de 34 pays africains sur la période 1960-2003	Les résultats révèlent l'impact négatif de l'ouverture commerciale sur les performances économiques des pays étudiés.
Berrached (2013).	1980-2003	Modèle de croissance de Mankiw, Romer et Weil d'un panel de 80 pays en voie de développement via une double estimation : en coupe transversale et en données de panel.	Les résultats confirment l'existence d'un lien positif avec le capital humain. L'estimation du modèle en données de panel montre que l'ouverture commerciale exerce un impact négatif sur le capital humain et la croissance économique
Kurihara et Fukushima (2016)	1991 à 2010	Deux estimations ont été appliquées : MCO et du maximum de vraisemblance. Ainsi, un test de causalité de Granger	La libéralisation commerciale est plus avantageuse, en termes d'accumulation de capital humain, aux pays développés qu'au sein des pays en développement.
Li (2018)	1990 à 2005	Modèle à effets fixes sur 18 provinces chinoises	trouve que l'expansion des exportations due au faible taux des tarifs douaniers qui augmentent la demande sur la - d'œuvre moins qualifiée et par conséquent, accroître l'abandon scolaire.
Li et al. (2019)	2010	Modèle en coupe transversale avec une estimation à effets fixes	La libéralisation des échanges commerciaux en Chine a eu une incidence négative sur le capital humain à long terme.
Alam, & Sumon, K. (2020)	1990-2017	Le modèle de correction d'erreur vectorielle (VECM) appliqué sur 15 pays asiatiques sur la période 1990-2017	L'ouverture commerciale et la croissance économique ont une relation positive à long terme sur l'ensemble des pays de l'échantillon à l'exception de l'Inde, dont le coefficient n'est pas statistiquement significatif. Les résultats de l'étude ont révélé aussi une causalité bidirectionnelle entre la croissance économique et l'ouverture commerciale

Source : Elaboré par les auteurs

## 2. Méthodologie, variables et données

### 2.1. Spécification du modèle

Pour estimer l'effet de l'ouverture commerciale sur le transfert technologique et l'accumulation du capital humain, le modèle que nous

retenons dans ce travail s'inspire essentiellement des travaux de Ma et al. (2019), Blanchard et Olney (2017), Ali et al. (2016).

Nous formulons le modèle suivant :

$$HC_{it} = \beta_0 + \beta_1 (Libercom_{it}) + \beta_2 \sum_{i=2}^k (controle)_{it} + \varepsilon_{it}$$

D'où :

- HC : le capital humain mesuré par le taux de scolarisation secondaire exprimé en pourcentage de la population en âge de suivre une éducation secondaire officielle ;
- Libercom : la libéralisation commerciale mesurée par les tarifs moyens pondérés ;
- *Controle* : est le vecteur des variables de contrôle, à savoir :
  - o R&D : les dépenses en Recherches et Développement en pourcentage du PIB ;
  - o IDE : les investissements directs étrangers entrants en pourcentage du PIB ;
  - o Ouv : la somme des échanges commerciaux en pourcentage du PIB ;
  - o PIBh : le produit intérieur brut par habitant (les données sont en dollars américains constants de 2010) ;
- (i, t) : les dimensions transversale et temporelle du panel des pays ;
- $\varepsilon_{it}$  : le terme d'erreur.

## 2.2 Variables et données

Les données utilisées dans ce papier sont collectées à partir de la base de données *World Bank Indicators* de la Banque Mondiale<sup>6</sup>.

Les tableaux 2 et 3 présentent respectivement les statistiques descriptives et les corrélations entre les variables. Comme on peut le constater des résultats obtenus que :

- le taux de scolarisation secondaire moyen enregistré durant la période allant de 2000 à 2017 est de 46% ;
- la valeur minimale du taux de scolarisation secondaire est enregistrée au Mozambique (6.2% en 2000), tandis que le maximum est en Afrique du Sud (109.4% en 2015) ;
- le tarif moyen appliqué par les pays de l'Afrique s'élève en moyenne à 10.12 %. Les Seychelles enregistrent le taux le plus élevé (32.6 % en 2005), tandis que celui le plus faible est enregistrée au Botswana (0.5% en 2013) ;

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<sup>6</sup> Les pays pour lesquels les données n'étaient pas disponibles au moment de la réalisation de l'étude ont été exclus.

- la dispersion au sein de l'échantillon n'est pas forte puisque les écart-types sont généralement plus petits que leurs moyennes, sauf pour le PIB par habitant et les flux des IDE en pourcentage du PIB.

En ce qui concerne la corrélation entre variables, on remarque que celle-ci est positive entre le capital humain, les dépenses en R&D et le PIB par habitant. Par contre, le capital humain affiche des relations négatives à la fois avec les tarifs appliqués et les flux entrants des IDE.

**Tableau 2** : Statistiques descriptives des variables pour 48 pays africains.

Variable	Obs	Mean	Std. Dev.	Min	Max
Capital humain	555	46.0258 5	24.92319	6.19735	109.4441
les tarifs appliqués	626	10.1218 2	5.353884	.5	32.6
Dépenses en R&D	160	.38988	.2380153	.00544	.89815
IDE	843	4.49206 8	6.729938	-	64.3841
Ouverture	808	73.4117	34.21752	19.1008	225.0231
PIB par habitant	828	2434.78 9	3191.165	194.8731	20512.94

**Source** : élaboré par les auteurs, sur la base des données de la banque mondiale

**Tableau 3** : Corrélations entre les variables.

	Capital humain	les tarifs appliqués	Dépenses en R&D	IDE	Ouverture	PIB par habitant
Capital humain	1.000					
Les tarifs appliqués	-0.0834	1.000				
Dépenses en R&D	0.5711	-0.0341	1.000			
IDE	-0.0507	0.2215	-0.1343	1.000		
Ouverture	0.4703	0.2616	-0.0628	0.3681	1.000	
PIB par habitant	0.8295	-0.1039	0.4783	-0.0327	0.5131	1.000

**Source** : élaboré par les auteurs, sur la base des données de la banque mondiale

### 3. Résultats et interprétations

La méthode d'estimation adoptée porte sur la modélisation en données de panel et plus particulièrement l'estimateur des Moindres Carrés Généralisés Faisables (FGLS)<sup>7</sup>. Comme cela a été indiqué plus haut, cette méthode est retenue afin de pallier au problème d'endogénéité potentielle des variables

<sup>7</sup> Le choix de l'analyse par la MCO modèle à effets fixes découle de la présence d'autocorrélation des erreurs qui sont hétéroscédastiques. Dans ces conditions, les résultats obtenus avec l'estimateur MCO ne sont pas sans biais. Pour obtenir des résultats sans biais et robustes, il est recommandé dans la littérature empirique d'utiliser l'estimateur des Moindres Carrés Généralisés Faisables (FGLS)

explicatives et de capter la violation probable de l'homoscédasticité.

**Tableau 4** : Résultats de l'estimation de l'équation avec les FGLS

Variables	(1)	(2)
les tarifs appliqués	-1.147763 [.2281525] ***	-488134 [.1934565]**
Dépenses en R&D		11.46399 [6.613599]*
PIB par habitant		20.07739 [1.763726]***
Overture		.088254 [.0555508]***
IDE		.0774141 [.4940166]
Prob > chi2	0.0000	0.0000
Wald chi2(6)	25.31	524.02
Number of obs	417	87

**Source** : Réalisé par les auteurs à partir des résultats des estimations.

(\*), (\*\*), Et (\*\*\*) respectivement significatif au seuil de 10 %, 5% et 1%.

Nous avons essayé d'estimer deux équations pour faire ressortir l'effet de la libéralisation commerciale sur l'accumulation du capital humain à travers une modélisation linéaire. En effet, d'après l'analyse des résultats, il ressort que les deux modèles estimés ont globalement un effet significatif comme le témoigne la probabilité du test de Wald chi2.

Dans le modèle estimé à partir de la régression (1), le coefficient de la libéralisation commerciale est négatif et statistiquement significatif au seuil de 1% ; ce qui suppose qu'une augmentation des tarifs douaniers appliqués d'une unité, *ceteris paribus*, entraîne une diminution de l'indice du capital humain de 1,14%.

La relation négative entre les tarifs douaniers appliqués et l'accumulation du capital humain semble être en ligne avec certaines études antérieures notamment celles de Li, J., Lu, Y., Song, H., & Xie, H. (2019) Berrached (2013) Edmonds, E. V., Pavcnik, N., & Topalova, P. (2010)

L'explication de ce constat se trouve essentiellement à deux niveaux majeurs. Premièrement, les tarifs élevés applicables ne permettent pas d'obtenir un réel transfert de technologie et une externalité positive en faveur des pays africains contrairement à d'autres pays notamment les pays émergents de l'Asie et l'Amérique Latine (Ex. BRICS). Ces marchés ont appliqué une protection optimale dans le cadre de leur politique commerciale stratégique (défendu par Paul Krugman) tout en accompagnant cette politique par le développement d'une base industrielle locale et des infrastructures de qualité. Cela a favorisé la protection des industries naissantes le temps qu'elles atteignent l'économie d'échelle pour assurer son développement à l'international. La protection par le droit de douane est aussi favorable pour les grandes

nations capables d'influencer les termes de l'échange et le prix mondial et ayant développé une base industrielle compétitive, ce qui n'est pas le cas pour la majorité des PED et PMA<sup>8</sup> de l'Afrique.

A cet égard, pour les pays africains, la réduction des barrières tarifaires constituerait un canal important pour accéder aux nouvelles technologies par le biais des importations et des IDE (Sulaiman, C et al, 2015). Ainsi, ces deux indicateurs entraînent une transformation technologique dans le tissu productif en faveur des pays les moins avancés en manque de produits manufacturiers ce qui contribuent également à renforcer le capital humain et sa productivité au profit de ces économies (Najarzadeh, R., Rahimzadeh, F., & Reed, M, 2014).

Deuxièmement, le fait que le commerce international exerce un impact négatif ou non significatif sur l'accumulation du capital humain, découle de l'absence, dans ces pays, d'un stock initial minimum du capital humain local (appelé un effet seuil). La présence d'un stock de capital humain de qualité est susceptible d'absorber la technologie importée, l'incorporer dans les processus de production nationale des biens et services et de la développer avec le temps comme ça les exportations des entreprises nationales deviennent plus sophistiquées et attirent celles internationales à s'installer via le canal de l'IDE (Jadoon, T. K. et al., 2015).

Globalement, l'effet de la libéralisation est plutôt pressenti au niveau des flux des importations qu'au niveau des exportations (Régimes économiques d'Admission temporaire ou les activités de la sous-traitance largement réponsus dans les PED du continent africain). Cette situation est de nature à ne pas stimuler les industries locales naissantes et celles qui sont généralement en difficultés pour faire face à la concurrence des produits importés.

Deux limitent ressortent de l'analyse qui précède. D'abord, les pays de l'Afrique continuent à se spécialiser dans les activités à faible valeur ajoutée au lieu de procéder à une montée en gamme vers plus de sophistication. Ensuite, au lieu de substituer les produits importés par les produits locaux et réussir le chantier de l'industrialisation, c'est l'effet inverse qui se produit entraînant une désindustrialisation opérée par le remplacement des produits locaux par les produits importés. Dans les deux situations, les pays en question ne profitent pas de l'accumulation de leur stock de capital humain nécessaire pour tirer profit de la libéralisation commerciale et par conséquent ne parvient pas à déclencher « le take-off » de leur industrie. L'émergence d'une main d'œuvre qualifiée capable d'absorber le transfert de nouvelles technologies et du savoir-faire lui fera défaut tant que l'effort public de formation et d'éducation ne suit pas.

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<sup>8</sup> Pays les moins avancés.



A cet effet et pour profiter pleinement de la libéralisation des échanges, les pays africains devraient améliorer la productivité de leur facteur travail au préalable et la qualité de leur capital humain tel que préconisé par Rakotoarisoa, M. A., Khorana, S., & Narayanan, B. G. (2019). C'est ainsi que Debrah, Y. A., Oseghale, R. O., & Adams, K. (2018) montrent que la compétitivité des pays du continent africains dépend principalement de la façon comment ces pays devraient concevoir leur système d'éducation et de formation en priorisant dans les cursus le développement des compétences pointues en adéquation aux secteurs à forte valeur ajoutée qu'ils souhaitent développés à l'export (nouvelles technologies de l'information, ingénierie des process, conception des prototypes, NTIC, etc.).

Les pays africains devraient doubler d'efforts pour améliorer quantitativement et qualitativement leur facteur « capital humain » comme seule voie pour pouvoir assimiler et s'approprier la technologie et la transférer vers les pans de l'économie nationale et par la suite l'intégrer dans les produits nationaux exportés favorisant leur valeur ajoutée et leur sophistication.

Pour la régression (2), on rajoute à la première régression (1) les canaux macro-économiques par lesquels la libéralisation commerciale affecte le capital humain. Nous remarquons que, le modèle estimé est globalement significatif comme le témoigne la probabilité ( $\text{Prob} > \chi^2 = 0.0000$ ). Ainsi, toutes les variables sont significatives sauf celle relative aux IDE car sa probabilité (p-value) sont supérieures à 10 %. Nous constatons que les tarifs appliqués agissent négativement sur l'accumulation du capital humain avec un coefficient de -0.48.

Sur le volet des dépenses des Etats en recherche et développement, celles-ci influencent positivement l'accumulation du capital humain dans la mesure où un accroissement d'un point du pourcentage du PIB de ces dépenses contribuerait, *ceteris paribus*, au moins à 11.4 % au capital humain. Ce résultat pourrait être expliqué par le fait que l'effort budgétaire en recherche et développement amène à la constitution d'un actif dont le rendement aura un impact positif sur l'accumulation du capital humain (Alpaslan, B., & Ali, A., 2018).

Il en découle du coefficient relatif au PIB par habitant qui présente une valeur positive et fortement significative qu'une augmentation d'un pourcentage du PIB par habitant (1%) se traduit par une augmentation du taux de scolarisation de la population africaine de 20.07%. Ce résultat important confirme que le PIB par habitant est l'une des données essentielles prise en compte par le Programme des Nations Unies pour le Développement (PNUD) dans l'évaluation du niveau de développement humain des nations.

Quant à l'impact de l'ouverture économique sur l'accumulation du capital humain, nos estimations confirment l'importance de l'ouverture dans l'équation libéralisation-capital humain. A noter, à ce titre, que le coefficient



associé est positif et statistiquement significatif dans la mesure où une hausse de l'ouverture de 1%, *ceteris paribus*, permet une augmentation du capital humain de 0.08%.

Cet *output* est conforme aux estimations récentes de Wen, H., & Dai, J. (2020), Alam, K. J., & Sumon, K. K. (2020), Chen KJ, Zhao CM, (2014), qui s'accordent sur l'idée que l'ouverture commerciale des pays augmente les investissements dans l'éducation et la formation parallèlement à la promotion des progrès technologiques. Il en découle une accélération de la productivité totale des facteurs de production (TPF) notamment le capital humain objet de notre papier.

Enfin, notre analyse a montré que les IDE ont un impact positif sur l'accumulation du capital humain mais demeure non significatif. Les transferts des bénéfices des IDE vers les pays d'origine dû aux imperfections des marchés, ainsi que la spécialisation dans des activités de faible valeur ajoutée (textile et habillement, agroalimentaire, etc.) sont à l'origine de ce résultat (Yildirim, D. Ç., & Tosuner, Ö. 2014) qui n'assure pas un transfert technologique notable au profit de la population locale des pays africains d'accueil.

## Conclusion

L'objectif de ce papier était d'analyser les effets de la libéralisation commerciale sur la l'accumulation du capital humain pour 48 pays africains selon la disponibilité des données relatives aux tarifs moyens pondérés retenu comme un proxy réel en vue de mesurer la libéralisation commerciale.

Pour y parvenir, nous avons adopté une estimation en Données de panel basée sur l'estimateur FGLS (*Feasible Generalized Least Squares*). Ce dernier a été mobilisé afin de pallier au problème d'endogénéité potentielle des variables explicatives et de capter la violation probable de l'homoscédastisité.

Les résultats obtenus montrent que la politique commerciale orientée vers l'ouverture et l'attraction des IDE n'est pas une source réelle pour l'accumulation du capital humain en Afrique si elle n'est accompagnée de réformes structurelles dans plusieurs domaines (éducation et formation, infrastructure, gouvernance, etc.). Il en est ainsi parce que les tarifs douaniers appliqués qui affectent négativement l'accumulation du capital humain et seuls la protection par les tarifs ne constituent guère un levier pour l'accumulation du capital humain en Afrique. Force est de constater que lorsque la politique commerciale protectionniste n'est pas stratégique, elle ne permet pas de faire émerger des industries locales compétitives et affecte négativement l'accumulation du capital humain. Ce qui est confirmé par les tarifs moyens appliqués en Afrique qui s'élèvent à 11% soit un niveau de protection largement élevé par rapport aux pays avancés comme l'Union

Européenne (1,7%) et même les pays de l'Asie du sud (6%) ou de l'Amérique Latine et des Caraïbes (3,5%).

Cependant, nous avons abouti aux résultats selon lesquels l'accumulation du capital humain africain est lié à une série de facteurs économiques indispensables tels que ; les dépenses en R&D, le PIB par habitant, l'ouverture commerciale des économies.

A cet effet, il est recommandé que les Etats africains devraient mettre en place des politiques convergentes et efficaces en matière d'éducation afin de créer des bases solides d'un capital humain productif et compétitif au niveau local capable d'offrir aux activités industrielles et aux IDE une main-d'œuvre instruite, qualifiée et bien formée.

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## The Efficiency of Public Spending in Sub-Saharan Africa

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### Abstract

In this article, the authors analyze the efficiency of public spending among Sub-Saharan African countries using a panel data for 23 Sub-Saharan Africa countries covering the period 2006-2018. This paper employs two-stage bootstrap output-oriented DEA approach. In addition, this study analyses the sources of distortions in public spending. Results show that the average bias-corrected inefficiency score was 48 percent between 2006 and 2018 while the uncorrected inefficiency was 32.3percent. Institutional quality and domestic saving significantly influence the efficiency of public spending. Hence, there is need for Sub-Saharan African governments to observe fiscal discipline through strengthening of monitoring unit of government expenditure.

**Keywords:** Public spending, efficiency, two-stage bootstrap output-oriented DEA

### Introduction

Governments' intervention in the economy through efficient spending not only enhances long-run growth but are also important in macroeconomic stabilization. With Sub-Saharan African countries (SSA) faced with limited resources, it is crucial to investigate the efficiency of public spending since a marginal change can have a great impact on the attainment of government objectives which are in line with Sustainable Development Goals (SDGs). An empirical finding that details the extent of efficiencies of government

expenditure is crucial in correcting for government wastages. In addition, caution needs to be taken in budgetary allocation of resources by the government and mechanisms that improve efficiencies of public expenditure.

An effective government accelerates output growth (Rajkumar and Swaroop, 2008). Tanz (2004), for example, suggested that the attainment of economic growth is associated with efficient use of public resources. Sustainable economic growth is possible through sound public finance and efficient public expenditure. Many factors explain cross country income variation. Such covariates include magnitude of the government expenditure multiplier. Different multipliers result in different realizations of change in Gross Domestic Product (GDP). Other covariates include the efficiency in the execution of government public expenditure (Wang and Alvi, 2011).

Empirical studies have demonstrated that African countries are less efficient in fiscal policies compared to regions (Gupta and Verhoeven, 2001). Wastefulness in government spending coupled with constrained domestic resources mobilization has resulted in the rise in public debt. Inefficiencies of government spending have caused public debt to rise in most SSA countries as from 2015 hence African countries run deficit spending. SSA governments have therefore resorted to both internal and external borrowing to finance deficits. However, internal borrowing by SSA countries has created the crowding out problem for private investments. Higher borrowing cost associated with high interest rate on loans has significantly contributed to reduction in local investment and increase in unemployment (Hernández-Catá, Schwab and Lopez-Claros, 2004).

Although adequate public spending is important for sound economic growth, more spending may be ineffective if fiscal discipline is not observed by the government. SSA countries, for instance, are characterized by high levels of corruption (Teorell, et al. 2011). The average Transparency International Corruption Perception Index (CPI) for SSA countries was 2.9 out of the maximum possible 10. High level of corruption in SSA countries is therefore sources of inefficiency in public expenditure. Previous studies have not analysed the determinant of the efficiency of public expenditure for SSA countries. Besides, earlier studies have used different approaches to measure public expenditure efficiency which contributes to the mixed results.

There exist limited studies on the analysis of efficiency of government expenditure in SSA countries. This paper adds to the literature by analysing the status of efficiency of public spending for SSA countries. Information on inefficiency could be utilized by SSA countries to design policies that reduce wastages in public expenditure. In particular, the study analysed the efficiency of different components of government expenditure (Health and education) of SSA countries. Results from this finding are significant for policy actors in understanding the extent of inefficiencies across SSA countries. Secondly,

environmental factors like institutional quality might influence the efficiency of government expenditure. The study incorporated these exogenous factors in the analysis by examining how institutional quality impacts the efficiency of government spending. Such evidence can provide a framework within which governments can put in place institutional arrangements aimed at fighting corruption to realize sound fiscal policy.

Various studies have used different approaches to measure efficiency of public expenditure. Kimaro et al., (2017) used indexes and performance indicators to measure efficiency of public expenditure for SSA countries. Analyses of efficiency is concerned with providing information on the maximum possible achievement, however, performance indicators used by Kimaro et al., (2017) does not elicit optimal possible outcome (Mandl, Dierx and Ilzkovitz, 2008). This paper contributes significantly by analysing efficiency of public spending for SSA countries by applying Data Envelope Analysis (DEA). DEA is a non-parametric method that measures productive efficiency of decision making units. The approach is very common with studies examining technical efficiency given that it is free from the restriction of a priori functional form and it also allow for multiple output technologies. However, DEA is known to suffer from serial correlation problem. This paper therefore contributes significantly by adopting two-stage bootstrap DEA as suggested by Simar and Wilson (2007). No single study has applied Simar and Wilson approach to estimate the efficiency of government spending in SSA.

The rest of the paper is structured as follows. Section 2 discusses empirical review of the efficiency of public spending. Section 3 presents methodological approach and data. Section 4 describes results. Section 5 presents discussion and conclusion.

## **2. Literature Review**

Afonso et al., (2005) examined public sector efficiency for twenty three industrialised countries. The study relied on Free Disposal Hull (FDH) analysis. The study found that private sector performance for big governments is 35percent lower than small governments. Similarly, Afonso and Fernandes (200) analysed the spending efficiency for Lisbon municipality. The composite output measure, found that municipalities on average could have reduced resources by 41percent to achieve the same level of output. Rahmayanti and Horn (2010) examined the efficiency score for government spending for 63 developing countries for the period between 1990 and 2003. The study found that developing countries can maximize growth using smaller resources if expenditure is efficiently utilized.

Prasetyo and Zuhdi (2013) examined the efficiency of government spending on human capacity building. The study sampled 81 countries for the period 2006 to 2010. Efficiency was estimated by employing DEA approach.



The study found that some countries were on the efficiency frontier with only Singapore and Zambia showing positive improvements on efficiency frontier. Hsu (2013) examined government spending efficiency on health for 46 Central Asia countries and Europe and used DEA method. On the average, the overall technical efficiency was found to be 98.8percent and the productivity growth decreased by 7.7 percent annually over the sample period. Chan, et al. (2017) examined the technical efficiency of government spending for 115 countries. The study adopted DEA technique. The study found that efficient government spending enhances growth. Wang and Alvi (2011) measured the relative technical efficiency scores and the determinant of government performance. The study adopted DEA. The result showed that Singapore and Japan were more efficient than the remaining Asian countries. Extreme bounds analysis (EBA) found corruption to be an important factor determining government performance.

Hauner and Kyobe (2010) sampled 114 countries from 1980 to 2006 and used DEA approach. DEA was used to estimate public sector performance (PSP) and public sector efficiency (PSE). The finding showed that efficiency decreases with a rise in spending. Further, results showed that government accountability and control for corruption significantly improves spending efficiency. Herrera and Pang (2005) examined efficiency spending for a sample of 140 developing countries using data from 1996 to 2002. The frontier was estimated by both Free Disposable Hull (FDH) and DEA. The study found an average efficiency score of 0.9. Health and education expenditure for developing countries could have been increased by 10 percent by using the same level of input. Gupta and Verhoeven (2001) analysed the efficiency of government for 37 African countries between 1984 and 1995. The paper used FDH to analyze the relative efficiency of education and health spending. The result showed that African governments are less efficient in spending than the Asia and the Western Hemisphere countries. Inefficiencies experienced in Africa are attributed to relatively high government wages and the intra-sectoral allocation of government resources.

### **3. Method and data**

Literature has proposed two main techniques in analysing the efficiency of government spending: the non-parametric (DEA or FDH) and the parametric technique (Stochastic frontier). The parametric approach in measuring efficiency imposes a priorifunctional form that relates inputs and the outputs. The non-parametric technique does not impose functional restrictions. Stochastic frontier (SF) has the merit of dealing with random noise while inefficiency in DEA is measured by the deviation from the efficiency frontier (Rayp and Van De Sijpe, 2007).



The measurement of the efficiency of decision making units (DMUs) is popularly estimated by DEA technique. Charnes, Cooper, and Rhodes (1978) build on Farrell's (1957) technical efficiency (TE) to develop constant returns to scale (CRS). Banker, Charnes, and Cooper (1984) extended the BCC model to the variable-returns-to-scale (VRS) version. Non-parametric approach (DEA) is used in this paper to estimate efficiency of government spending for SSA. DEA has the following advantages: (1) DEA, unlike SFA, does not assume a priori specification of functional form for production technology (2) it is applicable in the case of multiple-output and multiple-input (3) and it does not require distributional assumptions

DEA estimates of technical efficiency (TE) can either be input-oriented or output-oriented. The aim of input-oriented approach is to measure the percentage of input that can be reduced to produce the same level of output. Output-oriented DEA evaluate the proportionate increase in output at the given input level. Both input-oriented and output-oriented DEA approaches produce the same estimates under CRS. However, the scores for these two approaches diverge under VRS. Both approaches are immune to simultaneous equation bias and specification hence they can identify efficient decision making units (DMUs).

