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Generativity is a Core Value of the ESJ: A Decade of Growth

Erik Erikson (1902-1994) was one of the great psychologists of the 20th century¹. He explored the nature of personal human identity. Originally named Erik Homberger after his adoptive father, Dr. Theodore Homberger, he re-imagined his identity and re-named himself Erik Erikson (literally Erik son of Erik). Ironically, he rejected his adoptive father's wish to become a physician, never obtained a college degree, pursued independent studies under Anna Freud, and then taught at Harvard Medical School after emigrating from Germany to the United States. Erickson visualized human psychosocial development as eight successive life-cycle challenges. Each challenge was framed as a struggle between two outcomes, one desirable and one undesirable. The first two early development challenges were 'trust' versus 'mistrust' followed by 'autonomy' versus 'shame.' Importantly, he held that we face the challenge of **generativity** versus **stagnation in middle life**. This challenge concerns the desire to give back to society and leave a mark on the world. It is about the transition from acquiring and accumulating to providing and mentoring.

Founded in 2010, the European Scientific Journal is just reaching young adulthood. Nonetheless, **generativity** is one of our core values. As a Journal, we reject stagnation and continue to evolve to meet the needs of our contributors, our reviewers, and the academic community. We seek to innovate to meet the challenges of open-access academic publishing. For us,

¹ Hopkins, J. R. (1995). Erik Homburger Erikson (1902–1994). *American Psychologist*, 50(9), 796-797. doi:<http://dx.doi.org/10.1037/0003-066X.50.9.796>

generativity has a special meaning. We acknowledge an obligation to give back to the academic community, which has supported us over the past decade and made our initial growth possible. As part of our commitment to generativity, we are re-doubling our efforts in several key areas. First, we are committed to keeping our article processing fees as low as possible to make the ESJ affordable to scholars from all countries. Second, we remain committed to fair and agile peer review and are making further changes to shorten the time between submission and publication of worthy contributions. Third, we are looking actively at ways to eliminate the article processing charges for scholars coming from low GDP countries through a system of subsidies. Fourth, we are examining ways to create and strengthen partnerships with various academic institutions that will mutually benefit those institutions and the ESJ. Finally, through our commitment to publishing excellence, we reaffirm our membership in an open-access academic publishing community that actively contributes to the vitality of scholarship worldwide.

Sincerely,

Daniel B. Hier, MD

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ESJ Social Sciences

Lifestyle as a Branding Strategy for the Sustainable Brand

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Abstract

The increasing need for concrete action to mitigate the effects of the climate crisis is pushing the younger generation towards more sustainable lifestyles to demand that companies pay more attention to the environment, human rights, and more general issues of social justice. Today, distrust of institutions is at an all-time high, and consumers expect more from the companies to which they are attached. At this point, brands can make a positive contribution to addressing these issues. On this basis, it becomes clear how important this can be for corporate strategy, as the companies that are able to inspire and earn long-term loyalty are the ones that are able to take on the role of point of reference in the society. The assumed role is crucial in the purchasing decisions of more conscious consumers and can be achieved, for example, through a brand position on a social issue or by offering a value system rather than a lifestyle proposition. It helps a brand that represents the lifestyle of a group of people driven by a strong desire to belong there and disrupt the status quo, to connect with customers and make its offer competitive. A lifestyle brand characterised by high symbolic power and a strong emotional connection with its target audience, by offering action to protect the environment, stimulates cultural change that appears critical in relation to hyper-consumption and the resulting environmental impact. This, however, enables its customers to gain greater satisfaction from their purchasing choices and represents a real opportunity to build a sustainable

brand.

Keywords: Branding, lifestyle, marketing, sustainable, strategy

1. Introduction

Critical Consumption

Western society is described as a consumer society because of the predominant role that consumption, perceived as action, plays in social dynamics.

Consumption can be defined as a social behaviour of a routine nature, involving the acquisition and use of goods and services, through which people interpret the world and organise meanings. Indeed, the consumption process can be interpreted as a communicative act through which a certain self-image can be communicated to others. However, the preference for one brand over another takes on a symbolic meaning through which the consumer manifests his/her personal lifestyle, commitment to certain values, and the sharing of certain cultural tendencies (Olivero & Russo, 2022).

One of the fundamental concepts for explaining and understanding consumer behaviour is the concept of lifestyle (Ibid.). Consumption and lifestyle are closely intertwined, with the former being a visible instantiation of the latter (Berzano & Genova, 2011). In fact, lifestyle can be defined as "a non-verbal mode of expression that is shaped primarily by consumer goods and attitudes and in particular by the symbolic meanings they convey" (Ibid.). Today, consumption has become a form of entertainment rather than need satisfaction, which entails huge ethical and environmental problems. The realisation of this fact has prompted many people to challenge the traditional consumer culture by experimenting with alternative forms of consumption. In this regard, trends based on a re-evaluation of what it means to 'own' and the value attached to material objects and those related to what is commonly referred to as an 'ethical living', the most prominent of which are minimalism and the simple living, are very relevant. The key difference between these lifestyles lies in the value attributed to material possessions. On the one hand, while minimalism encourages people to value objects and use them in a symbolic manner, choosing not to accumulate them, on the other hand, simple living, by contrast, views them only from a functional point of view. Whatever value is attributed to material objects, both, have the potential to contribute to a critical cultural shift in relation to hyper-consumption and its impact on the environment, while enabling people to obtain personal benefit and satisfaction from their lifestyles (Martin-Woodhead, 2021).

The emergence of new lifestyles in which less consumption by choice can improve subjective well-being can be considered a kind of 'alternative hedonism' (Soper, 2020; 2008).

Soper argues that any anti-consumerism ethics must "appeal not only to altruistic compassion and concern for the environment, but also to a more disinterested attitude towards the benefits of diverse consumption" (571). This is ultimately because a non-consumption or anti-consumption lifestyle has to be personally appealing and enjoyable in order to become popular (Black & Cherrier, 2010; Jackson, 2005).

There are two main reasons why people adopt the philosophy of anti-consumerism. On the one hand, it is for personal benefits, such as the intangible benefits of living a simpler lifestyle, the adoption of healthier habits, and the economic benefits in terms of savings. On the other hand, there is a growing concern for the environment, which is encouraging more and more people to adopt more environmentally friendly methods.

The global environmental crisis is perceived as a severe threat to the extent that some people begin to experience a 'chronic fear of environmental doom' known as 'eco-anxiety' (Clayton et al., 2017). In this regard, philosopher Zygmunt Bauman (2017) made a sharp observation: "the image of unstoppable 'progress' comes with the threat of loss, rather than promising new goals' [...]. The word 'progress', as we continue to call it by inertia, evokes fear of imminent catastrophe rather than the joy associated with the emergence of new comforts". This is especially true of the millennial generation, who, according to numerous surveys, "for the first time since World War II express fear of losing rather than improving the social status achieved by their parents". Furthermore, most of them "expect the future to bring worsening living conditions rather than pave the way for the progress that marks their parents' personal history and that their parents have taught them to expect by working" (Bauman, 2017).

Today, the value of the environment and sensitivity to waste reduction seem to have taken on a personal significance that was previously unthinkable. Indeed, today's consumption seems to be defined by "a kind of forward-looking interest focused on society rather than the individual" (Olivero & Russo, 2022). According to Tosi (2006), "an increasing number of people are choosing consumption styles that are no longer determined solely by economic criteria, such as the best price or most convenient product, or criteria that can be attributed solely to taste preferences or personal health and well-being. The wide range of behaviour can be traced back to a type of orientation that shares an altruistic dimension and an interest in social issues, which imparts a 'political' character to consumption" (Paltrinieri, 2012).

Roberta Paltrinieri, in her book titled "Felicità Responsabile" (*en. Responsible Happiness*), argues that "a fundamental aspect of our existence is that we live in 'imaginary worlds' consisting of 'sentient communities' in response to people's need to experience approval and a sense of belonging" (Paltrinieri, 2012). The communities described by Paltrinieri "find fertile

ground in the use of Web 2.0 tools, where prosumerism is an established process”. They are also “able to move from shared imagination to collective action, because of less corporate control over prosumer activities and greater resistance from the prosumers themselves”. Indeed, the prosumer becomes a creator of social values and meanings precisely through the opportunities offered by the new communication technologies, thereby shaping social and productive culture (Ibid.).

Over the past two decades, citizens have increasingly used political consumerism and lifestyle activism to advance their political goals. Citizens purchase goods and services in accordance with their environmental, social or ethical values (Micheletti, 2003; Stolle & Micheletti, 2013).

Political consumerism is a way of practising politics in everyday life through the orientation of one's purchases, and it seems to refer to “that active minority of conscious, informed and highly gifted people in terms of cultural and social capital, who turn directly to companies to demand more attention to the environment, respect for human rights and more general issues of social justice” (Paltrinieri, 2012).

In this regard, the sociologist Fabris (2003) defines the neo-consumer as “the critical consumer who has a real opportunity to shift market balances and steer companies towards environmentally and socially compatible choices”. [...]

According to Fabris, the neo-consumer niche is still a niche because of its small size, but it is destined to grow as the limitations of the economic model become more and more evident at the structural level (Paltrinieri, 2012).

Self-expression

Modern consumers are becoming attached to fewer and fewer brands that they consider truly special. Hence, creating an emotional attachment to a brand is a key issue in the modern marketing world. One of the strategies to achieve this goal is to match the personality of the brand with the self-concept of the consumer. Indeed, consumers are attracted to brands with a certain personality because they believe they can express their identity, their self-concept, and convey this in their relationships with others through it (Aaker, 1999; Belk, 1988).

According to Aaker (2009), consumers can get functional, emotional, and social benefits from the purchase of a product. Functional benefits depend on characteristics in terms of product utility and functionality, emotional benefits refer to a brand's ability to stimulate emotional responses when buying or using a product, whereas social benefits enable a person to express commitment to a particular lifestyle by responding to a man's innate need to feel as part of a community based on common values and interests.

Consequently, factors related to the individual self can have a strong influence on consumption habits, as people wish to maintain a positive self-image and can confirm it through consumption experiences (Dunning, 2007). This is because a person's possessions are viewed as an extension of their personality (Belk, 1988).

According to Andreoni (1989, 1990), involving in sustainable action evokes feelings of 'warm glow', making people feel satisfied and proud of a 'positive' perception of themselves. In this regard, numerous studies have shown that consumers are more likely to get involved in pro-environmental actions if they experience hedonic pleasure or positive effects from such behaviour (Corral-Verdugo et al., 2009).

Indeed, it has been demonstrated that positive emotions such as pride and optimism can motivate the maintenance of sustainable behaviour over time (Peter & Honea, 2012). Also, positive environmental actions lead to the cultivation of a sense of hope, which in turn increases climate engagement and sustainable behaviour (Feldman & Hart, 2018; Smith & Leiserowitz, 2014). Beyond wanting to see themselves in a positive light, people want to see themselves as being consistent. For example, self-consistency research shows that a consumer who takes part in a sustainable behaviour for the first time often maintains the sustainable behaviour in the future. Consequently, taking such measures may increase the chances of subsequent sustainable behaviour (Van der Werff, Steg & Keizer, 2014; Bodur, Duval & Grohmann, 2015).

Lifestyle Brand

Nowadays, brands are no longer identified only with the goods produced; they are producers of content rather than goods, contributing to the creation of experiences that people naturally want to participate in (Olivero & Russo, 2022). However, the preference given to one brand over another takes on a symbolic meaning, through which the consumer expresses his/her personal lifestyle, commitment to certain values, and the sharing of certain cultural tendencies (Ibid.).

Lifestyle brands are brands that, in contrast to others, aim to sell products through the marketing of a particular lifestyle. They are brands that embody the values, interests, views, aspirations and opinions of a particular group of people, helping to define their own lifestyle. "Lifestyle, understood as a social form, is a set of practices endowed with a common meaning and relational significance, which appears as a distinctive shared pattern in the community" (Bersano & Genova, 2011). Lifestyle makes a person feel part of a group with which he/she shares the same practices, and at the same time differentiates himself/herself from other groups. In this case, the purchase of a lifestyle brand is not as much determined by the functional aspect or characteristics of the product, but rather by the 'emotional benefit' that the consumer receives

from the interaction with the value system that the brand represents as a producer of content and experiences. Lifestyle brands originate from aspirational characteristics of cultural groups and, when used habitually and selectively, they become part of the identity of specific segments.

Effective strategies of lifestyle branding come from an understanding and appreciation of the specific cultural attributes and nuances of the psychographics of the target markets. As a result, it is important for the organisation to outline the category of target individuals in reasonable detail. In this respect, psychographic research provides an in-depth analysis of the population of consumers, revealing their psychological characteristics such as personality, interests, values, and beliefs. New followers become spokespersons and brand ambassadors by voluntarily associating their person with the brand in which they see recognition and for which they have a desire to be associated with. Thus, brands manage to retain the loyalty of their customers for a longer period of time, which shows that if the brand ceased to exist, it would have a negative impact on their lives (Marazza & Saviolo, 2020).

A lifestyle brand, unlike other brands, provides social benefits by offering a 'world-view' shared by a significant number of people who become customers because they feel represented in terms of views, opinions, and interests. Therefore, it is not so much the product as the brand itself that generates benefits, expressing the values and aspirations of a particular social group (Ibid.).

Unlike FMCG communication, which is structured around the benefits and functional attributes of the product, lifestyle brand communication is based on the articulation of the lifestyle proposition, using a highly aspirational language generally based on image aesthetics. In fact, in relation to lifestyle brands, implicit motives and symbolic elements prevail, which are much easier to be conceptualised and interiorised through image-based communication (Ibid.).

Another aspect that characterises and distinguishes lifestyle brands is the presence of a visionary leader who is able to perceive trends in society and position themselves as a point of reference for the community and as the main actor of the brand credo and manifesto. The presence of this figure is crucial due to his ability to express and articulate a lifestyle proposition, concretising the ethos and social identity of a significant group of people in the brand and its products (Ibid). Following the evolution of the market and social representation, lifestyle brands need to constantly transform as society changes, reinvent themselves, and represent the deep identity of groups of individuals across generations. Therefore, the role of the visionary leader does not end with the first product or brand approval, but it is essential to generate stories and narratives that can constantly feed the brand 'myth' in order to

always be able to represent the deep identity of groups of people across generations. So the visionary leader should rely on a team of professionals capable of turning the vision into reality, cultivating it daily in all manifestations of the brand. When organisational mechanisms are poorly structured or do not fully express the leader's vision, it is very difficult to ensure brand stability and its ability to evolve consistently across time, space, and categories. Often in such a situation, the brand has to re-establish trust and success season after season and cannot achieve or maintain lifestyle brand status over time (Marazza & Saviolo, 2020).

In fact, the original intuition behind a brand is doomed to weaken for a variety of reasons: it can be copied or developed by competitors, lose its characteristic relevance and novelty, or simply because social conditions that have created the background for the magical chemistry between a brand and its followers change. Over time, success begins to depend on the ability not to betray the spirit of the original and to maintain the interest of the target audience, guaranteeing brand integrity. To maintain this authority, the brand has to continue to innovate and invest in the historic product line to keep it relevant. They also have to continue the dialogue with the consumers of these products in order to capture all the nuances in the evolution of their culture and needs.

The success of brands with a high symbolic value is deeply linked to the context in which they are born and evolve. Their growing importance in many consumer goods sectors is the result of the confluence of two phenomena: the evolution of social identity with its impact on consumer behaviour and the evolution of the role of the brand in the social context. Today, institutional distrust is at an all-time high and consumers expect more and more from the companies with which they are associated. Hence, the positive contribution that brands can make to the world is fundamental to corporate strategy. In fact, when choosing a product, in addition to its characteristics and functionality, the positions taken by that company on political and social issues, its value system and the lifestyle it offers also matter.

Companies that are able to inspire and earn long-term loyalty are those that are able to take on the role of a reference point in society. Consequently, a brand's position on a particular social issue can be crucial to consumers' purchasing decisions. It is no coincidence that major brands often take a proactive stance on important social issues, such as environmental protection, racial issues, gender discrimination or gun control.

Furthermore, it should not be underestimated that consumers, especially critical ones, also want to play a 'proactive' role through their purchases, feel involved in valuable projects or support great causes. Thus, the positive contribution that brands can bring to the world is fundamental to corporate strategy, in which case lifestyle brands not only offer break points, innovation

and change, but they also encourage their customers and ambassadors through a 'Call to Action' to become spokespersons of the world-view they offer, directly participating in the transformation and disruption of the status quo.

In declaring and pursuing an ideal, a brand needs a sincere and transparent connection with consumers, and in order to do so, it has to equip itself with the best storytelling techniques (Grizzanti, 2020). Storytelling allows companies to 'humanise' themselves and convey the true essence of the brand, thereby establishing a closer and more personal connection with consumers.

Modern technology allows us to share more and more information and, therefore, make choices based, among other things, on the stories we tell. Brand journalism, or corporate journalism, is a communication strategy that many companies have been using recently. Through its journalistic techniques, the company focuses on creating stories and content revolving around the company's reality, telling stories through analysis of reliable information, and engaging with readers by providing answers to their questions in order to reinforce the brand vision, enhance its value, and create engagement.

2. Objectives of the Study

So far, the lifestyle brand has been presented by reflecting on its social context and defining its main characteristics in marketing terms.

In order to explore the relationships that connect critical consumers with a sustainable brand, a survey was conducted using a questionnaire structured in such a way as to obtain a psychographic segmentation of basic personality traits, values and beliefs, and to explain the relationship that exists between product-personality-scenario in light of this.

Lifestyles are usually measured through the creation of items that enable homogeneous groups of consumers to be identified in it. The purpose of these items, especially in relation to market research, is to obtain the psychographics of consumers by focusing mainly on three macro dimensions: activities (A), interests (I), and opinions (O). Thus, these three aspects can be expressed in terms of cultural interests, leisure activities, the amounts they spend, beliefs and attitudes, right down to psychological variables and personality traits. In fact, there has been a growing tendency among scholars who have approached the study of lifestyles through consumption analysis to adopt a rather broad definition of 'consumption' itself.

In determining these aspects, the reference to 'value', which has always defined consumer behaviour and habits and ended up justifying even the most critical purchases, takes on particular significance. Designed to give stability and therefore clarity to volatile consumer behaviour, value represents a point of reference for the individual, society or group to which he/she belongs.

The objective of an ethical lifestyle brand is to inspire behavioural change consisting of a more or less permanent modification of its customers' habits, and since the latter cannot be identified through questionnaires, the analysis is subject to more or less favourable 'attitudes' towards certain types of behaviour.

A recent Google study¹ found that Italian consumers surveyed are looking for specific actions and brands to help them take such actions. In web searches, Italians' interest has shifted from big climate and environmental issues to specific actions. In this regard, Google Research shows that interest in topics such as 'climate change' and 'pollution' has declined in Italy in favour of more specific expressions such as "sustainable fashion" and "tree planting". This indicates a consumer willingness to approach sustainability more positively, demonstrating the need to perceive it within their reach.

This opens up the opportunity for brands to implement green marketing strategies that help people take practical and environmentally beneficial actions with companies themselves on a daily basis. People appreciate what companies do to protect the environment throughout the supply chain. Consumers are interested in knowing how committed companies are, but they are also skeptical of brand claims about being sustainable that are not backed up by real examples. Hence, companies should make an effort to demonstrate why they consider themselves virtuous and avoid making statements that are not backed up by specific initiatives. Sustainability has become an important factor in shopping choices, so much so that for 31% of Italians interviewed in a Google survey, it is more 'appealing' than design and style. Among 18-24 year olds, this figure rises to 37%, demonstrating Generation Z's interest in the environment and their desire to improve society.

3. Methodology

To carry out the survey, a representative sample was selected using probability sampling.

The representative sample was drawn from the number of "critical consumers", i.e., those consumers who are guided by environmental and social criteria in their purchasing habits. In order to reach the target category, a survey created with Google Forms was shared through Facebook groups (private and public) dedicated to this consumer category. In particular, Facebook communities participated in the survey, which included:

¹Raffaella Stratta (2022). 'A tutto verde: ecco cosa pensano i consumatori della sostenibilità in Italia' (en. Going Green: What Consumers Think about Sustainability in Italy), source: Google, Italy.

environmentalists, ecologists, environmental activists, minimalists, vegetarians, vegans, outdoor enthusiasts, sustainable fashion, mindfulness, and happy degrowth.

The sampling should be considered a probability sampling, as the choice of filling in the survey was at the discretion of the users of the aforementioned communities.

The questionnaire consists of four sections preceded by a privacy statement, with a total of 20 closed-ended questions. The first section aims to gather basic socio-demographic information from the participants, defining the sample by gender, age, and education level. In the second section, they were asked to express their level of agreement (on a scale of 1 to 4) on a number of items designed to assess subjects' engagement with environmental, health, and social (lifestyle) issues. In the third section, the respondents were asked to select the most personally relevant statement from those already given in order to assess personality traits and individual needs. Thus, the proposed response options were developed on the assumption of interviewing four possible categories of critical consumers: 'hedonists', who enjoy aesthetic experiences; 'environmentalists', who are motivated by a passion for nature; 'health-conscious', who focus on healthy lifestyles; and 'virtuous', who are motivated by social issues.

In the last section, they were asked to express their level of agreement on a number of items related to the main motivations for bonding with a sustainable brand, using a scale from 1 to 4, to assess the consumer's level of criticality and brand attachment.