Sung (2007) suggested that “when a DMU produces many outputs by employing many inputs, inputs and outputs must be aggregated into an input and an output index, respectively, to enable calculation of a ratio to measure productivity. TE reflects the ability of a DMU to produce the maximum output attainable from a given set of inputs or the ability of a DMU to use the minimum amount of inputs possible to produce a given set of outputs. Using the maximum output criterion, it is assumed that DMU operates at a point on the production possibility set that represents the set of all technologically feasible production plans for a given level of inputs.”

According to Charnes, et al. (1987), an equation evaluating efficiency is given by:

$$\begin{aligned}
 & \text{Min } \varphi, \lambda \\
 & \text{Subject to } -Y_i + Y\lambda \geq 0 \\
 & \quad \varphi x_i - X\lambda \geq 0 \\
 & \quad n'1\lambda = 1 \\
 & \quad \lambda \geq 0
 \end{aligned} \tag{1}$$

Where;

$\varphi$ : is a scalar which lies between 0 and 1.  $\varphi$  measures the TE. DMU is considered inefficient if  $\varphi$  is less than a unit ( $\varphi < 1$ ). However, DMU is efficient if  $\varphi$  equals one unit ( $\varphi = 1$ ); that is DMU is along the frontier.

$\lambda$ : is a ( $n \times 1$ ) vector of scalar values that measures the deviation from frontier for each DMUs (AfonsoandKazemi, 2017).

$n'1\lambda = 1$  : imposes convexity of the frontier, accounting for variable returns to scale.

$X$ : is input vector of dimension  $K$  by  $T$  that produces  $M$  outputs

$Y$ : is a vector of outputs for the whole period.

The CRS is obtained when  $\sum_{t=1}^T \lambda_t = 1$ . CRS implies that if you increase input quantity by a given proportion then outputs quantity will increase by the same proportion. However, in the VRS an increase in input quantity by a given proportion will result to less or more proportionate increase in outputs quantity.

DEA has a number of limitations: (1) the estimates do not shed light on the sources of inefficiencies and (2) estimates are computed from a common sample which results to problem of serial correlation. Simar and Wilson (2007) developed two-stage process that remedies estimation problems associated with non-parametric DEA. Simar and Wilson (2007) approach combines efficiency measurement of DEA with regression. DEA efficiency score is used as dependent variable and regression against exogenous variables. Two-step approach yields estimated standard errors and confidence intervals that are free from bias.

Simar and Wilson (2007) consider three variables  $\rho_i, \chi_i, \text{ and } \psi_i$  for a sample of  $i = 1, \dots, N$  DMUs.  $\rho_i$  denotes a vector of inputs used in the production process,  $\chi_i$  is a vector of output realized while  $\psi_i$  represents a vector of  $K$  exogenous variables that influence input-output combination.  $\theta_i$  in output oriented Ferrell (1957) measures the distance between each DMUs' output and the frontier. The inefficiencies by each DMUs is captured by  $\theta_i$ . Equation (2) gives Simar and Wilson data generating process for efficiency  $\theta_i$ .  $\theta_i = \psi_i \beta \mathbf{u}_i \dots \dots \dots \mathbf{2}$

Where  $\beta$  denotes the column vector of coefficients. The disturbance term,  $\mathbf{u}_i$ , is independent, truncated and such that  $\mathbf{u}_i \sim N(0, \delta)$ .

Simar and Wilson (2007) proposed the follow steps in performing two-stage analysis of efficiency;

1. Use DEA to estimate  $\theta_i$  for all DMUs ie  $i = 1, \dots, N$
2. For  $\hat{\theta}_i > 1$ , use  $M$  DUMs for which  $M < N$  in a truncated regression (left-truncated at 1) of  $\hat{\theta}_i$  on  $\psi_i$  to obtain coefficient estimates of  $\hat{\beta}$  and for variance parameter  $\hat{\delta}$  for maximum likelihood.
3. Loop over steps 3.1-3.4  $C_1$  times to obtain a set of  $C_1$  bootstraps estimates  $\hat{\theta}_i^c$  for each DMU  $i = 1, \dots, N$ , with  $c = 1, \dots, C_1$ .
  - 3.1 For each DMUs  $i = 1, \dots, N$ , draw an artificial error  $\hat{\mathbf{u}}_i$  from the truncated  $N(0, \hat{\mathbf{u}}_i)$  distribution with left-truncation at  $1 - \psi_i \hat{\beta}$ .
  - 3.2 Compute artificial efficiency scores  $\hat{\theta}_i$  as  $\psi_i \hat{\beta} + \hat{\mathbf{u}}$  for each DMU  $i = 1, \dots, N$

3.3 Generate  $i = 1, \dots, N$  artificial DMUs with input quantities  $\widehat{\rho}_i = \rho_i$  and output

$$\widehat{\psi}_i = \left( \widehat{\theta}_i / \widehat{\rho}_i \right) \psi_i$$

3.4 Use the  $N$  artificial DMUs, generated in step 3.3, as a reference in a DEA that yield  $\widehat{\theta}_i^c$  for each original DMU  $i = 1, \dots, N$ .

4. For each DMUs  $i = 1, \dots, N$ , calculate a bias corrected efficiency score  $\widehat{\theta}_i^c$  as

$$\widehat{\theta}_i - \left( 1/C_1 \sum_{c=1}^{C_1} \widehat{\theta}_i^c - \widehat{\theta}_i \right).$$

5. Run a truncated regression (left-truncation at 1) of  $\widehat{\theta}_i^c$  on  $\psi_i$  to obtain coefficient estimates of  $\widehat{\beta}$  and an estimate for variance parameter  $\widehat{\delta}$  by maximum likelihood.

6. Loop over steps in 6.1-6.3  $C_2$  times to obtain a set of  $C_2$  bootstraps estimates  $(\widehat{\beta}^c, \widehat{\delta}^c)$  with  $c = 1, \dots, C_2$ .

6.1 For each DMUs  $i = 1, \dots, N$ , draw an artificial error  $\widehat{u}_i$  from the truncated  $N(0, \widehat{u}_i)$  distribution with left-truncation at  $1 - \psi_i \widehat{\beta}$ .

6.2 Compute artificial efficiency scores  $\widehat{\theta}_i^c$  as  $\psi_i \widehat{\beta}^c + \widehat{u}_i$  for each DMU  $i = 1, \dots, N$

6.3 Run a truncated regression (left-truncation at 1) of  $\widehat{\theta}_i^c$  on  $\psi_i$  to obtain bootstrap estimates  $\widehat{\beta}^c$  and  $\widehat{\delta}^c$  by maximum likelihood

7. Calculate confidence interval and standard error for  $\widehat{\beta}$  and  $\widehat{\delta}$ .

To obtain consistent inference on efficiency score, this paper used a double-bootstrap procedure as proposed by Simar and Wilson (2007). Based on previous studies (Levine and Renelt, 1992; Saleh and Harvie, 2005; Mankiwet *al.* 1992; Barro, 1991; Cebula, 2003; Saleh and Harvie, 2005) a number of environmental variables were considered: Institutional quality, inflation, labour force, primary and secondary enrolment, military expenditure and GDP per capita. Following previous studies Afonso and Kazemi (2017), output-oriented DEA was performed since the primary goal of the government is to improve the education level, child mortality and to provide health services that improve life expectancy.

The efficiency measures differ with the assumption about global technology. Efficiency scores differ under the assumptions of VRS and CTRS. Estimates of efficiency under CRS will lead to inconsistent output if technology is not CRS globally (Simar and Wilson 2002). Two-part returns to

scale test was performed to determine whether to run two-stage bootstrapped DEA under the assumption of CRS or VRS.

Simar and Wilson (2002) therefore suggested the following test:

Test #1

$H_0: T \text{ is globally CRS}$

$H_1: T \text{ is VRS}$

If null hypothesis is rejected a less restrictive null hypothesis may be performed:

Test#2

$H_0: T \text{ is globally NIRS}$

$H_1: T \text{ is VRS}$

Nonparametric test of independence was done to decide among three types of bootstraps; (1) smoothed homogeneous, (2) smoothed heterogeneous, and (3) sub sampling (heterogeneous). The test was performed under the assumption of VRS.

Panel data of 23 SSA from the year 2006 to 2018 was used. The two inputs used are: health and education expenditure. Outputs are outcomes of these expenditures. For example education outcomes include secondary and primary enrolment while health outcomes comprise life expectancy and infant mortality. Data was sourced from World Development Indicator (2019).

## **4. Results**

### **4.1 Descriptive statistics**

Table 1 provides summary statistics. Governments are considered DMU's since they employ various inputs (expenditures) to produce outputs to the public. The average education spending was 4.63 percent of GDP with highest expenditure on education at 13.22 percent of GDP. Some SSA countries spend as low as 0.418 percent of GDP on education sector. On the average, SSA countries spend 2.805 percent of GDP towards health sector with maximum expenditure on health at 9.087 percent of GDP. The average primary enrolment is 100.04 percent while secondary enrolment stands at 43.4percent.

Infant mortality averaged 59 infants per 1000 infants while the countries with highest infant mortality between 2006 and 2018 had 110 per 1000 infants compared to countries with the lowest 11 per 1000 infants. GDP per capita for the 23 SSA countries during the study period averaged USD 2181.409. The standard deviation for income per capita is quite high illustrating high variation in GDP per capita across SSA countries. Military expenditure had an average of 1.67 percent of GDP with a standard deviation of 1.16 percent. The average labour force was 52.52 percent while capital formation was 20.51 percent. Six components of institutional quality were considered (Government effectiveness, political stability, rule of law, voice

and accountability, control of corruption and regulatory quality). All the six composite indicators values averaged below 0 indicating poor governance.

**Table 1:** Descriptive statistics

	Variable	Obs	Mean	Std.Dev.	Min	Max
<b>Input</b>	Education Expenditure	299	4.631	2.256	1.098	13.220
	Health expenditure	299	2.805	1.461	0.418	9.087
<b>Output</b>	Primary enrolment	299	100.043	22.215	39.539	149.271
	Secondary Enrolment	298	43.391	25.428	6.547	107.804
	Infant Mortality	299	59.694	24.588	11.800	110.000
	Life Expectancy	299	57.245	7.139	42.595	74.276
	GDP per capita	299	2181.409	2817.394	221.096	12850.490
	Inflation	299	7.581	7.491	-3.503	37.393
<b>Environmental Variables</b>	Labour	299	52.519	13.959	25.659	78.749
	Military Expenditure	299	1.664	1.160	0.143	5.984
	Capital	299	20.516	9.229	2.557	46.732
	Government Effectiveness	299	-0.502	0.620	-1.840	1.130
	Political stability	299	-0.444	0.981	-2.670	1.080
	Rule of Law	299	-0.523	0.679	-1.830	1.060
	Voice and accountability	299	-0.345	0.717	-1.780	0.980
	Control of Corruption	299	-0.432	0.662	-1.510	1.250
	Regulatory quality	299	-0.458	0.571	-1.489	1.127

#### 4.2 Average Bootstrapped Efficiency Results (2006-2018)

Bootstrapped output-oriented (VAR) DEA efficiency model was run. The specification considers four outputs and two inputs. The four outputs include primary enrolment, secondary enrolment, infant mortality and life expectancy. The sets of input comprised of health and education expenditure. All results were calculated using the variables returns to scale (VRS) assumption. Applying two-step test for CRS as proposed by Simar and Wilson (2007), test result rejects CRS in favour of VRS. Following Simar and Wilson (1998) test of independence, the paper adopted smooth bootstrapping. Table 2 provides the first-stage results from both conventional and bootstrap. The DEA models capture an overall technical efficiency estimates for SSA countries from 2006 to 2018. Results in Table 6 shows that the bias-corrected efficiency scores are greater than the original DEA efficiency scores. The results show that the average bootstrapped inefficiency is 48 percent. Least inefficiency was 33 percent in 2014 and at maximum of 51 percent in 2010. The result shows that SSA countries experienced considerable higher inefficiencies in spending between the years 2006 and 2018.

**Table 2:** Technical efficiency scores

Conventional VRS model						Bootstrap VRS model					
Year	Mean	Std.Dev.	Min	Max	Ineff*	Year	Mean	Std.Dev.	Min	Max	Ineff*
2006	1.32	0.60	1	3.51	24percent	2006	1.53	0.66	1.04	3.98	34percent
2007	1.37	0.65	1	3.25	27percent	2007	1.70	0.80	1.02	3.85	41percent
2008	1.428	0.87	1	4.68	30percent	2008	1.705	0.98	1.022	5.336	41percent
2009	1.451	0.88	1	4.17	31percent	2009	1.737	0.98	1.074	4.924	42percent
2010	1.466	0.84	1	4.3	32percent	2010	2.041	1.27	1.013	6.605	51percent
2011	1.399	0.71	1	3.75	29percent	2011	1.876	0.98	1.079	5.111	47percent
2012	1.409	0.91	1	4.69	29percent	2012	1.932	1.47	1.004	7.224	48percent
2013	1.299	0.55	1	2.85	23percent	2013	1.529	0.65	1.011	3.068	35percent
2014	1.298	0.63	1	3.42	23percent	2014	1.496	0.62	1.004	3.529	33percent
2015	1.346	0.76	1	4.16	26percent	2015	1.762	1.08	1.018	5.753	43percent
2016	1.399	0.77	1	3.66	29percent	2016	1.715	0.93	1.045	4.488	42percent
2017	1.411	0.75	1	3.54	29percent	2017	1.822	1.00	1.043	4.813	45percent
2018	1.407	0.71	1	3.29	29percent	2018	1.793	0.9	1.033	4.168	44percent
Total	1.739	0.96	1	5.82	43percent	Total	1.917	1.04	1.061	6.268	48percent

Number of obs = 299  
Number of bootstr. reps =2000  
Wald chi2(14) = 128.71  
Prob> chi2(14) = 0.0000

#### 4.2 Relative efficiency scores for government spending in SSA countries

The study analysed DEA output-oriented efficiency scores with CRS and VRS for 23 SSA countries for the period 2006 to 2018. Both CRS and VRS efficiency were estimated in order to assess whether inefficiency is due to scale efficiency or pure efficiency. Output-oriented DEA model maximizes output given a fixed level of inputs. The major goal of governments is to maximize social welfare of the public through public provision of goods and services while faced with constrained public resources. In this study 23 countries were taken as DMUs in order to evaluate their relative efficiency in terms of output variables (Primary enrolment, secondary enrolment, infant mortality and life expectancy).

Table 3 provides the output oriented efficiency scores when constant returns to scale is considered (CCR model). The average efficiency score is 0.68 implying that on average the SSA countries could have increased the output level by 32 percent by allocating the same spending. This denotes that SSA countries could improve government performance without necessarily increasing spending.

Guinea-Bissau is the most efficient country and the only country that is performing on the efficiency frontier while the other countries are performing below this frontier. Lesotho is the least efficient country with an average efficiency score of 0.264 denoting that it could increase output by

73.6percent with the same level of resources. Lesotho inefficiency in government spending is explained by poor public financial management, political instability and high recurrent expenditure (Adeniran et al., 2018). Cameroon, Central African Republic, Guinea, Guinea-Bissau, Kenya, Mauritius, Nigeria and Sudan show efficient expenditure for some periods between 2006 and 2018 while Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Ghana, Lesotho, Malawi, Rwanda, Senegal, and South African were consistently inefficient for the periods 2006-2018.

**Table 3: CCR Efficiency Scores (2006-2018) output oriented**

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average	Rank
Benin	0.61	0.56	0.54	0.49	0.57	0.58	0.55	0.74	0.64	0.45	0.65	0.70	0.70	0.60	14
Botswana	0.97	0.81	0.69	0.44	0.64	0.49	0.45	0.47	0.64	0.69	0.63	0.48	0.53	0.61	13
Burkina Faso	0.45	0.44	0.47	0.36	0.39	0.35	0.48	0.48	0.49	0.42	0.53	0.49	0.54	0.45	20
Burundi	0.66	0.78	0.45	0.45	0.44	0.36	0.36	0.58	0.38	0.37	0.44	0.50	0.51	0.48	19
Cameroon	0.72	0.86	0.76	0.71	0.80	0.79	0.95	1.00	1.00	0.97	1.00	1.00	1.00	0.89	5
Cape Verde	0.40	0.46	0.48	0.49	0.56	0.56	0.58	0.66	0.73	0.73	0.69	0.75	0.89	0.61	12
Central Africa Republic	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	3
Ghana	0.50	0.59	0.41	0.30	0.41	0.37	0.39	0.48	0.50	0.42	0.40	0.51	0.54	0.45	21
Guinea	0.81	0.88	0.98	1.00	1.00	1.00	1.00	1.00	0.82	0.61	0.81	0.67	0.68	0.87	6
Guinea-Bissau	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Kenya	0.49	0.60	0.67	0.49	0.62	0.53	0.87	1.00	1.00	0.61	0.51	0.53	0.57	0.65	11
Lesotho	0.31	0.32	0.25	0.27	0.26	0.22	0.21	0.29	0.27	0.25	0.24	0.25	0.29	0.26	23
Malawi	0.60	0.66	0.68	0.60	0.69	0.50	0.67	0.69	0.58	0.51	0.47	0.47	0.50	0.58	16
Mauritania	0.48	0.53	0.75	0.67	0.84	0.75	0.72	0.89	1.00	0.93	1.00	0.93	0.88	0.80	8
Mauritius	1.00	0.95	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	2
Mozambique	0.33	0.43	0.47	0.38	0.42	0.39	0.42	0.59	0.55	0.39	0.43	0.41	0.35	0.43	22
Niger	0.57	0.70	0.51	0.49	0.52	0.46	0.50	0.58	0.74	0.46	0.59	0.56	0.40	0.54	17
Nigeria	1.00	1.00	0.64	0.60	0.71	0.48	0.61	1.00	1.00	1.00	1.00	1.00	1.00	0.85	7
Rwanda	0.58	0.45	0.54	0.54	0.54	0.45	0.59	0.85	0.74	0.53	0.68	0.66	0.58	0.59	15
Senegal	0.47	0.48	0.49	0.34	0.42	0.48	0.46	0.61	0.66	0.54	0.58	0.53	0.47	0.50	18
Seychelles	0.53	0.55	0.64	0.70	0.72	0.63	0.69	0.85	0.91	0.80	0.89	0.89	1.00	0.75	9
South Africa	0.65	0.68	0.73	0.72	0.82	0.69	0.69	0.65	0.72	0.63	0.61	0.67	0.83	0.70	10
Sudan	1.00	1.00	1.00	1.00	1.00	0.95	0.91	0.89	0.93	0.81	0.97	1.00	1.00	0.96	4
<b>Average</b>														<b>0.68</b>	
<b>Minimum</b>														<b>0.26</b>	

Table 4 compares the results of output-oriented DEA model based on BCC model. The average efficiency score was established to be 98.5 percent for SSA. Central Africa Republic, Mauritania, Guinea-Bissau, Mauritius, Nigeria, Rwanda, Seychelles, South Africa and Sudan were the most efficient countries in resource allocation. The expenditure was optimally utilized to attain education and health outcomes. Eight countries have efficiency score higher than 98.5 percent



but did not operate on the frontier: Benin, Botswana, Cameroon, Cape Verde, Guinea and Lesotho. Six countries have efficiency score under the total average: Burkina Faso, Burundi, Ghana, Kenya, Mozambique, Niger and Senegal. Table 4 illustrates that nine countries located on the efficiency frontier and therefore labelled as the most efficient. These countries include: Central Africa Republic, Guinea-Bissau, Mauritania, Mauritius, Nigeria, Rwanda, Seychelles, South Africa and Sudan.

**Table 4: BCC Efficiency Scores (2006-2018) output oriented**

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average	Rank
Benin	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	10
Botswana	1.00	1.00	1.00	1.00	1.00	0.99	0.98	0.99	0.98	1.00	0.99	0.98	0.98	0.99	15
Burkina Faso	0.96	0.96	0.97	0.97	0.96	0.96	0.96	0.95	0.95	0.95	0.95	0.95	0.94	0.96	20
Burundi	0.96	0.97	0.96	0.96	0.96	0.97	0.97	0.99	1.00	1.00	1.00	0.97	0.96	0.97	17
Cameroon	0.98	0.97	0.97	0.97	0.96	0.98	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.99	16
Cape Verde	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	11
Central Africa Republic	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Ghana	0.96	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.95	22
Guinea	0.98	0.98	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12
Guinea-Bissau	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Kenya	0.87	0.93	0.92	0.89	0.89	0.92	0.95	1.00	1.00	0.93	0.93	0.94	0.94	0.93	23
Lesotho	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	13
Malawi	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	14
Mauritania	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Mauritius	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Mozambique	1.00	0.99	0.98	0.97	0.97	0.96	0.96	0.96	0.96	0.93	0.92	0.92	0.93	0.96	19
Niger	0.97	0.97	0.97	0.96	0.96	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.95	21
Nigeria	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Rwanda	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Senegal	0.97	0.95	0.96	0.95	0.96	0.96	0.96	0.96	0.97	0.97	0.97	0.97	0.97	0.96	18
Seychelles	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
South Africa	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Sudan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
<b>Average</b>														<b>0.98</b>	
<b>Minimum</b>														<b>0.93</b>	

Table 5 presented scale efficiency (SE) of government spending for SSA countries. SE measure is obtained by comparing CRS-efficiency scores with VRS-efficiency. CRS-efficiency score represents overall technical efficiency (OTE). OTE is the inefficiency due to the configuration of inputs and output. The VRS efficiency score represents pure technical efficiency (PTE). PTE measures inefficiencies due to government interventions or managerial skills in decision making process. Scale efficiency is therefore obtained as:

$$SE = OTE/PTE$$

Scale efficiency scores help decision makers to understand the reason of inefficiency in CCR model. On average, scale efficiency for the sampled SSA countries is 0.69 compared to pure scale efficiency of 0.98. Based on this finding, the source of the technical inefficiency of the SSA countries' government spending is the scale inefficiency instead of pure technical efficiency. The result implies SSA countries mostly suffer from the problem of operating at the wrong scale of operations. This finding could be attributed to constraints in domestic resource mobilization and low governance quality captured by public investment inefficiency. Further, inadequate managerial and organizational could contribute to the inefficiencies.

**Table 5: Scale Efficiency Scores (2006-2018) output oriented**

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average	Rank
Benin	0.61	0.56	0.54	0.49	0.57	0.58	0.55	0.74	0.64	0.45	0.65	0.70	0.70	0.60	13
Botswana	0.97	0.81	0.69	0.44	0.64	0.49	0.46	0.48	0.65	0.69	0.64	0.49	0.54	0.61	12
Burkina Faso	0.47	0.46	0.48	0.37	0.41	0.36	0.50	0.50	0.52	0.44	0.56	0.52	0.58	0.47	21
Burundi	0.69	0.81	0.47	0.47	0.46	0.37	0.37	0.58	0.38	0.37	0.44	0.51	0.52	0.50	20
Cameron	0.74	0.88	0.79	0.73	0.83	0.80	0.96	1.00	1.00	0.97	1.00	1.00	1.00	0.90	5
Cape Verde	0.94	0.92	0.59	0.64	0.55	0.46	0.39	0.58	0.38	0.38	0.44	0.51	0.52	0.56	18
Central Africa Republic	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	3
Ghana	1.02	0.92	0.59	0.64	0.55	0.46	0.39	0.58	0.38	0.38	0.44	0.51	0.52	0.57	17
Guinea	0.82	0.90	0.99	1.00	1.00	1.00	1.00	1.00	0.82	0.61	0.81	0.67	0.68	0.87	6
Guinea-Bissau	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
Kenya	0.56	0.65	0.73	0.54	0.69	0.58	0.92	1.00	1.00	0.66	0.54	0.57	0.61	0.70	11
Lesotho	0.33	0.32	0.25	0.27	0.26	0.22	0.21	0.29	0.27	0.25	0.24	0.25	0.29	0.27	23
Malawi	0.60	0.66	0.68	0.60	0.69	0.52	0.67	0.69	0.58	0.51	0.47	0.47	0.50	0.59	15
Mauritania	0.48	0.53	0.75	0.67	0.84	0.75	0.72	0.89	1.00	0.93	1.00	0.93	0.88	0.80	8
Mauritius	1.00	0.95	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	2
Mozambique	0.33	0.44	0.48	0.39	0.43	0.41	0.43	0.61	0.57	0.42	0.47	0.44	0.38	0.45	22
Niger	0.59	0.72	0.53	0.51	0.54	0.48	0.53	0.61	0.79	0.49	0.63	0.59	0.42	0.57	16
Nigeria	1.00	1.00	0.64	0.60	0.71	0.48	0.61	1.00	1.00	1.00	1.00	1.00	1.00	0.85	7
Rwanda	0.58	0.45	0.54	0.54	0.54	0.45	0.59	0.85	0.74	0.53	0.68	0.66	0.58	0.59	14
Senegal	0.48	0.51	0.51	0.36	0.44	0.50	0.48	0.63	0.68	0.56	0.59	0.54	0.48	0.52	19
Seychelles	0.53	0.55	0.64	0.70	0.72	0.63	0.69	0.85	0.91	0.80	0.89	0.89	1.00	0.75	9
South Africa	0.65	0.68	0.73	0.72	0.82	0.69	0.69	0.65	0.72	0.63	0.61	0.67	0.83	0.70	10
Sudan	1.00	1.00	1.00	1.00	1.00	0.95	0.91	0.89	0.93	0.81	0.97	1.00	1.00	0.96	4
<b>Average</b>														<b>0.69</b>	
<b>Minimum</b>														<b>0.45</b>	

### 4.3 Determinant of efficiency

Bias-corrected coefficients of the truncated regression estimates were obtained through the two-step approach. First stage efficiency scores are not free from serial correlation hence second stage estimates are inconsistent and biased (Simar and Wilson, 1999). A bootstrap procedure overcomes this problem. Table 6 presents the bias-corrected coefficients of the truncated regression model that provides the estimates for the sources of inefficiencies in government spending for SSA countries. Capital formation significantly relates to SSA spending efficiency though the effect is negative. The findings have established that domestic saving positively and significantly improve the efficiency of government spends for SSA countries. The result shows that inflation positively impacts efficiency of government spending albeit insignificantly. The result contrast Hauner and Kyobe (2010) findings who found that inflation negatively affects efficiency as it complicates the planning process of government expenditure.