4. Results

A total of 204 people responded to the questionnaire, of which 26.5% were men and 73.5% women. The predominance of women probably reflects their greater involvement in the topics under study (Figure A). Regarding age, generation Y (1981-1996) is the most represented group, followed by generation X (1965-1980) and Z (1997-2012), which are slightly less. The Boomer generation (1946-1964) is significantly less represented, which is probably due to their lower presence on social media (Figure B). In terms of educational level, the sample appears to be highly educated: 59% have a university degree or have attended courses after graduation, 37% have a high school diploma, and 4% only have a secondary school diploma (Figure C).

The majority of respondents believe that they lead an environmentally sustainable (91%) and health-oriented lifestyle (74%) (Figure D, E). Approximately three quarters of the respondents stated that they were 'deeply concerned' about the current climate crisis (Figure D), expressing their concern with the highest rating. Moreover, the majority of respondents (62%) were very critical about their purchases, stating that they refrain from buying

goods that are not made using environmentally friendly methods or materials (Figure G), and that they sometimes feel guilty about the environment after making a purchase (Figure H). Therefore, this may be related to the high level of school education of the respondents. Education and greater access to information may contribute to the development of a strong self-awareness and a more critical attitude towards one's consumption choices.

About 69% said that they were not satisfied with the range of products on the market, which confirms that there is 'unmet demand' in terms of marketing. 76% of respondents stated that they get satisfaction from their sustainable purchases, knowing that they are doing something for the environment (Figure M). Positive emotions, such as pride and optimism, encourage consumers to cultivate a sense of hope, motivating them to maintain sustainable behaviour over time.

The interest of consumers in increasing their awareness through the adoption of a sustainable lifestyle was very significant (53.4%) (Figure N). 33.3% considered it very important for a sustainable brand to pay more attention and care to the consumer's needs (Figure K), while 31.4% considered following current trends to be a more important characteristic of a sustainable brand. Reflecting their own ideals is less important (22.5%), followed by the characteristic of being proactive (12.7%).

As for the aesthetic aspect, 61.7% rated it as 'very decisive' when purchasing a sustainable product (Figure R), while 63.2% (Figure Q) considered the brand's ability to excite through an expression of mood or state of mind that reflected their own personality to be important. Of particular importance is the percentage of respondents who consider it essential that a brand's point of view matches their own (73.5%) (Figure Q). Almost all respondents place a high responsibility on the brand to educate and inform consumers on ethical, social, and environmental issues (90.2%) (Figure T), considering its contribution in offering environmentally-oriented actions to be fundamental (98.1%) (Figure O).

Conclusion

In conclusion, given the increasing need for concrete action to mitigate the effects of the climate crisis and the growing tendency of younger generations to experiment with 'new' forms of consumer satisfaction, lifestyle branding proves to be a viable option for creating a sustainable brand that benefits both consumers and the company itself.

For consumers, the benefits of the lifestyle product offerings are mostly of a social and relational nature. Among these, above all, a sense of belonging to a social circle prevails, in which the individual receives the satisfaction of having his/her ideals recognised. In fact, for the consumer, part of the pleasure associated with a so-called 'sustainable purchase' comes from a feeling of pride

in his/her choice and the emotional involvement favoured by a perception of 'participating in the change'. Thus, the lifestyle brand acquires the human traits that make it socially active and capable of exerting its 'influence', acting as an inexhaustible source of inspiration, novelty, and entertainment for the critical consumer and helping him/her to gravitate towards the desirable lifestyle.

For a sustainable brand, inspiring environmentally friendly action while providing a hedonistic experience is now a major challenge facilitated by the growing communication potential of digital media and web technology. In addition, promoting product durability and the quality of materials used allows the company to combine the sustainability dimension with high-end positioning. Offering a lifestyle that inspires a certain way of living turns out to be an important opportunity to increase the category of its products through a broad spectrum such as 'wellness', 'home decor' and so on. Moreover, by adopting a broader perspective, in addition to the benefits of an economic nature, a company can also gain benefits of a social nature. However, these are manifested both in the constant research aimed at offering alternative and increasingly 'effective' solutions to address climate change and in the active role of the brand, which becomes a promoter of actions and ways of thinking in favour of a universal ideology that works for a good which is as common as it is valuable, i.e., our environment.

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Data Availability: All of the data are included in the content of the paper.

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Appendix

I. Questionnaire offered to study participants

Section 1 - PRIVACY STATEMENT

This research is conducted for a thesis in Communication and Advertising at the University for Foreigners in Perugia. Before you start filling in the questionnaire, we assure you that the information provided will be treated strictly anonymously and confidentially (in accordance with article 7 of Legislative Decree 196/2003) and that the results of the survey will be used exclusively for scientific and educational purposes.

Section 2 - SOCIO-DEMOGRAPHIC DATA

1) *Sex*

- Woman Men

2) *When were you born?*

- 1946-1964
 1965-1980
 1981-1996
 1997-2012

3) *What is your educational level?*

- Secondary school diploma
 Diploma
 University degree/postgraduate diploma

Section 3 - ENGAGEMENT WITH ENVIRONMENTAL, HEALTH AND SOCIAL ISSUES

For each of the following statements, express the degree of agreement using a scale from 1 to 4, where 1 means 'strongly disagree'; 2 = slightly agree; 3 = agree; 4 = strongly agree.

4) *I live an environmentally friendly lifestyle (carefully separating waste, trying to limit energy consumption, etc.).*

1 2 3 4

Strongly disagree

Strongly agree

5) *I live a healthy lifestyle (I do sports, follow a healthy and balanced diet, buy organic food, etc.)*

1 2 3 4

Strongly disagree

Strongly agree

6) *I am very concerned about the current climate crisis*

1 2 3 4

Strongly disagree

Strongly agree

7) *I refrain from buying a product that has not been made using environmentally friendly methods or materials*

1 2 3 4

Strongly disagree

Strongly agree

8) *Sometimes I feel guilty about the environment before making a purchase*

1 2 3 4

Strongly disagree

Strongly agree

Section 4 - NEEDS, PERSONALITY, LIFESTYLES

For each of the following statements, select ONLY the most relevant to you.

9) *I make a purchase...*

- to express myself
- to feel fulfilled
- to get closer to an ideal lifestyle
- only when necessary

10) *Sustainable brands...*

- follow current trends
- reflect my ideals
- are more attentive to my needs
- are proactive

11) *Sustainable clothes...*

- are of better quality (buy less, buy better)
- are timeless (they are a must-have)
- are adaptable to different situations (less is more)
- respect the environment and the conditions for workers

12) *Through sustainable purchasing, I benefit from...*

- doing my part to protect the environment
- seeing my values/ideals recognised
- being able to express my personality
- belonging to a community that shares my point of view

13) *Living a sustainable lifestyle helps me to ...*

- have a more genuine life
- be proud of myself
- reduce my concern for the environment
- be more conscious

Section 5 - BONDING WITH THE BRAND

For each of the following questions, express the degree of agreement using a scale from 1 to 4, where 1 means 'not at all important'; 2 = slightly agree; 3 = agree; 4 = very important.

14) *How important do you think it is for the brand to offer daily solutions to help protect our planet?*

1 2 3 4

Not at all important

Very important

15) *How important do you think it is for the brand to focus on helping people take environmentally friendly actions on a daily basis?*

1 2 3 4

Not at all important

Very important

16) *How important do you think it is for the brand to be able to excite through the expression of a mood?*

1 2 3 4

Not at all important

Very important

17) *To make me feel involved in buying the product, the visual content (photos, videos, images and graphics) of the brand should reflect my personal aesthetic taste.*

1 2 3 4

Not at all important

Very important

18) *How important do you think it is for a brand to adopt a point of view similar to yours?*

1 2 3 4

Not at all important

Very important

19) Do you think a brand should play a cultural role in cultivating sensitivity and responsibility towards social issues nowadays?

1 2 3 4

Not at all important

Very important

20) How satisfied are you with the range of sustainable products on the market? (1-4)

1 2 3 4

Not at all important

Very important

SOCIO-DEMOGRAPHIC CHARACTERISTICS

Fig.A

1) Sex
204 responses

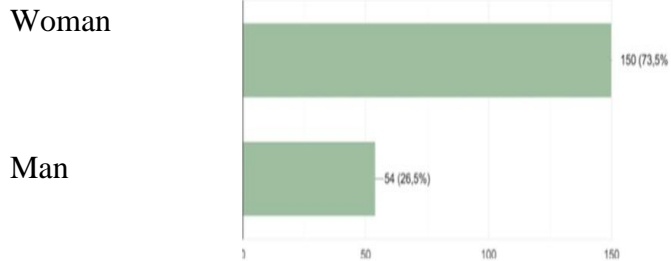


Fig. B

2) When was he/she born?
204 responses

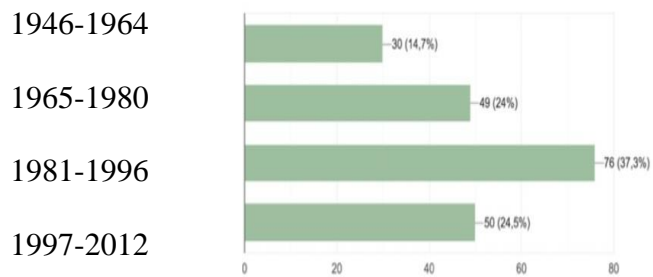
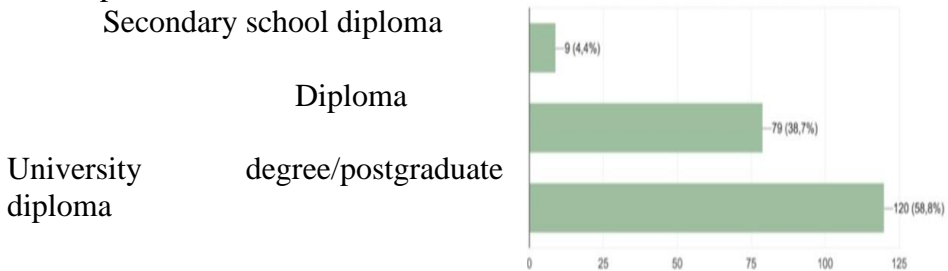


Fig.C

3) What is his/her educational level?
204 responses



ENGAGEMENT WITH ENVIRONMENTAL, HEALTH AND SOCIAL ISSUES

Fig. D

4) I live an environmentally friendly lifestyle (carefully separating waste, trying to limit energy consumption, etc.).

204 responses

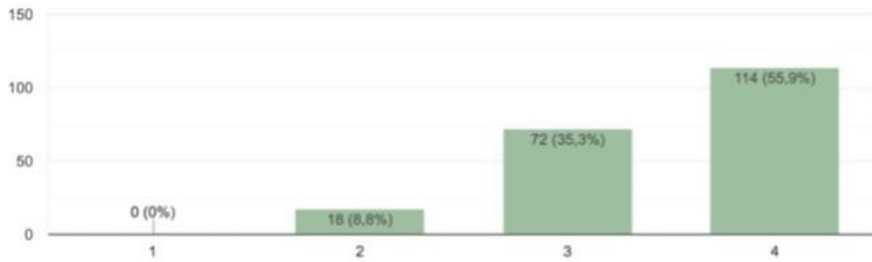


Fig. E

5) I live a healthy lifestyle (I do sports, follow a healthy and balanced diet, buy organic food, etc.)

204 responses

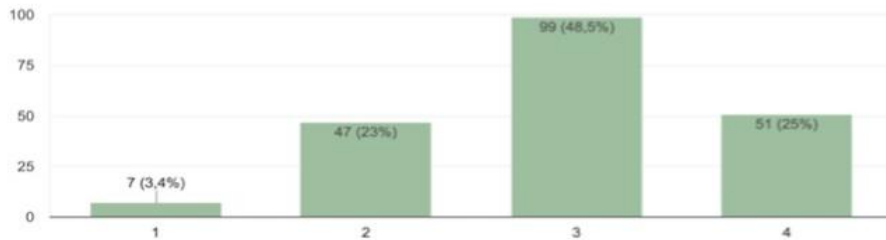


Fig. F

6) I am very concerned about the current climate crisis

204 responses

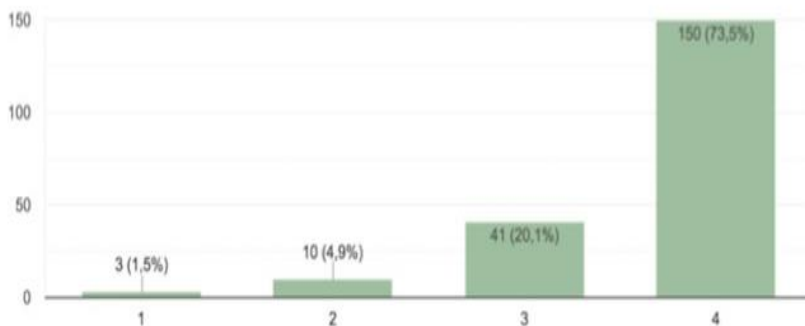


Fig. G

7) I refrain from buying a product that has not been made using environmentally friendly methods or materials

204 responses

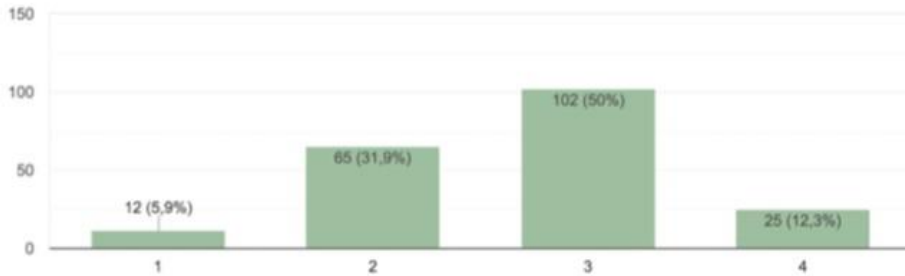


Fig. H

8) Sometimes I feel guilty about the environment before making a purchase

204 responses

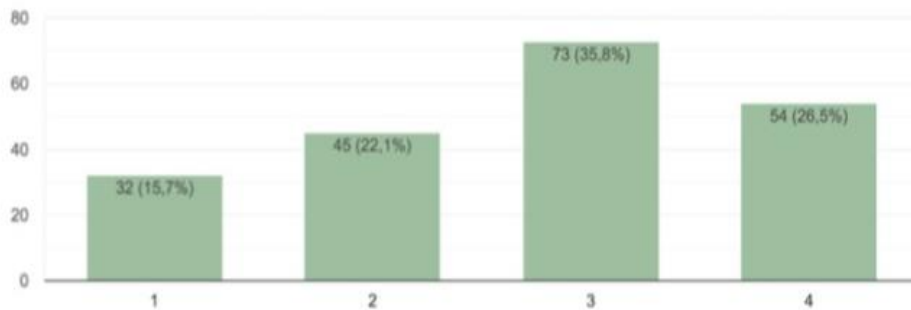
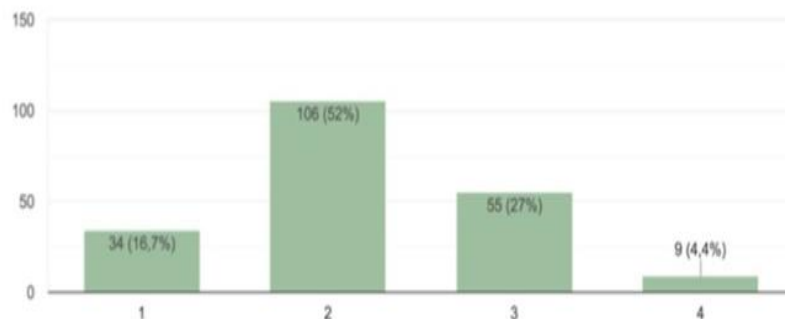


Fig. I

9) How satisfied are you with the range of sustainable products on the market?

204 responses



NEEDS, PERSONALITY, LIFESTYLES

Fig. J

10) I make a purchase to... (the most relevant to you)
 204 responses

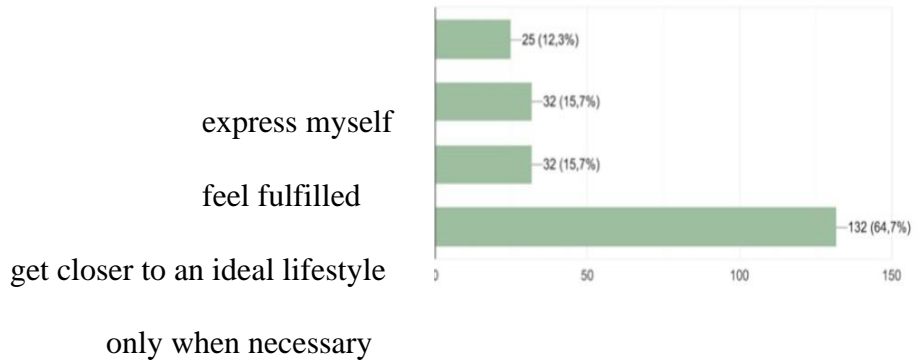


Fig. K

11) Sustainable brands... (the most relevant to you)
 204 responses

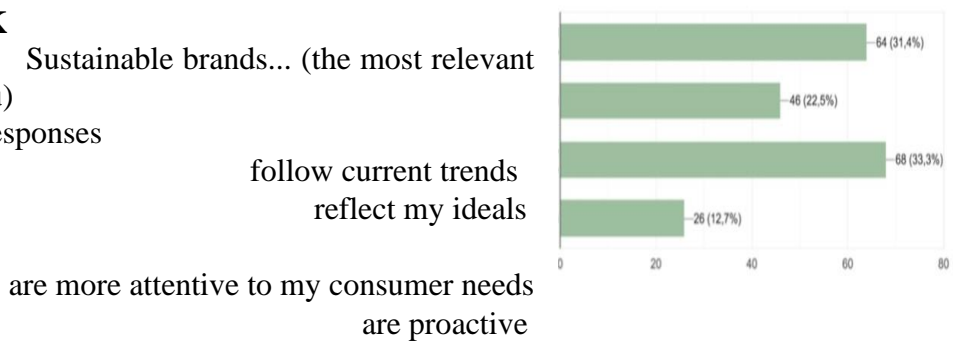


Fig. L

12) Sustainable clothes... (the most relevant to you)
 204 responses

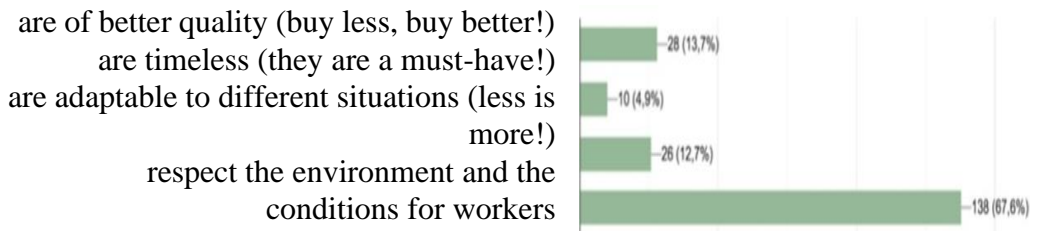


Fig. M

13) Through sustainable purchasing I benefit from... (the most relevant to you)

204 responses

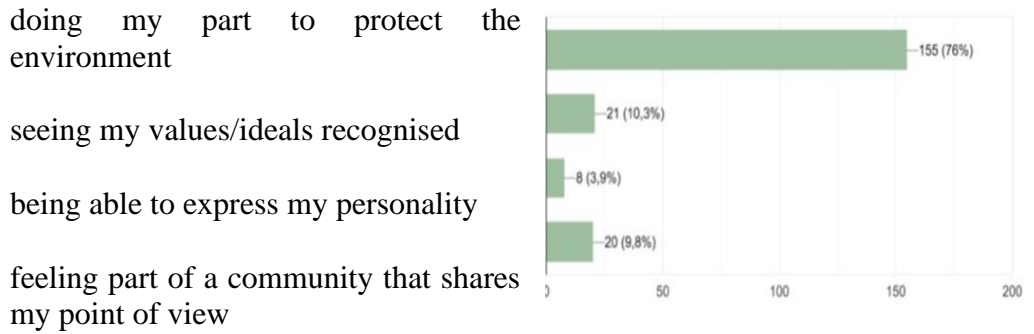
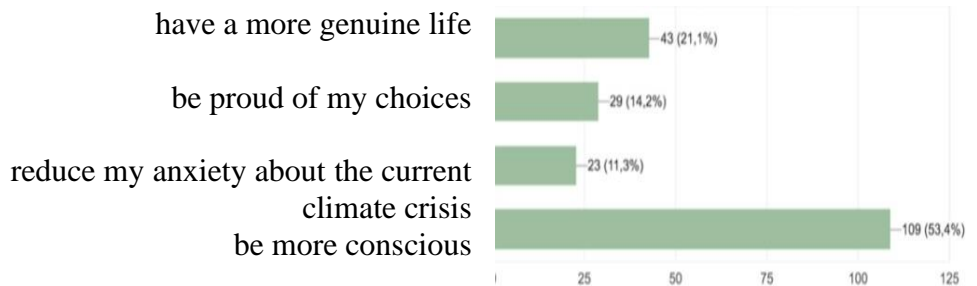


Fig. N

14) Living a sustainable lifestyle helps me to ... (the most relevant to you)

204 responses



BONDING WITH THE BRAND

Fig. O

15) How important do you think it is for the brand to offer daily solutions to help protect our planet?

204 responses

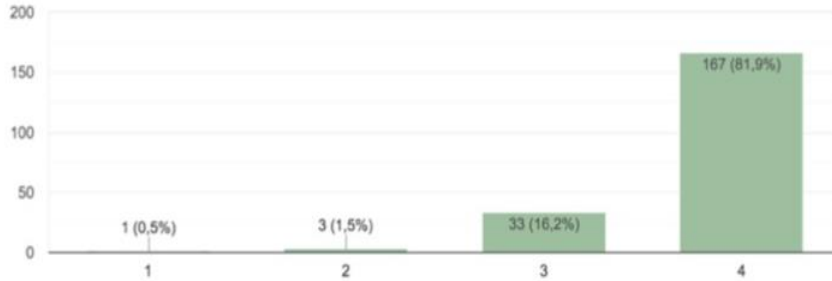


Fig. P

16) How important do you think it is for the brand to focus on helping people take environmentally friendly actions on a daily basis?

204 responses

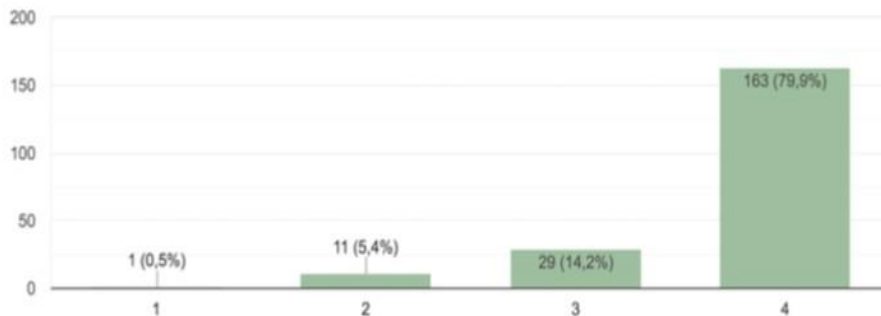


Fig. Q

17) How important do you think it is for the brand to be able to excite through the expression of a mood conveying your personality?

204 responses

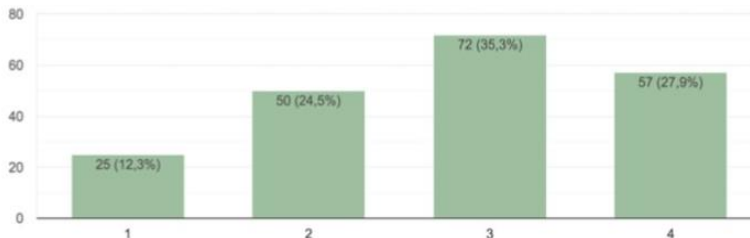


Fig. R

18) To make me feel involved in buying the product, the visual content (photos, videos, images and graphics) of the brand should reflect my personal aesthetic taste.

204 responses

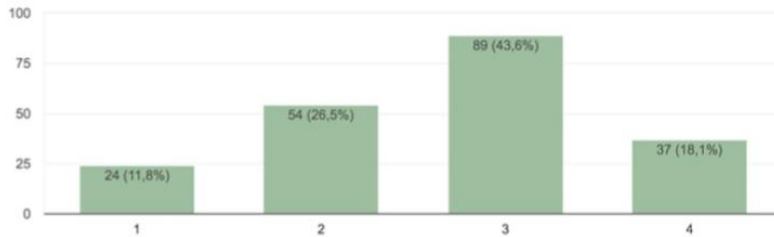


Fig. S

19) How important do you think it is for a brand to adopt a point of view similar to yours?

204 responses

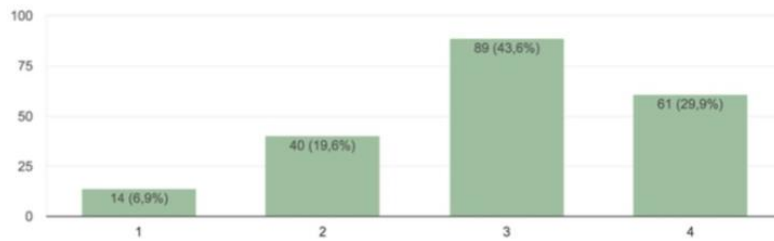
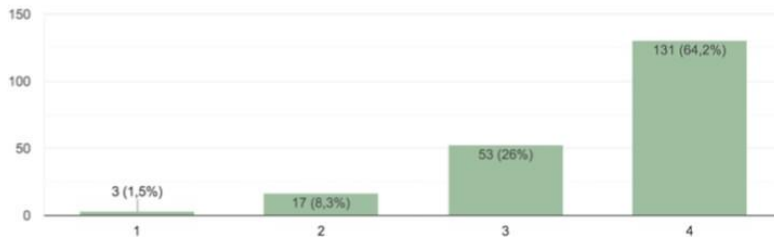


Fig. T

20) Do you think a brand should play a major role in educating and raising awareness of ethical, social and environmental issues nowadays?

204 responses





ESJ Social Sciences

The Impact of Saltwater Intrusion on Rice Cultivation and Aquaculture in Ham Tan Commune, Tra Cu District, Tra Vinh Province, Mekong Delta, Vietnam

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Abstract

This article discusses the impact of saltwater intrusion on rice cultivation and aquaculture in Ham Tan commune, Tra Cu District, Tra Vinh Province, Mekong Delta, Vietnam. Based on 15 in-depth interviews and sociological surveys conducted in Ham Tan commune, Tra Cu District, Tra Vinh Province, the article highlights the main findings. Firstly, rice cultivation and aquaculture in Ham Tan are multidimensionally affected by the negative impacts of saltwater intrusion. Secondly, saltwater intrusion reduces crop yields and decreases the area available for rice cultivation. It also increases labor days and investment costs in rice production. Thirdly, saltwater intrusion decreases the productivity of aquaculture. In fact, a significant number of households engaged in aquaculture experienced complete losses due to saltwater intrusion.

Keywords: Saltwater intrusion, aquaculture, rice cultivation, Mekong Delta, Vietnam

Introduction

The Mekong Delta, also known as the "Rice Bowl" of Vietnam, is a vital agricultural region and a major contributor to the country's food production. With the importance of the Mekong Delta, many studies have been conducted to understand this region from various perspectives. Navin Singh Khadka

emphasizes the richness of the Mekong Delta. However, the area is facing alarming issues related to saltwater intrusion, the increasing number of hydropower plants. These activities have resulted in the erosion of 500 hectares of land annually (Khadka 2015). Pham Hong Giang discusses the impact of upstream infrastructure on the downstream Mekong Delta. From the current situation of hydropower dam construction, the environmental impact, river flow, and fisheries are receiving more attention. Evaluating the involvement of major powers in Mekong regional cooperation, other countries have shown high expectations for collaborative efforts in changing and developing the Mekong River Basin (Pham Hong Giang 2010).

The Mekong Delta is facing a significant challenge – saltwater intrusion (Lâm Nguyễn 2017; Nguyễn Thị Hồng Điệp, Danh Huệi and Nguyễn Trọng Cần 2017; TTKNQG 2020). Saltwater intrusion occurs when seawater infiltrates into freshwater sources, affecting agricultural activities and posing a threat to the livelihoods of millions of people in the region. Therefore, it is crucial to study and understand the impacts of saltwater intrusion in the Mekong Delta. Understanding the impacts of saltwater intrusion on agriculture is essential for developing effective adaptation strategies. The Mekong Delta is predominantly an agricultural region, with rice cultivation and aquaculture being the main economic activities. Saltwater intrusion can have devastating effects on these sectors, leading to reduced crop yields, increased soil salinity, and changes in the types of crops that can be cultivated. In order to broaden the understanding of the impact of saltwater intrusion in the Mekong Delta, this article examines the effects of saltwater intrusion on rice cultivation and aquaculture in a specific locality within the Mekong Delta. The focus is on Ham Tan, a commune in Tra Cu district, Tra Vinh province.

Research Area and Methodology

The data used in this article is derived from a sociological survey based on quantitative questionnaires and in-depth interviews conducted in Ham Tan commune, Tra Cu district, Trà Vinh province. Ham Tan is a commune within Tra Cu district, Trà Vinh province. It covers a natural area of 2,098 hectares. As of 2018, the population of the commune consisted of 2,253 households residing in various administrative areas, including 8 hamlets (People's Committee of Ham Tan commune 2018 2018).

The primary livelihood in Ham Tan is agricultural production. The total rice cultivation area in the commune is 620.9 hectares, with an average yield of 4.65 tons per hectare and a total production of 2,990 tons (People's Committee of Ham Tan commune 2018). Regarding aquaculture, the total fishery production in 2018 reached 4,085.09 tons, with an aquaculture area of 103.5 hectares (People's Committee of Ham Tan commune 2018). The social survey employed a combination of quantitative questionnaires and in-depth

interviews to collect data on the impact of saltwater intrusion on rice cultivation and aquaculture in Ham Tan commune.

The field research in Tra Vinh was conducted within the framework of the project "Evaluation of the Impacts of Climate Change, Natural Disasters, and Human Activities to Propose Sustainable Development Models in the Hau River Delta" sponsored by the Ministry of Natural Resources and Environment of Vietnam. Under this project, several localities in the Hau River Delta were surveyed, including Ham Tan commune in Tra Cu district, Tra Vinh province; Long Phu commune in Long Phu district, Sac Trang province; Thoi An ward in O Mon district, Can Tho city; Tan Hoa commune in Lai Vung district, Dong Thap province; Long Kien commune, in Cho Moi district, An Giang province; and Khanh An commune in An Phu district, An Giang province. Data collection in these localities took place in August 2019.

In Ham Tan commune, sociological surveys were conducted among 202 households. Additionally, 15 in-depth interviews were carried out with residents and local leaders of Ham Tan commune. The in-depth interviews focused on understanding people's livelihoods, impacts of saltwater intrusion and drought on people's livelihoods. The purpose of these surveys and interviews was to gather data and insights regarding the impact of climate change, natural disasters, and livelihood activities in the area.

The Impact of Saltwater Intrusion on Rice Cultivation and Aquaculture

In recent years, saltwater intrusion has had a significant impact on the lives and production in the Mekong Delta. For instance, the saltwater intrusion episode in late 2015 and early 2016 was particularly severe and considered the most intense saltwater intrusion in the past 100 years. This event began in February and affected all 13 provinces in the Mekong Delta region. The saltwater intrusion caused extensive damages to agricultural production, including rice cultivation, horticulture, and fruit orchards. Specifically, the 2015-2016 saltwater intrusion resulted in over 160,000 hectares of agricultural land, primarily rice fields, as well as fruit and vegetable crops, being affected by salinity. The estimated economic losses amounted to around 127,000,000 USD (Nguyen Ngoc Anh 2016)

In Ham Tan, the survey results indicate that 88.4% of respondents stated that saltwater intrusion has reduced the rice productivity of their households in the past 5 years (as of the survey period). Therefore, the impact of saltwater intrusion on rice cultivation, particularly the decrease in rice productivity over the past 5 years in Ham Tan, is a very serious issue. According to statistics from the People's Committee of Trà Vinh province, as of February 2020, approximately 5,177 hectares of rice belonging to 6,710 households were damaged due to saltwater intrusion (accounting for 78% of the total rice-growing households). The major damages were concentrated in

districts such as Tra Cu, Cau Ngang, Chau Thanh, Duyen Hai, Cau Ke, and Tieu Can, with losses ranging from 30% to 70%. Thus, saltwater intrusion has significantly affected rice cultivation for the residents of Ham Tan specifically and Trà Vinh province as a whole.

The survey results in Ham Tan also revealed that 73.8% of respondents believed that saltwater intrusion would continue to reduce the rice productivity of their households in the next 5 years. Not only does saltwater intrusion decrease rice cultivation productivity, but it also leads to the inability to cultivate the third rice crop in Ham Tan. In order to utilize the fallow land during the uncultivable rice season, many residents have switched to planting water spinach, a crop that provides better income and is more salt-tolerant. However, when the land is heavily affected by saltwater, even water spinach cannot survive. To mitigate the damage for the people, the local authorities have encouraged them to refrain from cultivating the third crop. As a result, previously, the residents in the area could grow rice for three crops per year, but in recent years, they can only cultivate two crops, resulting in a reduction of one crop per year. From a certain perspective, ceasing the cultivation of the third crop in some areas due to saltwater intrusion will lead to a decrease in rice cultivation area in the Mekong Delta region and the country as a whole, including Ham Tan. This poses a challenge to ensuring the stability of rice cultivation area in the future for the region and the country.

Not only does saltwater intrusion reduce productivity and cultivated area, but it also has an impact on increasing labor intensity and investment costs in rice cultivation in the region. In Ham Tan, 63.5% of respondents in the survey stated that they had to incur additional investment costs in rice production in recent years due to the impacts of saltwater intrusion. Moreover, saltwater intrusion poses an even greater risk for rice farmers, as they may lose an entire crop season. The results of the social survey in Ham Tan revealed that 9.2% of respondents reported that in the past 5 years (up to the survey period), their households had completely failed to harvest any crops due to saltwater intrusion.

Regarding the impact of saltwater intrusion on rice cultivation, Nguyen Tuan Anh and colleagues, based on survey data from six communes in the provinces of Tra Vinh, Soc Trang, Dong Thap, An Giang, and Can Tho in the Mekong Delta, have identified a significant portion of respondents in a sociological survey who assessed the negative effects of saltwater intrusion on rice cultivation. Up to 68.8% of respondents believed that saltwater intrusion had negative impacts on rice cultivation. This means that for a responding household, saltwater intrusion could have various effects on their rice cultivation. The negative manifestations were observed in multiple aspects, including a reduction in cultivated area, decreased productivity, increased labor intensity, rising investment costs, crop losses, and areas where rice

cultivation was no longer possible. Among these, the four most notable negative consequences were decreased productivity (17.8%), increased labor intensity (16.4%), higher investment costs (20.9%), and crop losses (9.1%) (Nguyen Tuan Anh, Mai Trong Nhuan, and Nguyen Tai Tue, eds. 2020).

Saltwater intrusion also has a significant impact on aquaculture, particularly traditional fish farming and brackish water shrimp farming. Survey results from aquaculture households in Ham Tan indicate that aquaculture is heavily affected by saltwater intrusion in the area. A sociological survey conducted in Ham Tan revealed that 27.8% of aquaculture households assessed that saltwater intrusion has reduced their productivity. Specifically, for many households in Ham Tan, raising snakehead fish is a common practice. However, when saltwater intrusion occurs, the fish cannot survive. The smaller the fish, the higher the risk posed by saltwater intrusion. To adapt to saltwater intrusion, many households have drilled wells to obtain water for snakehead fish farming, but they still face numerous difficulties due to the depletion of groundwater resources over time.¹

Not only has saltwater intrusion reduced productivity, but in certain instances over the past 5 years, it has resulted in a complete loss for 11.1% of aquaculture households. Therefore, from a certain perspective, saltwater intrusion not only decreases productivity but also causes significant losses for many aquaculture households in Tra Vinh in specific instances over the past 5 years. This poses a major challenge for aquaculture households in Ham Tan.

Regarding the impact of saltwater intrusion on aquaculture, Nguyen Tuan Anh and colleagues based on survey data from 6 communes in the provinces of Tra Vinh, Soc Trang, Dong Thap, An Giang, and Can Tho City in the Mekong Delta, have indicated that a significant portion of respondents in these locations assessed saltwater intrusion as having negative effects on their aquaculture activities. In fact, certain aquatic species have difficulty growing or surviving in the presence of saltwater intrusion, particularly when the salinity level is high. The data reveals various aspects that reflect the negative impact of saltwater intrusion on aquaculture, including: reduced farming areas, decreased productivity, increased labor demands, higher investment costs, and instances of crop failure. Notably, more than one-third of respondents, specifically 33.8%, stated that saltwater intrusion has led to increased costs in their aquaculture operations (Nguyen Tuan Anh, Mai Trong Nhuan, and Nguyen Tai Tue eds. 2020).

Conclusion

In the current context of climate change, saltwater intrusion poses a significant challenge to the development of the Mekong Delta. It has

¹ Interview with officials of Ham Tan commune, Tra Cu district, Tra Vinh province.

multidimensional impacts on the economy, society, and the environment. Research findings from Ham Tan commune, Tra Cu district, Tra Vinh province, indicate that rice cultivation and aquaculture are livelihoods that are profoundly affected by the negative impacts of saltwater intrusion.

One of the key impacts of saltwater intrusion is the reduced productivity of rice cultivation. The intrusion of saltwater renders the soil less fertile and suitable for rice cultivation. As a result, farmers experience decreased yields and financial losses, leading to food insecurity and economic challenges for the region

Aquaculture, another important economic activity in Ham Tan, is also greatly affected by saltwater intrusion. Many species of fish and shrimp raised in freshwater environments are sensitive to changes in salinity levels. The intrusion of saltwater into aquaculture ponds disrupts the breeding and growth of aquatic species, leading to decreased production and income for aquaculture farmers. This not only impacts the livelihoods of local communities but also affects the availability and affordability of seafood resources

In conclusion, saltwater intrusion presents a significant challenge to the development of the Ham Tan in the context of climate change. Its adverse impacts on agriculture and aquaculture require urgent attention and concerted efforts from various stakeholders. By implementing adaptive strategies and promoting international cooperation, we can effectively mitigate the impacts of saltwater intrusion and secure the sustainable development of Ham Tan, as well as the broader Mekong Delta region, in response to the challenges posed by climate change.

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L'Effet Amplificateur et Frictions Financières : Une Analyse Critique des Modèles DSGE Pré-Crise Financière

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Résumé

Cet article examine les limites des modèles d'équilibre général dynamiques et stochastiques de la période pré-crise financière dans l'analyse des implications des frictions financières sur l'activité réelle. Les modèles existants présentent plusieurs limites, notamment leur incapacité à reproduire un effet amplificateur des chocs causé par les frictions financières. De plus, leur structure linéaire et l'utilisation de techniques linéaires dans leur résolution limitent leur capacité à capturer les comportements non linéaires des variables. En outre, ces modèles négligent le rôle des intermédiaires financiers, les considérant principalement comme de simples intermédiaires. Par conséquent, cet article souligne la nécessité d'une modélisation plus approfondie des frictions financières au côté des intermédiaires financiers afin de mieux comprendre les interactions entre le secteur financier et l'activité réelle et de développer des modèles plus appropriés pour étudier et formuler des politiques économiques pour des questions liées, par exemple, à la stabilité financière et aux fluctuations des cycles économiques.

Mots-clés: Frictions financières, DSGE, accélérateur financier

The Amplification Effect and Financial Frictions: A Critical Analysis of Pre-Financial Crisis DSGE Models

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Abstract

This article examines the limitations of dynamic stochastic general equilibrium models used prior to the financial crisis in analyzing the impact of financial frictions on real economic activity. The existing models suffer from several shortcomings, such as their failure to replicate the amplifying effect of shocks caused by financial frictions. Additionally, their linear structure and reliance on linear rational expectation techniques restrict their ability to capture the non-linear dynamics of the variables. Moreover, these models overlook the crucial role of financial intermediaries and tend to treat them merely as intermediaries without considering their broader implications. Therefore, this article emphasizes the necessity of developing more comprehensive models that incorporate financial frictions and incorporate the role of financial intermediaries. Such models would enable a better understanding of the interactions between the financial sector and real economy, and facilitate the formulation of more suitable policies for questions related to financial stability and economic fluctuations.

Keywords: Financial frictions, DSGE, financial accelerator

Introduction

La crise financière de 2007 a entraîné un changement significatif dans la manière dont les économistes élaborent les modèles d'équilibre général dynamiques et stochastiques (ci-après DSGE). Cette crise a révélé plusieurs lacunes dans la compréhension des économistes du fonctionnement de l'économie, notamment en ce qui concerne les interactions entre les marchés financiers et l'économie réelle, mais aussi sur l'importance des frictions financières¹. Ces interactions peuvent revêtir différentes formes et avoir des implications importantes pour la stabilité financière, les fluctuations économiques et les politiques économiques.

¹ Les frictions financières font référence aux divers obstacles et coûts qui entravent le fonctionnement normal des marchés financiers et l'allocation des financements dans une économie. Parmi les exemples de frictions financières, on peut citer les coûts de transaction, l'asymétrie de l'information et la concurrence imparfaite.

D'une part, il est devenu évident grâce à la crise financière que les développements dans la sphère financière peuvent engendrer des dommages considérables pour l'activité économique. Cette crise a révélé les effets dévastateurs qu'un dysfonctionnement dans les marchés financiers peut avoir sur l'activité des banques, les firmes, le marché du travail et sur l'économie toute entière. D'autre part, les modèles DSGE pré-crise financière se sont révélés incapable de reproduire l'ampleur de l'impact des développements financiers sur l'économie réelle et d'appréhender le rôle amplificateur des chocs que peut jouer la sphère financière. Ces modèles ne parvenaient pas à saisir pleinement les interconnexions entre la sphère financière et réelle.

Ainsi, après la crise financière, les modèles DSGE ont été critiqués pour deux raisons : d'abord, sur le fait que ces modèles n'ont pas réussi à prévoir l'avènement de la crise, et ensuite, et à travers des simulations, ils ont sous-estimé l'impact réel qu'un tel événement aurait.

Toutefois, les limites que représentent les modèles DSGE développés à cette époque ne sont guère un mystère. D'une part, ces modèles ne mettent pas suffisamment l'accent sur les liens macro-financiers et ne développent pas de manière approfondie le comportement des acteurs sur le marché financier, voire, ils ignorent totalement le marché financier sous prétexte qu'il a un rôle neutre. D'autre part, la structure linéaire de ces modèles fait en sorte que même s'ils intègrent des frictions financières, ils ne seront pas capables de reproduire les faits stylisés des crises qui sont non linéaires (Gertler et Gilchrist, 2018).