**Table 6:** Truncated bootstrapped two-stage regression (dependent variable: BCC index)

VARIABLES	Estimates
Capital formation	-0.0851*** (0.0173)
Inflation	0.00839 (0.0132)
Military	-0.0609 (0.117)
Ln(GDP per capita)	-1.013*** (0.319)
Labour force	-0.0159 (0.0110)
Domestic Saving	0.0482*** (0.0120)
Primary enrolment	-0.00577 (0.00629)
Secondary enrolment	0.0749*** (0.0123)
Government effectiveness	0.174 (0.634)
Political stability	2.021*** (0.257)
Rule of Law	-4.220*** (0.684)
Voice and Accountability	-0.845** (0.342)
Corruption of corruption	0.603 (0.480)
Regulatory quality	-0.965*

	(0.529)
Constant	5.342**
	(2.606)
Observations	299
<hr/>	
Simar& Wilson (2007) eff. Analysis(algorithm #2)	
Number of obs	= 299
Number of bootstr. reps	= 2000
Wald chi2(14)	= 128.71
Prob>chi2(14)	= 0.0000
<hr/>	
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

Natural log of income per capita negatively and significantly relate to SSA spending efficiency. An improvement of GDP per capita by 1percent will lead to a decrease in spending efficiency by 10.13 percent. This result contradicts popular view in literature that predicts a positive impact of GDP per capita on spending efficiency. For example, previous research has shown that higher output growth improves spending efficiency (Levine and Renelt, 1992; Saleh and Harvie, 2005). Domestic saving significantly improves the efficiency of government spending of SSA countries. Both primary and secondary enrolment rate were used as education indicator. Secondary school enrolment significantly improves the efficiency of government spending. The result reinforces studies by Mankiwet al. (1992) and Barro (1991) who asserted that higher education achievement improves spending efficiency.

The estimates for institutional quality indices have mixed results. Government effectiveness, political stability and control of corruption have positive effect on efficiency of government spending. An improvement in political stability significantly translates to better spending efficiency. Both control of corruption and government effectiveness improve efficiency though insignificantly. Rule of law, voice and accountability and regulatory quality negatively influence efficiency of spending. Higher income is associated with an improvement in education and health outcome (Afonso et al., 2005: Afonso and Aubyn, 2006; Herrera and Pang, 2005). Empirical findings have shown that institutions are key drivers of growth, financial development and spending efficiency. The degree of development of civil society impacts the efficiency spending (Putnam et al., 1994). Maintenance of rule of law has a significant and positive effect on efficiency of government expenditure. However, voice and accountability has significant negative influence on efficiency of government spending. This goes against priori expectation of positive association with efficiency. Evidence has established that controlling for corruption increases efficiency (Hauner and Kyobe, 2010). The regression result has established positive association between control for corruption and spending efficiency.

## **Discussion and Conclusion**

The study analysed the status of efficiency of government spending for 23 SSA countries for the periods 2006-2018 and environmental factors that explain inefficiency in government spending. Two-step bootstrap DEA was used to analyse the efficiency of government spending for SSA countries. Output-oriented DEA was also used to analyse the efficiency of government spending. The findings showed that the average bias-corrected inefficiency score was 48 percent between 2006 and 2018 while the uncorrected inefficiency was 32.3 percent. SSA country experienced minimum spending inefficiency of 33 percent in 2014 and a maximum of 51 percent in 2010. The study established that, on average, SSA countries are relatively inefficient. SSA countries could have achieved the same level of output with 48 percent fewer resources, i.e. that government efficiency could improve without necessarily increasing spending. Individual country's efficiency scores and ranking positions of SSA countries reveal a wide dispersion in performance. Guinea-Bissau was the only efficient country. The average scale efficiency for SSA countries was different from the pure efficiency. Scale efficiency was established to be 68.7 percent and this demonstrated that SSA countries are not operating at optimal level.

Bias-corrected coefficients of the truncated regression estimates indicated that GDP per capital significantly cause distortion on the efficiency of government spending for SSA countries. Secondary school enrolment improves the efficiency of government spending across SSA countries. A rise in domestic saving improves efficiency of government spending while capital formation significantly distorts efficiency of spending. Political stability potentially improves efficiency of spending. Control of corruption improves efficiency of a country spending though the effect is non-significant. Surprisingly, the finding demonstrates accountability and regulatory quality significant distort spending efficiency of SSA government spending. Based on the findings, SSA countries can improve on health and education expenditure efficiency. To achieve this, governments need to adopt policies that improve the efficiency of government health and education spending. Efficient outcome of health and education spending can be realized by government strengthening monitoring unit of government expenditure with decentralization strategies closely linked to each sector strategies. SSA countries also need to improve transparency in management of public resources.

SSA countries should provide conducive environment for private sector development. This can be achieved through tax exceptions to new businesses, improving ease of doing business and creating business hubs that attract investors. These policies will consequently improve GDP per capita, domestic savings and capital formation. SSA countries should prioritize

institutional quality such as political stability, rule of law and regulatory quality. Well-structured political transition that takes into account inclusivity should be adopted. Strong and independent institutions should be established to deal with property rights. The monetary institutions should be accorded independence and strengthened in order control inflation and money supply. SSA countries need also to strengthen and develop public finance management which focuses on fiscal planning reforms, implementation and monitoring and legal framework.

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## Resource-Based Approaches: A Framework for Analyzing Competitiveness in the Context of Reverse Logistics

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### Abstract

In a constantly changing society, organizations must adapt and be open to change. Reactivity, variety, costs, deadlines, innovation, increase their competitiveness, increase their flexibility and improve their performance. The approach by resources and capacities is a framework for analyzing competitive advantage. However, the contributions of this approach to the problem of reverse logistics are multiple. The main ambition of this article is therefore to provide a summary of the conceptual contributions. This literature review will allow analysis of the main relationships between resources, capacities and knowledge management and how these approaches can influence the competitiveness of the company, a discussion on the research perspective are

presented and conceptual models are proposed.

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**Keywords:** Resources, Capacities, Competitiveness, Reverse logistics

## **Introduction**

The transition to the circular model has changed the form of closed-loop supply chain management, combining direct and return logistics flows, the integration of value-creating activities such as reverse logistics into the company's strategic decisions is required due to increased pressure from legislation, consumers, economic and environmental factors, including:

1. Legislation: puts pressure on companies to process the return of their products. As a result, industries such as electronics and the automotive industry are subject to particular legal pressure Bloemhof-Ruwaard et al (2004). These reasons lead companies to participate "voluntarily" in restrictive clauses, either to face the legislation, or to prepare for it De Brito (2004).
2. The emergence of E-commerce and returns policies, as well as consumer rights, all of these factors have created returns Hazen et al (2012).
3. For economic reasons, reverse logistics appears to be an increasingly important strategic advantage for many Tibben-Lembke (2002) companies. The reverse logistics impacts the results of the industrialists who achieve a return rate varying between 5% and 20% Daugherty et al (2001) going up to 50% Prahinski and Kocabasoglu (2006).

Lack of integrated supply chain management strategy influences competitiveness Ramirez (2012), Several authors agreed that effective management of reverse logistics activities allows companies to reduce their costs and increase customer satisfaction and improve image Dowlatshahi (2000), Weeks et al (2010), Chen (2010).

The study of the concept of competitiveness is a major element in research in strategic management. This concept is still complex and enigmatic since the literature review on this subject is very rich. Two main streams presented an analysis of competitiveness; the first is that of Porter, it refers to an industry, that is to say a group of companies directly competing in a market. The second stream is the resource-based approach which considers that the competitiveness of the enterprise is to be sought in the mastery and management of the resources, capacities, skills and knowledge of the enterprise.

The perspective of this paper is to analyze the resource-based theory of the main relationships between resources, capabilities and knowledge

management and how these approaches can influence the competitiveness of the company.

## **2. Literature review:**

### **2.1. Methodology:**

This analysis consists of collecting, reading, analyzing, and synthesizing a scientific paper from 1984 to 2018, using keywords related to our research. The papers were extracted from major peer-reviewed international journals and selected using a methodological process that combined electronic search and manual analysis. An electronic tool by “Google Scholar; database; specialized and generalist journals as well as handbooks and theses” were used to identify articles and papers associated with keywords related to the issue. Then, a detailed analysis of the references cited in the articles was carried out, to highlight the main advances in terms of theoretical scoping of the research objects (Dumez, 2011). The objective is to analyze how the resource-based theory supports the competitive advantage of the company in the context of reverse logistics and that companies should seek, analyze and value the sustainable competitive advantages of their resources and capabilities. We also define concepts such as knowledge creation and collaboration, all of which are related to the analysis of competitiveness at the firm level. The objective of the analysis of the literature review is to propose a theoretical conceptual framework which will later be used for future empirical studies.

### **2.2. Resource-Based Approaches: A Framework for Competitiveness Analysis**

Resource-based theory is considered one of the most widely used theories in the field of strategic management Métais (2004), Foss and Ishikawa (2007). It argues that a company’s resources can be a potential source of competitive advantage Barney (1991) leading to differentiated performance results Aaker (1989), Day and Wensley (1988). However, the deployment, development, operation and combination of these corporate resources and skills must be organized and managed to best achieve better outcomes Teece, Pisano and Shuen (1997) More specifically, companies that are able to properly tailor resources to specific programs or sustainable opportunities are more likely to develop capabilities that result in better performance.

In order to better clarify the concept of resources and given the existence of multiple definitions of resources, several authors have proposed typologies of resources. Our choice is based on the typology developed by Métais (2004) according to the table below.

**Table 1:** General Classification of Resources

Ressources tangibles	Ressources intagibles	
	Organisationnelles	Marginales
Installations, machines	Savoir faire	Client
Ressources humaines	Technologie	Image de l'entreprise
Capital financier	Managérial	Relation avec les fournisseurs
Brevets, licences, contrats	Gestion de la connaissance	collaboration
	Systèmes d'information process	

**Source:**Metais (2004, p.37)

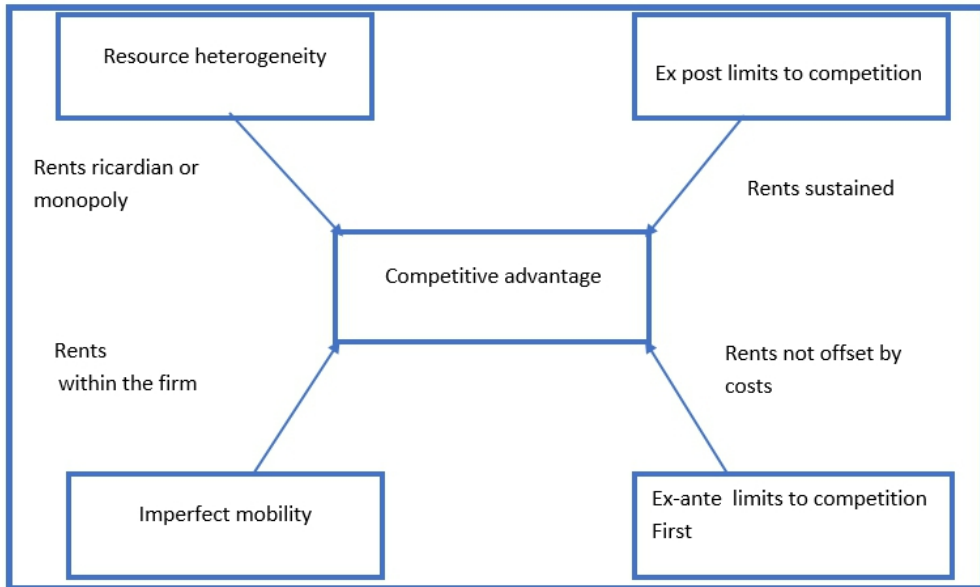
Differentiation in the allocation of strategic corporate resources is positively linked to the provision of competitive products and services, leading to basic skills and competitive advantages, the identification of these resources is a major challenge for the company.

The effective allocation and management of resources is seen as a key factor influencing the performance of the company. Peteraf (1993) proposed an analytical framework that identifies four conditions necessary to achieve a competitive advantage: The first condition deals with heterogeneity: for Petraf companies do not have the same resource endowment to ensure the development of their activities. They can therefore value higher production factors or choose an appropriate positioning. The second essential condition for the creation of competitive advantage according to Petraf is « ex post competitive limits »: companies cannot reproduce the winning strategy or limit its benefits because of insulating market mechanisms. The third pillar is the imperfect mobility of the company's assets, resources and skills. That is, the specific factors of the company may not be available on the market to be the subject of the transaction, the last proposal concerns "ex-ante limits": The implementation of a competitive advantage strategy cannot be known a priori as shown in Figure 1.

Amit and Schoemaker (1993) divided the company's "resources" into resources and capabilities. In this respect, the resources are not specific to the enterprise while the capacities are specific to the enterprise, Capabilities refer to a company's ability to organize and deploy its resources to provide a competitive advantage Hall (1993), Chandler and Hanks, (1994).

Resource-based theory supports the idea that holding a stock of resources and skills provides a competitive advantage, whereas while these resources are at the same time marketable, scarce, inimitable and not substitutable, they can create a sustainable competitive advantage in the long term. Nevertheless, some researchers have raised the limits of resource-based theory and highlighted the need for companies to rapidly renew their resources and skills to cope with changes in their environment.

**Figure 1:** Competitive advantage foundations from Peteraf (1993, p. 186)



The enduring competitive advantage of a company is grasped with the help of unique resources that are inimitable, valuable, rare, non-substitutable and specific Barney (1991).

Reverse logistics is part of the company’s business strategy to achieve a sustainable competitive advantage Jayaraman and Luo (2007). This point of view refers to the theory based on resources, the capacity of reverse logistics leads us towards a convergence between economic, ecological and societal gains. All of which contribute to a sustainable competitive advantage for Minner and Kiesmuller (2012), Dias, Junior and Martinez (2016). Reverse logistics is a process that aims to use resources and develop capabilities to derive profitability from Dowlatshahi (2008), as it opens secondary markets for returned products. Rogers and Lembke (2010). These products returned after being upgraded are as necessary resources as raw materials, because the parts and materials of the used products are always of economic value and can be reused. Reverse logistics is also a strategic advantage for Dowlatshahi (2012); Hsu, Tan and Zailani (2016), it translates into the protection of engineering and business technology as an example and according to Dijkhuizen (1997), IBM is committed to recovering its products to maintain and protect its know-how vis-à-vis competitors.

The company’s ability to integrate into programs such as reverse logistics Barbosa-Póvoa (2014), Hsu, Tan and Zailani (2016) can be seen as an environmental commitment on its part. The concept is to recover and extract value. For this purpose, reverse logistics is an innovative approach of management Fulconis et al (2009). Innovation enables the company to

evaluate its own wealth of resources and skills in order to offer more innovative and differentiated products and services. The resource-based approach developed by authors such as Wernerfelt, et al (1984) focuses on the specific resources that enable the company to distinguish itself. In this approach, the roots of competitive advantage are indeed to be sought within the organization.

The ability of companies to offer “green” products can help companies retain their customers and improve the company’s image, an asset that can be achieved through the application of the reverse logistics process Tan and Zailani (2016). In addition, the implementation of return policies allows the company to develop its own specific capabilities in the supply and demand market. The returned products can provide detailed information on product efficiency and performance, consumer expectations and profitability of each Jayaraman and Luo (2007) product line. Taking into account the return flows in the Logistics function increases the company’s competitive capacities and resources on which it must develop the potentials leading to a lasting competitive advantage.

From the resource-based theory it can be argued that reverse logistics is the ability of the company to gain a sustainable competitive advantage Huo et al (2016).

Despite recent advances in logistics and reverse logistics, the need to theoretically develop the strategic role of the logistics function and reverse logistics continues to be a priority Mentzer and Kahn (1995), Stock, (1996), Srivastava and Srivastava (2006). The current competitive environment requires the company to be more agile in the marketplace to succeed. And with the evolution of the economy, which has made it more intensive in information and because knowledge management is a crucial element and a capacity to develop to manage reverse logistics, it was necessary to analyze the relationship between these fields, in order to define the theoretical foundations common to the two fields.

The orientation towards knowledge management has acquired great importance in the enterprise; it is an integral part of resource-based theory and focuses its study on the creation of knowledge as an important resource Grant (1991). Resource-based theory is fully linked to the concepts associated with knowledge creation, showing that knowledge is a strategic asset for the organization Grant (1996), Hunt (1995), Hunt and Morgan (1996), Teece (1998).

### **2.3. The creation of knowledge in the context of reverse logistics:**

Knowledge is an intangible asset that creates a source of competitive advantage for Nonaka and Takeuchi (1995). Companies have different technological knowledge and different ways of organizing and developing that



knowledge, which determines how resources are used to create different products and services. In addition, the company develops its knowledge to benefit from good and bad experiences of the past and keeps good management rules, standard operating procedures to use in the face of changes in its environment Cyert and March (1992).

Knowledge is specific to the company and difficult to transfer to another company. Other companies may not have the same resources or processes to leverage this knowledge. Thus, the knowledge it derives from its experience can be used as a competitive asset. Regarding the information in the management of the return process, it must be taken into account that planning and control are a fairly complex process in reverse logistics, due to the uncertainty in time, the uncertainty of the place of origin and the condition and quality of the returns, in reverse logistics, the information flows converge with the product flows, but have an offset from physical flows, information is generated by another process.

The information can be used to obtain feedback details before the physical flow reaches the Wadhwa and Madaan (2007) process. According to Kokkinaki et al (2001), information and communication technologies (ICT) can be used to minimize uncertainty in the incoming volume of returns. To achieve this, reverse logistics must share information on product design, disassembly and life cycle in real time. Thus, all stakeholders of the reverse logistics system can manage the knowledge and activities related to the return to different levels. Knowledge management can play an important role in the implementation of collection and recovery planning processes when there is a high degree of uncertainty. In addition, the recovery phase is an essential step of the reverse logistics process concerning the quality, knowledge and information about the returned product, which is another unknown factor.

Knowledge management in reverse logistics integrates information from external and internal elements of the reverse logistics process, helps the partners of the reverse logistics system to make the appropriate choices, supports the process and manages the Wadhwa and Madaan collaborations (2007). In order to use knowledge as a point of differentiation from competitors and to benefit from it, The degree of importance of the knowledge generated in the different points of the reverse logistics process should be determined as presented in Table 2.



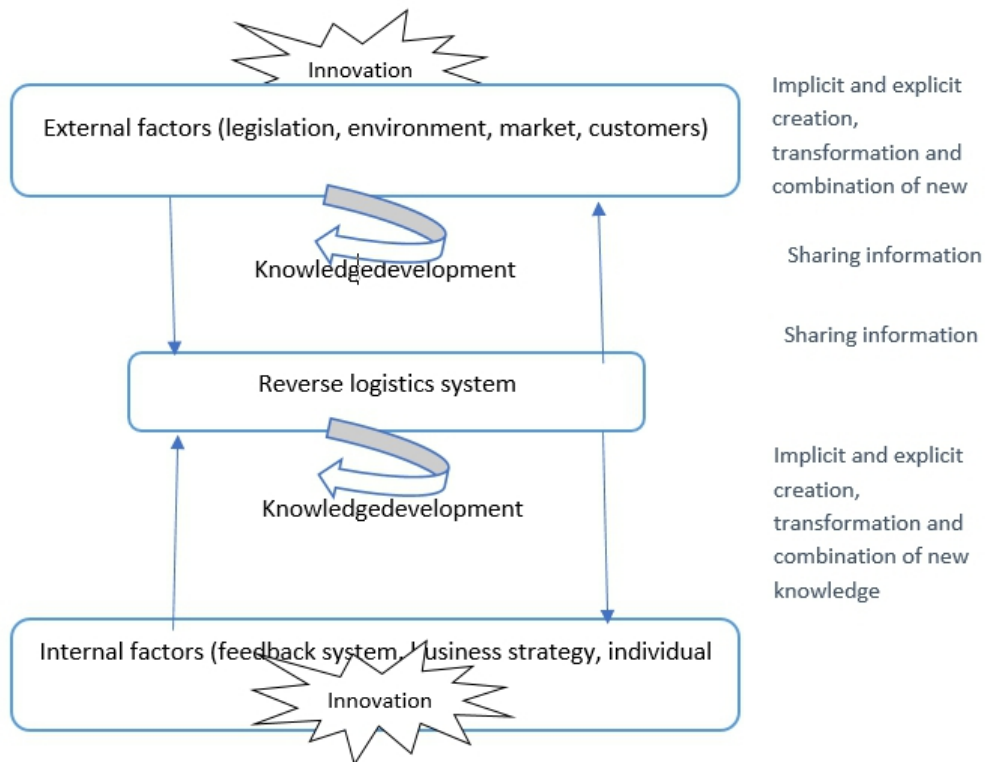
**Table 2:** Knowledge Management Dimension in Reverse Logistics from Wadhwa and Madaan (2007)

Source of Knowledge	Type of knowledge.	Knowledge application
Collection phase	Availability of the collection centre Transport distance Transport time Cost of transport Classification of products	Separation Specialist Inspection
Recovery phase	Inventory Inspection / Separation Product design knowledge and technical knowledge Cost of refurbishment Time Awareness Knowledge of availability	Product design and development Production planning and collection and distribution control
Distribution	Distribution cost and time Customer feedback and Knowledge of the availability of orders	Retailers The customers Recovery and collection phase

To optimize the reverse logistics system, all elements of reverse logistics must be integrated to streamline knowledge transfer. Connectivity is the first attribute that allows the flow of knowledge. The second attribute is the communication of knowledge in a way that enables all elements to make decisions that maximize customer value while reducing costs and cycle time of product recovery and referral to a new potential user. The third attribute is the ability to collaborate in real time, encourage knowledge sharing and enable supply chain flexibility in response to market changes Wadhwa and Madaan (2007).

Nonaka and Konno (1998) presented a contribution from the Knowledge Management Explanation and its role in value creation (Figure 2).

**Figure 2:** Taken from Nonaka y Konno (1998)



#### 2.4. Information system and collaboration :

The increased importance of the role played by information sharing in the management of business relationships justifies the need to develop new capacities to generate, process and share information.

Information and communication systems play an important role in the management and storage of information for future use. Information technology is a competitive advantage for companies that want to optimize their logistics process and ensure profitability. Authors Kaya et al (2014), Olorunniwo and Li (2010), Daugherty et al (2002) addressed the three dimensions that support information systems in reverse logistics in their research:

- Information system capacity means the accuracy and availability of information;
- Information system compatibility refers to ease of use;
- Information technologies include automated handling equipment, bar codes, EDI and radio frequency.

In addition, one of the problems that organizations face in performing reverse logistics operations is the lack of integrated information systems

Rogers and Tibben-Lembke (1998). The empirical research by Closs et al. [21] has quantified the relationship between information system capabilities and logistics performance, information support is particularly critical for the efficiency of reverse logistics operations. Moreover, companies recognize the importance of supporting the information system and focus on developing its capacity and compatibility.

Collaboration enables transparent planning of reverse logistics activities; however, defining collaborative framework provides visibility on reverse logistics operations and is aimed at supply chain partners. Organizations that want to manage returned products, engage in a circular economy program. In addition, resource recovery can be achieved through a framework of collaboration. Information systems are a tool for good collaboration between different parts of the logistics system. The theoretical aspect adopted based on resource-based theory supports reverse logistics operations. In addition, collaboration is an integral part of logistics process management based on dynamic optimization work of reverse logistics activities. The collaboration will allow managers to effectively plan their product returns by providing different levels of visibility in their reverse operations planning. Information sharing, strategies, work tools, systems and supply chain processes have an impact on collaborative practices.

According to Dowlatshahi (2005), Autry (2005), the reverse logistics strategy is of crucial importance in managing the reverse transactions from the consumer to the manufacturer Dowlatshahi (2005); Autry (2005) given that the return rate of products is difficult to predict. The sharing of information and the deployment of information and communication systems provides a framework for defining the return rate, according to Vlachos a reverse logistics strategy is therefore necessary to define the return policies and procedures and integrate them into the operations of the global supply chain. According to Morgan et al (2016), collaboration between companies can improve their ability to manage returns, for a successful framework of collaboration, information systems serve as a support in having an impact on the performance of the company.

### **Conclusion and research perspective:**

Based on the results of this literature review, the choice of our conceptual model will revolve around the source of the competitive advantage through the resources and capacities of the company. The article provides a systematic approach based on knowledge and information systems to achieve performance-based integration. The article highlights the importance of resources in the context of reverse logistics management. He argues that resources must be allocated to the development of reverse logistics programs.

our conceptual model will be structured around the following axes:

- The identification of sources of competitive advantage: the search for strategic resources and skills;
- The conditions for the sustainability of the competitive advantage;

**Our research hypotheses can be read as follows:**

H1: The development of reverse logistics is positively linked to the results of the company

H2: The proactivity in developing the reverse logistics process is positively related to information flexibility.

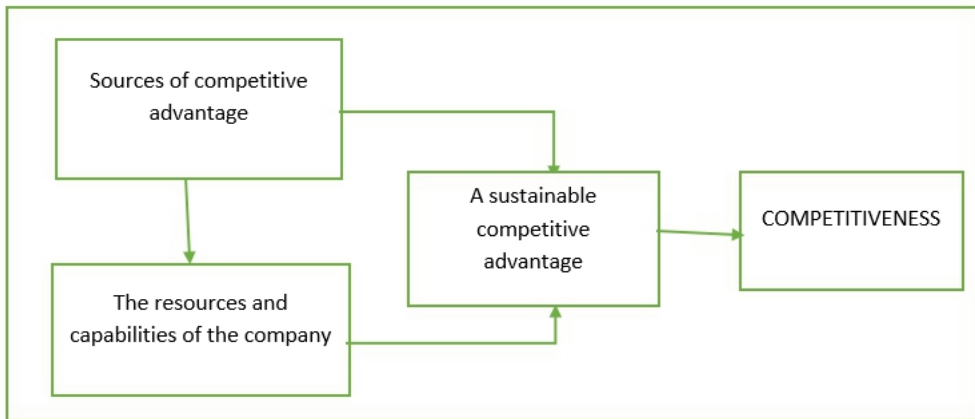
H3: Knowledge management is positively linked to the competitiveness of the company.