Cependant, il est crucial de différencier entre les modèles développés dans les milieux académiques de ceux utilisés pour la prise de décision. Les critiques précédemment évoquées s'adressent principalement aux modèles de prise de décision. Plusieurs variantes de ces modèles existent, mais ils partagent tous l'utilisation d'un cadre théorique nouveau keynésien et leur incorporation de différentes frictions réelles et financières² ainsi que la considération de différents types de chocs exogènes.

Dans ce contexte, l'un des modèles les plus critiqués pendant et après la crise financière est le modèle de Smets et Wouters (2003), qui s'inspire du modèle de Christiano et al. (2005). Le modèle de Smets et Wouters (2003) constitue la pierre angulaire sur laquelle reposent plusieurs autres modèles utilisés au sein des banques centrales, ainsi que d'autres grandes institutions économiques et politiques nationales et internationales, pour mener des exercices de simulation et l'élaboration des prévisions.

Cet article s'attache à une analyse des limites intrinsèques des modèles DSGE de la période pré-crise financière qui ont contribué à l'échec de ces modèles en tant qu'outils adéquats et fiables pour l'analyse des interactions macro-financières. En particulier, cet article se focalise à mettre en évidence

² La rigidité des prix, la rigidité des salaires, les coûts d'ajustement.

le rôle de la modélisation des frictions financières et la linéarité des modèles dans cet échec.

Le reste du papier est organisé comme suit : la première section porte sur une brève histoire sur l'évolution des modèles DSGE. La deuxième section expose les deux approches populaires utilisées pour modéliser les frictions financières dans les modèles d'équilibre général et la troisième section présente les limites des modèles DSGE pré-crise financière.

Histoire sur les modèles DSGE

DSGE est une abréviation anglaise que l'on peut traduire en français par "modèle d'équilibre général dynamique et stochastique". Chaque mot réfère à un point méthodologique important. Ainsi, le terme "dynamique" fait référence au comportement orienté vers l'avenir des agents économiques dans le modèle, "stochastique" fait référence à l'inclusion des chocs aléatoires, "général" fait référence au fait que l'économie est prise dans son ensemble³ et "équilibre" fait référence à l'incorporation explicite des contraintes et des conditions d'équilibre des agents qui composent le modèle.

Le développement des modèles DSGE est étroitement lié aux travaux initiés par l'économiste Robert Lucas. La transformation de la macroéconomie initiée par Lucas inclut toutes les caractéristiques d'une révolution scientifique, selon le cadre théorique de Thomas Kuhn. Cette transformation a impliqué un déplacement des questions macroéconomiques, l'émergence d'un nouveau cadre conceptuel, le développement de nouvelles méthodes statistiques et mathématiques, ainsi que l'émergence d'une nouvelle génération d'économistes (De Vroey, 2012).

Si l'on doit choisir un seul papier de Robert Lucas qui a eu un énorme impact sur le développement des modèles DSGE, il s'agira du papier communément appelé la critique de Lucas (Lucas, 1976). Les enseignements de ce dernier ont incité les économistes à construire leurs modèles en partant d'un niveau élémentaire, à savoir le niveau microéconomique. Dans cette approche, l'économiste modélisateur doit spécifier les technologies, les préférences et les contraintes des firmes et des ménages, ce qui permet, à travers des calculs d'optimisation, de déduire les équations de comportement. À partir de là, les économistes peuvent remonter vers des modèles macroéconomiques en agrégeant les comportements individuels⁴.

Cette approche marque alors une rupture avec les grands modèles macroéconométriques keynésiens qui dominaient la scène de la

³ Contrairement aux modèles d'équilibre partiel.

⁴ L'hypothèse d'homogénéité des agents rend cet exercice possible.

macroéconomie depuis les années cinquante et qui imposent des restrictions presque arbitraires sur les paramètres⁵.

La première génération des modèles DSGE est celle des modèles de cycles réels (Kydland et Prescott, 1982). Ces derniers se distinguent des modèles macroéconométriques keynésiens par leur utilisation d'une approche d'équilibre général plutôt qu'un système d'équations. Ils reposent sur un fondement microéconomique et, d'un point de vue empirique, ont souvent recours à la méthode de calibration pour déterminer les valeurs des paramètres plutôt que de procéder à une estimation économétrique.

Le succès des modèles de cycles réels réside dans leur capacité à reproduire certaines caractéristiques empiriques des cycles économiques observées dans les données, en utilisant une structure simple et en considérant les chocs technologiques comme unique choc (Kydland et Prescott, 1982). Un modèle de cycles réels standard comprend une fonction de production, une équation intertemporelle reliant la consommation aux conditions financières des ménages, une équation décrivant la dynamique du stock de capital, un processus autorégressif pour le choc technologique, ainsi que deux identités portant sur les ressources de l'économie et une dotation du temps que les ménages partagent entre travail et loisir.

Toutefois, les modèles de cycles réels sont incapables d'expliquer certaines caractéristiques des cycles économiques. Les modèles assument certaines hypothèses assez fortes, comme la compétitivité des marchés et la flexibilité parfaite des prix, qui ont des implications significatives sur la performance du modèle à capturer certaines observations empiriques.

La flexibilité parfaite des prix signifie que les prix et les salaires s'ajustent instantanément sur les marchés. En revanche, la perspective keynésienne appuyée par plusieurs études empiriques (Christiano et al., 1999) suppose une rigidité ou une lenteur dans l'ajustement des prix, ce qui crée des situations de déséquilibre entre l'offre et la demande. Ce qu'implique un autre point de divergence entre la vision keynésienne et le cadre classique adopté dans les modèles de cycles réels, à savoir l'utilité des politiques conjoncturelles dans la stabilisation de l'économie.

L'intégration des idées keynésiennes dans le cadre des modèles de cycles réels a donné naissance à de nouveaux modèles appelés les modèles DSGE nouveaux keynésiens, et a réhabilité les politiques économiques conjoncturelles. Les économistes keynésiens ont ainsi pu éviter la critique formulée par Lucas (1976) et s'éloigner des grands modèles macroéconométriques keynésiens. Ces derniers reposent sur l'hypothèse ad hoc de la rigidité des prix et des salaires nominaux, tandis que les modèles

⁵ Dans ce contexte Sims (1980) a aussi introduit les modèles VAR pour remédier à ces restrictions sur les paramètres.

nouveaux keynésiens intègrent des mécanismes plus élaborés de fixation des prix, en permettant une flexibilité imparfaite des prix émanant des décisions d'optimisation des firmes. Cependant, les modèles nouveaux keynésiens ne rejettent pas complètement les modèles de cycles réels. Ces derniers conservent leur utilité pour l'analyse des questions liées au comportement de l'économie à long terme.

Trois des principales modifications sont apportées aux modèles de cycles réels : (1) l'intégration des marchés monopolistiques et la rigidité des prix. (2) la prise en compte du côté monétaire de l'économie et de la politique monétaire comme instrument de politique économique. (3) la considération de plusieurs sources de chocs, en plus des choc technologiques. Ces modifications ont permis de combler certaines limites des modèles de cycles réels. Depuis les modèles DSGE nouveaux keynésiens sont devenus l'outil standard utilisé par les économistes pour traiter les questions macroéconomiques.

Cependant, même ces modèles DSGE nouveaux keynésiens ont échoué à expliquer la crise financière de 2007 en raison de leur représentation limitée du secteur financier et de leur négligence du rôle des frictions financières et les mécanismes d'amplification qui peuvent propager et intensifier les chocs dans l'économie. Ces limites soulignent la nécessité de recourir à des approches de modélisation alternatives capables de mieux appréhender l'interaction du système financier avec la sphère réelle. La section qui suit expose les deux approches populaires utilisées pour modéliser les frictions financières dans les modèles d'équilibre général.

Frictions financières dans les modèles DSGE

Les deux approches les plus utilisées dans la littérature pour modéliser les frictions financières au sein des modèles d'équilibre général sont : "Costly state verification" (CSV) et "Costly enforcement" (CE) (Bernanke et al., 1999; Carlstrom et Fuerst, 1997; Kiyotaki et Moore, 1997). Ces deux approches décrivent la manière dont les contrats d'endettement sont conclus dans un environnement caractérisé par l'existence d'une asymétrie d'information entre prêteurs et emprunteurs. Cette asymétrie d'information entraîne des risques ou des coûts supplémentaires pour les prêteurs. Et, afin de se couvrir, le prêteur va exiger alors une prime de risque ou un collatéral.

La première approche CSV trouve son origine dans l'article de Townsend (1979). Ce cadre d'analyse, ou des variantes de celui-ci, sera repris largement par plusieurs travaux ultérieurs. Toutefois, Gertler et Bernanke (1989) ont été les premiers à modéliser les frictions financières en adoptant l'approche CSV dans un modèle d'équilibre général, plus particulièrement, ils ont utilisé un modèle à générations imbriquées à la Diamond (1965).

La structure des modèles à générations est utile car elle entraîne à chaque période la disparition des agents investisseurs, tout en permettant l'émergence d'une nouvelle génération d'investisseurs. Cela empêche l'accumulation de richesse chez les investisseurs dans le modèle, les obligeant ainsi à dépendre constamment de financements externes.

À travers leur modèle Gertler et Bernanke (1989) ont introduit le concept d'accélérateur financier dans un modèle d'équilibre général pour la première fois pour désigner le rôle non neutre que joue le secteur financier dans la propagation des chocs réels, en démontrant comment les périodes d'expansion, par exemple, améliorent les conditions financières des investisseurs, réduit les coûts de financement et stimule l'investissement et l'activité économique en général.

Carlstrom et Fuerst (1997) et Bernanke et al. (1999) ont aussi adopté la même approche pour modéliser les frictions financières, mais en utilisant un modèle de cycles réels pour Carlstrom et Fuerst (1997) et un modèle nouveau keynésien pour Bernanke et al. (1999). Cependant, dans les deux papiers les agents investisseurs continuent de dépendre de financements externes, mais cette dépendance est cette fois-ci due à une différence dans les facteurs d'actualisation entre les agents, ce qui conduit à la présence d'agents patients (épargnants) et d'agents impatientes (emprunteurs).

L'approche CSV part du principe que les prêteurs ont généralement une connaissance limitée sur les réalisations des projets d'investissement des emprunteurs. Le mécanisme de financement optimal dans le cadre CSV consiste en un contrat de dette standard dans lequel les performances de l'emprunteur ne sont pas divulguées si sa dette est honorée. Car, il n'est pas nécessaire de divulguer les informations sur ses performances. Cependant, en cas de défaut de paiement, les informations sur ses performances doivent être vérifiées et divulguées intégralement. Si aucune vérification n'est effectuée de la part des prêteurs, les emprunteurs trouveraient optimal de falsifier les réalisations de leurs investissements, même s'ils sont rentables, afin d'éviter de rembourser leurs dettes.

Toutefois, ce processus de vérification a un coût qui découle, par exemple, des dépenses liées à la collecte et au traitement des informations, à la réalisation d'audits et au suivi de la performance financière de l'emprunteur. Ainsi, la présence des coûts de vérification peut avoir des implications significatives sur les décisions de prêt et d'investissement. Elle peut affecter la disponibilité et le coût du crédit, car pour compenser les coûts de vérification, les prêteurs vont facturer des taux d'intérêt plus élevés.

La deuxième approche (CE) repose sur l'idée que les emprunteurs sont confrontés à une contrainte de financement liée à la valeur des actifs qu'ils détiennent. Cette contrainte de financement découle du fait que les emprunteurs ne peuvent pas être contraints de rembourser leurs dettes à

l'avenir. Par conséquent, les prêts ne sont accordés que s'ils sont garantis par des actifs. Sinon, il serait optimal pour les emprunteurs de faire défaut.

Cette approche est devenue populaire dans le cadre des modèles d'équilibre général grâce au papier de Kiyotaki et Moore (1997). Dans le modèle proposé dans Kiyotaki et Moore (1997) les agents s'engagent dans des activités d'emprunt et de prêt en utilisant une dette garantie. La valeur du collatéral détermine la capacité d'accéder au crédit. Ils démontrent que l'interaction entre la valeur des actifs et les contraintes de crédit peut créer une boucle de rétroaction, conduisant à l'émergence de cycles de crédit.

Le mécanisme clé proposé par Kiyotaki et Moore (1997) est que lorsque la valeur de l'actif utilisé comme garantie est élevée, les emprunteurs peuvent obtenir plus de crédit, ce qui entraîne une augmentation des investissements, de la production, mais aussi de la valeur des actifs. Cette boucle de rétroaction positive entre l'accès au financement et la valeur des actifs entraîne l'expansion économique. À l'inverse, si les valeurs des garanties diminuent, la capacité des emprunteurs à accéder au crédit est limitée, ce qui entraîne une réduction des investissements, de la production et de nouvelles baisses des valeurs des actifs.

L'accélérateur financier et l'effet amplificateur

Les modèles mentionnés précédemment fournissent un cadre théorique précieux pour comprendre comment les frictions financières sont introduites dans les modèles économiques. Cependant, ils présentent quatre limites fondamentales lorsqu'il s'agit d'analyser les implications concrètes de ces frictions.

La première limite concerne les modèles de Gertler et Bernanke (1989) et Carlstrom et Fuerst, (1997). Bien que ces modèles, contrairement aux modèles sans frictions financières, permettent de générer une plus grande persistance pour les variables suivant un choc, ils ne parviennent pas à reproduire un effet amplificateur⁶ (Brunnermeier et al. (2013)). En d'autres termes, l'intensité d'un choc réel, tel qu'un choc de productivité, n'est pas amplifiée de manière substantielle par la présence de frictions financières.

La deuxième limite qui concerne les modèles de Gertler et Bernanke (1989) et de Carlstrom et Fuerst (1997), est que ces modèles reposent sur l'hypothèse de la flexibilité parfaite des prix et des salaires. Cette hypothèse implique que les prix et les salaires s'ajustent immédiatement en réponse aux chocs, ce qui limite la capacité de ces modèles à étudier les effets de la politique monétaire sur l'activité réelle (Christiano et al., 2018). En effet, dans

⁶ Bien que, par la suite, le modèle de Bernanke et al. (1999) a pu incorporer cet effet amplificateur, il le sous-estime considérablement.

un tel cadre, la politique monétaire est neutre et sans effets significatifs sur l'économie réelle en raison de l'ajustement instantané des prix et des salaires.

Pour surmonter ces deux limites, le modèle de Bernanke et al. (1999) a été développé et est devenu par la suite la référence incontournable dans l'analyse des frictions financières au sein des modèles DSGE nouveaux keynésiens. Ce modèle prend en compte à la fois la présence des frictions financières, permettant de capturer l'effet amplificateur et la persistance accrue résultant de ces frictions, et la prise en compte de la rigidité des prix, ouvrant ainsi la voie à une analyse plus approfondie de la transmission de la politique monétaire en présence de frictions financières.

En d'autres termes, le modèle de Bernanke et al. (1999) permet de comprendre comment les frictions financières affectent l'amplitude et la durée de l'impact des chocs sur les variables économiques, tout en permettant d'étudier les interactions entre la politique monétaire, les frictions financières et l'activité réelle. Ce modèle offre donc un cadre analytique plus complet pour évaluer les implications des frictions financières dans l'économie et explorer de nouveaux canaux par lesquels la politique monétaire peut influencer l'économie réelle.

L'effet d'amplification est un phénomène qui se produit dans les modèles lorsqu'une perturbation réelle ou financière est amplifiée par la présence de frictions financières. Cela signifie que l'impact de ce type de choc est plus important lorsque le modèle intègre des contraintes et des imperfections dans le secteur financier. Mettant ainsi en évidence l'effet d'amplification, également connu sous le nom d'"accélérateur financier". L'effet amplificateur est généré principalement par la relation mutuelle et bidirectionnelle entre les conditions de financement et l'activité réelle.

Cependant, il convient de noter que le concept "accélérateur financier" peut prêter à confusion et ne permet pas de distinguer clairement entre l'effet d'amplification et la persistance supplémentaire résultant des frictions financières. En effet, l'utilisation du concept "accélérateur financier" dans les travaux de Gertler et Bernanke (1989) et Carlstrom et Fuerst (1997) diffère de celle employée par Bernanke et al. (1999). Dans les études de Gertler et Bernanke, (1989) et Carlstrom et Fuerst, (1997), les frictions financières sont principalement associées à une propagation prolongée des chocs dans le temps, sans nécessairement amplifier leur impact sur l'économie réelle.

La capacité à capturer la persistance est une caractéristique commune à tous les modèles discutés, mais la capacité à saisir l'effet d'amplification diffère selon les spécificités de chaque modèle. Pour permettre au modèle de Bernanke et al. (1999) de capturer l'effet d'amplificateur, plusieurs modifications ont été apportées par rapport au modèle de Carlstrom et Fuerst, (1997). Premièrement, le modèle de Bernanke et al. (1999) prend en compte l'existence de coûts d'ajustement quadratiques dans la fonction

d'investissement, ce qui entraîne des variations dans le prix du capital. Ces coûts d'ajustement reflètent les contraintes auxquelles les firmes sont confrontées lorsqu'elles doivent adapter leurs investissements en réponse à des changements de productivité. Deuxièmement, contrairement au modèle de Carlstrom et Fuerst (1997), le modèle de Bernanke et al. (1999) délègue la production de capital à un secteur spécifique, ce qui permet de mieux représenter les interactions entre le secteur financier et le reste de l'économie. Ces modifications sont nécessaires, car dans Carlstrom et Fuerst (1997) un choc qui va détériorer la richesse nette des emprunteurs va générer une baisse de l'offre du capital et poussera le prix du capital à la hausse, ce qui finalement va tempérer la baisse de la richesse nette et son effet sur l'investissement et le cycle économique. L'importance de ce résultat vient du fait qu'il réduit l'effet amplificateur.

La troisième critique qui s'adresse à tous les modèles développés précédemment c'est que, la résolution de ces modèles est faite en utilisant des techniques linéaires. Plus précisément, ces modèles sont exprimés en format log-linéaire. L'avantage de transformer un modèle à une forme log-linéaire est de rendre sa résolution plus aisée⁷.

Pour passer de la forme non linéaire venant des équations de comportement, le modélisateur entame une approximation au premier ordre au voisinage de l'état-stationnaire du modèle initial. Comme c'est mentionné auparavant cette transformation réduit énormément la résolution du modèle, mais le prix de cette simplification est qu'il fait sorte que les résultats des simulations ne sont valides que pour des petites perturbations au voisinage de l'état stationnaire. D'un autre côté, les crises financières par exemple sont des événements non linéaires, marqués par de fortes augmentations des écarts de crédit et de sévères contractions de la production.

La quatrième limite concerne le rôle des intermédiaires financiers dans ces modèles de la période pré-crise financière. Il convient de souligner qu'avant la crise financière, les modèles DSGE ne faisaient généralement pas référence à un secteur financier distinct, limitant ainsi le rôle du secteur financier à une simple fonction d'intermédiation. De plus, pour les quelques travaux de recherches qui s'intéressent aux frictions, ils ne considéraient que des modèles prenant en considération les problèmes liés à la demande de financement des agents non-financiers, tandis qu'ils continuaient à supposer un fonctionnement parfait du côté de l'offre de financement par les intermédiaires financiers.

⁷ L'interprétation des résultats des modèles exprimés en format log-linéaire est aussi facile.

Conclusion

Les conséquences économiques et sociales de la crise financière de 2007 ont été un événement majeur pour repenser les modèles économiques, en particulier les modèles d'équilibre général dynamiques et stochastiques (DSGE). La crise a révélé des lacunes importantes dans la compréhension des économistes concernant les interactions entre la sphère financière et réelle, ainsi que l'importance des frictions financières.

Les modèles DSGE pré-crise financière se sont avérés incapables de reproduire l'ampleur de l'impact des développements financiers sur l'économie réelle et de prendre en compte le rôle amplificateur des chocs que joue la sphère financière. Ces modèles ne mettaient pas suffisamment d'importance sur la modélisation du comportement des acteurs sur le marché financier, et de part leur structure linéaire, il ne permettaient pas de saisir les faits stylisés non linéaires.

Le modèle de Smets et Wouters (2003), largement utilisé dans les banques centrales et les institutions économiques et politiques, a été particulièrement critiqué pour ses limites. Ainsi à travers cet article on a pu mettre en évidence les limites intrinsèques des modèles DSGE de la période pré-crise financière, en soulignant le rôle des frictions financières et de la linéarité des modèles dans leur échec.

En conclusion, la crise financière a été un signal fort pour une amélioration des modèles économiques afin de mieux prendre en compte les interactions entre la sphère financière et réelle. Les modèles DSGE doivent incorporer davantage de réalisme dans la modélisation des frictions financières tout en adoptant une approche non linéaire pour mieux saisir les dynamiques économique notamment celle des crises. Ces améliorations sont essentielles pour renforcer la capacité des modèles économiques à éclairer les décideurs politiques dans leurs choix, en leur permettant de mieux prévoir et d'atténuer les crises à venir.

Conflit d'intérêts : L'auteur n'a fait état d'aucun conflit d'intérêts.

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Rôle du Cours d'Introduction en Bourse dans la Réussite d'Une Cotation: Réévaluation d'Une Société Cotée à la Bourse des Valeurs Mobilières de Tunis (BVMT)

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Résumé

Dans le cadre de la dynamisation du marché financier des pays en voie de développement et le passage de l'économie d'endettement à la finance directe. La cotation de nouvelles sociétés en bourse contribue à l'accroissement de la capitalisation, révèle la transparence des entreprises, renforce leurs fonds propres et permet le financement direct des firmes. L'ouverture du capital au public par un ou plusieurs actionnaires augmente la part de financement de l'économie par le marché financier, permet de profiter des avantages de la cotation en bourse et leur offre une opportunité d'une plus value sur actions nette d'impôts (En Tunisie la plus value sur actions dégagée par les personnes physiques lors de la première cotation n'est pas imposable. Elle doit être seulement déclarée). L'appétit d'accroître la plus value sur actions peut l'emporter sur les avantages intrinsèques de la cotation. Une surévaluation de l'action peut être constatée et peut nuire à l'avenir de l'action sur le parquet. L'objectif de l'article est de saisir une éventuelle surévaluation de l'action lors d'une introduction en bourse d'une société de droit tunisien, détenue en majorité par des personnes physiques de la même famille. Ces derniers ont cédé 10% du capita, à travers une offre publique de vente (OPV). Notre méthodologie consiste à se référer aux modèles d'évaluation théoriques des actions pour les confronter aux modèles utilisés au niveau du prospectus d'admission en bourse. Partant des mêmes hypothèses avancées par les actionnaires de la société, nous allons réévaluer l'action, tester l'éventuelle

surévaluation et son impact sur la pérennité de l'action sur le parquet de la bourse des valeurs mobilières de Tunis (BVMT). L'introduction en bourse vise la recherche d'un financement direct pour le renforcement des fonds propres de la société, la bonne image de l'entreprise et le désengagement de l'un ou de plusieurs actionnaires du capital social. La vente de titres de participation par les anciens actionnaires doit se faire tout en prenant en considération les intérêts antagonistes de tous les intervenants et fixant la juste valeur d'introduction, afin de réaliser un équilibre gagnants/gagnants. Une déviation par rapport à l'équilibre peut nuire à l'opération d'introduction, tout en induisant les novices de la bourse en erreur et éventuellement se retirer de la cote officielle. A ce titre, l'encaissement d'une importante plus-value de cession, peut nuire à la pérennité de l'action sur le parquet de la bourse pour un initiateur de l'offre publique de vente. Les résultats obtenus ont montré que l'actionnaire privé, notamment l'initiateur de l'introduction à la bourse des valeurs mobilières de Tunis cherche son propre intérêt en termes de maximisation du produit de cession, indépendamment des nouveaux entrants et de la continuation de la cotation. L'opération d'introduction en bourse a échoué à moyen terme et s'est terminée par une offre publique de retrait (OPR).

Mots-clés: OPV : Offre publique de vente, OPR : Offre publique de retrait, Actualisation des cash flow, Actualisation des dividendes, BVMT : Bourse des valeurs mobilières de Tunis, SPCD : SOCIETE DE PRODUITS CHIMIQUES ET DE DETERGENTS

Role of the IPO Price in the Success of a Listing: Revaluation of a Company Listed on the Tunis Stock Exchange

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Abstract

As part of the revitalization of the financial market in developing countries and the transition from the debt economy to direct finance. The listing of new companies on the stock exchange contributes to the increase of capitalization, reveals the transparency of companies, strengthens their equity and allows the direct financing of firms. The opening of the capital to the public by one or more shareholders increases the share of financing of the economy by the financial market, allows them to take advantage of the advantages of stock exchange listing and offers them an opportunity for a net capital gain on shares. Taxes (In Tunisia the capital gain on shares generated by natural persons during the first listing is not taxable. It must only be declared). The appetite to increase the capital gain on equities can outweigh the intrinsic advantages of listing. An overvaluation of the action can be noticed and can harm the future of the action on the trading floor. The objective of the article is to capture a possible overvaluation of the action during an initial public offering of a company under Tunisian law, majority owned by natural persons of the same family. The latter sold 10% of the capital, through a public offer of sale (OPV). Our methodology consists in referring to the theoretical valuation models of the shares to compare them with the models used at the level of the prospectus for admission to the stock exchange. Based on the same assumptions put forward by the shareholders of the company, we will revalue the action, test the possible overvaluation and its impact on the sustainability of the action on the floor of the Tunis Stock Exchange (BVMT). The IPO aims to seek direct financing to strengthen the company's equity, the good image of the company and the disengagement of one or more shareholders from the share capital. The sale of equity securities by former shareholders must be done while taking into consideration the antagonistic interests of all stakeholders and setting the fair value of introduction, in order to achieve a win/win balance. A deviation from equilibrium can harm the IPO trade, while misleading the exchange novices and possibly withdrawing from the official listing. As such, the receipt of a significant capital gain from the sale can harm the sustainability of the action on the stock market floor for an initiator of the public offering. The results obtained showed that the private shareholder, in particular the initiator

of the introduction to the Tunis Stock Exchange seeks its own interest in terms of maximizing the sale proceeds, independently of new entrants and the continuation of listing. The IPO operation failed in the medium term and ended with a public withdrawal offer (OPR).

Keywords: IPO : initial public offer, PWO: public withdrawal offer, DCF : Discounted cash flow, DD : Discounted dividend, TSM :Tunisian stock market, SPCD : SOCIETE DE PRODUITS CHIMIQUES ET DE DETERGENTS

Introduction

L'évaluation d'entreprise est un compartiment hautement pointu de la science financière, qui peut être envisager suite à plusieurs contextes/ circonstances.

Une évaluation débute par l'identification du donneur d'ordre, des objectifs et des finalités. Une connaissance approfondie des éléments d'environnements ainsi que des aspects reliés à l'entreprise est indispensable pour fonder un jugement qualitatif sur les forces et les faiblesses de celle-ci. L'évaluation demande une préparation lourde qui aidera l'analyste à scinder les méthodes d'évaluation patrimoniales, par les flux ou composites.

Il faut signaler que l'indépendance de l'analyste et sa liberté de jugement ne doivent en aucun cas être remises en question pour des raisons d'ordre commercial.

L'évaluation est plus qu'une aide à la fixation d'un prix. Elle détermine la crédibilité du montage de cession. Une entreprise surévaluée dans un marché « bearish » n'est qu'une mauvaise réputation pour les vendeurs, alors qu'une entreprise sous-évaluée dans un marché « bullish » n'est qu'une opportunité perdue par le cessionnaire.

Le rôle de l'évaluateur est primordial, aussi bien pour l'entreprise que pour le marché financier.

L'introduction en bourse est une opportunité offerte aux actionnaires vendeurs de titres de participation, pour dégager une plus value nette d'impôts (cas de la Tunisie). L'appétit de maximisation du produit de cession, peut nuire à l'image de la société et à la pérennité de l'action sur le parquet. Notre objectif est de révéler une éventuelle surévaluation du cours d'introduction d'une société de droit tunisien, détenu en majorité par un groupe familial.

Nous proposons de confronter les évaluations annoncées au niveau du prospectus d'admission aux méthodes d'évaluation théoriques, afin de saisir la finalité escomptée de l'ouverture du capital au public.

Après une revue de la littérature se rapportant aux objectifs de l'introduction en bourse, nous analysons le contenu du prospectus d'admission pour passer à la comparaison des évaluations réalisées par nos soins à celles annoncées au niveau du prospectus d'admission, afin de révéler l'objectif

primordial de l'introduction en bourse et son éventuel impact sur le maintien de la cotation de la société sur le parquet de la bourse des valeurs mobilières de Tunis.

1. Revue de la littérature

L'introduction en bourse est une affaire délicate, qui peut affecter la réputation de l'entreprise et l'image des actionnaires. Trois acteurs principaux sont impliqués dans l'opération d'introduction :

- Les actionnaires représentants l'entreprise, ayant à offrir leurs actions au parquet,
- L'intermédiaire en bourse ayant à évaluer l'action et fixer le cours d'introduction
- Les potentiels investisseurs ayant à souscrire à l'offre publique de vente.

Ces acteurs ont des intérêts antagonistes, l'acheteur ayant à augmenter la plus-value, le vendeur qui cherche à maximiser le produit de cession et l'intermédiaire qui cherche un équilibre gagnant / gagnant entre l'offreur et le demandeur.

Un déséquilibre entre intervenants peut induire les nouveaux actionnaires en erreur, principalement les petits porteurs novices de la bourse. Il peut enrichir les offreurs des actions au détriment des ignorants des rouages financiers et révèle la qualité professionnelle de l'intermédiaire en bourse.

L'ouverture partielle du capital est souvent associée à une plus-value, attirant les nouveaux investisseurs et permettant le renforcement des fonds propres de l'entreprise à coter. Une surévaluation de l'action peut générer une plus-value immédiate qui sera anéantie par l'équilibre du marché et la révélation de la juste valeur.

La primatie de l'objectif du vendeur pour la maximisation de son produit de cession peut se traduire par un déséquilibre du prix d'introduction, la réalisation d'une moins-value et le retrait même de la cotation.

L'équilibre des intérêts antagonistes entre les différents acteurs intervenants dans l'opération d'introduction en bourse, est une condition *sénéqua-non* à la réussite future de la cotation du titre.

Trois arguments jouent en faveur de l'entreprise candidate à l'introduction en bourse : La recherche d'un financement direct agissant sur la structure financière de l'entreprise, l'image notariale de la société et le désengagement de l'un ou de plusieurs actionnaires du capital social.

Pagano, Panetta et Zingales (1998) ont montré que le recours au marché financier par les entreprises italiennes augmente leur capacité d'endettement et leur pouvoir de négociation avec les institutions bancaires.

Chemmanur & Yan (2004) ont montré que la publicité des produits de l'entreprise, la communication de l'introduction en bourse et la sous-

évaluation initiale constituent des leviers d'une stratégie de diffusion d'informations, se rapportant à la qualité des produits et à la valeur de l'entreprise.

Belkassah & Sanae, (2022) ont montré que l'introduction en bourse renforce la notoriété de l'entreprise.

Zingales (1995) a montré que l'opportunité qu'offre l'introduction en bourse aux actionnaires existants est la cession de l'action à un cours relativement plus élevé qu'une entreprise non cotée.

Ouatara et al. (2020) ont révélé une sous-évaluation initiale sur deux échantillons d'entreprises introduites en bourse de la côte d'Ivoire, durant la période de 1999 à 2017.

La plus-value de cession peut être une opportunité d'un gain d'impôts et d'une croissance de la richesse des cédants.

L'intermédiaire en bourse doit chercher l'équilibre entre le vendeur qui cherche à maximiser son produit de cession et l'acheteur qui cherche à avoir des titres bon marché. Souvent la tendance est vers la satisfaction du client vendeur, donneur d'ordre. Un déséquilibre peut exister et nuire à l'image de la société, tout en induisant en erreur les petits porteurs.

Certains auteurs proposent le recours à la procédure du livre d'ordres (book building) pour la fixation du cours d'introduction. Il s'agit notamment de Biais et Faugeron (2002), Ljungqvist et al (2003), Ball et al (2011). Cette technique consiste à collecter les intentions d'achat des investisseurs, fixer le prix d'offre et allouer les titres entre les différents intervenants institutionnels et petits porteurs.

Les investisseurs constituent le troisième acteur de l'introduction en bourse. La participation de ces derniers est primordiale à la réussite de l'opération et à l'image de marque de la société. La souscription à l'offre publique de vente est fonction de l'environnement économique, la situation du marché (bullish ou bearish), le climat de confiance et les facteurs intrinsèques à l'opération. Ces facteurs relèvent notamment, de la stratégie du mix marketing (4P), du road show, du prix d'introduction, de la confiance et de la gestion de la valeur à long terme. Souvent, cette dernière est ignorée sur les marchés émergents des pays en voie de développement, où le cédant cherche à maximiser son produit de cession, réaliser un gain d'impôts à court terme et négliger l'avenir de l'action.

L'introduction en bourse est confrontée à trois grandes problématiques. Il s'agit de la rentabilité initiale de l'introduction, des performances boursières à long terme et des phénomènes de regroupement d'introduction. Ces problématiques affectent l'efficacité du marché financier et les prix ne contiennent pas toutes les informations disponibles.

Ritter (2003) a montré que la rentabilité initiale de l'introduction doit être positive. L'atteinte de cet objectif est révélée par la sous-évaluation initiale

(SEI) et le manque à gagner immédiat de l'intermédiaire en bourse chargé de l'opération.

Allen & Faulhaber(1989), Grinblatt & Hwang (1989), Welch (1989) et Hutagaol (2005), ont montré que la sous évaluation initiale est un signal de révélation de la bonne qualité d'une firme qui « laisse un bon goût » pour un rendement futur favorable.

Ritter et Welch (2002), ont constaté une diminution significative des performances boursières des introductions en bourse sur une période de trois à cinq ans.

Djoumessi F. et al (2020), ont montré que les performances des actions des sociétés introduites sur le parquet de « Douala Stock Exchange » sont importantes durant l'année de la cotation. Ces performances s'érodent progressivement avec le temps, malgré la croissance des dividendes et des bénéfices par action.

Ritter (1984) a montré que les rentabilités initiales élevées sont accompagnées d'un grand nombre d'entreprises introduites en bourse. Ce phénomène ne peut être constaté sur le parquet des nouvelles bourses émergentes des pays en voie de développement, à l'instar de la bourse des valeurs mobilières de Tunis (BVMT)

2. Méthodologie

Partant du prospectus d'admission en bourse de la SPCD le 15 mars 1996. Une analyse de la démarche suivie et des techniques (Modèles) d'évaluation utilisées par l'intermédiaire en bourse, servira de base à l'appréciation du cours d'introduction et son comportement, pour révéler l'objectif de l'initiateur de la vente et la pérennité d'une action éventuellement surévaluée.

Nous procédons en une analyse en deux étapes. Nous commençons d'abord par reprendre les évaluations de la société et tester leur degré de certitude. Ensuite nous décelons le comportement de l'action pour en conclure de l'objectif assigné à l'initiateur de l'OPV.

2.1 Analyse du contenu du prospectus

L'évaluation de la SPCD¹ avait pour objectif principal la fixation du cours d'introduction en bourse. Les objectifs de l'évaluation sont supposés être expliqués de façon précise au client (le vendeur), afin d'avoir un compromis raisonnable entre les intérêts antagonistes des différents intervenants (Vendeurs, petits porteurs, intermédiaires en bourse etc.). Une maximisation du produit de cession induit inéluctablement le petit porteur en erreur et peut même affecter le dynamisme du marché financier. Une sous-

¹ Société introduite en bourse en Février 1996.

évaluation mal calculée brade le patrimoine de l'actionnaire cédant et peut même le désintéresser à ouvrir son capital au public.

Nous procédons à la revue du prospectus d'admission et reprise des évaluations d'une manière professionnelle et théorique, pour la révélation de l'éventuelle induction en erreur des nouveaux actionnaires

La société de produits chimiques et de détergents est une société anonyme, faisant partie du groupe de sociétés UTIC (Ulysse trading and industrial Companies). Contrôlées et dirigées par Monsieur Taoufic Chaïbi. L'entreprise fabrique les détergents et les savons de marques OMO, Zed, Tej, Skip, Vim, savons lux, Rexona, Sunlight etc. Son chiffre d'affaire a atteint 25,8 MD en 1995 contre 14,2 MD EN 1992. Il est accaparé à concurrence de 80% par l'activité poudre lessive, 9% par le savon et le reliquat pour les autres produits.

La firme est dans un marché International hautement concurrentiel. Elle est leader sur le marché national et jouit d'une bonne notoriété. Son organisation est fonctionnelle. Le climat social est sain et le taux d'encadrement est élevé.

Dans le cadre de l'ouverture du capital de la SPCD au public par une offre publique de vente. L'estimation de la valeur de l'action a été basée sur quatre méthodes, dont les résultats sont les suivants :

Tableau 1. Les valeurs de l'action avancées au prospectus d'admission, selon plusieurs méthodes, en dinars et en millions (M) de dinars.

Valeur Nominale	5DT
Actif Net Comptable	7,9 MDT
Approche du good Will	43,15 MDT
Actualization des Cash-Flow (DCF)	51,56 MDT
Approche Comparative	40,64 MDT
Modèle d'évaluation de Bates	52,06 MD

Source : Prospectus d'admission

L'examen critique du prospectus d'admission en bourse révèle le suivant :

L'évaluateur de la SPCD s'est limité à une description sommaire des différents produits, leur évolution, et leur part de marché respective. Il a passé en revue les nouveaux entrants étrangers, sans analyser le risque de menace qu'encours la société, suite au démantèlement tarifaire en 2005.

L'analyse a pour but d'étudier les cinq forces de la concurrence, en référence à la mission de l'entreprise, et aux risques et menaces encourus par l'environnement économique, juridique, social, technologique, écologique et politique.

Selon porter (1982), l'entreprise ne doit pas se limiter à l'analyse des concurrents directs œuvrant dans le même domaine d'activité. Plusieurs forces affectent les conditions immédiates et futurs de la concurrence, à savoir les

nouveaux entrants (potentiels), les produits substitués, les fournisseurs et les clients.

La SPCD occupe la part du lion sur le marché local. Seulement le nombre de Concurrents potentiels étrangers, leur taille, leur âge, leur portefeuille d'activité et leur force constituent autant d'éléments qui pourraient modifier l'intensité de la concurrence, pour une entreprise qui fonctionne à 40% de sa capacité de production.

L'absence de produits substitués, reconforte l'entreprise. Seulement sa dépendance envers un seul fournisseur local (EL KIMIA) pour la matière première de détergents limite ses sources d'approvisionnement. Une intégration en aval du fournisseur peut affecter les coûts de production de l'entreprise et diminuer sa compétitivité ²

La mondialisation des marchés a élargi la gamme des produits de détergents en Tunisie. Ce qui a pour conséquence d'accroître le pouvoir des clients, s'approvisionnant avec un meilleur rapport qualité / prix. L'étude du positionnement des produits sur leurs marchés a mis l'accent sur la répartition du chiffre d'affaires sans aucune analyse de l'équilibre, de la dépendance ou de la dispersion de la valeur des ventes.

Une approche analytique aurait déterminé la marge contributive de chaque produit et son positionnement sur le marché.

Le marque OMO est un produit leader sur le marché local. La pénétration de ce dernier par de nouvelles marques étrangères peut lui accaparer une part du marché et marginaliser les produits purement tunisiens tels que Tej et Zed.

Les produits de savonnerie jouissent de la technologie d'unilever. Toutefois, la savonnerie naturelle à base d'huiles d'olives ou autres Commence à intéresser une bonne partie de la population tunisienne, soucieuse de l'effet du savon sur le peau.

La part des dépenses du tunisien en Hygiène et soins est de 9,6%. Elle est de 10,3% au district de Tunis. Elle peut dépasser les 20% dans les pays développés. Le potentiel de croissance du marché est révélé, mais la concurrence étrangère est une menace pour les produits de la SPCD. Toutefois, l'utilisation de la licence d'Unilever permet à la SPCD un transfert technologique, lui permettant d'affronter la concurrence.

Malgré l'existence d'un seul concurrent local sur le marché des produits industriels de la SPCD. La concurrence étrangère peut le menacer, si aucune initiative de développement et d'amélioration de la qualité d'une matière première importante pour les fabricants tunisiens, soucieux de la qualité de leurs produits, ne se manifestent pas.

² Le transport de la matière première est coûteux

Le seul marché d'exportation de la SPCD est celui de la Lybie. Il s'agit d'un marché aléatoire trop risqué. Il doit être considéré comme une opportunité conjoncturelle, sur laquelle les dirigeants doivent être prudents, au niveau de leurs investissements et la croissance de leurs marchés.

L'évaluateur a négligé les avantages distinctifs de l'entreprise notamment l'expérience sur le marché local, l'utilisation d'une licence de production de renommée et la qualité des dirigeants.

Une analyse des facteurs de commercialisation, aurait éclairé le potentiel acquéreur sur la position concurrentielle de l'entreprise. L'image, la qualité, la valeur du produit, l'étendue du réseau de distribution et les conditions de commercialisation (crédit) autant de variables importantes à la survie de l'entreprise et à sa capacité d'affronter la concurrence.

La SPCD tire profit de plusieurs couples produit / marché, ce qui pose le défi de bien connaître les facteurs des clés de succès propres à chaque couple, et de les contrôler mieux que les concurrents. Une analyse de la croissance de chaque centre d'activité stratégique, du cycle de vie des différents produits, et le plan d'investissement proposé, auraient pu illustrer la position stratégique de l'entreprise et son avenir. Une modification du positionnement de la SPCD s'impose dans le contexte de démantèlement tarifaire total et de concurrence intense. L'entreprise, doit se préparer et fixer minutieusement ses stratégies de long terme.

L'évaluateur s'est limité à une présentation de l'organigramme de l'entreprise. Il s'agit d'une structure par fonction qui favorise des groupes de travail composés de spécialistes, chacun ayant une vision très limitée du problème à résoudre.

La structure organisationnelle de la SPCD est censée s'adapter au dynamisme de l'environnement. La structure par produit favorise la différenciation de ses produits et élimine les conflits d'individus spécialistes, pour une meilleure intégration.

L'analyste est supposé évaluer les ressources de l'entreprise par domaine d'activité (Marketing, Personnel, finance, production, recherche et développement, organisation, gestion), afin d'identifier les points forts et les points faibles de la Société. Il s'est limité à une description sommaire des menaces de l'environnement (concurrence), sans pourtant s'intéresser aux conditions d'exploitation.

Le pré-diagnostic financier s'est limité au calcul de quelques ratios (p21 du prospectus) sans aucune analyse.

Ces ratios ³ révèlent une amélioration remarquable du rendement des actionnaires (+75%). Un accroissement de la profitabilité des ventes, une

³ On s'est limité à l'analyse statique des ratios du prospectus

meilleure utilisation des actifs, une baisse du taux d'endettement et une capacité d'endettement à long terme confortable.