H4: Collaboration is positively linked to the performance of the company.

H5: The flexibility of the information system is positively linked to the competitiveness of the company.

Therefore, the research model will allow us to study the source of the competitive advantage through the resources and capacities of the company (Figure 3). This model will be applied through an exploratory study in the case of Moroccan companies.

**Figure 3:** conceptual models according to the literature review



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## Evaluating Organisational Change and Employee Productivity in Nigeria: A Case Study of Union Bank, Plc

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### Abstract

This study examined the effects of organisational change on employee productivity in the banking sector in Nigeria. Following a comprehensive literature review, the study identified technological, cultural, employee attitude to change, leadership, and change in customers' taste as the change strategies that can facilitate competitive advantage and attainment of set organisational goals. The primary data collection method was adopted employing questionnaire strategy. 102 respondents were selected as sample size. The study used the multiple regression statistical analysis through SPSS statistical package version 25 for analysis. The overall results revealed that organisational change has a positively significant impact on employee productivity. To this effect, technological, leadership, attitudinal and cultural changes in that order highly impact employee productivity in Union Bank even though they were rarely used to implement change. As a result, Union bank is advised to embrace convergent change management so as to be better equipped to maintain excellence in productivity and overcome external challenges such as competition. On the contrary, changes especially in customer taste do not influence the productivity of employees, perhaps due to the nature of their business operations (service). The study recommends among others that while implementing firm's improvement strategies, Union Bank managers should look at the organisation's technological change models, cultural change, employees' attitude to change, and leadership change against their primary competitors.



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**Keywords:** Organisational change, employee productivity, banking sector, change management

## **1. Introduction**

Nothing is static. The only thing permanent in life is change. The world is changing and so does the business environment. The rate of change experienced by business organisations seems to be increasing more and more especially since the last five decades. This is as a result of advancement in information and communications technology (ICT), globalisation, spread of democracy around the world (including hitherto fascist and communist countries like Russia) and liberalisation of economies across the globe. Recently, the COVID-19 pandemic broke out altering both the social and economic environments worldwide. While the former impressively improved the ways businesses are conducted globally, the latter brought about closure and restrictions to business operations worldwide. This has also led to increased business competition, and consequently improved the value of companies. The new phenomena require that a company needs to manage its organisational changes as they occur. Many organisations have confirmed frustrations given the cost and uncertainty associated with change (Korir & Mukolive, 2012). However, some organisations have claimed significant advantages arising from their ability to apply extensive change management to their old ways of doing things (Kim, 2018). An insight of organisations that have benefited from the introduction of organisational change was given by Martins (2011) in his study when he reported that the efficiency of US production employees improved by 4.5% per year from the 1990 figures as a result of the efficient management of the dynamics of change in the industrial economy.

When there are changes in the internal and/or external environments of an organisation, such changes usually have direct or indirect effects on the employee's productivity. Several factors such as rapid and unpredictable change in customer attitudes and change in information technology can make the introduction of organisational change inevitable. Organisations that can manage such changes are likely to survive long-term (Olajide, 2014). Organisations that are versatile and are able to predict the future of the industry are more likely to deal with the complexities of organisational change.

The Union Bank of Nigeria, Plc (UBN) belongs to the banking sector whose services have so far remained one of the foremost in the country. The margin of survival or the ability to remain an industry leader has since become slimmer as competition becomes more furious in the industry especially with the rise of new generation banks. There are numerous new services and product categories that have made the bank (UBN) to constantly innovate. As

one of the known industry giants, UBN cannot afford to sit back and rest on its oars or rely on its previous success stories. As of today, there are 22 functional commercial banks in Nigeria. Going by this number, no bank in Nigeria worth its salt can afford to fold its hands and look on. Managers of banks in Nigeria are continually on each other's throats trying to outwit one another by devising new service delivery strategies while at the same time minimising the cost of change implementation. It has been suggested that many of the banks that went under during the 2001 bank consolidation exercise may have done so because they couldn't effectively manage the change that occurred within the industry during the period. The poor survival rate indicates lack of a fundamentally valid framework of how to implement and manage organisational change. This is the crux of this study.

Literature is sparse on the impact of organisational change on employee productivity in the banking industry in Nigeria. It is not clear from literature if there has been any systematically developed framework on how to implement and manage organisational change in banks whether in Nigeria or anywhere else in the world. Therefore, this study attempts to add to the debate relating to organisational change and employees' productivity and systematically develop a framework for doing so thereby expanding and filling both theoretical and practical knowledge gulf. In this study, technological change, cultural change, attitudinal change, leadership change, and change in customer taste are used as proxies for organisational change. In this light, this study aims to statistically evaluate the impact of organisational change on employee productivity in the banking industry in Nigeria with a focus on Union Bank Nigeria, Plc (UBN). Given this backdrop, the study poses the following research questions:

1. What is the impact of technological change on employee productivity in the Banking sector of the Nigerian economy?
2. What is the relationship between cultural change and employee productivity in the Nigerian banking sector?
3. What is the impact of employee attitude on employee productivity in the Nigerian banking sector?
4. What is the impact of leadership change on employee productivity in the Nigerian banking sector?
5. What is the impact of change in customer taste on employee productivity in the Nigerian banking sector?

To provide answers to these research questions and execute the research objective, the paper develops five hypotheses.

## **2. Literature Review**

### **2.1. Conceptual and Theoretical Review**

Literally, change means to transform or alter something so as to become different from the original state. Such change can be a deliberate act of management within the organisation or externally originated for the organisation (Kwizera et al., 2019), in which case, it will be beyond the control of the organisation. The concept of organisational change means a business change such that executive leaders, managers and frontline employees work in concert to successfully implement the needed process, technology or organisational changes (Korir & Mukolive, 2012). While Moran and Brighton (2011) defined organisational change as the process of continually renewing an organisation's direction, structure and capabilities to serve the ever changing needs of both the external and internal customers, Burnes (2004) asserts that change is an ever present feature of an organisational life, both at the operational and strategic levels.

The understanding of organisational change concept can be summarised into two discrete trajectories: one, as a task of managing change (from a reactive or proactive viewpoint) (Balogun & Hailey, 2004), and two as an area of professional practice (with considerable variation in competency and skill levels among practitioners) (Balogun & Hailey, 2004). Explaining the concept of organisational change from these two trajectories involves at least three meanings (Allen & Herbert, 2002). First, it can refer to the making of changes from within the organisation in a planned or systematic manner with the aim of effectively implementing new methods or technological innovations in the organisation. Such changes are usually internally created and are therefore within the control of the organisation. The second meaning involves a reaction or response to changes that occur in the organisation but over which the organisation has little or no control (e.g. technology, national legislation, social and political upheavals, the actions of competitors, unstable economic tides and so on). Such changes can be managed by an organisation either reactively or proactively (Warren et al., 2009).

Management can enforce a change only with the cooperation of its workers. To accept a change means that the status-quo has to be altered (Lewin, 1948). The implementation of the changes that occur in organisations requires certain necessary modifications to the nature and configuration of organisational resources (economic, human, technological, information, and administrative). To do so the organisation should have a clear strategic plan to manage all potential role conflicts that arises and minimise the resistance to change from within the employees of the organisation. Changes implemented in organisations are usually the outcome of a decision-making process which the firm designs with anticipation (Rajagopalan & Spreitzer, 1996) in order to accomplish a competitive advantage in the industry (Burgelman, 1991). The

accomplishment of an extremely competitive position in the industry rests squarely on the top management team which usually does not only decide the scope of change to be implemented in the future but also decides the type of change to be identified and designed. However, the upper managers work on the process of strategy formulation (Khatoon & Farooq, 2016).

This study is undertaken through the lenses of the theory of “force field analysis” propounded by Kurt Lewin in 1948. The theory postulates that there are two categories of forces – driving forces and restraining forces – in any organisation. One of the forces involves some employees who will accept organisational change and the other group who will reject or resist it. The driving forces make organisational change attractive to employees while the restraining forces labour to maintain the status quo or keep things as they are. This explains why people either easily accept organisational change or persistently resist it. Thus, effective organisational change management therefore requires that management adds some conditions favourable to the change being introduced and reduce the resisting forces (Connelly, 2017). The task of managing organisational change includes managing its impact on people. For management to achieve successful change in an organisation it needs to strengthen the driving forces and weaken the restraining forces (Lewin, 1948).

It is the assumption of this study that both the management team and the employees of Union Bank of Nigeria (UBN) Plc. unanimously accepted the need to introduce certain necessary changes. But the next logical question is what would be the impact of such changes on the employees’ productivity? This has led to the undertaken of a comprehensive literature review in relation to the impact of organisational change on employees’ productivity.

## **2.2. *Meaning of Employee Productivity***

Productivity can be described using various measures such as the efficiency and effectiveness of production. Literally, productivity describes the quality, state, or fact of being able to generate, create, enhance, or bring forth goods and services. It may also mean the production power, profitability, and generation of output. In Japan, productivity is defined as the ability or capacity to maximise the use of physical resources, human resources, and other factors at lower production costs, increase market expansion, increase employment and, a rise in living standards.

The main focus of productivity is the human resource. The human resource is the driving force of productivity. It is the most important element needed to achieve the desired goals and objectives of any organisation as it is the only factor that gives effect to organisational change and guarantees the survival of the organisation using other resources. Accordingly, motivation, creativity, innovation, competitiveness, activity cost reduction, the

improvement in the quality of activities, work time reduction, job satisfaction, and the spirit to achieve goals positively affect the level of productivity (Tavakolia, 2010). Conversely, downsizing, mergers, innovations and restructuring of organisations usually decrease employee's productivity (Khosa et al, 2016).

Every organisation sets its own objectives (Diener & Seligman, 2004). Organisational objectives are usually achieved by the use of organisational resources. While the other resources are important on their own, it is the human resource that coordinates all other factors for the accomplishment of organisational goals. Notwithstanding the nature of tasks performed, all the activities are by design inter-related to achieve the set organisational targets (Ho, 2008). The separate performance by the individual employee when properly harnessed yields the best output for the organisation with great impact on the total production, sales, profit, progress and market position of the company in the market. Various factors like skills, training, motivation, dedication, welfare, management policies, fringe benefits, salary and packages, promotion, communication etc. are some of the incentives that encourage employees to work sincerely and give their best.

According to some authors, service firms like the banking sector invest more on their work force in order to maintain long term relationship with them and increase their performance and job satisfaction (Karatepe et al, 2006). With such an effort guided by an appropriate motivation, a service company such as the UBN. Plc may grab the opportunities to become the industry leader (Khosa et al, 2016; Ho, 2008). Therefore, paucity of employee productivity at UBN is likely to be surmounted by appropriately introducing certain changes such as technological innovation, the right organisational culture, appropriate employee attitude/tolerance to change, effective leadership, and change in customer's taste in its work processes.

### ***2.3. Review of Empirical Literature***

#### ***2.3.1. Organisational Change and Employee Productivity***

Previous studies (see for example: Nwinyokpugi, 2018; Obondo, 2004; Ejuu, 2003) have investigated productivity phenomenon and how it has been affected by different variables including leadership change, motivation, etc. Several studies reported that the lack of corporate approach in the process of data collection is critical to the sustainability of change processes especially in large work environments such as the Union bank. Mullins (2010), for example, has argued that factors such as uncertain economic and political conditions, change in social attitudes, fierce competition, takeovers, acquisitions, technological developments and governmental interventions create an increasingly volatile environment for certain kinds of organisations

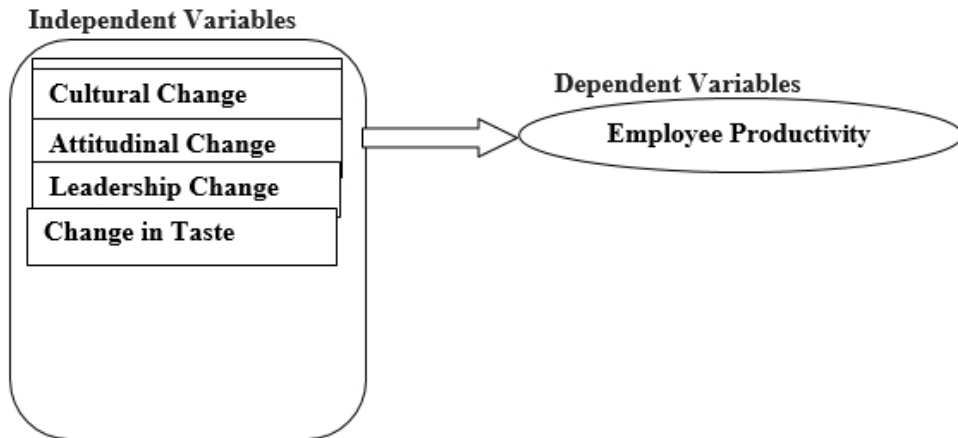
and consequently inhibit the effective performance and productivity of employees.

Kwizera, et al (2019) in their study of the effect of organisational change on employee performance among selected commercial banks in Bujumbura, Burundi concluded that organisational change has a significant effect on employee performance with structural and technological changes causing the greatest impacts. Results of several studies that investigated the impact of organisational change on employee productivity are not substantially different depending on the variables investigated and context studied. For example, results of Karanja (2015)'s study on the effects of organisational change on employee performance of postal corporation of Kenya indicated that there is an overall positive relationship revealing however that technology had the greatest influence. However, the nature of the context as a public organisation that provides some internship programme that generates several job opportunities could explain the result (Kwizera, et al., 2019). Joseph Isern and Caroline Pung, (a director and a consultant respectively at McKinsey and company, an online survey institute), investigated a five year data of 1536 companies. In the study, they submitted that 38% of the organisations surveyed reported that their recently introduced organisational change had a "completely" or "mostly" successful impact on their employee performance (Isern & Pung, 2007). But such performance can only come through if management has a clear understanding of the organisation's capabilities and readiness to change among other things. Although transformations tend to feel chaotic by their dynamic nature, it is vital that organisational leaders take a disciplined approach to each of these requirements.

Similarly, Wanza and Nkuraru (2016) found in their study that a strong organisational culture, a variable of organisational change, creates synergy and drive that encourage teamwork and enhance employee performance. They argued that structural changes, change in leadership, technological innovation and change in organisational culture positively impact the performance of employees. Also, Ahmed et al. (2013) reported a positive impact of organisational change on employee performance in the banking sector of Pakistan. Although the study was particularly on the banking sector of Pakistan, they however suggested that subsequent research should be extended to the other sectors of the Pakistan's economy. Similar studies on leadership and compensation in the corporate sector of Pakistan (Khan & Jabbar, 2013), attitude and practice in Maruti Suzuki (Kansal & Singh, 2016), technological changes, organisational leadership, structure and culture in the educational sector (Wanza & Nkuraru, 2016) and several others indicated a positive impact between organisational change and employee productivity at varying degrees.



Following comprehensive review of literature, this paper develops a framework (see figure 1) for organisational change and employee productivity and specifies some hypotheses to be tested based on claims by previous authors. The intention is to determine if the expected findings would corroborate the findings of previous authors.



**Figure 1:** Organisational Change framework of a typical Bank in Nigeria

### **2.3.2. Technological Change and Employee Productivity**

Technology has become a very valuable asset to any organisation in today's business environment. But the issue is the ability to identify the most appropriate technology for your organisation. Because, the right technology can vastly improve a company's overall efficiency and performance in the market, as well as improve employee productivity, communication, collaboration, morale and engagement company-wide (Coppersmith, 2019). One of the new technologies that is gaining growing popularity and has assumed a strategic and practical position in organisations is information and communication technology (ICT).

There is evidence that new technologies can improve the quality of care processes by enhancing communication, standardising processes, and enhancing workflow, especially when used in addition to existing care rather than as a substitution (Smith, 2007). ICT can support and drive innovative work practices and research in the banking sector (Westbrook et al., 2009). The context in which new technology is implemented determines its impact on staff and ultimately its sustainability (Peterson et al. 2014). The incorporation of ICT into the workplace has had a major impact on human resource utilisation especially in financial services (Anvari, 2007). Following from the results of the referred empirical studies, this study postulates that:

*H<sub>01</sub>: There is no positive relationship between technological change and employee productivity in UBN.*

### **2.3.3. Organisational Culture and Employee Productivity**

Interest in organisational culture has raised the arguments about what culture is, and how it should be analysed (Schein, 2004). Hence, it is said that culture is a subjective idea used in a broad sense with changing contextual symbolism (Martins, 2011). However, culture has been defined as a mixture of values, set of beliefs, communications and explanation of behaviour that provides guidance to people (Awadh & Saad, 2013). Organisational culture comprises the unwritten customs, behaviours and beliefs that determine the rules for decision-making, structure and power (Wambugu, 2014). Despite the variations, researchers recognise that the idea of business culture represents the distributed principles, actual presumptions, and behavioural objectives that regulate decision-making in an organisation (Cameron & Quinn, 2011). The productivity of employees following the established work patterns, regulations, values, and guidelines contributes in part to the establishment of strong organisational culture (Wanza & Nkuraru, 2016; Denison, 2004).

There has been several empirical research on the effect of organisational culture on employee productivity. Results of all the previous research efforts generally indicate that there is a positive relationship between the two. For instance, Baca and Claudia (2005) found that norms, a dimension of organisational culture, positively impacts organisational performance through increased profitability. Also, value and norms have been tested and found to positively impact organisational productivity (Awadh & Saad, 2013). Their study reported that with cordial relationship amongst employees, an organisation can achieve competitive advantage; a proxy for organisational performance. Wambugu (2014) investigated the influence of organisation values, climate, leadership styles and work processes on employee's performance in a privately owned firm in Kenya. The overall result indicated that there exists a positive relationship between organisational value (a proxy for culture) and employee performance even though there was a diverse variation in the levels of impact amongst the different variables with work processes and systems having more effect on employee's performance (Wanza & Nkuraru, 2016). Given the results found in literature, this study postulates that:

*H<sub>0</sub>2: There is no positive relationship between cultural change and employee productivity in UBN.*

### **2.3.4. Employee Attitude to Change and Employee Productivity**

Attitude refers to the way people think and feel about someone or something. It is a thought line which affects someone's behaviour towards others or things. Not every employee in an organisation will react to organisational change in the same manner and the same temperament. While



some will easily accept change because they believe it will favour their career path and skills (Isern & Pung, 2007), others will show resentment because they believe such change will not support their course. Those who want the status quo to remain can express their anxiety by resisting new skills and knowledge acquisition needed to implement the new change, and thus resort to any methods possible to frustrate its implementation (Lin & Liu, 2012). Whether positive or negative, the attitude of an employee affects how such employee would approach their jobs because attitudes do have a ripple effect on those around them. Generally, a positive attitude has a positive impact on productivity while the reverse is also true. A worker with good attitude has a better performance index compared to that with poor attitude (Lines, 2005; Amenakis & Bedeian, 2001).

Literature is replete with evidence of the effect of employee's attitude towards change on employee productivity. Indeed, researchers (see for example: Holt et al., 2007; Mento et al., 2002; Armenakis et al., 1999; Kotter, 1995; Sashkin & Burke, 1987) are in agreement on the significant role positive attitude of employees plays to obtain a successful change implementation. Based on the findings of previous studies, the present study hypothesises that:

*H<sub>03</sub>: There is no positive relationship between employee attitude to change and employee productivity in UBN.*

### **2.3.5. Leadership Change and Employee Productivity**

Generally, a leader is that person whose behaviour guides others, and as a role model, people look up the leader for achieving their own goals (Khosa et al, 2015). Leadership as a function of a leader is the act of influencing employees towards the attainment of an organisational goal (Adekanmbi & Ukpere, 2020). A leader is one who has the power of reward and punishment and can award such appropriately and fairly to his employees. Leaders can also motivate their employees towards task achievement, giving incentives and moral support so that employees can put more effort into their work (Webb, 2007).

Burnes (1978) was the one who developed the initial ideas of transformational and transactional leadership in the political context (Khatoun & Farooq, 2016). However, Bass (1985) refined those concepts and introduced them into the organisational context. Transformational leaders get involved in recognising the need for a change, create a new vision, and then institutionalise such a change (Tichy & Devanna, 1990). Studies on leadership identified charismatic and visionary leaderships as other variants of leadership (House, et al., 1991). Notwithstanding the type of leadership, they all share common characteristics and perspectives such as articulating a vision, fostering acceptance of group goals, and providing individualised support. Every

successful and effective leader changes the basic values, beliefs, and attitudes of followers such that they are willing to perform beyond the minimum levels specified by the organisation (Podsakoff et al., 1996). Therefore, the level of success in the implementation of organisational change and the level of performance of employees in organisations depend, to a large extent, on the commitment of the leadership (Khosa et al, 2015). In short, a leader is that individual in an organisation who has the ability to influence employees to work efficiently and achieve organisational goals (Wang, et al 2005).

To implement organisational change, successful organisational leaders should combine both the formal and informal organisational structure as their principal instrument of action (Khatoun & Farooq, 2016) as well as pay attention to organisational culture and provide a new basis for cohesion (Hirschhorn, 2000; Almaraz, 1994). Given the results of past studies, this study hypothesises that:

*H<sub>04</sub>: There is no positive relationship between leadership change and employee productivity in UBN.*

### **2.3.6. Change in Customer Taste and Employee Productivity**

Beginning from Canada, Laroche et al. (1986) and Constantine et al. (2006) separately conducted different surveys and found that speed of services, and factors relating to the competence and friendliness of bank personnel and convenience of location were the major factors which consumers perceive as important in their selection of a bank. Zineldin (2005) conducted a survey of 19 potential factors which customers consider as important in the selection of a bank. These factors include reputation, recommendation by others, interesting advertisement, convenience of location, opening hours and high technological services. The study revealed that friendliness and helpfulness of personnel, accuracy in account/transaction management, and availability of loans and provision of services were the most important factors. In the same vein, Irfan et al (2012) undertook a study that focused on finding out the main attributes that determine the customer's choice of bank for supplying mortgage products. The results indicated that the choice of customers for a mortgage product depends on all the independent variables like quality of services, cost of mortgage product, confidence level of customers as built by the bank in addition to the perceived convenience of the customers.

Omo (2011) investigated the determinants of banks selection criteria by banking and business customers in Nigeria and to determine the determinants of bank selection choices in Nigeria. The findings of the study revealed that the safety of funds and the availability of technology based service(s) are the major reasons for customers' choice of banks. Ulengin

(1998) indicated that customers in developing nations are more interested in the functional quality of financial services than the technical quality dimension. The study reported that as there were no big differences among financial products offered by banks and the quality of financial products offered by banks are much beyond expectations of the customers, delivery channels and customer relations gain importance in staff productivity. The study concluded that, on an average, respondents of the survey prefer the extended customer loyalty programmes, the continuous information flow from the bank, the offsite ATMs, the minimum waiting time in the branches and a simplified application form for all accounts.

Colgace and Hedge (2001) conducted a study by investigating the problems that influence both switching behaviour and complaints made by bank customers prior to exit in order to provide a more comprehensive understanding of the process of switching retail banking services. They concluded that the most important customer taste selection criteria are convenience, bank reputations, quality of products and services, interest rates and fees, education and personnel contacts, facilities, branch environment, services and after service satisfaction. Their research on bank customers of Greece showed that bank selection criteria like location, convenience, quality of service (attention to the customer, personalised services, no queues) seem to influence the staff productivity. Phuong and Har (2000) undertook a study of customers' taste decisions in Singapore using the analytical hierarchy process (AHP) through a study of banking preferences of college students. The findings indicated that the most important criteria affecting such decisions are higher interest rate for saving, convenient location and overall quality of service. They are followed by the availability of self bank facilities, charges on services provided by banks, low interest rate on loans, long operating hours, availability of student privileges and recommendations by friends and parents specifically. Based on the findings of previous studies as found in literature, this paper postulates that:

*H<sub>05</sub>: There is no positive relationship between change in customer taste and employee productivity in UBN*

### 3.

#### **Research Methodology**

Organisational change factors are the independent variables while employee performance is the dependent variable. In this research paper, nominal and Likert scales were used in the questionnaire (Khosla et al, 2015). The Nominal scale shows the demographic profile of respondents while the Likert scale measures the impact of organisational change on employee's productivity in the banking sector in Nigeria. While the population comprises all the employees of the 22 commercial banks in Nigeria, the employees of

Union Bank of Nigeria (UBN) plc totalling 2,322 form our sample frame. To achieve an appropriate sample size (actual sample size) in order to reduce the effect of non-response, the study applied the Saunders et al (2007) formula:

$$x_a = \frac{x^* 100}{r_r \%}$$

Where:

$x_a$  = the actual sample size

$x$  = adjustable minimum sample size

$r_r$  % = estimated response rate expressed as a percentage

Taking 322 as the adjusted minimum sample size given that the population is approximately 2,322 employees at a 5% level of certainty (Saunders et al, 2007), the actual sample size of this study can be calculated as:

$$x_a = \frac{322 \times 100}{95} = 339$$

The sample size chosen for this research paper is 339 employees of UBN. 339 copies of questionnaire were distributed among 339 employees selected using the simple random sampling style. However, only 182 out of the 238 copies of the questionnaire retrieved from respondents were usable. The data gathered from the questionnaire were entered into SPSS version 25 to compute the regression analysis. The test re-test reliability test was carried out on the research instrument. The questionnaire was presented to colleagues who made necessary suggestions, corrections and amendments. The final copy that was eventually distributed was confirmed to have content validity and was also found reliable as shown in table 1 wherein all items recorded higher than 0.6 Cronbach's alpha as recommended by Gliem & Gliem (2003).