Un certain nombre de clignotants n'auraient pas dû être négligés par l'analyste même s'ils débordent sa mission d'évaluateur, mais révèlent des informations de tailles aux investisseurs en bourse. Il s'agit principalement du respect ou non des dates légales de convocation des assemblées, , conseils et comités d'entreprises ; d'éventuels notifications de protêts, retard ou refus de certification, dégradation du climat social, prises de garanties par certains créanciers (hypothèques, nantissements, cautions) ; et recherche de partenaires financiers.

Le souci de l'évaluateur de se montrer prospectif et synthétique ne doivent endormir sa vigilance et sa curiosité pour une meilleure interprétation. L'examen du prospectus d'admission, révèle l'absence d'un audit juridique et social. En effet, ce dernier constitue un outil de conformité, un outil de prévention et un moyen de diagnostic.

Les besoins de sécurité que cet audit vise à satisfaire concernent principalement les statuts juridiques des biens, les contrats commerciaux et les engagements sociaux.

L'évaluateur est censé vérifier la conformité des valeurs déclarées et l'appartenance juridique des biens. La société utilise des brevets et marques de fabriques étrangères. Une analyse plus approfondie sur leur nature, leur durée restant à courir et leur extension aurait pu éclairer d'avantage le petit porteur.

La négociation de crédits bail, les menaces d'expropriation, et les projets de Cession, sont autant d'éléments essentiels à scinder la nature des biens et leur risque pour les nouveaux acquéreurs.

La SPCD peut avoir conclu des accords puis facilitent l'écoulement de ses produits, mais qui pourraient éventuellement comporter des engagements contraignants et des risques pour l'entreprise. Une analyse des plus importants contrats et leurs risques encourus en cas d'incident, est déterminante à la qualification de son potentiel, dans son environnement et en face des cinq forces de la concurrence.

Dans cette optique Quatre points essentiels doivent attirer l'attention de l'évaluateur. Il s'agit d'examiner la validité des contrats, de vérifier les documents de garantie et de service après-vente, de scinder la réglementation des produits en rapport avec la sécurité du consommateur et le respect de l'environnement, et de vérifier la conformité des marques avec la réglementation en vigueur (confusion, litiges etc.).

La politique sociale d'une entreprise est primordiale à sa survie. Elle doit être appréciée dans le cadre du respect des réglementations du code de travail et de la sécurité sociale. Le sondage de quelques contrats aidera

l'évaluateur à interpréter leurs conséquences juridiques et fiscales et leurs risques potentiels.

L'examen de la clause de rémunération du savoir-faire d'un salarié, sa durée et sa cessation sont autant d'éléments importants à la pérennité de l'entreprise. La contrainte financière des rémunérations est censée être prise en compte par l'analyste.

Le prospectus d'admission mentionne un investissement de maintenance de 1MD, et un investissement de développement de nouveaux produits, pour un montant de 4 MD, sur une période de Cinq années.

L'évaluateur a sommairement présenté le plan de développement. Ce dernier doit être décrit d'une manière substantielle, en soulignant les points forts et les points faibles. Ce plan, est la formulation quantitative et qualitative des stratégies de l'entreprise. Il doit éclairer les choix, les objectifs et les moyens mis en œuvre pour l'allocation efficace des ressources. Ce plan doit respecter une marge de manœuvre pour une flexibilité environnementale et il doit être justifié par l'étude de la taille et de la croissance du marché, l'effet des cycles économiques sur la consommation des produits de la SPCD et les caractéristiques de l'industrie au niveau de l'évolution technologique et les changements récents envisagés. L'entrepreneur à travers le prospectus d'émission est censé démontrer, que la meilleure solution pour parvenir au succès est celle faisant l'objet du plan de développement. Il doit éclairer les objectifs commerciaux, financiers et qualitatifs.

Les objectifs du marché doivent montrer les parts de marchés escomptés pour surmonter la concurrence, être bénéficiaire ou / et se maintenir, en traçant les perspectives souhaitées. Les objectifs financiers ce sont limités à la quantification de la rentabilité d'exploitation. Ils se révèlent pertinentes à travers l'examen du prospectus d'émission.

Les autres objectifs qualitatifs de motivation des salariés, de fidélité des clients, d'amélioration de la notoriété et l'image de la société ont été négligés. La clientèle actuelle et potentielle est censée être décrite de façon précise, afin de cerner la stratégie commerciale, la segmentation du marché et la cible choisie, pour une meilleure offre des produits et une couverture géographique large. La crédibilité de la stratégie est corrélée aux potentialités du marché et la viabilité de l'entreprise au milieu de ses concurrents.

Le plan de développement doit faire apparaître la qualité des choix, en mettant en exergue les ressources financiers (besoin de financement, montage financiers etc.), les ressources humaines (qualifications, équipe, organisation, savoir-faire, gestion etc.), le plan marketing (4 P, timing pour atteindre les objectifs, prévisions budgétaires etc.), la politique industrielle (matériels, sous-traitance, investissements, etc.) et le plan de recherche ou d'assistance étrangère au niveau du développement de nouveaux produits.

Ces informations susceptibles d'apparaître au niveau du plan de développement permettent d'apprécier les risques et révèlent la crédibilité du plan d'investissement dans une perspective pluriannuelle.

2.2 Evaluation de l'action

« L'évaluation des actions d'une société est une étape cruciale dans la réussite de son introduction en bourse. En effet, une évaluation erronée peut aller jusqu'à causer une crise de confiance dans les marchés financiers. Mc Carthy (1999), a qualifié l'évaluation de l'action d'une société à introduire en bourse comme « une combinaison entre l'art et la science » (page 111 article de l'auteur ESJ en Avril 2023, Vol.19, No.10)

Les méthodes d'évaluation (non exhaustives) sont résumées au niveau du tableau suivant :

Tableau 2. Résumé des méthodes d'évaluation d'une entreprise

Méthode	Actif net corrigé	Valeur par le Good Will	La valeur substantielle Brute VSB	Les capitaux permanents nécessaires à l'exploitation CPNE	Discounted Cash-Flow DCF	Discounted Dividend DD
Source	IAS 1	IAS/IFRS	Ordre des Experts comptables français	Ordre des Experts comptables français	Modigliani Miller (1961)	Gordon & Shapiro (1956)
Définition ou formule	L'actif net = l'actif total réévalué – Dettes (mises à jour)	$V = AN + GW$ Avec V : valeur de l'entreprise AN : Actif net corrigé. GW : Good will	La Valeur Substantielle Brute est l'ensemble de l'actif corporel engagé pour l'exploitation	Les CPNE sont les capitaux nécessaires au financement des investissements et de la variation du besoin en fonds de roulement	détermination de la valeur financière d'une entreprise à travers les flux de trésorerie qu'elle va générer dans le futur	$P0 = D1/(1+k) + D2/(1+k)^2 + \dots Dt/(1+k)^t + Dt+1/(1+k)^t (k-g)$ Avec k le taux d'actualisation et Dt le dividende à l'année t

Source : Tejeddine Ben Ouali, ESJ Avril 2023 edition Vol.19, No.10

Les mises à jour des éléments d'actifs et de passifs, avancées au niveau du prospectus d'admission seront retenues pour l'évaluation de l'action par les méthodes d'actifs, notamment l'actif net corrigé.

Quant à l'évaluation de l'action par les méthodes de flux, notamment le DCF et le DD, nous retiendrons le taux d'actualisation (13,56%) et les prévisions avancées au niveau du prospectus.

2.2.1 L'actif Net

L'actif Net représente les capitaux propres de l'entreprise. Ces derniers incorporent les diverses catégories de capital, les compléments d'apport, les réserves et équivalents⁴, Les résultats reportés et les résultats positifs ou négatifs, déduction faite des non valeurs.

L'examen du bilan au 31/10/95 révèle un Actif Net = Capitaux propres et réserves + Provisions + bénéfice Net⁵ - Frais d'établissement
= 5.053.636 + 5.704 + (2.677.831 x 0,65) - 255.838
= 6.544.092,150
≅ 6,5 MD.

Actif Net ≅ 6,55 MD

Le prospectus d'émission fait apparaître un Actif Net = 7,91 MD. Ce qui n'est pas le cas. A notre avis, il s'agit d'un actif Net corrigé qui fait apparaître une plus-value de réévaluation = 1,36 MD. Dans le cas contraire, le calcul de l'actif net n'est pas justifié.

Indépendamment de ce qui précède. Nous considérons l'actif Net corrigé ⁶ = 7,91 MD. Ceci se justifie encore par le fait que l'évaluateur a rajouté ce montant au goodwill calculé.

2.2.2 L'évaluation par l'approche du goodwill

L'approche du goodwill suppose la rémunération de la Valeur Substantielle Brute (VSB) ou des Capitaux Permanents Nécessaires à l'Exploitation (CPNE). La V.S.B. diffère totalement de l'actif Net. Il s'agit de la totalité de l'actif, majoré des investissements nécessaires à l'exploitation que l'entreprise utilise sans être propriétaire, diminué des éléments corporels ou incorporels non nécessaires à l'exploitation et de la valeur d'achat du fonds de commerce. Les frais d'établissements sont inclus dans le V.S.B. contrairement au principe visant le calcul de l'Actif Net.

L'évaluateur a rémunéré l'Actif Net. Il s'agit d'une valeur qui se rapproche de la valeur substantielle Nette, c'est à dire déduction faite de l'endettement à court et à long terme.

La valeur substantielle a pour but de mesurer les emplois nécessaires au bon fonctionnement de l'entreprise. On ne cherche pas à évaluer les droits de propriété s'exerçant sur ces emplois. Par conséquent, la valeur substantielle

⁴ cas de provisions qui se transforment en capitaux propres.

⁵ Le bénéfice n'est pas encore affecté.

⁶ Le montant apparaissant au prospectus d'émission

doit être retenue pour sa valeur brute. Plus cette valeur est élevée, plus sa rémunération est forte et plus le goodwill est faible.

En partant des mêmes hypothèses avancées dans le prospectus d'admission : soient un taux de rémunération de la V.S.B. = 11% et un taux d'actualisation = 13,56%. Le calcul du goodwill révèle le suivant ⁷ :

Tableau 3. Détermination goodwill par la VSB

	Année1	Année2	Année3	Année4	Année5
Résultats Nets prévisionnels	3115	3646	4754	5304	6150
Rémunération de la V.S.B.	2156	2156	2156	2156	2156
Rente du goodwill ou super bénéfice	959	1490	2598	3148	3994

En milliers de D.T

Source : prospectus d'admission et nos propres calculs

Le goodwill est égal à la somme actualisée des super bénéfices sur la même période de cinq ans.

Goodwill = 12,189 MD

Valeur de l'entreprise = 7,91 MD + 12,189 MD = 20,099 MD

Valeur de l'entreprise = 20,099 MD

2.2.3 L'évaluation par l'actualisation des cash-flows (ACF ou DCF):

Un élément fondamental de la valeur d'une entreprise est qu'elle est énoncée en terme de flux monétaire. Le concept est la différence entre l'argent reçu et l'argent déboursé. Ou encore en termes de consommation, c'est la consommation générée par l'Actif, moins la consommation retardée par l'achat de l'actif. Plus l'entrée d'argent est éloignée dans le temps, moins la valeur est élevée. Plus le taux exigé est élevé, plus la valeur diminue et plus le taux est faible, plus la valeur augmente.

Cette méthode consiste à actualiser le cash flow à un taux donné (Le taux minimum exigé) et sur une certaine durée (généralement 5 ans). Il s'agit alors de faire la projection des ressources et emplois des fonds de la société, et d'actualiser les fonds susceptibles d'être mis à la disposition des actionnaires. L'analyste doit se baser dans ses projections sur les budgets

⁷ VSB au 31/10/95 = 19,6 MD

prévisionnels pluriannuels et sur les paroles des dirigeants, tout en tenant compte de la structure d'exploitation de l'entreprise.

A la dernière année de projection. L'analyste doit évaluer la valeur résiduelle de la société . La méthodologie généralement appliquée, consiste à choisir un multiple du cash flow d'exploitation. Ce multiple varie de 5 à 12. Il est généralement plus élevé pour les entreprises établies et profitables. La valeur de l'entreprise ainsi déterminée pour la dernière année de projection, sera actualisée à l'année de l'étude.

Les cash-flows tiennent compte des fonds effectivement dégagés . C'est le solde des flux de caisse , engendrés par un investissement à la clôture d'une période . Ils reposent sur le principe de la comptabilité à partie simple où on ne retient que les recettes et les dépenses.

Le bénéfice net comptable est issu du compte de résultats. Ce dernier permet d'égaliser le total des charges au total des produits. Or , les charges d'exploitation n'ont pas été toutes décaissés (dans ce cas le poste dettes à court terme au passif du bilan serait nul) . D'autre part , l'exploitation d'une entreprise entraîne un certain nombre d'effets pervers , tel que les cessions et les acquisitions d'immobilisations , les emprunts et les prêts , ainsi que les opérations sur titres , générateurs d'encaissement et de décaissement d'argent .

Les éléments qui font changer les bénéfices et les flux financiers ne sont pas les mêmes. Le synchronisme des flux financiers et des bénéfices n'est pas pareil. Ainsi gagner de l'argent dans une entreprise et faire de bénéfices, ne sont pas équivalents. Pour rembourser des dettes , pour rencontrer des exigences , il faut de l'argent , donc des flux financiers .

En se référant au prospectus d'émission. La valeur de l'entreprise par actualisation des cash-flows avec un taux d'accroissement à l'infini des flux de trésorerie de 5% ($g = 5\%$) est comme suit :

Tableau 4. Détermination de la valeur de l'entreprise par le DCF

	Année1	Année2	Année3	Année4	Année5
E.B.I.T	3300	4112	4798	5870	6886
Cash-Flows	3403	- 683	2898	6880	4692
Valeur résiduelle					54813

En milliers de Dinars (mD)

Source : prospectus d'admission et nos propres calculs

D.L.T. = 895,680 mD

Valeur de l'entreprise = 39.195,667 mD

Valeur de l'entreprise = 39,2MD

La valeur avancée dans le prospectus = 51,56 MD

2.2.4 L'évaluation par l'actualisation des dividendes :

Les entrées d'argent générés par l'entreprise au profit des actionnaires, sont principalement les dividendes versés et le prix de vente de l'action. En 1938, l'économiste J.B. Williams dans "the theory of investment value" a affirmé que la valeur de n'importe quel actif (physique ou financier) est donnée par la valeur présente de tous les flux financiers espérés que cet actif générera. Pour les actions ordinaires, les entrées d'argent s'avèrent les dividendes réservés par l'entreprise, et la plus value réalisée suite à la vente de l'action.

L'investisseur qui achète une action ordinaire pour une période donnée, la valeur de son titre de participation est donnée par la valeur actuelle de tous les dividendes escomptés. Soient

P_0 : Le prix actuel de l'action.

P_1 : Le prix de l'action après une période.

D_1 : Le dividende de la prochaine période.

k : le taux de rendement exigé.

Le prix à payer actuellement par l'actionnaire est

$$P_0 = (P_1 + D_1) / 1 + k ; P_1 = (P_2 + D_2) / 1 + k$$

En appliquant le raisonnement pour les P_i , alors

$$(G1) \quad P_0 = \text{Somme} (D_i / (1 + k)^i) ; i = 1 . . n$$

Si le dividende croît à un taux fixe g et pour un horizon infini. L'équation (G1) sera :

$$P_0 = D / (k - g) = [BPA \times d] / (k - g) = BPA \times PER$$

avec BPA le bénéfice par action et d la part des bénéfices distribués.

Ceci suppose

a) la croissance du dividende espéré est constante d'année en année.

b) La croissance constante va jusqu'à l'infini.

c) $k > g$

Toutes choses étant égales par ailleurs. Nous constatons que le prix est fonction croissante des dividendes et de leur taux de croissance. Il est inversement proportionnel au taux d'actualisation.

En pratique, il est impossible que le taux de croissance des dividendes d'une entreprise soit stable dans le temps. Généralement, une société pourra avoir un taux de croissance de ses dividendes élevé durant quelques années et faible, stable ou nul pendant d'autres. L'équation (G1) s'écrit alors :

$$P_0 = D_1/(1+K) + D_2/(1+K)^2 + \dots D_t/(1+K)^t + D_{t+1}/(1+K)^t(K-g)$$

Cette identité suppose une variation hétérogène des dividendes pour les t prochaines années, et par la suite le taux de croissance g demeure constant. Le prix est la valeur que l'investisseur est prêt à payer, étant donné son opinion (ou celle de l'évaluateur) sur la société. Le modèle d'actualisation des dividendes s'intéresse à la valeur au marché des capitaux propres.

En application du modèle pour les hypothèses avancées par le prospectus. La valeur de l'entreprise est comme suit :

Tableau 5. Détermination de la valeur de l'entreprise par le DD

	Année1	Année2	Année3	Année4	Année5
Bénéfice par action	3,600	4,558	5,943	6,630	7,688
Taux de distribution	30%	30%	30%	30%	30%
Dividende par action	1,080	1,367	1,783	1,989	2,306
Actualisation des dividendes	0,951	1,060	1,218	1,196	16,199

En D.T

Source : prospectus d'admission et nos propres calculs

Valeur de l'action = 20,624 D.T
Valeur de l'entreprise = 16,5 MD

La différence majeure entre le DCF et le DD réside au niveau du choix du taux d'actualisation. Dans le DD , nous retenons le coût des capitaux propres calculé par le CAPM, du fait que les flux à actualiser seraient versés aux actionnaires, alors que dans le DCF, nous retenons le WACC du fait que les flux à actualiser seraient versés aussi bien aux créanciers qu'aux actionnaires, et ce en application de la théorie de Modigliani & Miller où « La valeur d'une entreprise est indépendante de sa structure financière ». C'est ainsi que les cash flow sont calculés avant les charges financières.

Le coût moyen pondéré du capital prend en considération le mode de financement et son coût. Il prend en compte la déductibilité des intérêts. Ces derniers sont déductibles de l'impôt sur les sociétés, ce qui rend le financement par dette attractif pour les investisseurs. Afin de tenir compte de cet avantage sur la valeur de l'entreprise, il convient d'utiliser le CMPC (WACC) Dans le DD les bénéfices ont pris en considération la déductibilité des intérêts. Dans le DCF la déductibilité des intérêts est prise en compte au niveau du CMPC

2.2.5 L'approche comparative :

Cette approche suppose la comparaison avec des entreprises similaires, œuvrant dans le même secteur et ayant une conjoncture boursière très proche (Bull ou Bear Market).

La comparaison avancée dans le prospectus n'a aucune signification et ne peut servir de référence.

3. Résultats

La confrontation empirique des modèles d'évaluation théoriques aux modèles utilisés au niveau du prospectus d'admission en bourse de la SPCD, révèle des insuffisances significatives de fond aussi bien au niveau de l'application des méthodes qu'au niveau de l'objectif à atteindre par la fixation du cours d'introduction.

Les tableaux 6 et 7 ci-après résument les résultats de l'étude, à travers la comparaison des valeurs du prospectus aux valeurs théoriques calculées par nos soins

Tableau 6. Comparaison des résultats de l'évaluation en MD

Méthode d'évaluation	Résultats du prospectus	Nos résultats
L'actif net	7,91 MD	6,55 MD
L'approche du Goodwill	43,15 MD	20,099 MD
DCF	51,56 MD	39,2 MD
DD	-	16,5 MD

Source : prospectus d'admission et nos propres calculs

Tableau 7. Comparaison de la valeur de l'action en dinar tunisien

Méthode d'évaluation	Résultats du prospectus	Nos résultats
L'actif net	9,887 dinars	8,187 dinars
L'approche du Goodwill	53,937 dinars	25,123 dinars
DCF	64,450 dinars	49,000 dinars
DD	-	20,625 dinars

Source : prospectus d'admission et nos propres calculs

Ces résultats révèlent une sur évaluation de l'action par l'initiateur de l'opération d'introduction en bourse.

4. Discussion

Pour les 800.000 actions composant le capital de la société, l'évaluateur a pris la moyenne de l'évaluation par l'approche du Goodwill et celle du modèle d'actualisation des cash flow pour estimer l'action à 59,193 dinars. Une décote de l'ordre de 5,7% a été appliquée pour la fixation du cours d'introduction à 56,000 dinars, le 15 mars 1996.

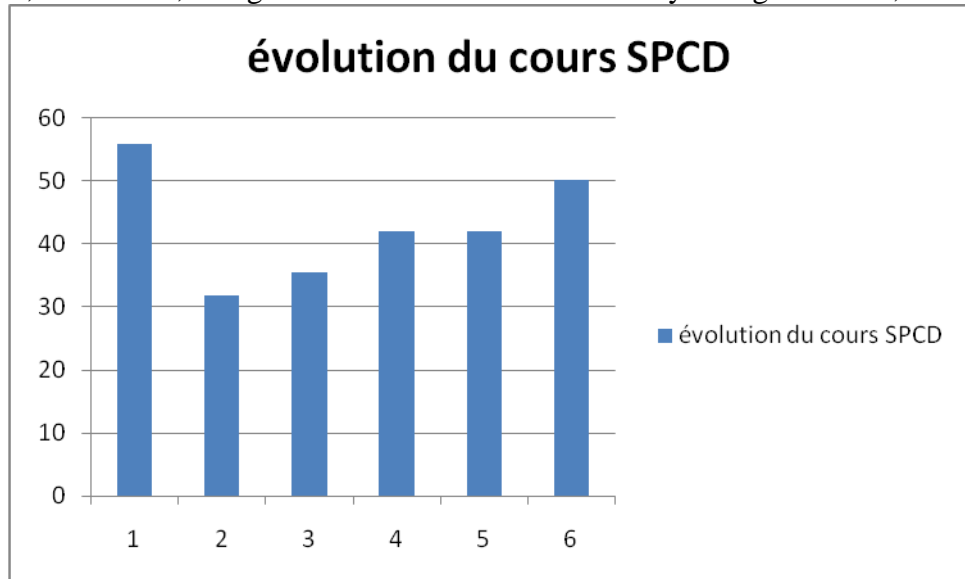
Partant des mêmes scénarios d'évaluation que le prospectus, la valeur de l'action est estimée à 37,06 dinars et le cours d'introduction ne doit pas dépasser 35,061 dinars.