**Table 1:** Test of Instrument Reliability

Variables	Dimensions/Measures	Cronbach's Coefficients
Organisational Change	Technological Change	.754 (4 indicators)
	Cultural Change	.763 (3 indicators)
	Attitude to Change	.842 (2 indicators)
	Leadership Change	.772 (4 indicators)
	Customer Taste Change	.728 (4 indicators)
Employee Productivity	Task Accomplishment	.801 (2 indicators)
	Increased Output	.912 (2 indicators)

**Source:** Survey data, 2020

### 3.1. Model Specification

The multiple linear regression method was used to analyse the data specified as follows.

$$EmPer = f(OrCh) \dots\dots\dots (1)$$

Where:

**EmPro** = Employee Productivity;

**OrCh** = Organisational Change

But,

$$OrCh = f(Technological, Cultural, Attitude, Leadership, CustomerTaste)$$

Thus,

$$EmPer = f(Technological, Cultural, Attitude, Leadership, CustomerTaste)$$

Where:

Technological Change = TechCh;

Cultural Change = CulCh;

Attitude to Change = AttCh;

Leadership Change = LeadCh;

Customer Change in Taste = CusTasteCh

Therefore,

$$EmPer = f(TechCh, CulCh, AttCh, LeadCh, CusTasteCh) \dots\dots\dots(2)$$

$$EmPer = f(TechCh + CulCh + AttCh + LeadCh + CusTasteCh + \mu) \dots\dots\dots(3)$$

Transforming equation (3) into a proper linear regression equation, we have

$$EmPer = a_0 + a_1TechCh + a_2CulCh + a_3AttCh + a_4LeadCh + a_5CusTasteCh + \mu \dots\dots\dots(4)$$

Where:  $a_1 \dots a_5$  are the regression coefficients and  $\mu$  = stochastic error term

## 4. Result of the Test of Hypotheses and Discussions

### 4.1. Result of the Test of Hypotheses

As earlier specified, hypotheses were tested using the SPSS version 25 and the result is depicted in table 1.

Variables	1	2	3	4	5	6
1. TechCh	1					
2. CulCh	0.671	1				
3. AttCh	0.565	0.705	1			
4. LeadCh	0.608	0.694	0.698	1		
5. CusTasteCh	0.563	0.560	0.421	0.481	1	
6. EmPro	0.648	0.539	0.498	0.623	-0.759	1

**Table 2:** Results of the Hypotheses Test conducted with SPSS version 25

## 4.2. *Discussions*

The relationship between technology and employee productivity shows that p-value is 0.000 which is less than the p-value ( $p < 0.001$ ). It shows that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, there is a strong positive relationship between technological change and employee productivity. The Pearson correlation analysis shows the (r value) is 0.648 or approximately 65%, which is within the range of 0.3-0.7 indicating a more than average effect. As a result, we conclude that there is a positive impact of technological change on employee productivity. Thus, to embrace a new technology in the operations and service delivery of bank services ultimately increases employees' productivity. Also, the relationship between cultural change and employee productivity is positive at 0.539 (approximately 54%) indicating more than average influence. The impact of employee attitude to change and employee productivity is positive at 0.498 or approximately 50% indicating a moderate influence. Leadership change also showed a positive relationship with employee productivity. The correlation analysis shows that (r-value) is 0.623 (62.3%) showing that leadership has a high effect on employee's productivity. A good and effective leadership will show capacity and ability to influence even those with negative tendencies toward change (Drucker, 2003). The table also shows that though there is a high impact of change in customer taste on employee productivity, the relationship is negative at  $p > 0.01$  indicating that the higher or more frequently there is a change in customer's taste, the lower the level of employees' productivity. Culture is shown in the result to have a statistically significant impact on employee productivity at Union Bank, Plc. with r-value at 0.539 indicating a 54% positive effect. Thus, with a one unit change in culture, there is likely to be a 54% change in worker's productivity. As shown in table 2, technological change has the greatest positive impact on workers' productivity at Union Bank, Plc and therefore, management should focus more on developing its technological possibilities. On the other hand, customer taste has the greatest negative impact. The implication is that management must ensure that it monitors consistently what the people want and adhere strictly to their marketing concept philosophy in addition to relationship marketing as it is presently doing.

## 5. **Conclusion and Recommendations**

### 5.1. *Conclusion*

In this research paper, an investigation of organisational change towards employee productivity in the banking sector of Nigeria was conducted. The study explored the relationship of employee productivity and some selected variables used as proxies for organisational change. These include: technology, organisational culture, employee's attitude to change,

leadership, and change in customer's taste. The results of the statistical analysis revealed that the strongest impactful factor on employee productivity in the Union Bank operations is the technological change while the lowest influential factor affecting the employee productivity in Union Bank is change in customer's taste probably as a result of the nature of banking operations. Thus, it goes without saying that understanding the factors that impact employees' productivity is the first step and a sure way to not only understand how to improve employees' productivity but it will also enable the manager to strategically develop ways to enhance employees' level of productivity.

One of the limitations of this study is that we cannot generalise our results to cover the entire banking industry in Nigeria because our scope of investigation was limited to the Union bank Plc. However, if all 22 commercial banks in Nigeria have the same characteristics as the Union bank and share the same measurement parameters, most of the results obtained for Union bank may be true for others. Researchers are advised to increase the number or choose all 22 commercial banks for investigation or possibly select other sectors of the Nigerian economy with increased sample size. This will likely increase the validity and generalisability of the research findings as it relates to the impact of organisational change on employee productivity.

## **5.2. Recommendations**

This study has exposed the implications of change on employee productivity, one of which is that it helps organisations to obtain total commitment of all the employees to work together in order to enhance work output and overall staff productivity. But to achieve this, management should perform its responsibility to ensure that employees are not only properly selected and trained but should also be informed that they can be responsible for achieving the desired organisational results (Drucker, 2003).

In view of the findings, this study recommends that:

- Managers should evaluate company actions and procedures to figure out methods to improve technological needs, cultural change, employee attitudes, leadership change and change in customer taste.
- Managers should have the grand strategy of discovering methods they can use to increase the needed change that will enable them to become competitive or even become industry leaders just as the Union Bank.
- Managers should develop modalities for evaluating service delivery procedures that will enable them to spot areas where they can improve their functions and eliminate redundancies among management and employees. This could lead to automating procedures, improving facilities, applying technologies, and exercising workers freedom.



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## Consommation du «garba» en cote d'ivoire : entre risques sanitaires et construction de lien social

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### Résumé

Selon les normes d'hygiène alimentaire en Côte d'Ivoire, les principales composantes (thon, attiéké, légumes frais et huile) destinées à la production du «garba» dépasseraient ces normes. Toutefois, cet aliment est consommé par la grande majorité de la population vivant à Abidjan et, le plus souvent en communauté. L'objectif de ce travail était de mettre en relief l'importance du «garba» dans la construction du lien social des consommateurs en dépit des risques sanitaires perçus. De ce fait, une étude quantitative et qualitative a été réalisée à Abidjan. Un questionnaire a été administré à 1067 consommateurs de « garba » en ce qui concerne l'approche quantitative et l'approche qualitative s'est basée sur trois études de cas. Le « triangle du manger » a servi de base théorique. Les résultats obtenus ont montré que les conditions de production et de vente du «garba» ont été perçus comme un facteur de fragilité physique chez 86,6% des consommateurs. Cependant, le «garba» est un support relationnel qui renforce la communion et la sociabilité des consommateurs grâce à son mode de consommation. En outre, des économies de 500 francs CFA sont réalisées par les consommateurs du « garba » sur chaque consommation, grâce à la valeur économique de l'aliment, à l'effet de consolider les liens sociaux dans leurs groupes d'appartenance. Le «garba» serait donc devenu un élément essentiel dans les habitudes alimentaires des citoyens abidjanais, puisqu'il permet d'entretenir les relations sociales et intervient dans la construction du lien social.

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**Mots clés :** Relation sociale, risques sanitaires, «garba», Abidjan, Côte d'Ivoire

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## **Consumption of "Garba" in Cote d'Ivoire: Between Health Risks and Building of the Social Bond**

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### **Abstract**

According to food hygiene standards in Côte d'Ivoire, the main components (tuna, attiéké, raw vegetables and oil) to produce "garba" would be outside these standards. However, this food is consumed by most of the population living in Abidjan, most often in groups. The objective of this work was to highlight the importance of "garba" in building the social bond of consumers despite the perceived health risks. Therefore, a quantitative and qualitative study was carried out in Abidjan. A questionnaire was administered to 1067 consumers of "garba" regarding the quantitative approach and the qualitative approach was based on three case studies. The "eating triangle" served as a theoretical basis. The results obtained showed that the conditions of production and sale of "garba" were perceived as a factor of physical fragility by 86.6% of consumers. However, "garba" is a relational support which reinforces the communion and the sociability of the consumers thanks to its mode of consumption. In addition, savings of 500 CFA francs are made by consumers of "garba" on each consumption, thanks to the economic value of the food, to consolidate social ties in their home groups. "Garba" has therefore become an essential element in the eating habits of Abidjan citizens, since it helps to maintain social relations and intervenes in the construction of social links.

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**Keywords:** Social relation, health risks, «garba», Abidjan, Côte d'Ivoire

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### **Introduction**

Le «garba» est un aliment de la restauration populaire, composé d'attiéké, de poisson thon frit, de légumes frais (piment, oignon, tomate), d'huile et de cube pour l'assaisonnement. Cet aliment est qualifié de mauvaise qualité sanitaire et nutritionnelle à cause des conditions de production et de vente qui ne respecteraient pas les normes d'hygiène alimentaire admises dans



le pays (Koffi, 2013). En effet, les pratiques d'hygiène des vendeurs sont souvent désapprouvées par les consommateurs. Des griefs sont également faits sur la qualité et le type d'attiéké utilisé pour le « garba », qui est communément appelé « attiéké de type garba », mais aussi sur la qualité de l'huile de friture servant à la production de ce mets.

L'attiéké de type « garba » est généralement préparé en raccourcissant (ou en omettant) certaines étapes de production, entraînant ainsi des temps de fermentation et de cuisson inadéquats ( Heuberger, 2005; Djeni *et al.*, 2011).

De plus, la qualité microbiologique de l'attiéké « garba » pourrait être à l'origine d'une toxi-infection (Bassa *et al.*, 2016; Assanvo *et al.*, 2019). Quant à l'huile des « garbadromes »<sup>1</sup>, une étude en biochimie alimentaire réalisée par Diabaté *et al.* (2018) dans la ville d'Abidjan a montré que les pratiques de friture du poisson destiné à la préparation du « garba » par les acteurs de cette filière pourraient affecter la santé physique des consommateurs à cause de la réutilisation abusive de l'huile qui va jusqu'à sept fois. En plus de cela, les analyses microbiologiques réalisées par Anoman Koffi *et al.* (2018) et Anoman Koussémon *et al.* (2018) sur plusieurs échantillons de « garba » collectés auprès des vendeurs de la ville d'Abidjan ont confirmé la mauvaise qualité microbiologique de cet aliment.

Malgré les risques sanitaires pouvant être associés à la consommation du « garba », l'attiéké de type « garba » est l'attiéké de grande consommation (Assanvo *et al.*, *Op.cit.*) comme l'atteste la forte fréquentation des « garbadromes » à Abidjan. En effet, les « garbadromes » sont les lieux de restauration les plus fréquentés par les ivoiriens (28%) après les débits de boisson (44%) (RTI, magazine Made in Africa, 2017). Un article de presse a révélé que le « garba » est l'aliment consommé par certains individus de la religion musulmane en début de jeûne pendant le mois de ramadan<sup>2</sup>. Aussi, il ressort une sorte de paradoxe entre le risque vital de consommation perçu au niveau du « garba » et les habitudes alimentaires des abidjanais. Ce paradoxe entre les pratiques alimentaires des abidjanais et leurs discours sur la qualité du « garba » confirme les propos de Claudian et Trémolières (1978), cités par Poulain (2002, p. 200) qui indiquent que: "*L'homme de l'an 2000 se trouve dans une curieuse alternative. Il connaît de mieux en mieux les dangers des excès ou des carences relatives à son alimentation. La science n'est pas loin de pouvoir dire ce qu'il faut faire pour être en bonne santé et donc pour qu'il n'y ait plus qu'à se conformer à ses prescriptions. Mais derrière le manger, il y a ce que devient l'homme qui mange, qui lui importe encore plus*". Quant à Corbeau et Poulain (2002), ils ont pu appréhender cette contradiction en

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<sup>1</sup> Lieux de production, de vente et/ou de consommation du « garba »

<sup>2</sup> <http://raphaeltanoh.blogspot.com/2010/10/ces-garbadromes-de-4-heures-du-matin.html>, consulté le 18 Octobre 2020.



montrant que le consommateur est libre dans certaines sphères, mais conditionné dans d'autres. Ils concluent par conséquent que le consommateur est « pluriel ».

Le caractère « pluriel » des consommateurs a été observé chez des abidjanais. Il s'agit des individus qui ont intégré la consommation du « garba » dans leurs habitudes alimentaires, bien qu'ils l'eussent perçu comme un aliment de mauvaise qualité sanitaire et nutritionnelle. Deux périodes ont pu marquer la vie de l'un des individus dans son rapport avec le « garba » : une période de faible consommation et une période de grande consommation. La période de grande consommation est justifiée par la valeur sociale que l'individu associe à l'aliment. Les deux autres individus n'ont pas connu de période de faible consommation, mais consomment le «garba» bien qu'ils le perçoivent comme un aliment inférieur, mais auquel ils attribuent une valeur sociale.

La valeur sociale de l'alimentation a été prouvée par Corbeau (2010) à travers la théorie dénommée « triangle du manger ». Selon cet auteur, cette théorie permet d'expliquer la dimension plurielle des consommateurs en envisageant un consommateur identifié consommant un aliment identifié dans une situation particulière. Ayant appliqué cette théorie à l'explication du décalage entre la représentation des hamburger restaurants dans les discours dominants et les pratiques alimentaires, l'auteur a montré que le fait alimentaire qu'il appelle la « filière du manger » n'est pas réductible à sa dimension nutritionnelle, ni à sa dimension symbolique. Selon l'auteur, l'alimentation intervient dans la socialisation, dans les phénomènes d'appropriation culturelle. Ainsi, l'auteur montre que sa médicalisation, quoiqu'excessive ne détériore pas l'intérêt qu'elle joue dans la construction de l'équilibre affectif du consommateur et du lien social.

Paugam (2008) appréhende le lien social comme la relation entre l'individu et les membres de son réseau social «et des conditions du changement social de longue durée ». Selon l'auteur, dès sa naissance, l'individu se trouve dans une relation d'interdépendance avec les autres et la solidarité est le socle de ce qu'il appelle l'*homo-sociologicus* à tous les stades de socialisation. Inscrit dans la sociologie de l'alimentation, cet article vise à déterminer l'importance du « garba » dans la construction du lien social en dépit des risques sanitaires associés à sa consommation. Pour se faire, il s'agira de déterminer la perception des conditions hygiéniques de production et de commercialisation chez les consommateurs, ensuite d'appréhender les valeurs sociales du « garba ». Pour la détermination des valeurs sociales du « garba », l'accent sera mis sur le lien de filiation, c'est-à-dire lien entre parents et enfants, et le lien de participation élective qui est le lien entre conjoints, amis, proches choisis, définit par Paugam (*Op.cit.*).

## Méthodologie

### Zone d'étude

Ce travail a été mené en 2018 et 2019 auprès des consommateurs de « garba » (Figure 1) de la ville d'Abidjan, située au sud-ouest de la Côte d'Ivoire, et plus précisément dans les communes de Yopougon, Port-Bouët et Abobo (Figure 2).

Le choix de la ville d'Abidjan s'explique par le fait qu'Abidjan est le lieu de grande production et de consommation du « garba » dans le pays (Abouya, 2011). Quant aux communes d'étude, elles ont été tirées de façon aléatoire car la production et la consommation du « garba » se font de la même manière dans toutes les communes d'Abidjan. Les noms des communes ont donc été inscrits sur des bouts de papiers et mis dans une boîte, puis un tirage sans remise a été fait.



Figure 1 : a : un garbadrome situé dans la commune de Yopougon ; b : vue des individus consommant le « garba » dans un « garbadrome ».

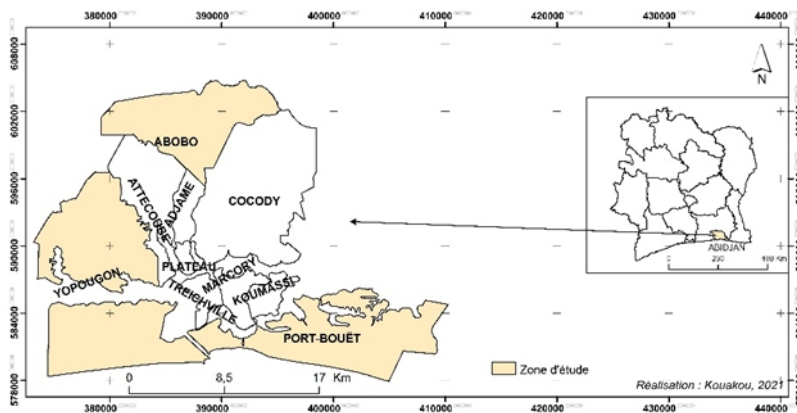


Figure 2: Carte de la zone d'étude montrant les communes d'étude  
Source : BENETD (2018).

## Matériel et méthodes

Cette étude sociologique à la fois quantitative et qualitative a été faite à partir des entretiens par questionnaire et des interviews semi-structurées. Au total 1067 individus ont été interrogés à partir des questionnaires en utilisant la technique d'échantillon accidentel (N'Da, 2006). L'objectif de cette enquête par questionnaire était de déterminer la perception de la qualité sanitaire et nutritionnelle du « garba » chez les consommateurs de « garba ». La taille de l'échantillon a été déterminée à partir de la formule 2 de l'OMS (Vaughan *et al.*, 1991).

$$n_0 = \frac{pq}{(E/1,96)^2}$$

Où  $n_0$  est la taille de l'échantillon pour une population-mère indéfinie,  $p$  représente le taux de consommation de «garba» à Abidjan,  $p= 50\%$  lorsque la taille de la population n'est pas connue (Vaughan *et al.*, 1991).  $q = 100 - p$ ,  $E$  est la marge d'erreur tolérée (%) estimé ici à 3%.

Des études de cas à travers des entretiens semi-structurés avec trois consommateurs majeurs, sélectionnés de façon aléatoire dans les « garbadromes » ont été également réalisées. Ces consommateurs étaient tous issus de la classe populaire avec des âges compris entre 25 ans et 30 ans. Au niveau théorique, le « triangle du manger » de Corbeau (2010) s'est révélé intéressant pour la compréhension de ces cas. Selon l'auteur, parler d'alimentation met en exergue un consommateur identifié, un aliment identifié et une situation particulière justifiant la consommation de l'aliment. C'est ce qui permet d'avoir les trois sommets d'un « triangle du manger » en interaction perpétuelle. Pour des raisons pédagogiques, l'auteur décrit les caractéristiques d'identification des trois composantes du triangle.

Selon Corbeau, le consommateur a une dimension diachronique et synchronique dans ses mutations. L'auteur décrit le consommateur comme étant un individu aussi bien producteur que reproducteur de modèles alimentaires, de principes de comportements alimentaires. Il a des trajectoires socioculturels pluriels. De ce fait, ses choix alimentaires, son mode de consommation et autres varient en fonction de sa position sociale (Bourdieu, 1979; Lambert, 1987). Par ailleurs, le sexe et l'âge déterminent aussi la consommation alimentaire de l'individu (Fischler, 1990; Garabuau, 2002). Le mangeable et le non mangeable sont également des notions dépendant de la région d'origine de l'individu (Poulain, 1998), de ses croyances religieuses et éthiques.

Au niveau de l'aliment, Corbeau affirme qu'il doit être aussi appréhendé de façon plurielle. Leur variation dans le temps est liée à la technique de production. Il varie aussi dans l'espace à travers le goût, le prix

et l'offre. Par leur histoire et par leur côté ordinaire, festif, exceptionnel, les aliments véhiculent des symboliques. Les consommateurs les perçoivent, plus ou moins inconsciemment, comme correspondantes à leurs attentes, comme provocatrices de peurs ou les rassurant (Corbeau, *Op.cit.*, p 13).

Concernant la situation, l'auteur révèle qu'elle est le contexte social ou l'interaction entre le consommateur et l'aliment.

L'aliment concerné dans l'étude est le «garba». Selon Abouya (*Op.cit.*), le terme «garba» est né dans les années 1980. En effet, «Garba» était le nom de l'assistant de l'initiateur du mets. Ce terme a désigné le lieu de restauration du mets avant d'être assimilé à l'aliment. La composition du plat se fait en fonction des préférences des consommateurs. Ainsi, il y a des plats composés d'attiéké et de poisson thon frit uniquement (attiéké, poisson thon frit et piment), attiéké, poisson thon frit, piment, oignon, etc.

Au niveau des consommateurs de «garba», en 1980, on rencontrait deux (2) types de consommateurs de «garba». Une minorité de nationaux le considérait comme un en-cas (Abouya, *Op.cit.*). La grande majorité des consommateurs de «garba» était les individus de nationalité nigérienne dont la plupart était des employés du port autonome d'Abidjan. Dans les années 1990, à la faveur de la crise économique, une mutation de la représentation du «garba» s'est opérée chez les nationaux, surtout dans la gent estudiantine. Les étudiants ont donc adhéré massivement à la consommation de cet aliment. Aujourd'hui, le «garba» est consommé par la plupart des catégories socio-professionnelles, mais surtout par les individus des quartiers populaires; les jeunes et les enfants (Koffi, *Op.cit.*).

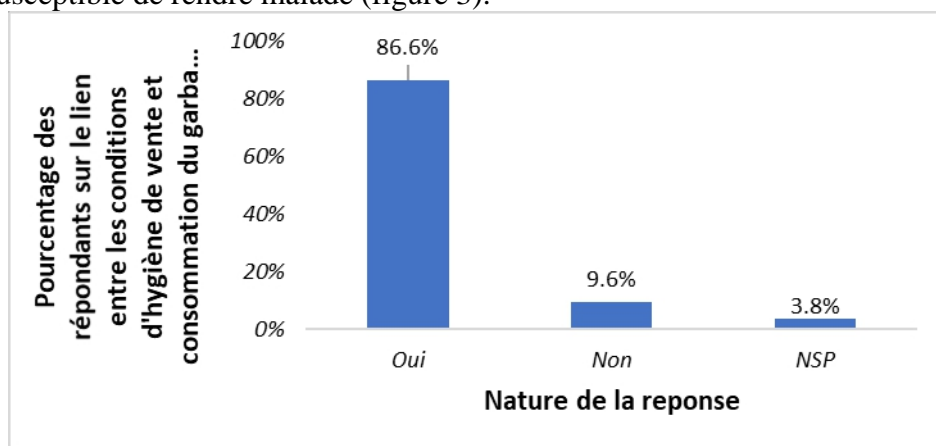
L'enquête par questionnaire a été réalisée avec le logiciel ODK Collect version 1.30.1. Les tablettes ont donc été les supports physiques de collecte des données de terrain. Après la phase de collecte, les données ont été exportées sur le logiciel SPSS version 24 pour les analyses. Il s'agissait de déterminer le rapport que les consommateurs font entre la santé et les conditions de production et de vente du « garba ».

Les entretiens semi-structurés ont été transcrits manuellement sur l'éditeur Word et analysés sur le logiciel NVivo version 12. L'analyse de contenu thématique développée par Bardin (2007) a permis d'appréhender les différentes valeurs sociales du « garba » : le « garba » perçu comme support de convivialité, le « garba » perçu comme facteur de construction de lien social dans les relations familiales et le « garba » perçu comme facteur de construction de lien social entre conjoints.

## Résultats

### Conditions d'hygiène lors de la production et la commercialisation du « garba » perçues comme facteur de transmission de maladies chez les consommateurs

Un total de 1067 consommateurs de « garba » a été interrogé à l'aide d'un questionnaire dans le cadre de cette étude pour appréhender leur perception du lien entre les conditions d'hygiène lors de la production et la commercialisation du « garba » et la santé. Parmi eux, 86,6% (n=924) ont répondu que les conditions de production et de vente du «garba» sont susceptible de rendre malade (figure 3).



NSP : Ne Sait Pas.

**Figure 3 :** Perception des consommateurs par rapport au lien entre les conditions d'hygiène lors de la production et la vente du « garba » et la santé

Seuls 9,6% (n=102) des répondants ont affirmé le contraire tandis que 3,8 % (n=41) n'ont pas pu se prononcer sur la question.

Tous les répondants consomment l'aliment bien que la grande majorité ait affirmé que les conditions de production sont susceptibles de rendre malade. L'impact direct du «garba» sur la santé des répondants a donc été appréhendé.

Il est ressorti, selon les propos des enquêtés que plus de la moitié d'entre eux, c'est-à-dire 73,3 % (n=924) de ceux qui ont affirmé que le «garba» pourrait rendre malade n'ont jamais été malades après consommation de l'aliment. Seulement le quart de ceux-ci, c'est-à-dire 25,3 % (n=234) des répondants ont contracté une maladie après consommation du «garba». Enfin, 1,4 % (n=149) des répondants ne pensent pas avoir contracté une maladie après consommation du «garba».

Ces données quantitatives ont été justifiées par des entretiens semi-structurés. En effet, selon les propos d'un répondant, sa perception de la qualité sanitaire et nutritionnelle a été influencée par les conseils nutritionnels

de ses parents. L'individu a affirmé que selon ses parents, les éléments composants le « garba », notamment l'huile et l'attiéké, ne sont pas bons pour la santé. L'hygiène des acteurs de cette filière a été également remise en question par ses parents. Cette représentation de la qualité sanitaire et nutritionnelle du « garba » l'a conduit à un rejet de l'aliment jusqu'à une période récente (un an avant l'enquête).

*“Moi-même, avant, je n'aimais pas trop le garba à cause de l'huile. Mes parents me disaient que l'huile du garba n'est pas trop bonne pour la santé. Et puis, ils me disaient aussi que les vendeurs n'étaient pas trop propres”.* (Entretien semi-structuré avec un étudiant, 25 ans, Yopougon, Avril 2019)

La perception de la qualité hygiénique et nutritionnelle que les parents ont du « garba » a impacté négativement sur les habitudes alimentaires du consommateur. Cela a amené l'individu à modifier la composition de son plat. Le consommateur faisait le choix de consommer uniquement le poisson thon des « garbadromes », car l'huile et l'attiéké de ces espaces gastronomiques étaient perçus comme impropres à la consommation. De plus, les autres répondants perçoivent l'huile des « garbadromes » comme impropre à la consommation. *“Leur huile là même, souvent c'est noir comme ça”.* (Entretien semi-structuré avec un commerçant, 28 ans, Yopougon, Avril 2019).