L'écart du cours d'introduction est de 20,390 dinars, correspondant à une surestimation de l'action de 58,15%.

En prenant en considération le modèle d'actualisation des dividendes le cours d'introduction doit se fixer à 29,878 dinars, correspondant à une surestimation de l'action de 87,43%..

La surévaluation du cours d'introduction s'est concrétisée par une évolution défavorable du cours qui a atteint respectivement au 31 décembre

des années 1996 (1) :31,900 dinars, 1997 (2) : 35,500 dinars, 1998 (3) : 42,000 dinars, 1999 (4) : 41,580 dinars, 2000 (5) : 50,300 dinars pour terminer sa cotation par une offre publique de retrait (OPR) le 24/05/2001 (6) au cours de 50,300 dinars , enregistrant un rendement annuel moyen négatif de -2,12%.



Source : BVMT

La société a été introduite sans aucune sous évaluation initiale (SEI). L'intermédiaire en bourse cherchait à maximiser ses honoraires et le vendeur cherchait à maximiser son produit de cession. Ce qui est contraire à la théorie financière.

Il est constaté une diminution significative des performances boursières du cours sur une période de 4 années, couronnée par un retrait de la cotation (OPR du 24 mai 2001).

Contrairement à Ritter (1984), l'opération d'introduction en bourse de la SPCD n'a pas été accompagnée de plusieurs autres introductions. Il s'agit des premières introductions sur le parquet de la bourse des valeurs mobilières de Tunis, adressées à un public novice des rouages financiers et des éventuelles sur évaluation.

Nous laissons le soin à d'autres chercheurs pour des études futures mettant l'accent sur l'impact de telles sur évaluations sur le marché financier tunisien

Conclusion

L'introduction en bourse d'une société doit prendre en considération l'intérêt de tous les intervenants, surtout les petits porteurs.

Dans le cas analysé, seul l'objectif de maximisation des recettes du vendeur qui a prédominé.

L'introduction de la société à 56,000 D.T a fait gagner au vendeur 4,8 Millions de dinars nets d'impôts (en Tunisie, la plus value de cession lors d'une introduction en bourse n'est pas imposable pour les personnes physiques) et a lésé les petits porteurs.

Les écarts de valeurs entre celles avancées au niveau du prospectus et celles calculées par nos soins, relèvent de deux facteurs, d'une part le vendeur cherche à avoir un prix de vente que l'évaluateur doit en justifier par tous les moyens satisfaisant le client, d'autre part l'absence de spécialistes chevronnés en évaluation sur la place de Tunis ne peut qu'agir sur la qualité des rapports proposés.

L'intermédiaire en bourse doit avoir pour objectif principal de mener à bien un projet. Il doit intégrer en amont une dimension de conseil stratégique. Il ne s'identifie pas à un expert qui trouverait sa finalité dans la rédaction d'un prospectus, ne respectant pas les intérêts antagonistes, négligeant les ignorants des valeurs mobilières et de la bourse.

La détermination d'une valeur convenable et réaliste exerce une influence prépondérante sur l'équilibre d'une opération. Une telle introduction en bourse s'est terminée par une offre publique de retrait (OPR) et la maximisation du produit de cession, au dépend des ignorants de la bourse.

Nous laissons le soin à des futurs chercheurs l'examen des prix psychologiques, calculés d'une manière professionnelle, indépendante et visionnaire pour un cours d'équilibre, prenant en considération les intérêts antagonistes des intervenants et la dynamisation du marché financier pour un bon passage de l'économie d'endettement à la finance directe

Conflit d'intérêts : Les auteur n'ont signalé aucun conflit d'intérêts.

Disponibilité des données : Toutes les données sont incluses dans le contenu de l'article.

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ESJ Social Sciences

Silence as Leadership Communication: Public Perception, Interpretation, and Negotiated Meaning

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Résumé

Every communication encounter primarily starts because initiators aim to inform and influence others. Silence is a form of nonverbal communication that can be deployed by those communicating. Since nonverbal communication complements the verbal form of communication, it is expected that it is effectively used to enhance the sender-receiver's communication gains. This paper investigated leaders' communication style and if leaders' silence affected public perception, interpretation, and the meaning assigned to a communicated message, using the former Nigerian President, Muhammadu Buhari, and the Nigerian public as cases. It adopted a qualitative approach—an in-depth interview method, using an interview guide as the instrument for data collection. The data analyzed showed that adopting silence as a form of communication, especially during a crisis, would harm the human communication experience. Buhari's silence toward Fulani herders' attacks affected how the masses perceived, interpreted, and assigned meaning to his action. It allowed conspiracy theories to thrive as public opinion showed that his silence encouraged the herders' nefarious actions.

Keywords: Leadership, Communication encounter, Masses, Silence, Fulani herders, Crisis

Introduction

The benefits of communication lie in how human beings connect, understand, and relate with each other and their environments. They share ideas, views, and opinions at different times and about diverse topics as they try to inform, educate, and influence each other. Scholars such as Craig and Muller, 2007; Dutta, 2021; LisaM, 2009; Kreps, Frey, and O’Hair, 2009; Peters, 2008, have defined communication in various ways. One of the early definitions of communication states that communication is the exchange of information and the transmission of meaning (Katz & Kahn, 1978). Communication definitions point to the same angle—the sender-receiver relationship and experience. In other words, the sender sends a piece of information (words, symbols, images, et cetera), through a selected medium (airstream, electronic, et cetera), to a listener—receiver, encoder, or audience. Gold (2019) notes three ways communication encounters can occur. First, communication can occur through a variety of media. Second, communication can be fast or slow; third, communication can occur in different ways, for instance, in silence (pp.171-172). Whichever way communication occurs, through silence, among other ways, the sender hopes to get a positive interpretation of the message sent as they try to influence the listener.

Silence is a form of nonverbal communication that can be constructive or destructive. Virani (2013) states, “Constructive silence moves a conversation or discussion forward. Destructive silence shuts down communication and creates barriers that discourage speakers from expressing their thoughts. Thus, silences can be ‘leaden,’ and they can also be ‘golden’” (para.1). In the communication encounter, messages can also be transmitted to others involved through silence. Silence can be a disinterest in relating with the other party. It can mean that a party does not understand the information passed across. It can mean a deliberate way of letting the other party have a whole part of the experience before sending feedback.

Every leader is expected to engage their followers through effective communication. For this reason, Presidents, for instance, organize consistent media chat sessions to share ideas, views, and plans about developments in their country with the citizens, especially in a democratic setting. Sometimes, when effective communication is missing, people complain about such leaders’ silence, especially during crisis periods. For example, the past Nigerian President, Muhammadu Buhari, had been accused of not speaking to Nigerians despite the increase in insecurity. Insecurity in Nigeria is multi-faceted. However, this study focused on the Fulani herders and farmers’ crisis that snowballed into incessant killings, kidnappings, armed robberies, and banditries during Buhari’s civilian regime (May 29, 2015 - May 29, 2023). The issue caused economic hardship, amongst other socio-political issues that Nigerians believed the government should address urgently.

Silence can lead to a destructive atmosphere, especially during crises, because it allows for speculation, rumors, and others. In the case of Nigeria, which is the focus of this study, it was established that the President's silence led to a series of misinterpretations, speculations, insinuations, rumors, and confusing conclusions. This action seemed to have caused the myriad worrying national challenges the country is facing, aside from the Fulani herders and farmers crisis. Over time, the situation snowballed into other strata of the country.

During that period, there was a conspiracy theory that Buhari's silence emanated from the fact that those perpetuating most of the evil acts were the people of his tribe—Fulanis, primarily the herders. They indulged in destroying farmers' crops, killing, maiming, kidnapping, and raping, among other vices in the country (Okibe, 2022; Ruqayyah, 2019). Owing to this conspiracy theory, government officials have also engaged various media and stakeholders to defend the President's actions. They noted that the President was not silent. Instead, he did all within his power to nip the crisis in the bud (Ekpei, 2023).

Research Questions

RQ 1: How did President Buhari's silence influence Nigerians' perception of his position about the country's Fulani herders/farmers' crisis?

RQ 2: How did President Buhari's silence help spread conspiracy theories about his thoughts on the country's Fulani herders/farmers' crisis?

Study Objectives

First, the objectives are to establish if President Buhari's silence influenced how Nigerians perceived his position about the country's Fulani herders/farmers' crisis. The second objective is to reveal how his silence aided the spread of conspiracy theories about his thoughts on the country's Fulani herders/farmers' crisis.

Problem Statement

Scholarly works have shown that communication could be verbal, written, or nonverbal. Some of such studies have also demonstrated that nonverbal communication helps to complement the spoken form of communication (for example, Joo, Bucy, and Seidel (2019); Wasike (2018); Valaitis, O'Mara, Wong, MacDonald, Murray, Martin-Misener, and Meagher-Stewart (2018) and Isenhardt, 2009; Craig and Muller (2007)). Silence carries meanings even though words are not uttered or signs or symbols are not engaged in the communication encounter. With the number of known studies on communication as a field, a few have focused on discussing silence as a

form of communication and how it affects sender-receiver relationships and experiences.

For this reason, this study examined this vital form of communication and how it influenced how the receiver perceived, interpreted, and assigned meaning to a sender's message. Nigeria was selected as the study area using the county's President Muhammadu Buhari's silence amid Fulani herders/farmers' crises claiming lives and properties in the country as a case. Consequently, this study investigated leadership communication style. It focused on silence's effect on human communication encounters and how President Buhari's silence influenced Nigerians' perception and interpretation of his position on the menace the Fulani herders became in the country.

During this study's period, it was observed that Nigerians reacted to the President's silence. His action generated a series of conspiracy theories, such as concluding that his silence was because he is a Fulani. Had the President addressed the Nation since the crises began, would there have been a generation of such conclusions about his position on the situation? The data gathered and analyzed in this study answered this question.

Study Significance

This study is significant because it revealed how silence influenced the outcome of human communication processes. Leaders would learn how important it is to engage in other forms of communication to communicate with citizens rather than be silent because silence allows the generation of speculations, rumors, and misinterpretations. Scholars and students in the academic fields, especially in Arts and Social Sciences, should benefit from this study's rich literature and findings. The results would help correct leaders' communication system dynamics. This thought is consistent with Patton's (2015, p. 8) submission. Finally, it would expand the communication field's knowledge, data, and conversation storehouse.

Definition of Terms

In the context of this study, the following concepts are defined for clarity and to match the purpose of the study. The concepts are:

1. **Silence:** an act of not communicating by a sender when the receiver expects a perceived response.
2. **Ordinary citizens:** anyone that does not fall within the three categories set by this researcher, that is, politicians, journalists, and academics, but with sufficient knowledge of the subject matter.

Literature Review

Silence as Nonverbal Communication

Communication is to share ideas, views, and norms between two persons, a group of persons, among others. The essence is to inform, educate, and influence the receiver toward acting in a specific way—asserting one’s power or resisting that of another (Gardezi, Lingard, Espin, Whyte, Orser, & Baker, 2009, p. 1391). According to Kidwell and Hasford (2014), “Most effective leaders, salespeople, and consumers, often proficient and discerning as interpreters of intentional or unintentional nonverbal communication, use nonverbal communication” (p. 526). People also adopt silence to complement other communication forms. It is a form of nonverbal communication. It lacks words or physical symbols yet carries specific messages and meanings. It is used by parties involved during in-person exchanges for different reasons. When this is the case, the receiver is left with the choice of interpreting the sender’s intention. This scenario was why Hardy, Boliek, Aalto, Lewicke, Wells, and Riegera (2020) asserted, “It is also important to begin to understand the contribution of nonverbal communication behaviors....” (p. 933). It is believed that understanding nonverbal communication will aid positivism in the interpretations stemming from the deduced stimulus received from the sender at any given time.

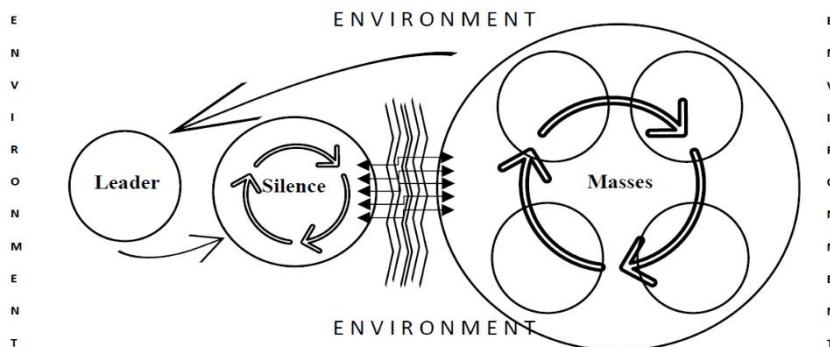
Silence may pose a danger during any communication encounter as it may allow speculation, distrust, rumors, and conspiracy theories. It can be associated with negativity, passiveness, impotence, and absence (Bruneau, 1973; Dauenhauer, 1980; Saville-Troike, 1994, in Ephratt, 2008, pp. 1910). For instance, the Nigerian President was silent when Nigerians eagerly looked forward to him addressing the Fulani herders and farmers crises. It was discovered that the President’s silence allowed the surge in conspiracy theories in the country. Citizens gave diverse negative interpretations to his silence for as long as it lasted.

Leaders influence their followers in diverse ways because they control resources and decisions about changes to the status quo (Chiaburu, Lorinkova, and Van Dyne, 2013, p. 299). For this reason, among other edges they have over their followers, leaders are expected to master the art of effective verbal and nonverbal communication to foster excellent relationships between them and their followers. For instance, based on comments on various media channels, it could be deduced that the masses were not pleased with how the President ran the country’s affairs (Ojo, 2018). Most of the reactions stem from his silence amid the crises claiming many lives and destroying properties. Whether leaders engage their followers verbally or nonverbally, it is expected that they create an atmosphere that will improve their followers’ levels of trust, confidence, positive psychological capacities, positive ethical climate, and relational transparency and foster positive self-development (Guenther,

Schreurs, & van Emmerik, 2017, p. 53). Adequate and effective communication is one of the best ways to achieve this goal.

In their study of silence in an Operation Room, Gardezi et al. (2009) posit that “Research suggests that inadequate communication is a primary cause of medical errors and that communication among the professions in the operating room (OR) is essential to patient safety” (p. 1391). Though this is not an operation room case, the same scenario can occur in our everyday life because, as humans, we understand each other better and most effectively by communicating verbally and complementing the process nonverbally. It shows that communication cuts across all fields. Consequently, due to President Buhari’s silence, which was believed to have caused the hike in insecurity, Nigerians, especially the majority of those from other regions — Eastern, South-southern, Western, and Middle belt, might not categorize President Muhammadu Buhari, a Northern, and Fulani born as an effective and or authentic leader in line with Walumbwa, Avolio, Gardner, Wernsing, and Peterson’s (2008) description. The authors posit that “...authentic leadership is composed of four dimensions, namely self-awareness, balanced processing, relational transparency, and internalized moral perspective” (p. 94). Leaders are expected to learn and develop these dimensions to foster effective -leader-follower relationships and experiences. The model below explains how silence affects the receiver’s desired sender’s feedback and overall communication satisfaction. It visually explains the scenario investigated and discussed in this study. It will also speak to related communication research investigations.

Fig. 1. The Silence Effect Model (SEM) shows how the choice of silence over other forms of communication can be detrimental to the overall communication experience.



Source: Utulu & Bello 2023

This model explains the silence effect on a communication encounter. It can be adapted to other related conversations about the detrimental impact of adopting silence as the form of communication by senders—leaders, for example, especially in crisis circumstances. It explains how the leader’s

silence affects the receivers' plights during transmission. The receivers send feedback based on the information received (long curved arrow). They expect to get the leader's feedback, which is familiar with effective communication. However, the leader's response is silence (locked in the circle with broken cyclical arrows). The broken arrows represent ineffective transmission emanating from a sender's silence. The feedback remains intrapersonal to the leader. This experience shows stocked information—the wobbled arrows and the vertical lines standing as distortion walls against the transmitted message (wobbled arrows) due to the nonverbal response in silence. So, the receivers' options are to interpret and assign meanings to the leader's feedback based on their experience of activities (crisis in this regard) in the environment. This situation is represented by more pronounced broken cyclical arrows within the receivers' bubble. It shows how silence allowed insinuations, presumptions, speculations, and conspiracies in the polity (environment) (Grice, 1989).

Crises in Nigeria: The Case of the Fulani Herders

A series of crises have bedeviled Nigeria since its independence on October 1, 1960. The situations have ranged from the tussle for power between the regions that make up the country to equitable sharing of the proceeds of the countries' primary natural resources—oil. Other causes include an imbalance in the national political positions among the regions, marginalization, the Niger Delta crisis, and Boko Haram, to mention a few. More recently was the rise of the Fulani herders and farmers crisis.

Interestingly, the Fulanis contribute substantially to the country's economic growth. However, the unprecedented crisis that has caused the country a considerable loss of lives and financial gains, among other economic progress, has marred the country's favorite spot of the Fulanis. Regarding their positive contributions, Ndubuisi (2018, p. 1) posits, "They make cattle meat affordable and readily available at the doorstep of Nigerians. Their animal meat constitutes a huge source of protein for the citizens."

It is purported that the Fulani herders' crisis lingered because the former President—Mohammedu Buhari, a Fulani, remained silent by not openly condemning the herders. It was noted that during their nomadic pastoral activities, the herders had changed tactics from mere land grazing to barrel-induced land grazing (Akinyetun 2016, p. 39). Their actions were characterized by killing and kidnappings, destruction of farmers' plantations, settling and taking over of small villages, sexual harassment, small arms proliferation, sour national social relationship, and high cases of rape and other menaces (Bello 2013; Okereke 2012; Ajibefun 2018). In the words of Ajibefun (cited in Duke & Agbaji, 2020, p. 345), "The major implications of the Fulani herders' menace were the reduction in output and income of farmers/nomads, loss of produce in storage, displacement of farmers, scarcity of agricultural

products, loss of house and properties and infrastructural damages.” It would be generally accepted that no leader is expected to be silent when a sect’s activity or any harmful activity is causing tremendous loss to a country, institutions, or organizations they are leading when it involves the loss of human lives and property. A government’s primary objective is to protect life and property.

It was believed that President Buhari’s silence caused a series of conspiracy theories and speculations about his position regarding the subject matter based on the data gathered for this study. For instance, it was taken that he had remained silent because, as a Fulani, he regards Fulanis more importantly than people from other regions. Also, his silence was perceived as a deliberate action to foster the Islamization of the country, among others. This action could be considered a demerit to adopting silence in the human communication system, especially in a crisis. When this happens, tensions escalate, and everyone interprets the situation based on either personal subjective, or sentimental reasoning. But when feedback is effectively communicated in the oral or written form, such gaps that allow conspiracies—speculations, rumors, et cetera, would have been bridged. A leader’s effective communication demonstrates care, empathy, dedication, commitment, and equity, which lead to public trust and confidence (Slovic, 1999, cited in Gesser-Edelsburg & Hijazi, 2020, p. 2986).

Crisis Communication

The crisis is inevitable in societies, institutions, and organizations because of divergence in thoughts, opinions, views, norms, traditions, and culture. Whatever strategy is adopted to avert a crisis whenever it breaks ends up helping minimize it and its effect on people and society (Cikotić, 2021; Marsen, 2020). It can also be said that no matter how effective a government is, there will always be issues that will generate a crisis (Cikotić, 2021). It can be artificial or race-based, such as the Fulani herders/farmers’ crisis in Nigeria, natural disasters—flood, fire, epidemic, or pandemics such as the break of covid-19 pandemic and others.

When any of these breaks, governments or leaders are put on their toes because they will have to engage all arsenals to control the spread and negative effect of the crisis on the state and citizens (Rosenthal & Kouzmin, 1997). One of the best ways to stem the situation’s impact is to communicate effectively with the masses and all stakeholders, making communication the key to managing crises. This period is never a time for leaders to be silent or adopt a silent form of communication, as witnessed with Buhari. It is a period for effective, strategic, and continuous engagement and communication through all the available media or channels (Garfin, Silver, and Holman, 2020; Coombs, 2019; Benoit, 2013). In line with this assertion, Coombs (2019) says,

“Communication is essential to the crisis prevention process. Communication helps to locate warning signs and relay that knowledge to the relevant units” (p. 50).

Because of the negative consequences of the crisis, Watkins and Clevenger (2021, p. 6), citing (Boin, 2009; Comfort et al., 2020, & Körösényi et al., 2016), asserted that “Leaders must make important decisions that will necessarily affect lives, and they must communicate their decisions to a frightened and vulnerable public.” The Nigerian government under Buhari did not meet Comfort, Kapucu, Menoni, and Siciliano’s (2020) components of the adaptive decision-making process that leaders consider during a crisis. The components are cognition, communication, coordination, and control (p. 617). Nigerians demanded Mr. Mohammed Buhari, the President and Commander in Chief of the country’s Armed Forces, to address the Nation and the Fulani herders’ crisis that lingered, spread beyond the borders of the Northern region to other regions, and was seen as the precursor to the hike of insecurity in the country (Seeger, 2006). It shows the importance of communication in humans’ everyday life. People appreciate talking and enjoy being spoken to, making communication cyclical.