Bien que les individus perçoivent le « garba » comme un aliment de mauvaise qualité sanitaire et nutritionnelle, ils le consomment pour diverses raisons, en l'occurrence pour des avantages sociaux.

### **«Garba», support de convivialité**

Dans l'espace académique et ludique des répondants, la consommation du « garba » se fait souvent en groupe et avec la main. Ce mode de consommation du «garba» produit chez les individus un support relationnel. Il s'agit ici de la convivialité qui participe à renforcer les liens entre les commensaux.

*“A l'école, on mange en groupe, ça renforce encore les liens d'amitié. Ça fait que souvent, quand on finit de manger, on peut s'asseoir et dire «ah, toi là, tu prends de gros coups eh, toi là, c'est comme ça que tu manges ! » ça envoie un peu les causeries et puis on rit. On se moque un peu de l'autre. C'est intéressant quoi. Souvent, on peut balancer sur facebook, commenter”.* (Entretien semi-structuré avec un étudiant, 25 ans, Yopougon, Avril 2019).

Le mode de consommation du «garba» amène les individus à se passer des manières de table dans des groupes d'amis inscrits dans l'espace académique des enquêtés. Ils le mangent avec gourmandise, ce qui participe à

l'ambiance autour du repas. L'individu qui accepte de manger le «garba» en groupe dans cet espace social doit donc être ouvert à tout sujet de plaisanterie relatif à sa manière de table. Les convives acceptent les moqueries de tout genre, quel que soit le moyen de communication utilisé pour diffuser l'information. Pour les amateurs du «garba» de ces groupes sociaux, la consommation de ce mets fait partie des moments de communion au sein du groupe car toute l'ambiance autour de l'aliment participe à renforcer les liens d'amitié.

Au-delà de l'espace académique, l'espace sportif des répondants est également un lieu de communion autour du « garba ».

*“Les soirs quand on a fini de jouer au ballon ou on a fini de s'amuser avec les amis, c'est toujours bon d'aller s'asseoir autour d'un plat de «garba» parce que c'est un truc qui se mange rapidement et puis du fait que ça se mange avec la main, je pense que c'est un facteur qui réunit les gens”.* (Entretien semi-structuré un agent marketeur, 30 ans, Yopougon, avril 2019).

Ces propos des personnes interviewées révèlent que le centre d'intérêt commun (passion, loisir, profession, etc.) est un facteur qui réunit les individus autour d'un plat de «garba». En effet, le sport et les loisirs étant des occasions de communion, les amateurs du «garba» matérialisent aussi cette communion par le partage du «garba» en commun. Les commensaux ne s'attardent pas sur les formes particulières des manières de table, d'où le fait de manger rapidement et avec la main. Cette simplicité dans la manière de consommer l'aliment pourrait briser les barrières sociales et participer ainsi à la communion entre les individus dans ces groupes sociaux.

### **«Garba», facteur de construction de lien social dans les relations familiales**

Le « garba » serait consommé par les personnes enquêtées pour consolider leurs rapports dans l'espace familial. En effet, les résultats de l'enquête par questionnaire ont montré que le caractère bon marché du « garba » est la raison la plus évoquée par les répondants pour justifier leur attachement à l'aliment (figure 4).



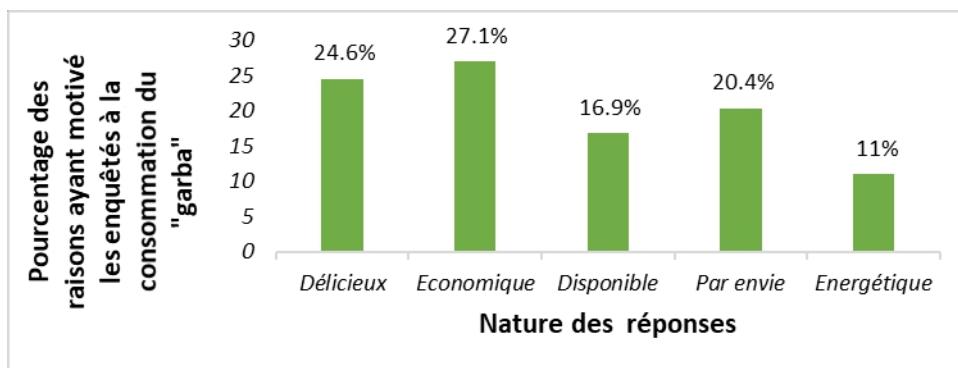


Figure 4: Raisons ayant motivé les enquêtés à consommer le "garba"

Le caractère bon marché du « garba » a représenté 27,1% des réponses. cette modalité de réponse est suivie de trois autres: le goût délicieux (24,6%), l'envie (20,4%) et la disponibilité de l'aliment (16,9%). L'effet rassasiant du « garba » a représenté 11% des raisons ayant motivé la consommation de l'aliment chez les individus à l'étude. Le caractère bon marché et l'effet rassasiant de l'aliment permettent aux répondants de construire une rationalité économique qui les positionne dans des formes d'entraide participant à la construction d'un statut social valorisant dans leurs relations familiales. Au fait, dans les rapports entre consanguins, un répondant qui occupe une position d'ainé est animé par la « volonté de puissance » non apparent vis-à-vis de ses cadets. Ainsi, le choix stratégique du «garba» perçu comme bon marché et rassasiant lui permet de réaliser des économies pour apporter des aides ponctuelles aux cadets. Les économies réalisées à partir de la consommation du «garba» repose quelque fois sur des renoncements à ses envies personnelles. Cependant, l'investissement de ces économies dans les relations favorise le respect, la considération et la confiance des cadets vis-à-vis du répondant.

*“Quand je vais à l'école, si j'achète du pain le matin, à midi encore, je suis obligé d'acheter attiéké pour tenir. Je vais me retrouver à 1000 francs de dépenses. . Donc, je préfère manger le « garba », comme ça, au lieu de dépenser 1000 francs, je dépense 500 F et puis je garde 500 F à côté.. Ça me permet de faire des transferts d'argent à mes petites sœurs. Tous ces gestes apportent le respect surtout parce quand tu es le grand frère, quand elles te demandent et puis tu donnes, même si ce n'est pas beaucoup, quand elles viennent, tu remarques qu'il y a toujours le respect. Voilà ! Or, quand il n'y a pas ça là, c'est vrai, le respect est là, mais tu n'es pas trop considéré“.* (Entretien semi-structuré avec un étudiant, 25 ans, Yopougon, Avril 2019).

Le caractère bon marché et l'effet rassasiant du « garba » interviennent aussi dans la consolidation des rapports entre un répondant et ses géniteurs. Il



permet au répondant financièrement indépendant, mais issu de condition économique modeste de réaliser des économies.

*“Le garba me fait économiser plus par rapport au riz. Si c’est le riz que je mange, dans le mois ce que je peux dépenser là, ça sera très beaucoup parce que le riz, si je mange pour 1000 francs à midi, le soir 1000 francs, ça fait 2000 francs. Dans le mois, je vais me retrouver à 60 000 francs de dépenses pour manger seulement. Or, si c’est attiéké, ça fait 500 francs de dépenses. Si j’ai mangé 500 francs à midi, le soir j’ai mangé 500 francs, ça fait 1000 francs. Dans le mois ça fait 30 000 francs. Comme moi je ne mange pas attiéké la nuit, c’est la journée seulement, ce n’est pas tous les jours aussi que je le mange. Donc dans le mois, attiéké, je peux manger pour 13 000 francs comme ça. En tout, je peux dépenser 40 000 francs comme ça dans la nourriture dans le mois”.* (Entretien semi-structuré avec un commerçant, 28 ans, Yopougon, Avril 2019).

Les économies réalisées par le répondant grâce au choix du «garba» dans ses habitudes alimentaires sont utilisées pour soutenir financièrement ses parents. Un canal de bénédiction s’établit alors entre l’individu et ses géniteurs. En effet, cet individu établit des relations distantes avec ses géniteurs grâce au gage symbolique (l’argent) avec lequel il les soutient. Sa présence auprès de ses parents se matérialise symboliquement par le soutien financier qu’il leur apporte, bien qu’étant physiquement loin d’eux. Il participe ainsi au bien-être de ses géniteurs. Selon le répondant, ce soutien financier lui permet de gagner la considération et la bienveillance de ses parents. Cela se matérialise par des appels téléphoniques et des paroles de bénédictions. Ce soutien financier brise la distance géographique et réorganise alors les rapports avec ces derniers.

### **«Garba», facteur de construction de lien social entre conjoints**

La valeur économique et l’effet rassasiant du « garba » sont aussi mobilisées par les individus pour consolider leurs rapports avec leurs conjoints. En effet, un répondant issu de condition économique modeste convertit socialement les économies réalisées grâce à la consommation du «garba» auprès de son amie intime.

*“Si j’ai entrepris une activité qui m’a permis d’avoir de l’argent, je vais dépenser, mais grâce à la consommation du garba, l’argent va tenir un peu longtemps sur moi. Donc, si souvent ma chérie me demande de lui faire des transferts d’unités de 200 F ou bien les petits trucs comme ça, grâce aux petites réserves que je fais, j’arrive à faire ça. Tout ça aussi amplifie notre relation, parce qu’elle a vu que je suis un gars, même si je n’ai pas beaucoup d’argent, mais au moins il y a quelque chose qui est sur moi, donc à tout moment si elle demande le minimum, elle peut trouver. Donc ça fait qu’elle se*

*confie beaucoup à moi*”. (Entretien semi-structuré avec un agent marketeur, 30 ans, Yopougon, Avril 2019).

Une volonté de valorisation de soi ou de prestige social ressort à travers les propos de ce répondant. Des stratégies sont alors adoptées pour gérer le revenu irrégulier et maigre du ménage sur une longue période. La gestion des ressources financières permet de satisfaire les besoins les plus élémentaires et les moins onéreux de sa compagne. Ainsi, un climat de confiance s'établit et favorise les confidences.

## **Discussion**

Au-delà de la qualité hygiénique et nutritionnelle perçue comme inférieure, le « garba » consolide les rapports chez les répondants dans leur milieu familial et extra-familial. Cet côté relationnel de l'aliment encourage les répondants à le consommer, montrant ainsi le caractère pluriel et complexe du comportement alimentaire (Corbeau, 2010; Laporte et al., 2015). En effet, la consommation du « garba » est appréhendée comme un facteur d'inclusion dans des groupes d'amis de jeunes. Par conséquent, l'individu qui ne consommait pas cet aliment du fait des conditions de production et de vente non hygiéniques a fini par l'intégrer dans ses habitudes alimentaires à cause de son réseau d'amis. La situation de convivialité dans laquelle se trouve l'individu modifie donc sa perception du « garba ». Ce résultat corrobore le « triangle du manger » de Corbeau qui a montré que la situation du mangeur modifie ses attentes. Elle peut aussi valoriser certains aspects de l'aliment et développer la sociabilité entre les consommateurs (Corbeau, *Op.cit.*).

Dans ces réseaux d'amis, la consommation du « garba » devient comme un facteur d'identité sociale car des sujets de plaisanterie visant à renforcer les relations d'amitié se font autour de l'aliment. D'ailleurs, l'alimentation en tant que facteur d'identité sociale a été aussi appréhendée par Tibère (2006) au sein de la communauté réunionnaise. Cet auteur a montré que la pratique du modèle alimentaire régi par la communauté est nécessaire pour être reconnu comme membre de la société réunionnaise. L'alimentation devient ainsi un facteur d'exclusion ou d'intégration, selon que l'individu l'accepte ou la rejette. Au-delà de l'adhésion au modèle alimentaire, d'autres auteurs ont montré que le partage du repas en commun construit les relations sociales. En effet, Hastorf (2016) a affirmé que dans certaines sociétés, manger seul est considéré comme inapproprié, même sinistre. A cet effet, Dunbar (2017) a montré qu'au Royaume-Unis, les personnes qui mangent avec les autres se sentent plus en bonne santé et ont un réseau social plus vaste qui leur fournit un soutien social et émotionnel. Il affirme que les rires, les causeries de tout genre rapprochent les commensaux et permettent un mieux être. Selon Rezende (2007), cette quête de mieux-être à travers l'alimentation amène les travailleurs anglais de la classe bourgeoise à investir le temps et l'énergie qui

sont des facteurs précieux dans le domaine du travail pour consolider leur rapport avec leurs amis autour d'un repas.

La satisfaction du besoin relationnel est également recherchée dans les relations familiales à travers la consommation du « garba ». En effet, la rationalité économique autour du « garba » permet aux individus de la classe populaire de protéger leur statut social dans la sphère familiale. Ils mobilisent donc des ressources économiques grâce à la consommation du « garba » en vue de conquérir leurs proches. Le maintien des rapports sociaux avec les proches à travers la mobilisation du capital économique a été appréhendé par Giddens, cité par Delannoi (1995). Il a repris les propos de Simmel pour montrer que « *l'argent est l'instrument capable d'établir des relations très distantes dans l'espace* » (Simmel cité par Giddens (Delannoi, *Op.cit.*, p 883). Ainsi, bien qu'absent physiquement, l'individu est présent et joue pleinement son rôle auprès des siens à travers le gage symbolique. L'individu se situe dans « *une organisation et réorganisation de ses relations sociales* » comme l'a montré Simmel cité par Delannoi (*Ibidem*). Dans les rapports entre conjoints, le gage symbolique mobilisé grâce à la consommation du « garba » permet d'établir une relation de pouvoir comme l'a prouvé Halbwachs (1913). Selon l'auteur, la nourriture met en évidence les aspects cachés des relations de pouvoir et de la vie sociale, ainsi que la production de faits sociaux et de personne.

Pour réduire les risques liés à la consommation du « garba », les consommateurs ont la possibilité d'éviter l'huile des « garbadromes ». Cependant, certains répondants le consomment pour des raisons de goût, tout en étant conscient du risque sanitaire. L'attitude de ces répondants vis-à-vis de l'huile des « garbadromes » en dépit du risque perçu pourrait aussi être expliqué par le fait qu'ils perçoivent ce risque comme un «risque auto imposé». Cet type de risque est plus accepté par les consommateurs que le risque technologique selon Frewer *et al.*(2005) et Pierrine (2019).

## Conclusion

Au terme de ce travail visant à analyser l'importance du « garba » dans la construction des liens sociaux des consommateurs malgré les risques sanitaires perçus, il ressort que le « garba » est un facteur relationnel pour les individus à l'étude. En effet, les résultats ont montré que le « garba » est perçu comme un aliment de qualité sanitaire et nutritionnelle inférieure par la grande majorité des répondants. Cependant, le mode de consommation et la rationalité économique autour de l'aliment permettent aux individus d'entretenir les relations tant au niveau familial qu'au niveau extra-familial. En effet, le mode de consommation du «garba» inscrit les commensaux dans des rapports d'amitié, de fraternité. Quant à la rationalité économique autour de l'aliment, dans les rapports entre consanguins, elle permet aux aînés d'obtenir le respect

et la considération des cadets grâce au gage symbolique que les premiers mobilisent en faveur des seconds. La mobilisation du gage symbolique par les individus issus de la classe économique modeste dans leurs rapports avec leurs géniteurs leur accorde aussi le respect et les bénédictions de ceux.

Au regard de l'enjeu social qui se structure à travers la consommation du «garba», l'on peut affirmer que le «garba» pourrait intervenir dans la construction du lien social des consommateurs. Les normes d'hygiène doivent donc aller au-delà des risques pour la santé et prendre en compte les normes socioculturelles avec une analyse participative des risques pour montrer que manger le «garba» ne conduit pas toujours à un risque pour la santé, mais apporte des avantages sociaux.

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## **Conflits armés et évolution de la scolarisation primaire et secondaire en République Démocratique du Congo de 2005 à 2015**

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### **Résumé**

Cette étude vise à déterminer l'impact des conflits armés sur l'évolution de la scolarisation primaire et secondaire en République Démocratique du Congo (RDC) de 2005 à 2015. Elle est basée uniquement sur les données quantitatives, à savoir les statistiques de la population scolarisée et celles de la population scolarisable. L'étude analyse l'évolution de la scolarisation au moyen du taux d'accroissement annuel des effectifs, du taux brut de scolarisation et de l'indice de parité. Elle montre que le taux d'accroissement annuel moyen des effectifs des élèves équivaut à 6% aussi bien au primaire qu'au secondaire. L'accroissement des effectifs des filles a été plus important que celui des garçons, exprimant ainsi l'impact des campagnes de sensibilisation organisées par le Gouvernement de la RDC. Cependant, s'il a sensiblement évolué au primaire, passant de 81% à 111%, le taux brut de scolarisation a stagné au niveau de l'enseignement secondaire, soit en-deçà de 45%. L'étude montre, en outre, qu'au regard de la population scolarisable, les filles et les provinces affectées par les conflits armés ont été



défavorisées sur le plan de la fréquentation scolaire au cours de la période de 2005-2015. Elle suggère que des efforts soient fournis pour assurer la parité filles-garçons et combler le retard enregistré par les provinces de l'Est du pays. C'est, entre autres, à ce prix que la RDC peut espérer atteindre l'objectif du développement durable 4 d'ici à l'horizon 2030. Enfin, eu égard à ses limites, l'étude suggère quelques pistes de recherches ultérieures.

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**Mots clés :** Évolution ; scolarisation ; parité ; éducation pour tous ; conflits armés

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## **Army Conflicts and Evolution of Primary and Secondary School Attendance in the Democratic Republic of the Congo from 2005 to 2015**

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### **Abstract**

This study aims to determine the impact of army conflicts on the evolution of primary and secondary school attendance in the Democratic Republic of the Congo (DRC) from 2005 to 2015. It is based on quantitative data, namely statistics on the enrolled population and the school-age population. The study appreciates the evolution of school attendance through the annual growth rate of student sizes, the gross rate of school attendance and the parity index. It demonstrates that the average annual growth rate equals 6% at primary level as well as at secondary level. The increasing sizes of girls has been more important than that of boys, expressing therefore the impact of sensibilization campaigns organized by the Government of DRC. Thus, if it has been significantly developed at primary level, from 81% to 111%, the rate of school attendance has stagnated at the secondary level below 45%. The study shows further, concerning the school age population, girls and provinces affected by the army conflicts have been in a weak position at the level of school attendance during the period going from 2005 to 2015. It suggests that efforts should be made to assure gender parity and to fill the gap on the side



of the provinces in the East of the country. It is, among other things, at this price that the DRC can hope to achieve Sustainable Development Goal 4 by 2030. Finally, seeing its limitations, the study suggests some areas of prospective research.

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**Keywords:** Evolution; school attendance; parity; education for all; army conflicts

## Introduction

Au cours de la conférence mondiale sur l'éducation pour tous, tenue à Jomtien (Thaïlande), en 1990, l'éducation a été reconnue comme une priorité aussi bien pour les jeunes que pour les adultes (UNESCO, 1990). Les participants à cette conférence se sont rappelés que quarante années s'étaient écoulées depuis qu'il avait été affirmé dans la Déclaration Universelle des droits de l'homme (DUDH) que « toute personne a droit à l'éducation » (Organisation des Nations Unies, 1948). Pour la DUDH et pour la Conférence mondiale de l'éducation pour tous, tous les pays devraient admettre que l'éducation est le moteur de la liberté politique et de tout progrès.

À l'instar des autres pays, la République Démocratique du Congo (RDC) considère l'éducation comme l'une de ses priorités. À cet égard, elle a non seulement adhéré au programme de l'Éducation Pour Tous (EPT), aux Objectifs du Millénaire pour le Développement (OMD) et aux Objectifs du Développement Durable (ODD), mais elle a également souligné l'importance de l'éducation dans sa Constitution. L'article 43 de cette dernière dispose que « toute personne a droit à l'éducation scolaire. Il y est pourvu par l'enseignement national » (Assemblée Nationale, 2006, p. 15). De même, l'article 44 stipule que « l'éradication de l'analphabétisme est un devoir national pour la réalisation duquel le Gouvernement doit élaborer un programme spécifique » (Assemblée Nationale, 2006, p. 15).

Cependant, les programmes de l'EPT et des OMD ont été mis en œuvre au niveau international au moment où la RDC traversait une profonde crise politique. Tout est parti de l'instauration du multipartisme en 1990. Pour Van Reybrouck (2012), la période de 1990-1997 fut marquée en RDC par l'agonie du dictateur Mobutu, qui entraîna le pays dans sa chute. En effet, après l'organisation en 1992 de la Conférence Nationale Souveraine, la RDC a été secouée, de 1996 à 1997, par la rébellion de l'Alliance des Forces Démocratiques de Libération, conduite par Laurent Désiré Kabila. « En août 1998, un deuxième conflit armé a éclaté à l'Est du pays (Nord-Kivu) et s'est progressivement étendu vers les provinces voisines (Sud-Kivu, Maniema, Province Orientale) jusqu'au Nord du Katanga » (République Démocratique du Congo, 2004, p. 14). Déclenché par le mouvement politico-militaire dénommé le Rassemblement Congolais pour la Démocratie, ce second conflit

a eu des effets à la fois fâcheux et complexes (partition du pays, déplacements des populations, destruction des infrastructures de base et des écosystèmes, des milliers de morts...). « À la suite des Accords de Lusaka de juillet 1999, les négociations entre les parties belligérantes congolaises, les partis de l'opposition politique et des représentants de la société civile ont abouti, en décembre 2002, à la signature à Sun City (Afrique du Sud) de l'Accord Global et Inclusif » (République Démocratique du Congo, 2004, p. 14). La concrétisation de cet accord a été rendue effective en 2003, déclenchant, du coup, la transition politique et la réunification du pays. Au terme de la période de transition (2003-2006), marquée par la cohabitation des anciens belligérants et des représentants de la société civile, des élections présidentielles et législatives ont été organisées tour à tour en 2006, 2011 et 2018 (Mokonzi, 2018).

En dépit de l'évolution positive enregistrée, sur le plan politique, depuis 2003, l'Est de la RDC reste malheureusement affecté par des conflits violents (Spittaels & Hilgert, 2008). Un tel contexte peut avoir un impact négatif sur les différents secteurs de la vie nationale, notamment l'évolution de la scolarisation. En effet, l'éducation en situation d'urgence est difficile à assurer, non seulement parce que les gouvernements sont affaiblis et fragilisés, mais aussi parce que les conséquences des conflits ont un impact sur la scolarisation des enfants et le fonctionnement du système scolaire (Murseli, 2019). C'est pourquoi, cette étude examine la possibilité que les conflits armés vécus particulièrement par les provinces de l'Est de la RDC affectent l'évolution de la scolarisation primaire et secondaire. Pour comprendre les enjeux de cette étude, nous allons rappeler la quintessence de l'EPT, des OMD et des ODD, avant de présenter les objectifs et les questions de recherche

### **De l'éducation pour tous aux objectifs du développement durable**

Depuis la décennie 1990, plusieurs déclarations ont été faites en matière d'éducation, dont les principales sont les programmes de l'EPT, des OMD et des ODD. Ces programmes constituent des cadres d'orientation des systèmes éducatifs de plusieurs nations. Ils ont particulièrement orienté la RDC vers l'élaboration d'une nouvelle loi-cadre de l'enseignement, en 2014, et d'une stratégie sectorielle de l'éducation et de la formation, en 2015.

L'EPT a eu comme objectifs (UNESCO, 2000) de (d'):

- Développer et améliorer sous tous leurs aspects la protection et l'éducation de la petite enfance, et notamment des enfants les plus vulnérables et défavorisés ;
- Faire en sorte que, de 2000 à 2015, tous les enfants, notamment les filles et les enfants en difficulté ou issus de minorités ethniques, aient la possibilité d'accéder à un enseignement primaire obligatoire et gratuit de qualité et de le suivre jusqu'à son terme;

- Répondre aux besoins éducatifs de tous les jeunes en assurant un accès équitable à des programmes adéquats ayant pour objet l'acquisition des connaissances ainsi que des compétences nécessaires dans la vie courante ;
- Améliorer de 50% les niveaux d'alphabétisation des adultes, et notamment des femmes, de 2000 à 2015, et assurer à tous les adultes un accès équitable aux programmes d'éducation de base et d'éducation permanente ;
- Éliminer les disparités entre les sexes dans l'enseignement primaire et secondaire, de 2000 à 2005, et instaurer l'égalité dans ce domaine de 2000 à 2015, en veillant notamment à assurer aux filles l'accès équitable et sans restriction à une éducation de base de qualité, avec les mêmes chances de réussite.
- Améliorer, sous tous ses aspects, la qualité de l'éducation et garantir son excellence de façon à obtenir pour tous des résultats d'apprentissage reconnus et quantifiables – notamment en ce qui concerne la lecture, l'écriture, le calcul et les compétences indispensables dans la vie courante.

Les OMD sont au nombre de huit. « Assurer l'éducation primaire pour tous » (OMD2) est l'objectif qui intéresse particulièrement l'éducation (Gérardin et al., 2016).

Le quatrième ODD vise à garantir à tous et toutes l'accès à une éducation équitable, gratuite et de qualité à travers toutes les étapes de la vie, en éliminant notamment les disparités entre les sexes et les revenus. Cet objectif insiste aussi sur l'acquisition des compétences fondamentales et de niveau supérieur pour vivre dans une société durable. L'ODD 4 préconise, par ailleurs, la construction et l'amélioration des infrastructures éducatives, l'augmentation du nombre des bourses d'études supérieures octroyées aux pays en développement et du nombre d'enseignants qualifiés. Pour l'ODD 4, tout doit être fait pour que d'ici 2030 toutes les filles et tous les garçons suivent, sur un pied d'égalité, un cycle complet d'enseignement primaire et secondaire gratuit et de qualité, qui débouche sur un apprentissage véritablement utile (Organisation des Nations Unies, 2015).

### **Objectifs et questions de recherche**

L'objectif général de cette étude est d'analyser l'impact des conflits armés que connaissent les provinces de l'Est de la RDC depuis le début de ce siècle sur l'évolution de la scolarisation primaire et secondaire de 2005 à 2015. De manière spécifique, l'étude vise à :

- Décrire l'évolution de la scolarisation primaire et secondaire de 2005 à 2015 ;

- Examiner la variation de cette évolution suivant les provinces, le genre et les zones de conflits et de stabilité politique.  
Ainsi, compte tenu des données disponibles<sup>1</sup>, l'étude se propose de répondre aux questions suivantes :
- Quelle évolution la scolarisation primaire et secondaire a-t-elle connue en RDC de 2005 à 2015 ?
- Cette évolution a-t-elle varié suivant les provinces et le genre ?
- L'évolution de la scolarisation a-t-elle été affectée par les conflits que certaines provinces connaissent depuis le début du XXI<sup>e</sup> siècle ?

## **Méthode**

### **Source des données**

Étant donné que cette étude analyse l'évolution de la scolarisation, les données indispensables pour sa réalisation se rapportent aux statistiques scolaires et aux données démographiques. Ces données ont été obtenues à partir de l'exploitation des annuaires statistiques produits par la Cellule Technique pour les Statistiques de l'Éducation (2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017)<sup>2</sup> et l'Institut National des Statistiques (INS). La Cellule Technique pour les Statistiques de l'Éducation produit des statistiques scolaires de l'Enseignement Primaire, Secondaire et Technique avec l'appui technique et financier de l'UNESCO, de l'UNICEF et de la Banque mondiale. L'INS a pour mission de compiler, de traiter, de diffuser des informations actualisées et fiables sur les indicateurs économiques et sociaux du pays, par la publication de divers volumes et séries statistiques (Institut National des Statistiques, 2015).

### **Analyse des données**

Dans cette étude, l'évolution de la scolarisation est examinée à travers trois indicateurs : (i) le taux d'accroissement, (ii) le taux brut de scolarisation et (iii) l'indice de parité filles-garçons. Chacun de ces indicateurs est, d'abord, calculé globalement et, ensuite, analysé suivant le genre, les provinces et les provinces regroupées en zone de conflit et zone de stabilité.

L'appréciation de la variation des indicateurs suivant les provinces est faite au moyen du coefficient de variation (*CV*). Ce dernier met en rapport l'écart-type sur la moyenne d'une variable. Ainsi, dans cette étude :

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<sup>1</sup> En effet, à cause de la situation de la guerre vécue par la RDC au cours des années 1990, les annuaires statistiques exploités dans cette étude n'ont pas été produits au cours de la période de 1990 à 2005.

<sup>2</sup> Il faut noter que les annuaires statistiques sont publiés avec un retard d'au moins une année. L'annuaire statistique de l'année scolaire 2005-2006, par exemple, a été publié en 2007 tandis que celui de l'année scolaire 2014-2015 l'a été en 2017.

- Un CV inférieur à 0,15 indique de faibles différences entre les provinces ;
- Un CV compris entre 0,15 et 0,30 traduit des différences modérées et
- Un CV supérieur à 0,30 exprime de fortes différences entre les provinces.

Pour l'analyse de l'évolution des disparités suivant le taux de scolarisation, cette étude compare la situation de 2005 à celle de 2015, en exploitant le *scattergram* et le coefficient de corrélation de Spearman-Brown.

Pour le *scattergram* :

- les provinces placées au-dessus de la diagonale sont celles dont les taux bruts de scolarisation se sont améliorés en 2015 par rapport aux taux enregistrés en 2005 ;
- les provinces situées en-dessous de la diagonale sont celles dont les taux de scolarisation ont régressé de 2005 à 2015 ;
- les provinces qui n'ont pas connu d'évolution de 2005 à 2015 se situent sur la diagonale.

L'étude recourt au coefficient de corrélation de Spearman-Brown pour examiner la possibilité que les disparités entre les provinces se soient soit réduites, soit aggravées ou qu'elles aient maintenu la même ampleur au cours de la période de référence. À cet effet,

- un coefficient positif indique le renforcement ;
- un coefficient négatif exprime la réduction ;
- un coefficient nul traduit la stagnation de l'ampleur des disparités.

## Résultats

### Évolution des effectifs des élèves

L'analyse de l'évolution des effectifs d'élèves a été faite grâce au taux d'accroissement annuel. Les taux d'accroissement annuel (TAA) de ces effectifs sont repris dans le tableau 1 et 2, respectivement pour l'enseignement primaire et l'enseignement secondaire. Les taux d'accroissement calculés suivant le genre et les provinces regroupées soit dans la zone de conflits, soit dans la zone de stabilité, sont présentés en annexes 1 et 2.

Comme le montre le tableau 1, pour l'ensemble de la RDC, l'accroissement annuel des effectifs de l'enseignement primaire durant la période de 2005 à 2015 est positif ; il est en moyenne de 6%. Dans les provinces, le taux d'accroissement se situe entre 5% et 10%. La province de Bandundu a connu la progression la plus accélérée de ses effectifs scolaires

(10%)<sup>3</sup> ; elle est suivie des provinces de l'Équateur, du Maniema, du Kasai Occidental et du Katanga, avec 8%. La province du Kasai Oriental suit avec 6%, tandis que toutes les autres provinces, soit 4, ont enregistré en moyenne un accroissement annuel de 5%. Étant donné que les coefficients de variation sont très élevés ( $CV > 0,30$ ), les différences des taux d'accroissement entre les provinces sont très importantes au cours de chaque année. Par ailleurs, comme l'indique l'annexe 1, les effectifs des filles ont augmenté plus rapidement (TAA = 7%) que ceux des garçons (TAA = 5%).

**Tableau 1 : Taux d'accroissement des effectifs scolarisés au primaire par province**

Province	05-06/ 06-07	06-07/ 07-08	07-08/ 08-09	08-09/ 09-10	09-10/ 10-11	10-11/ 11-12	11-12/ 12-13	12-13/ 13-14	13-14/ 14-15	Moyenn e
Kinshasa	6	17	-2	2	2	-3	6	9	6	5
Bas-Congo	6	12	-1	1	10	10	2	2	0	5
Bandundu	14	25	1	6	-1	28	2	7	6	10
Équateur	11	17	2	5	17	0	4	8	7	8
Province Orientale	6	6	7	3	5	0	4	6	6	5
Maniema	12	11	7	4	0	19	14	2	6	8
Nord-Kivu	6	13	1	7	-14	12	5	11	3	5
Sud-Kivu	6	11	-2	1	1	6	6	11	6	5
Kasai-Oriental	7	2	-1	1	15	6	4	11	5	6
Kasai-Occidental	10	-3	18	3	13	3	5	10	11	8
Katanga	6	24	3	1	4	10	13	3	4	8
RDC	7	11	3	3	5	7	5	7	5	6
CV	0,37	0,69	1,97	0,70	1,87	1,10	0,67	0,49	0,49	0,27

**Tableau 2 : Taux d'accroissement des effectifs scolarisés au secondaire par province**

Province	05-06/ 06-07	06-07/ 07-08	07-08/ 08-09	08-09/ 09-10	09-10/ 10-11	10-11/ 11-12	11-12/ 12-13	12-13/ 13-14	13-14/ 14-15	Moyenne
Kinshasa	6	19	-3	6	8	-5	1	8	7	5
Bas-Congo	7	9	1	3	9	12	3	6	1	6
Bandundu	14	20	-1	-3	11	23	0	23	4	10
Équateur	11	27	8	0	11	5	-1	5	7	8
Province Orientale	7	14	24	-1	15	-22	6	9	6	6
Maniema	18	12	36	-1	62	-19	0	7	5	13
Nord-Kivu	10	18	7	16	6	-2	0	7	3	7
Sud-Kivu	10	21	10	0	13	-6	1	14	6	8
Kasai Oriental	3	-11	9	-2	8	6	1	5	7	3
Kasai Occidental	4	-27	25	8	10	7	1	6	4	4
Katanga	9	7	23	3	-12	15	17	4	0	7
RDC	8	9	8	3	8	3	3	9	4	6
CV	0,48	1,59	0,99	2,12	1,39	10,83	1,94	0,64	0,53	0,48

<sup>3</sup> La gratuité de l'enseignement aurait probablement été plus effective en 2010-2011 dans la province du Bandundu que dans les autres provinces. En effet, suivant le tableau 1, de 2010-2011 à 2011-2012, le taux d'accroissement de la province de Bandundu (28%) est 4 fois supérieur à la moyenne nationale (7%).

Au niveau de l'enseignement secondaire (voir tableau 2), le taux moyen d'accroissement annuel des effectifs est de 6% également. Cependant, contrairement à l'enseignement primaire, les effectifs du secondaire ont globalement évolué de manière irrégulière. On observe trois années scolaires seulement au cours desquelles cet accroissement est assez élevé (2007-2008, 2010-2011 et 2013-2014), avec un taux supérieur ou égal à 8%, tandis que pour les autres années scolaires, ce taux se situe entre 3% et 4%. Les provinces du Maniema et de Bandundu ont connu la progression la plus accélérée de leurs effectifs (13% et 10%) ; elles sont suivies des provinces de l'Équateur, du Sud-Kivu (8%), du Nord-Kivu et du Katanga avec 7%, du Bas-Congo et de la Province Orientale, avec 6%. Les provinces du Kasai Oriental et du Kasai Occidental ont enregistré les taux d'accroissement les plus faibles (3% et 4%). Au niveau du secondaire, les différences entre les provinces sont également très fortes ( $CV > 0,30$ ). Autant qu'au primaire, l'accroissement annuel des effectifs des filles au niveau du secondaire (voir annexe 2) est plus important (TAA = 10%) que celui des garçons (TAA = 7%).

Par rapport au genre (voir annexe 1), il s'avère qu'au niveau de l'enseignement primaire, l'accroissement des effectifs des filles (soit 7%) a été généralement plus important que celui des garçons (soit 5%). Cette tendance s'observe dans la plupart des provinces. Il n'y a qu'à Kinshasa et dans les provinces de Bandundu, de l'Équateur et du Kasai Oriental que l'accroissement des effectifs des filles est soit équivalent, soit plus faible que celui des garçons. Les tendances enregistrées au primaire s'observent aussi au secondaire (voir annexe 2). Elles traduisent l'effort fourni par la RDC pour la scolarisation des filles au cours de la période de 2005 à 2015.

De manière générale, l'évolution des effectifs d'élèves au niveau du primaire n'a pas été significativement affectée par les conflits armés que certaines provinces ont connus depuis la fin du XXe siècle (voir annexe 3). En effet, dans les provinces ayant connu ces conflits, le taux d'accroissement annuel moyen est de 6% contre 7% dans les provinces marquées par la stabilité politique. C'est uniquement de l'année 2010-2011 à l'année 2011-2012 que les conflits ont eu un impact négatif sur l'accroissement des effectifs du primaire ; ceux-ci ont connu une diminution de 1% alors que dans les autres provinces les effectifs ont augmenté de 9%.

Les conflits armés n'ont pas non plus influé sur l'évolution des effectifs des élèves du secondaire (voir annexe 4). Cette évolution a été, en moyenne, plus importante dans les provinces en conflits (soit un taux moyen de 8%) que dans d'autres (soit un taux moyen de 6%).

### **Évolution du taux de scolarisation**

Les effectifs des enfants scolarisables et des inscrits aussi bien à l'école primaire qu'à l'école secondaire, ont permis de calculer le taux brut de



scolarisation (TBS) durant la période en étude (voir tableau 3 pour l'enseignement primaire et tableau 4 pour l'enseignement secondaire). À ce propos, le tableau 3 montre que pour l'ensemble de la RDC, le TBS au niveau de l'enseignement primaire a oscillé entre 81% et 111%. Seule l'année scolaire 2008-2009 n'a pas connu de progression de la fréquentation scolaire par rapport à l'année précédente. La RDC a donc fourni un effort important pour absorber la population scolarisable dans le circuit scolaire et pour réaliser ainsi l'objectif de la scolarisation universelle. En effet, de 2012-2013 à 2014-2015, le TBS a été supérieur à 100%.

**Tableau 3 : Taux bruts de scolarisation au primaire par province**

Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Kinshasa	82	84	95	90	89	89	84	88	94	98	89
Bas-Congo	83	84	91	88	87	93	101	101	101	96	93
Bandundu	72	78	94	92	95	92	115	115	121	126	100
Équateur	75	80	90	90	92	105	102	104	110	116	96
Province Orientale	88	91	93	97	97	99	97	99	103	108	97
Maniema	70	76	82	84	86	84	98	110	110	115	92
Nord-Kivu	90	92	100	98	102	86	94	97	105	107	97
Sud-Kivu	86	88	95	90	88	87	90	93	101	105	92
Kasaï Oriental	98	101	99	95	94	105	109	112	122	126	106
Kasaï Occidental	89	94	87	100	100	108	111	115	124	135	106
Katanga	61	64	77	77	76	77	83	92	93	93	79
RDC	81	85	91	91	91	93	99	102	108	111	95
C.V.	0,13	0,12	0,08	0,07	0,08	0,11	0,11	0,09	0,10	0,12	0,08

**Tableau 4 : Taux bruts de scolarisation au secondaire par province**

Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14 - 15	Moyenn e
Kinshasa	52	53	61	59	63	66	60	59	62	64	60
Bas-Congo	37	37	40	37	37	39	42	42	44	42	40
Bandundu	61	62	72	1	43	47	56	54	65	65	53
Équateur	29	29	36	34	30	32	33	32	32	34	32
Province Orientale	31	30	33	29	28	31	24	25	26	27	28
Maniema	39	29	31	38	34	54	42	41	43	16	37
Nord-Kivu	32	33	38	36	39	40	38	37	38	39	37
Sud-Kivu	34	34	40	38	34	37	34	33	37	38	36
Kasaï Oriental	50	49	42	39	33	35	36	35	36	37	39
Kasaï Occidental	48	47	33	0	37	40	41	40	42	37	37
Katanga	28	29	30	33	30	26	29	32	33	24	29
RDC	40	39	42	31	37	40	40	39	41	38	39
C.V.	0,28	0,29	0,32	0,54	0,26	0,28	0,28	0,26	0,29	0,39	0,24

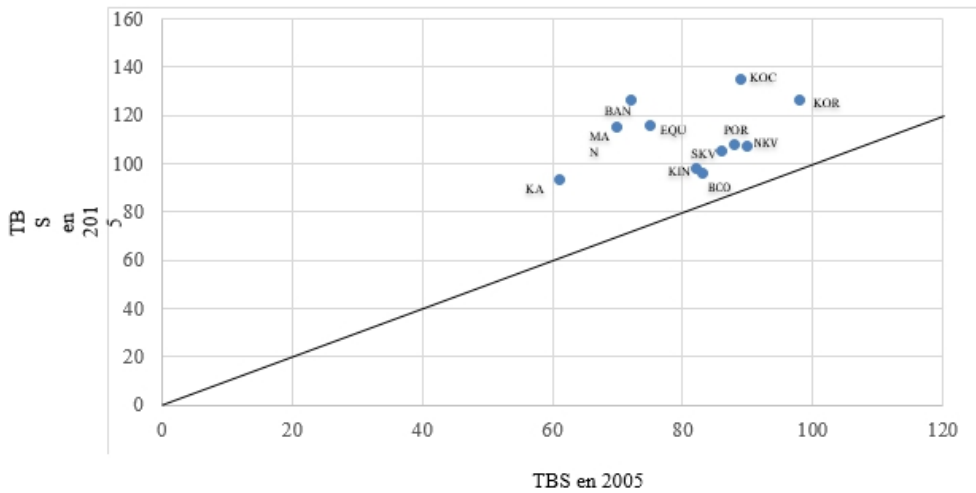
Contrairement à l'enseignement primaire, le TBS au niveau de l'enseignement secondaire (voir tableau 4) a été à la fois faible et stagnant durant toute la période couverte par cette étude (soit TBS inférieur à 45%). De ce fait, l'école secondaire est loin de donner satisfaction à la demande potentielle de l'éducation.

Les disparités entre les provinces, au niveau de l'enseignement primaire, étaient faibles au cours de chaque année de la période de référence de cette étude ( $CV < 0,15$ ). De l'examen approfondie de la scolarisation, il ressort que la fréquentation scolaire s'est améliorée dans toutes les provinces



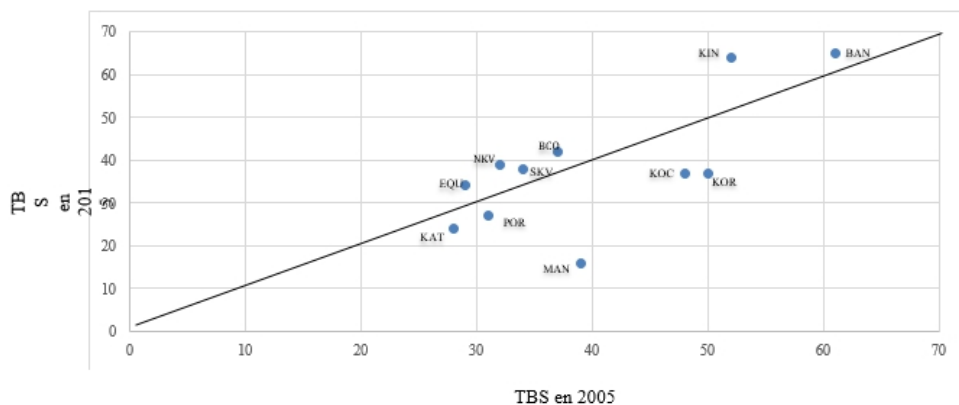
de 2005 à 2015. En effet, toutes les provinces se situent au-dessus de la diagonale de la figure 1. Les disparités entre les provinces ont eu tendance à se réduire au cours de la période d'étude. Bien que non significatif, le coefficient de corrélation de Spearman-Brown entre le TBS enregistré en 2005 et la vitesse d'accroissement de ce taux entre 2005 et 2015 est négatif ( $r_{SB} = -0,33, p > 0,05$ ). Par contre, au niveau de l'enseignement secondaire, les disparités entre les provinces ont été très prononcées de 2005 à 2012 ( $CV > 0,30$ ) et modérées de 2013 à 2015 ( $0,15 \leq CV \leq 0,30$ ). Si la fréquentation scolaire s'est améliorée dans six provinces, elle s'est en même temps dégradée dans cinq autres provinces (voir figure 2). De manière globale, les disparités entre les provinces ne se sont ni aggravées, ni réduites de 2005 à 2015 ( $r_{SB} = -0,06, p > 0,05$ ).

**Figure 1 :** Relation entre les TBS en 2005 et 2015 au niveau de l'enseignement primaire



Note : KIN = Kinshasa, BCO = Bas-Congo, BAN = Bandundu, Equ = Equateur, POR = Province Orientale, MAN = Maniema, NKV = Nord-Kivu, SKV = Sud-Kivu, KOR = Kasai Oriental, KOCC = Kasai Occidental, KAT = Katanga

**Figure 2 :** Relation entre les TBS en 2005 et 2015 au niveau de l'enseignement secondaire



Note : KIN = Kinshasa, BCO = Bas-Congo, BAN =Bandundu, Equ = Equateur, POR = Province Orientale, MAN = Maniema, NKV = Nord-Kivu, SKV = Sud-Kivu, KOR = Kasai Oriental, KOCC = Kasai Occidental, KAT = Katanga

Par rapport au genre, les analyses effectuées montrent qu'au niveau de l'enseignement primaire, les garçons ont proportionnellement parlé plus scolarisés que les filles. En effet, pour l'ensemble de la RDC, le taux moyen de scolarisation est de 101% pour les garçons contre 89%, pour les filles (voir annexe 5). Seule la ville de Kinshasa a enregistré l'égalité de la scolarisation des filles et des garçons au cours de la période allant de 2005 à 2015. Les disparités entre la fréquentation scolaire des garçons et celle des filles ont été plus fortes encore au niveau du secondaire qu'au niveau du primaire (voir annexe 4). Non seulement l'écart entre le taux de scolarisation des garçons et celui des filles a été en moyenne de 20%, mais encore les disparités ont été observées dans toutes les provinces.

Cependant, comme l'atteste l'annexe 7, au niveau de l'enseignement primaire, la moyenne des taux de scolarisation dans les provinces ayant connu ces conflits a été de 91% contre 98% dans les provinces, qui n'ont pas enregistré de conflits armés depuis l'unification du pays en 2003. La moyenne des taux de scolarisation de la zone de conflits a été plus faible que celle de la zone de stabilité au cours de chaque année de la période couverte par cette étude. Dans la zone de conflits, la province du Katanga a enregistré systématiquement le taux de fréquentation scolaire le plus faible. L'écart de la fréquentation scolaire est plus important encore dans l'enseignement secondaire (voir annexe 8). À cet égard, la moyenne du TBS est de 45% dans la zone de stabilité politique, alors qu'elle n'est que de 33% dans la zone de conflits, soit un écart de 12%. Dans la zone de conflits, la province du Katanga et la province orientale ont connu la fréquentation scolaire la plus faible au niveau du secondaire.

## Évolution de la parité filles-garçons

Il ressort des analyses effectuées sur la parité filles-garçons qu'au niveau de l'enseignement primaire les garçons ont été, de manière générale, scolarisés plus que les filles (voir tableau 5). Pour l'ensemble de la RDC, l'indice de parité est inférieur à 1,00 au cours des sept années sur les dix que compte la période considérée dans la présente étude. L'égalité de la scolarisation s'observe uniquement au cours des années scolaires 2010-2011, 2012-2013 et 2013-2014. Alors que la ville de Kinshasa est la seule à avoir scolarisé autant de filles que de garçons, les provinces du Kasai oriental, du Kasai occidental et du Katanga ont enregistré la plus forte disparité de la scolarisation des filles et des garçons. Néanmoins, les valeurs du coefficient de variation étant toutes inférieures à 0,15, les inégalités entre les provinces en matière de parité filles-garçons sont négligeables. En outre, les années scolaires 2010-2011, 2012-2013 et 2013-2014 ont été particulièrement favorables à la scolarisation des filles dans les différentes provinces de la RDC. Ceci est partiellement dû aux campagnes de sensibilisation menées au cours de ces années, campagnes marquées par le slogan « *Toutes les filles à l'école* ».

**Tableau 5 :** *Indice de parité filles-garçons au niveau de l'enseignement primaire*

Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Kinshasa	1,00	1,01	1,02	1,02	1,01	1,02	1,01	1,06	1,04	1,03	1,02
Bas Congo	0,84	0,85	0,87	0,87	0,88	1,10	0,90	1,04	1,04	0,94	0,93
Bandundu	0,82	0,85	0,86	0,88	0,89	1,15	0,90	1,14	1,12	0,94	0,96
Équateur	0,66	0,70	0,71	0,75	0,76	1,01	0,80	1,01	1,08	0,86	0,83
Province Orientale	0,80	0,81	0,83	0,90	0,88	1,08	0,90	1,09	1,07	0,92	0,93
Maniema	0,76	0,79 <sup>2</sup>	0,82	0,85	0,88	1,20	0,92	1,12	1,11	0,92	0,94
Nord-Kivu	0,83	0,84	0,87	0,86	0,86	1,03	0,89	1,05	1,07	0,92	0,92
Sud-Kivu	0,82	0,84	0,89	0,88	0,90	1,01	0,92	1,10	1,08	0,95	0,94
Kasai Oriental	0,81	0,82	0,84	0,84	0,86	1,04	0,84	1,02	1,01	0,86	0,89
Kasai Occidental	0,70	0,73	0,76	0,75	0,80	0,96	0,81	0,94	0,97	0,86	0,83
Katanga	0,72	0,75	0,78	0,80	0,86	1,04	0,83	0,83	1,04	0,86	0,85
RDC	0,80	0,82	0,84	0,85	0,87	1,06	0,88	1,04	1,06	0,91	0,91
C.V	0,11	0,10	0,10	0,09	0,07	0,07	0,07	0,09	0,04	0,06	0,06

**Tableau 6 : Indice de parité filles-garçons au niveau de l'enseignement secondaire**

Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Kinshasa	0,94	0,95	0,95	0,95	0,93	0,95	0,98	0,97	0,99	0,99	0,96
Bas Congo	0,67	0,68	0,67	0,68	0,65	0,65	0,66	0,69	0,71	0,72	0,68
Bandundu	0,59	0,59	0,58	0,58	0,57	0,59	0,61	0,64	0,52	0,54	0,58
Équateur	0,30	0,37	0,33	0,37	0,36	0,38	0,40	0,44	0,46	0,48	0,39
Province Orientale	0,47	0,50	0,50	0,56	0,56	0,58	0,57	0,59	0,62	0,66	0,56
Maniema	0,25	0,30	0,31	0,36	0,37	0,38	0,42	0,45	0,48	0,49	0,38
Nord-Kivu	0,61	0,65	0,68	0,69	0,74	0,74	0,75	0,79	0,83	0,85	0,73
Sud-Kivu	0,47	0,52	0,55	0,57	0,58	0,62	0,64	0,69	0,71	0,76	0,61
Kasaï Oriental	0,27	0,31	0,34	0,48	0,48	0,48	0,50	0,54	0,55	0,56	0,45
Kasaï Occidental	0,41	0,42	0,45	0,37	0,38	0,40	0,36	0,42	0,46	0,49	0,42
Katanga	0,40	0,42	0,44	0,44	0,51	0,50	0,49	0,49	0,54	0,54	0,48
RDC	0,49	0,52	0,53	0,55	0,56	0,57	0,58	0,61	0,62	0,64	0,57
C.V	0,42	0,37	0,36	0,32	0,31	0,30	0,31	0,28	0,28	0,26	0,31

Le déséquilibre entre la scolarisation des garçons et celle des filles a été plus prononcé au niveau de l'enseignement secondaire qu'au niveau de l'enseignement primaire (voir tableau 6). Pour l'ensemble de la RDC, l'effectif des filles scolarisées au secondaire représente en moyenne 57% de l'effectif des garçons. Seule la ville de Kinshasa a enregistré un indice moyen proche de 1 (soit 0,96). Aussi, le manque de parité est si fort que dans cinq provinces (Équateur, Kasaï Oriental, Kasaï occidental, Maniema et Katanga) l'effectif des filles n'a pas atteint la moitié de celui des garçons. Les différences entre les provinces sont également très fortes ( $CV > 0,30$ ).

S'agissant de la parité dans les zones de conflits et de stabilité, il s'avère que le déséquilibre entre l'effectif des filles et celui des garçons scolarisés au primaire a la même ampleur dans les deux zones (voir annexe 9). On enregistre, en effet, des indices moyens de 0,92 et 0,91 respectivement dans la zone de conflits et dans la zone de stabilité. C'est seulement au niveau du secondaire (voir annexe 10) que l'ampleur de ce déséquilibre est plus importante dans la zone de conflits (indice moyen de 0,55) que dans la zone de stabilité (indice moyen de 0,58). Autrement dit, l'effectif des filles scolarisées au secondaire représente 55% de l'effectif des garçons dans la première zone alors qu'il équivaut à 58% dans la zone de stabilité. C'est dans la province du Katanga que la parité filles-garçons a été le plus affectée par les conflits.

## Discussion

Cette étude révèle que les effectifs scolaires ont connu un accroissement annuel de 6% aussi bien au niveau de l'enseignement primaire que de l'enseignement secondaire. Ce taux est supérieur à l'accroissement de

la démographie globale de la RDC, qui est de l'ordre 3% par an (Pourtier, 2018). Il s'explique essentiellement par l'effort fourni par le Gouvernement de la RDC après la période tumultueuse que le pays a traversée au cours de la décennie 1990 (UNESCO & IIEPPD, 2014).

Cependant, l'accroissement des effectifs a été plus irrégulier au niveau de l'enseignement secondaire qu'au niveau de l'enseignement primaire. Cette irrégularité pourrait partiellement provenir de l'instauration de la prise en charge des enseignants par les parents. En effet, depuis la décennie 1990, suite à la modicité de salaires des fonctionnaires de l'État, le Cardinal Frédéric Etsou et les parents de certaines écoles catholiques avaient décidé de prendre en charge les enseignants par le paiement des frais appelés *prime* ou *frais scolaires*. Ce phénomène s'est ensuite généralisé dans l'ensemble des écoles congolaises. Il influe négativement sur la fréquentation scolaire, particulièrement au niveau de l'enseignement secondaire, voire sur la qualité de la formation (Mokonzi, 2009 ; UNICEF, 2002).

L'étude montre également que l'accroissement des effectifs des filles a été plus important que celui des garçons, traduisant ainsi l'impact des campagnes de sensibilisation organisées par le Gouvernement avec l'appui de certains partenaires, notamment l'UNESCO, l'UNICEF, International Rescue Committee, Save the Children International et Catholic Relief Services (International Rescue Committee et al., 2017). L'évolution des effectifs des élèves n'a pas été influencée par les conflits que certaines provinces connaissent depuis la transition politique organisée en 2003-2006. Comme l'a si bien noté la Banque mondiale (2005), la RDC est, entre autres, caractérisée par une forte conscience nationale en faveur de l'éducation. « Le système éducatif fait alors preuve d'une certaine résilience face aux conflits : dans certaines provinces, celles notamment appuyées par les organisations humanitaires, on a pu assister à la continuité du service éducatif et au maintien des opportunités d'apprentissages pour les enfants » (UNESCO & IIEPPD, 2014, p. 10). Cette conscience se traduit au niveau des parents par la prise en charge des enseignants pour suppléer aux salaires alloués par l'État. Elle se reflète au niveau des enseignants par le fait que certains acceptent de travailler pendant plusieurs années sans être payés par le Gouvernement.

En ce qui concerne l'ampleur de la fréquentation scolaire, cette étude révèle que le taux brut de scolarisation s'est sensiblement amélioré au primaire. Il est passé d'environ 80% à plus de 100%. Les années scolaires 2012-2013, 2013-2014 et 2014-2015 ont également enregistré des taux de scolarisation supérieurs à 100%, ce qui pourrait traduire l'effet de la gratuité de l'enseignement primaire instauré en 2010-2011.

Proportionnellement parlant, si les filles ont été moins scolarisées que les garçons, l'ampleur de la scolarisation a non seulement varié suivant les provinces, mais elle a aussi été affectée par les conflits armés que les provinces

de l'Est connaissent depuis l'unification du pays en 2003. Néanmoins, si l'on ne prend en compte que les années extrêmes, c'est-à-dire 2005 et 2015, les disparités entre les provinces se sont légèrement réduites dans le temps, même si les taux bruts de scolarisation de la plupart des provinces ont régressé du début à la fin de la période de référence.

L'ampleur de la fréquentation scolaire a été plus faible à l'enseignement secondaire qu'à l'enseignement primaire. À ce niveau, non seulement le taux brut de scolarisation n'a pas atteint 45%, mais aussi il n'a pas connu d'évolution significative. Autrement dit, la RDC n'a pas accompli la généralisation de l'enseignement secondaire au cours de la période de 2005-2015. Ainsi, contrairement à ce que préconise Corbo (2002), en RDC l'enseignement secondaire est encore réservé à une minorité. Celle-ci est plus masculine que féminine et plus concentrée dans certaines provinces que dans d'autres, en particulier dans la ville de Kinshasa et dans les provinces qui n'ont pas connu de conflits armés. En effet, les inégalités entre les garçons et les filles ainsi que les disparités entre les provinces ont été plus accentuées au secondaire qu'au primaire. Pourtant, « celui qui ne complète pas cet ordre de formation sera complètement perdu dans la société de l'avenir » (Corbo, 2002, p. 175).

L'étude montre, enfin, que les filles ne sont pas défavorisées uniquement sur le plan de la fréquentation scolaire, mais elles le sont aussi au niveau des effectifs bruts de la population scolarisée. À cet égard, pour 100 garçons scolarisés, il y a uniquement 91 et 57 filles scolarisées respectivement au primaire et au secondaire. En dehors de la ville de Kinshasa, l'absence de parité concerne toutes les provinces. Il est plus accentué au secondaire qu'au primaire, par les conflits vécus par les provinces de l'Est. Ainsi, malgré les campagnes de sensibilisation organisées pour l'amélioration de la scolarisation des filles et, contrairement aux objectifs de l'EPT, des OMD et des ODD, la RDC est encore loin de réaliser la parité filles-garçons au niveau de l'enseignement secondaire.

En dépit de la méthode appliquée pour l'analyse des données, cette étude comporte quelques limites. La première tient au fait que l'étude a porté uniquement sur la demande de l'éducation. Pourtant, pour comprendre l'évolution de cette dernière, il convient également d'analyser l'évolution de l'offre de l'éducation. Car, la demande de l'éducation est généralement stimulée par l'offre. On ne peut pas, par exemple, avoir des élèves là où il n'y a pas d'écoles. De même, l'ampleur de la scolarisation ne peut pas augmenter si les élèves doivent parcourir une longue distance pour atteindre l'école la plus proche. L'augmentation du budget consacré à l'éducation et la suppression des frais scolaires pourraient également influencer positivement sur la scolarisation. L'analyse de l'offre de l'éducation pourrait donc permettre d'expliquer la faible ampleur de la scolarisation mise en évidence par cette

étude, particulièrement au niveau du secondaire. Elle pourrait aussi fournir des éléments d'explication des disparités observées entre les provinces.

Comme deuxième limite, la présente étude n'a pas indiqué les causes de l'évolution positive des taux d'accroissement et les déterminants des disparités constatées entre les provinces, voire entre les garçons et les filles.

Le fait de s'être focalisé uniquement sur l'approche quantitative, constitue la troisième limite de cette étude. L'approche qualitative, notamment l'entretien avec les autorités gouvernementales, avec les prestataires de service (les directeurs d'écoles et les enseignants) et avec les usagers du système éducatif (les parents et les élèves) pourrait bien fournir des données précieuses pour la compréhension de l'évolution de la scolarisation en RDC.

## **Conclusion**

Cette étude avait pour objectif d'analyser l'impact des conflits armés sur l'évolution de la scolarisation primaire et secondaire en RDC de 2005 à 2015. Il s'est agi, en fait, d'étudier le rythme de croissance des effectifs d'élèves, l'ampleur de la fréquentation scolaire et la parité filles-garçons. Elle a révélé que l'accroissement annuel des effectifs a été en moyenne de 6% aussi bien au niveau de l'enseignement primaire que de l'enseignement secondaire. Si l'accroissement des effectifs des filles a été plus important que celui des garçons, l'évolution des effectifs n'a pas été affectée par les conflits vécus par les provinces de l'Est du pays depuis le début de ce siècle. En revanche, si le taux de scolarisation s'est sensiblement amélioré au niveau du primaire, passant de 81% à 111%, il a pratiquement stagné en dessous de 45% au niveau de l'enseignement secondaire. Par rapport à la population scolarisable, les filles et les provinces affectées par les conflits armés ont été défavorisées au cours de la période de 2005-2015.

Eu égard aux résultats de cette étude, des efforts importants devraient être déployés par la RDC pour assurer la parité filles-garçons et combler le retard enregistré par les provinces de l'Est du pays. Sinon la RDC ne pourra atteindre l'ODD 4 d'ici 2030.

Les limites de cette étude, brièvement résumées à la section précédente de ce texte, peuvent constituer des points de départ des recherches ultérieures. Il serait, par ailleurs, important que les recherches examinent aussi l'évolution de la scolarisation au-delà de l'année 2015. En effet, la RDC s'est dotée, depuis 2015, de la stratégie sectorielle de l'éducation et de la formation (République Démocratique du Congo, 2015). Couvrant la période de 2016-2025, celle-ci vise non seulement à développer l'accès et à assurer l'équité, mais aussi à améliorer la qualité des apprentissages ainsi que la gouvernance et le pilotage du secteur de l'éducation. Sur la base de cette stratégie, de la Constitution et de la loi-cadre de l'enseignement n°14/004 du 11 février 2014 (Cabinet du Président de la République, 2014), la RDC a, après les difficultés



connues en 2010-2011, réinstauré la gratuité de l'éducation de base à partir de l'année scolaire 2019-2020. Cette mesure, ainsi que l'application globale de la stratégie sectorielle de l'éducation et de la formation, ont certainement des effets sur l'évolution de la scolarisation, notamment sur l'accroissement des effectifs d'élèves, le taux de scolarisation et la parité filles-garçons. Ces effets ne peuvent être appréhendés que si l'on examine l'évolution de la scolarisation au-delà de l'année 2015. Un tel examen peut, par ailleurs, permettre d'apprécier si le système éducatif de la RDC est sur une bonne trajectoire pour l'atteinte de l'ODD 4 d'ici 2030.

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**Annexe 1. Taux d'accroissement par sexe au primaire**

Province	05-06/06-07		06-07/07-08		07-08/08-09		08-09/09-10		09-10/10-11		10-11/11-12		11-12/12-13		12-13/13-14		13-14/14-15		Moyenne	
	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F
Kinshasa	5	6	14	15	-2	-2	2	2	3	1	-4	-2	6	6	8	8	5	6	4	4
Bas-Congo	4	6	10	12	-1	0	1	2	9	10	9	10	1	2	1	2	0	0	4	5
Bandundu	12	14	20	21	0	2	6	6	-1	0	22	22	1	4	6	6	5	7	9	8
Équateur	9	13	14	15	0	6	4	5	14	15	-2	1	2	6	7	8	6	7	5	6
Province Orientale	5	7	5	7	3	11	4	3	4	5	0	0	3	5	6	6	6	6	4	6
Maniema	8	11	8	12	5	8	3	6	-1	2	15	17	12	13	3	1	5	7	6	9
Nord-Kivu	4	6	10	13	2	1	6	7	-17	-16	10	12	5	5	9	10	3	4	4	5
Sud-Kivu	5	7	8	13	-2	-3	0	3	0	1	5	6	4	6	10	10	5	6	4	5
Kasaï Oriental	6	7	1	3	-2	-1	0	2	15	11	3	9	3	5	10	9	5	5	5	5
Kasaï Occidental	9	13	-5	-1	16	15	0	6	12	11	2	4	4	6	9	10	9	11	6	8
Katanga	7	10	18	21	2	4	0	2	4	5	9	9	12	12	3	3	3	5	6	8
RDC	7	9	10	13	2	4	3	4	5	5	6	8	4	6	7	7	5	6	5	7
CV	0,37	0,34	0,82	0,58	2,26	1,33	0,99	0,48	2,32	1,89	1,06	0,81	0,82	0,51	0,48	0,51	0,48	0,45	0,29	0,26

**Annexe 2. Taux d'accroissement par sexe au secondaire**

Province	05-06/06-07		06-07/07-08		07-08/08-09		08-09/09-10		09-10/10-11		10-11/11-12		11-12/12-13		12-13/13-14		13-14/14-15		Moyenne	
	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F
Kinshasa	5	6	16	16	-2	-3	6	5	6	8	-7	-4	1	0	6	8	6	6	5	6
Bas-Congo	5	7	9	7	0	2	5	1	8	9	10	11	1	5	5	7	0	2	5	7
Bandundu	13	11	16	16	-2	-1	-2	-4	10	12	18	21	-2	3	25	6	2	7	13	11
Équateur	8	16	22	21	5	14	1	-1	9	13	3	9	-4	6	4	7	5	9	8	16
Province Orientale	5	11	12	13	16	24	-1	0	12	15	-27	-29	5	8	6	11	4	9	5	11
Maniema	12	27	10	13	23	35	-2	0	38	40	-27	-15	-2	5	5	10	4	5	12	27
Nord-Kivu	6	12	14	18	7	7	11	17	6	6	-2	-1	-2	3	5	9	2	4	6	12
Sud-Kivu	6	15	15	20	8	10	-1	1	9	15	-8	-4	-3	6	12	13	3	9	6	15
Kasaï Oriental	2	6	-15	-9	6	13	-2	-1	7	8	4	7	-2	6	4	7	6	7	2	6
Kasaï Occidental	3	12	-26	-17	18	24	7	8	13	9	0	-4	11	3	11	2	7	3	12	
Katanga	7	12	-47	50	48	-48	-2	12	-14	-15	14	12	13	13	3	12	0	0	7	12
RDC	7	10	8	12	8	9	2	4	7	9	3	3	1	5	9	9	3	6	7	10
CV	0,59	2,74	1,43	1,82	2,40	2,31	1,60	1,69	1,41	5,04	4,63	5,03	0,73	0,71	0,26	0,71	0,49	0,48	0,59	0,59

**Annexe 3. Taux d'accroissement au primaire suivant les zones de conflit**

Zone	Province	05-06/06-07	06-07/07-08	07-08/08-09	08-09/09-10	09-10/10-11	10-11/11-12	11-12/12-13/	12-13/213-14	13-14/14-15	Moyenne
Zone de stabilité	Kinshasa	6	17	-2	2	2	-3	6	9	6	5
	Bas-Congo	6	12	-1	1	10	10	2	2	0	5
	Bandundu	14	25	1	6	-1	28	2	7	6	10
	Équateur	11	17	2	5	17	0	4	8	7	8
	Kasaï Occidental	10	-3	18	3	13	3	5	10	11	8
	Kasaï Oriental.	7	2	-1	1	15	6	4	11	5	6
	Total	9	12	3	3	9	7	4	8	6	7
Zone de conflit	Province Orientale	6	6	7	3	5	0	4	6	6	5
	Maniema	12	11	7	4	0	19	14	2	6	8
	Nord-Kivu	6	13	1	7	-14	12	5	11	3	5
	Sud-Kivu	6	11	-2	1	1	6	6	11	6	5
	Katanga	6	24	3	1	4	10	13	3	4	8
	Total	7	13	3	3	-1	9	8	7	5	6
RDC		7	11	3	3	5	7	5	7	5	6

**Annexe 4. Taux d'accroissement au secondaire suivant les zones de conflit**

Zone	Province	05-06/06-07	06-07/07-08	07-08/08-09	08-09/09-10	09-10/10-11	10-11/11-12	11-12/12-13/	12-13/213-14	13-14/14-15	Moyenne
Zone de stabilité	Kinshasa	6	19	-3	6	8	-5	1	8	7	5
	Bas-Congo	7	9	1	3	9	12	3	6	1	6
	Bandundu	14	20	-1	-3	11	23	0	23	4	10
	Équateur	11	27	8	0	11	5	-1	5	7	8
	Kasaï-Occidental	4	-27	25	8	10	7	1	6	4	4
	Kasaï-Oriental	3	-11	9	-2	8	6	1	5	7	3
	Total	8	6	7	2	10	8	7	9	5	6
Zone de conflit	Province Orientale	7	14	24	-1	15	-22	6	9	6	6
	Maniema	18	12	36	-1	62	-19	0	7	5	13
	Nord-Kivu	10	18	7	16	6	-2	0	7	3	7
	Sud-Kivu	10	21	10	0	13	-6	1	14	6	8
	Katanga	9	7	23	3	-12	15	17	4	0	7
	Total	11	14	20	3	17	-7	5	8	4	8
RDC		8	9	8	3	8	3	3	9	4	6

**Annexe 5. Taux brut de scolarisation par sexe au primaire**

Province	05-06		06-07		07-08		08-09		09-10		10-11		11-12		12-13		13-14		14-15		Moyenne	
	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F
Kinshasa	88	80	89	82	93	96	89	91	88	89	89	89	84	85	87	89	93	94	98	98	90	89
Bas-Congo	84	81	87	81	97	85	94	82	92	81	99	88	106	96	105	96	104	97	110	84	98	87
Bandundu	76	66	82	73	100	87	97	86	101	90	97	88	121	109	120	111	126	116	126	126	105	95
Équateur	32	62	42	67	105	75	102	77	104	79	118	92	113	91	113	95	119	101	125	107	97	85
Province Orientale	100	77	101	80	101	85	102	91	103	91	105	94	102	92	103	95	108	99	108	108	103	91
Maniema	76	66	81	71	89	74	91	78	91	80	88	80	102	94	114	106	116	105	115	115	96	87
Nord-Kivu	101	78	102	82	106	93	105	90	109	95	91	80	99	88	102	92	111	100	107	107	103	91
Sud-Kivu	95	78	96	81	100	89	96	84	93	84	91	83	93	86	96	90	114	98	105	105	98	88
Kasaï Oriental	108	88	110	92	108	91	103	87	101	87	116	95	117	102	118	106	129	114	126	126	114	99
Kasaï Occidental	108	70	112	76	99	76	114	86	120	96	120	96	122	100	125	104	135	114	145	125	120	94
Katanga	69	52	73	56	86	68	85	68	83	68	84	70	90	75	100	84	101	85	100	86	87	71
RDC	85	73	89	77	99	84	98	84	99	85	100	87	105	93	108	97	114	102	115	108	101	89
CV	0,26	0,14	0,22	0,12	0,07	0,11	0,08	0,08	0,11	0,10	0,13	0,09	0,12	0,10	0,11	0,09	0,11	0,09	0,12	0,14	0,10	0,08

**Annexe 6. Taux brut de scolarisation par sexe au secondaire**

Province	05-06		06-07		07-08		08-09		09-10		10-11		11-12		12-13		13-14		14-15		Moyenne	
	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F	G	F
Kinshasa	58	47	58	49	62	61	60	57	65	61	67	64	61	60	60	58	62	62	64	64	62	58
Bas-Congo	42	31	43	31	47	32	44	30	44	29	47	31	51	34	56	31	51	36	55	32	48	32
Bandundu	84	42	84	42	90	53	69	41	55	32	59	35	69	43	66	43	85	44	84	46	75	42
Équateur	41	15	29	41	54	18	49	18	44	16	47	18	47	19	44	20	44	21	45	22	44	21
Province Orientale	40	21	39	21	44	23	43	24	36	20	40	23	30	17	31	18	32	20	32	22	37	21
Maniema	66	15	46	13	47	15	56	20	50	19	77	30	59	25	56	26	57	28	22	11	54	20
Nord-Kivu	41	24	41	25	44	31	43	30	44	33	45	34	43	33	41	33	42	35	41	36	43	31
Sud-Kivu	41	25	41	26	51	29	49	28	42	25	45	28	41	26	39	27	43	30	42	33	43	28
Kasaï Oriental	67	31	65	30	57	26	52	25	45	22	47	23	48	60	45	25	46	26	48	27	52	30
Kasaï Occidental	68	24	66	24	49	17	54	20	54	20	57	23	24	22	57	24	56	26	48	24	53	23
Katanga	23	16	25	17	42	19	45	20	40	20	45	20	34	17	38	19	43	24	65	45	40	22
RDC	52	26	49	29	53	29	51	29	47	27	52	30	46	32	48	29	51	32	50	33	50	30
CV	0,41	0,36	0,38	0,26	0,51	0,16	0,40	0,17	0,47	0,22	0,42	0,30	0,49	0,23	0,41	0,28	0,38	0,34	0,44	0,22	0,38	0,41

**Annexe 7. Taux brut de scolarisation au primaire en zone de stabilité et zone de conflit**

	Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Zone de stabilité	Kinshasa	82	84	95	90	89	89	84	88	94	97	89
	Bas-Congo	83	84	91	88	87	93	101	101	101	96	93
	Bandundu	72	78	94	92	95	92	115	101	121	126	99
	Équateur	75	80	90	90	92	105	102	104	110	116	96
	Kasaï Oriental	98	101	99	95	94	105	109	112	122	126	106
	Kasaï Occidental	89	94	87	100	100	108	111	115	124	135	106
	Total	83	87	93	92	93	99	104	103	112	116	98
Zone de conflit	Province Orientale	89	91	93	97	97	99	97	99	103	108	97
	Maniema	70	76	82	84	86	84	98	110	110	115	92
	Nord-Kivu	90	92	100	98	102	86	94	97	105	107	97
	Sud-Kivu	86	88	95	90	88	87	90	93	101	105	92
	Katanga	61	64	77	77	76	77	83	92	93	93	79
	Total	79	82	89	89	90	86	92	98	103	106	91

**Annexe 8. Taux brut de scolarisation au secondaire en zone de stabilité et zone de conflit**

	Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Zone de stabilité	Kinshasa	52	53	61	59	63	66	60	59	62	64	60
	Bas-Congo	37	37	40	37	37	39	42	42	44	42	40
	Bandundu	61	62	72	55	43	47	56	54	65	65	58
	Équateur	29	29	36	34	30	32	33	32	32	34	32
	Kasaï Oriental	50	49	42	39	33	35	36	35	36	37	39
	Kasaï Occidental	48	47	33	38	37	40	41	40	42	37	40
	Total	46	46	47	44	41	43	45	44	47	47	45
Zone de conflit	Province Orientale	31	30	33	29	28	31	24	25	26	27	28
	Maniema	39	29	31	38	34	54	42	41	43	16	37
	Nord-Kivu	32	33	38	36	39	40	38	37	38	39	37
	Sud-Kivu	34	34	40	38	34	37	34	33	37	38	36
	Katanga	28	29	30	33	30	26	29	32	33	24	29
	Total	33	31	35	35	33	37	33	33	33	35	29

**Annexe 9. Indice de parité filles-garçons au niveau de l'enseignement primaire en zone de stabilité et en zone de conflit**

	Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Zone de stabilité	Kinshasa	1,00	1,01	1,02	1,02	1,01	1,02	1,01	1,06	1,04	1,03	1,02
	B-Congo	0,84	0,85	0,87	0,87	0,88	1,10	0,90	1,04	1,04	0,94	0,93
	Bandundu	0,82	0,85	0,86	0,88	0,89	1,15	0,90	1,14	1,12	0,94	0,96
	Équateur	0,66	0,70	0,71	0,75	0,76	1,01	0,80	1,01	1,08	0,86	0,83
	Kasaï Occidental	0,70	0,73	0,76	0,75	0,80	0,96	0,81	0,94	0,97	0,86	0,83
	Kasaï Oriental	0,81	0,82	0,84	0,84	0,86	1,04	0,84	1,02	1,01	0,86	0,89
	Total	0,81	0,83	0,84	0,85	0,87	1,05	0,88	1,04	1,04	0,92	0,91
zone de conflit	Maniema	0,76	0,79	0,82	0,85	0,88	1,20	0,92	1,12	1,11	0,92	0,94
	Nord-Kivu	0,83	0,84	0,87	0,86	0,86	1,03	0,89	1,05	1,07	0,92	0,92
	Sud-Kivu	0,82	0,84	0,89	0,88	0,90	1,01	0,92	1,10	1,08	0,95	0,94
	Province Orientale	0,80	0,81	0,83	0,90	0,88	1,08	0,9	1,09	1,07	0,92	0,93
	Katanga	0,72	0,75	0,78	0,80	0,86	1,04	0,83	0,83	1,04	0,86	0,85
	Total	0,79	0,81	0,84	0,86	0,88	1,07	0,89	1,04	1,07	0,91	0,92

**Annexe 10. Indice de parité filles-garçons au niveau de l'enseignement secondaire en zone de stabilité et en zone de conflit**

	Province	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	Moyenne
Zone de stabilité	Kinshasa	0,94	0,95	0,95	0,95	0,93	0,95	0,98	0,97	0,99	0,99	0,96
	B-Congo	0,67	0,68	0,67	0,68	0,65	0,65	0,66	0,69	0,71	0,72	0,68
	Bandundu	0,59	0,59	0,58	0,58	0,57	0,59	0,61	0,64	0,52	0,54	0,58
	Équateur	0,30	0,37	0,33	0,37	0,36	0,38	0,40	0,44	0,46	0,48	0,39
	Kasaï Occidental	0,41	0,42	0,45	0,37	0,38	0,40	0,36	0,42	0,46	0,49	0,42
	Kasaï Oriental.	0,27	0,31	0,34	0,48	0,48	0,48	0,50	0,54	0,55	0,56	0,45
	Total	0,53	0,55	0,55	0,57	0,56	0,58	0,59	0,62	0,62	0,63	0,58
Zone de conflit	Maniema	0,25	0,30	0,31	0,36	0,37	0,38	0,42	0,45	0,48	0,49	0,38
	Nord-Kivu	0,61	0,65	0,68	0,69	0,74	0,74	0,75	0,79	0,83	0,85	0,73
	Sud-Kivu	0,47	0,52	0,55	0,57	0,58	0,62	0,64	0,69	0,71	0,76	0,61
	Province Orientale	0,47	0,50	0,50	0,56	0,56	0,58	0,57	0,59	0,62	0,66	0,56
	Katanga	0,40	0,42	0,44	0,44	0,51	0,50	0,49	0,49	0,54	0,54	0,48
	Total	0,44	0,48	0,50	0,52	0,55	0,56	0,57	0,60	0,64	0,66	0,55