Method and Instrumentation

A qualitative research approach was adopted for this study using an in-depth interview method to elicit information from respondents. This method according to Paton, helps to gather information through people’s experiences, opinions, feelings, and knowledge (Paton 2015, p. 14). An in-depth interview guide served as the instrument for data collection. These approaches are consistent with Mutsvairo and Columbus’ (2012: p. 123) assertion, “Focus groups and in-depth interviews are considered the most commonly used and efficient methods of gathering data qualitatively.” The authors further cited (Marshall’s & Rossman’s 2006) assertion, “...when thoughts, feelings, belief, values, and assumptive worlds are involved, the researcher needs to understand the deeper perspective worlds that can only be captured through face-to-face interactions” (p. 123). These thoughts provoked the rationale behind this researcher’s choice of in-depth interviews as the best fit among other methods for data collection. Also, the interview method was adopted because it is useful when the participants cannot be directly observed (Creswell & Creswell, 2018, p. 188). The study’s respondents were purposefully selected Nigerians that represented the overall population of the study using a purposeful sampling technique for selection. Selections were based on the categories set by this researcher: politicians, journalists, academics, and ordinary citizens.

Population and Area of Study

Due to the nature of the in-depth interview approach, twelve Nigerians, a mix of politicians, journalists, academics, and ‘ordinary citizens,’ were selected and interviewed. A brief pre-interview was conducted with the respondents to determine these categories. It helped the interviewer determine who was suitable for the interview sessions (Morse, 2010, cited in Patton, 2015, p. 264). The overall distribution was three (3) respondents for each category. The interview sessions were conducted in Ibadan, Oyo State, based on the proximity factor. Also, Ibadan is one of Nigeria’s capital cities and among the most populous cities. According to the 2021 World Population Review, Ibadan is one of Africa’s most populated cities, with a population of over 3 million. The responses generated from the interview sessions were transcribed and analyzed using the narrative analysis under the inductive analysis approach (Patton, 2015, pp. 47; 592).

Justifications

The justification for the researchers’ adoption of a qualitative research approach is that it helps the researchers access the study’s elements’ reactions through their responses to interview questions. Nigerians’ reactions to President Buhari’s silence during crisis periods and how it influenced their perception and interpretation of his position about the state of the Nation cum the Fulani herders’ issue were collected and analyzed. Also, the approach allowed the researchers to select appropriate knowledgeable best-fit respondents that provided the responses that answered the research questions.

Theoretical Framework

Conspiracy Theory

Conspiracy theory generates around happenings relating to organizations, institutions, and most times around leaders and the people in government; hence, its choice over the spiral of silence theory for this study. Conspiracy theory submits that a secret of great importance is being kept from the public (Aupers, 2020; Goertzel, 1994). To van der Linden, 2013 (cited in van der Linden, 2015), “A conspiracy theory purports that some covert and powerful individual(s), organization(s) or group(s) are intentionally plotting to accomplish some sinister goal” (p. 171). In the case of Nigeria, some people believe that President Buhari remained silent while “his people,” the Fulani herders, were unleashing mayhem by destroying farmers’ crops, kidnapping, and killing other citizens from other regions of the country because of plans to allow Fulanis gain more settlements in the country. Another conspiracy theory points to the deliberate intent to Islamize the country, hence, having Fulanis from other countries flocking into the country unchecked.

However, some individuals, especially those in Buhari's government, may question these thoughts since human beings relate to stimuli differently. The experience may be associated with Weigmann's (2018, p. 2) assertion that psychologists argue that people may be deceiving themselves through several cognitive biases that impede rational judgment and logical thinking that can be based on unsubstantiated reports about the issues. It might be the case with Nigerians who have lent their voices to the problems the country was grappling with under Buhari's government. That notwithstanding, the conspiracy theory helped explain how President Buhari's silence determined how the masses perceived, interpreted, and reacted to his body language as he remained silent and reserved in the face of the herders' crisis.

Discussion and Conclusion

This study posed two research questions to deepen the understanding of how silence can influence individuals' thoughts and behavioral communication patterns during direct or indirect communication encounters using a political leader's action as a case. It investigated how President Buhari's silence engendered Nigerians' perception and interpretation of his position on the Fulani herders' issue in the country. Second, it probed how President Buhari's silence aided conspiracy theories about his position on the Fulani herders' crisis in the country. Thus, investigating silence as a communication form and its effect on the human communication system revealed how silence could impact people's interpretation and meaning assigned to the message received from a sender. Respondents' responses analyzed provided answers to the two questions posed.

Respondents' responses were collected through audio recording. These responses were collated, transcribed, and analyzed to answer the research questions. Regarding the first research question, results reveal that President Muhammadu Buhari's silence allowed Nigerians to interpret and assign meanings to his position about the Fulanis and the Fulani herders' crisis based on how they perceived his actions—being silent amid the country's situation. In other words, responses showed that Nigerians believed Buhari's silence indicated that he supported the Fulani herders' nefarious actions because they were his people, not minding what the mayhem was costing the country during the crisis. President Muhammadu Buhari's spokespersons faulted this position at various fora. They submitted that the President was not happy about the problem and was doing all he could to quell the situation and other challenges the country was facing.

Drawing from respondents' responses (public opinions) obtained from the academic category, to show the effect of President Buhari's silence, a university don, a Professor of Political Science, and a Senior Lecturer of Mass

Communication had similar opinions consistent with public opinion. In his response, he asserted:

[sic] I will say yes because, since I have said earlier on, people take direction from what is coming from the government in terms of communication. So, people have taken his silence to mean support for the herdsmen, so ordinarily, he is supposed to present himself as neutral and present himself as not happy with whatever, whether his relatives or people from other tribes, he is supposed to speak out. So, he is not speaking out and is giving a kind of an impression, a wrong impression, or a correct impression that he is in support of the Fulani herdsmen. So I can say, not with all assurance, but that there is an indication that his silence is leading to people agitating for their rights, freedom, and other things. They are saying it clearly that Buhari has an agenda, and the agenda is to allow the Fulanis to take over the entire Nigeria. So, his silence indirectly instigated some of the crises.

Another respondent, a high profiled journalist, said:

[sic] Absolutely, absolutely, don't forget that the President is a Fulani man by tribe. He has this history of being pro-Fulani in a very extreme way in the past. In fact, to a lot of people, it was the reason why he was rejected three times when he contested because they felt he was not Pan-Nigeria enough in his worldview.... now that he is in office and doing the exact thing people feared the most about him. I would say it has greatly influenced how we assess him, especially on issues that are very sensitive and issues around farmers-herdsmen crises. Then, the President, who is the Commander in Chief of the Armed Forces, as a Fulani man himself, a Patron of Myetti Allah to have kept quiet; there was a conspiracy of silence, which made people believe that maybe he was actually the secret hand nudging them to go ahead with that kind of notorious and nefarious activities.

In addition to these submissions, the politicians interviewed gave similar responses. One of them submitted:

[sic] Ordinarily, Yes, and based on the explanation I gave to the earlier question, that submission is quite in order. Mind you, President Muhammadu Buhari is the live Patron of MACBAN (Myetti Allah Cattle Association of Nigeria). So, naturally, his sentiment is expected to be with them. But it has been further accentuated by his unpresidential silence regarding the murderous incursion of the killer herdsmen. I won't say Fulani herdsmen, killer Fulani herdsmen, because most herdsmen are Fulanis. Some of them are killers, so killer Fulani herdsmen.

Another politician who could be said to be neutral in the answer given, unlike the former who gave an outright answer, said:

[sic] Well, everybody is actually entitled to his or her personal opinion. To the same set of people, an action can mean different things to so many people. So, his silence to some people might mean he is in support. His silence to some might mean he is the mastermind. His silence to some people can mean a lot of things, but as I said, we don't know anything. We are actually kept in the dark, so that will lead anyone to think about anything and own it up to him or herself.

These responses to the interview items posed to answer research question one revealed that all the public members interviewed had similar reactions in agreement with the question. They revealed that silence played a significant role in how Nigerians perceived and assigned meaning to the President's position regarding the killer Fulani herders in the country. Opinions showed that he supported the herders' nefarious acts as a Fulani man and because he is the Patron of the herders' association—MACBAN. To further establish this finding, another respondent stressed that:

[sic] Yes, of course, you know the fact that he is a Fulani man.... Now there is also that angle of him being the Patron of the Fulani herders. I am more aware that all these came up because of that silence. So, there are different notions about his personality because of where he is coming from, and the people involved are from his area. He creates a disposition of him being on their side by not going all out against them. You look at; for example, when it comes to the issue of IPOB (Indigenous People of Biafra—a group from the Eastern region clamoring for secession) [insertion, mine], he was a bit more vocal on how he is going to deal with the leader of IPOB, Nnamdi Kanu. He has not been too vocal about dealing with Fulani herders.

To conclude, answering Research Question One, it will be reiterated that silence, especially from leaders in the situation investigated in this study, harms people and society. It shows that communication encounter purpose—effective information dissemination and accurate feedback can be compromised through silence. When this happens, it can lead to sociopolitical and other crises in the polity.

Therefore, this study submits that President Buhari's silence affected how Nigerians interpreted and assigned meaning to his position about the Fulani herders/farmers' crisis in the country. His silence is associated with negativity, passiveness, impotence, and absence (Ephratt, 2008, pp. 1910). It shows that his action portrays negativity and distrust of leadership in the polity. Over the period of his position as the Commander in Chief of the

Nigerian Armed Forces of the country, there were various contentious reports about his actions. In Orjinmo's (2023, para. 1) report, the reporter submitted, "When he steps down next week, President Muhammadu Buhari will be leaving Nigerians less secure, poorer, and more in debt than when he came to office in 2015." However, Buhari and members of his political camp are convinced that he performed well. An AFP report stated, "Nigeria's President Muhammadu Buhari defended his political record on Sunday, the day before he steps down, saying he leaves the country in a better state than when he took power in 2015 (Ekpei, 2023). The report showed various areas where Buhari believed he improved during his time as the President.

However, public opinion pointed to the fact that Buhari did not live up to what was expected of him as an elected leader in a democratic setting. He did not create an atmosphere to improve Nigerians' trust, confidence, positive psychological capacities, positive ethical climate, and relational transparency to foster positive self-development in line with Guenter, Schreurs, and van Emmerik's (2017) argument.

Research Question Two was set to establish how President Buhari's silence helped spread conspiracy theories in the country. On Buhari's part, it revealed he was acting in line with the plan to Islamitize the country, among other plans—a reason why silence is harmful to people and society, especially in a crisis. Conspiracy theories are speculative in that they posit actions that are hidden from public scrutiny, complex in that they postulate the coordination of multiple actors, and resistant to falsification in that they hypothesize that conspirators use stealth and disinformation to cover up their actions—implying that people who try to debunk conspiracy theories may, themselves, be part of the conspiracy (Lewandowsky, Cook, Oberauer, Brophy, Lloyd, & Marriott (2015). However, on the part of the citizens, it could be said that they were not being vocal and acting based on their perception and the meaning they could assign to Buhari's silence when the country was facing a substantial security crisis under his watch.

It is evident that silence gives room to all sorts of interpretations and deductions the listener will assign to the speaker's action when they keep quiet instead of addressing the receiver's need for information. Therefore, respondents' responses to the interview question were analyzed and interpreted to give substantive answers to research question two.

First, the politician who was neutral in response to interview questions to research question one did not provide a specific answer to the interview question. He neither agreed nor disagreed. Further probe revealed that he was a member of the ruling party. In his words, he said,

[sic] "Well, I won't go for any of the options... you just have to balance it. There is nothing like conspiracy anywhere."

Conversely, the second politician has a different opinion. He asserted that the President's silence helped spread conspiracy theories about his position on the Fulani herders' crisis in the country. The responder noted that the extent of Buhari's silence, when Nigerians expected him to condemn the Fulani herders was to a "Very Great Extent." One of the academics also agrees that President Buhari's silence helped spread conspiracy theories about his position on the Fulani herders crisis in the country to a "Very Great Extent." On the other hand, another academic member interviewed thought the President's silence affected the spread of conspiracy theories. In his opinion, it was to a "Little Extent."

Interestingly, the Journalists' responses were balanced based on the scales set — "5" representing the highest and "1" as the lowest. Two of the four Journalists interviewed believed Buhari's silence effect was to a "Very Great Extent," while the other two said it was to a "Great Extent." The two scales chosen fell on the high side of the scale set in this study, that is, "Very Great Extent" (the highest scale) and "Great Extent" (the second highest scale). According to the responses from those selected to represent the public voices, two of the three people interviewed submitted that President Buhari's silence helped spread conspiracy theories to a "Very Great Extent." However, one respondent submitted that it was to a "Great Extent." Also, both sets of respondents fall on the high side of the scale — scales "5" and "4."

Although this researcher did not develop explicit research expectations regarding how silence could influence listeners during a communication encounter, it was expected to find evidence of influence because whatever was not uttered could not be heard. Such action tends to create room for listeners' choices to interpret and assign meaning as they wish. So, based on the responses gathered from all the selected respondents, this study submitted that President Muhammadu Buhari's silence significantly affected how Nigerians perceived, interpreted, and assigned meanings to his position about the Fulani herders' crisis in the country. This submission is consistent with the established conclusion that being a Fulani, Buhari supported the herders as they unleashed mayhem on anyone who dared to stop them from grazing their cattle on people's farms. This thought also pointed to the discussions on the unchecked spread of the situation from the Northern region to other regions.

In conclusion, it could be maintained that President Muhammadu Buhari's silence aided most Nigerians in believing there was a conspiracy due to Buhari's actions, which allowed the spread of assumptions and speculations about his actions toward the Fulani herders' crisis in the country. Most of the selected respondents' responses that represented Nigerians' opinions within the context and scope of this study attested that if President Muhammadu Buhari had addressed the situation, the problem would have been nipped in the bud. The country would have focused and harnessed its energy and

resources toward building an impressive economy to compete in the global socioeconomic space. It showed the importance of effective verbal communication to silence. Silence should, instead, be used to complement other forms of communication. However, one should not overlook the importance of silence in the communication encounter. Everyone, especially leaders, must adopt silence carefully and effectively to complement other forms. If not harnessed adequately with other forms of communication, silence can create unprecedented room for misconception, misinterpretation, misinformation, disinformation, and misperception.

Recommendations, Suggestions for Further Studies, and Limitations

This study recommends that leaders at all levels should take cognizance of the essence of their position and be mindful of the importance of communication with people, institutions, or organizations. They should pay critical attention to how they communicate and relate with others. If leaders would adopt the principles of effective communication, it would consistently minimize conspiracy theories of any form, distrust, and noncooperation. It would create a more peaceful environment for leadership operations and societal development.

This study exclusively adopted the in-depth interview method using one instrument—the interview guide, which included open-ended questions for data collection. This approach would have limited the data generated to give a more expansive interpretation, discussion, and answers to the research questions posed. However, it would be maintained that the method served the purpose of this study. The data gathered helped to answer the research questions significantly within the study's purpose and scope. However, it is suggested that further studies should adopt more than one method or instrument. Research has shown that using mixed methods help researchers generate more data from diverse sources and elements and can help each method supplement the other and improve a study's validity and results dependability (Zohrabi, 2013). This study is believed to provoke more academic conversation on this subject.

Human Participation

Confirmation that the research is approved by an appropriate University/Institute Body: The research was developed from a pilot class research paper approved by the Professor (Regent University). Before the interview session dates were set, every interviewee was pre-notified about the purpose and scope of the research. All participants consented to be interviewed. And preferably the number of the decision: There is no number issued. As well as the research followed the Helsinki Declaration for the involvement of humans in the research study and their confirmation: The

researchers considered and followed the Helsinki Declaration hence, pre-notifying the interviewees (all adults) and letting them access interview questions to understand the purpose, scope, and significance of the research before participating in the interview sessions. Everyone interviewed consented. Finally, the minor errors have been corrected. However, the interviewees' comments were adopted precisely.

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Appendix

Study Interview Guide

1. As a Nigerian, what is your take regarding President Buhari's silence since the beginning of the crises (specifically herders' attacks) that have claimed several lives in the country?
2. Would you say President Buhari's silence affected how Nigerians interpret his position about the Fulani herders' crises in the country?
3. Can you explain why you think President Buhari's silence influenced Nigerians' interpretation of his position about the Fulani herders' crises in the country?
4. To what extent would you say that President Buhari's silence helped spread conspiracy theories about his position on the Fulani herders' crises in the country? Kindly rate your take based on these scales: Very Great Extent, Great Extent, No Extent, Little Extent, Very Little Extent.
5. Are people's conclusions that the President supports the Fulani herders valid? Please give your reason(s)
6. Would you say that if the President had condemned the Fulani herders and addressed the Nation, the crises would have been nipped (stopped)?
7. What is your general view of the state of the Nation?

Thank you.

Management of the Neapolitan Public Banks' Crisis in the Late XVIIIth Century: The Model of "Banco Generale" as an Instrument of Going Concern Settlement

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Abstract

The troubled political and financial events of the Kingdom of Naples under the Bourbon dominion in the late 18th century outline the environmental perimeter in which the business phenomenon, subject of this investigation, will be deepened: the unification of the Neapolitan public banks under the shared aegis of “National Bank of Naples” in 1794. The analysis will aim to examine thoroughly the complex reasons underlying the last and irreversible crisis of the ancient Neapolitan public banks highlighting how the structural, functional as well as conceptual characteristics of these institutes changed in response to the socio-economic scenario shifts. Particularly, the contribution intends to critically discuss the social and political implications of the extensive reform promulgated by the central government, under King Ferdinand IV, for the restoration of the Neapolitan banking system.

The normative corpus was reconstructed basing on a large collection of primary sources, collated through meticulous archival research, and secondary ones, arising from historiographical and academic literature. For this purpose, the work integrates into the research unit of History of Companies and Public Institution, by adopting a theoretical perspective of historical-administrative

origins. According to the examined sources, the inadequacy of the royal measures led to a deep systemic crisis, which resulted to be fatal for the ancient Neapolitan banks.

Keywords: Neapolitan public banks, Crisis, Going concern, recovery plan, Ferdinand IV

Introduction

Since their foundation, the *luoghi pii* played an institutional role of fundamental importance for the city and the Kingdom of Naples, accompanying the political, economic, commercial, and productive renewal. In the complexity of different material and ideal pressures, they gradually combined original welfare activities with banking and were acknowledged as public-law credit institutions. As a result of their dual personality, divided between the religious aspect (*Monte*) and the economic one (*Banco*), the abovementioned institutes were thus custodians of very diversified instances (Muzzarelli, 2001) and ended up representing the majority stake of the city profitable market.

This contribution focuses on the decades between the 18th and 19th centuries and will emphasise the contextual factors that resulted in the irreversible crisis of the ancient Neapolitan banks and the early attempts made for its resolution. The time span considered in our study, despite being limited, was the scene, in Europe, in Italy and in the Bourbon dominions, of troubled events and great changes in the geopolitical, social and economic field, outlining a highly complex environmental perimeter in which credit and its control became a crucial element for the preservation of the delicate system balance.

In the name of “real and useful benefit of the Public”, the Bourbon government became the promoter of an extensive reformative work aimed at restoring the compromised economy of the Neapolitan public banks and ensuring the appropriate operational conditions to continue business.

The establishment of *Banco Nazionale di Napoli* in 1794 represents the culminating event of a deep economic crisis and aims at resolving permanently the previous operational and managerial criticalities of individual institutes through the assurance of a supportive protection of credit expectations. Actually, the aristocratic effort was unsuccessful in its ambitious intention, namely that of giving the banks the public’s trust back, and the accreditation body had no autonomous life as surveillance authority of the seven banks. Nevertheless, the intervention of Ferdinand IV was useful to outline the essential characters of a business governance model that would later lead the organisational transformation and the administrative rationalisation of the banking functions of the Kingdom of Naples and the whole Kingdom of Italy throughout the following century in the alternation of Bourbon and French dominions.

Thus, the objective of this work is to reconstruct the complex cause at the origin of the gradual decline of the Neapolitan public banks, assessing simultaneously impact and flow of the administrative-accounting and organisational innovations introduced by the reformative action of the Sovereign.

Considering how the issue of banking governance and its quality in contexts of crisis is still strongly debated in both academia and professional practice, the chosen topic seems, therefore, to be able to arouse considerable interest.

Through an in-depth documentary analysis based on primary and secondary sources, our investigation aims to offer an element of originality in the epistemological route around the Neapolitan public banks and to enrich the existing literature, hitherto focussed mainly on records content and on how the institutes under examination managed accounting. In fact, while not neglecting strictly accounting and budget aspect, the investigation will give particular prominence to the analysis of royal measures and documents bearing evidence that concerns the implementation of managerial activity and governance choices, in order to envisage a wider economic-business framework of the company crisis phenomenon being monitored and the chosen way for its resolution.

The contribution is designed as follows. After clarifying the methodological approach and the range of sources collected, a brief historical excursus on the creation and flowering of *Monti di pietà* of Naples is provided. The following part of the work is dedicated to the identification and examination of the causes that produced the dysfunctional behaviour of the Neapolitan public banks in the late 18th century, taking properly into account the repercussions of the particular and adverse economic situation that had arisen in the reporting period. The management of banks' crisis is afterwards critically observed through the reconstruction of the articulated terms of regulations arranged by the Bourbon Regency to reorganise the efficient functioning of the Neapolitan financial and credit system. Finally, research findings are discussed.

Method and sources

This study adopted the historical method to offer a diachronic interpretation (Servalli, 2007) of the complex events that mark the last years of the ancient Neapolitan public banks bankruptcy in the late 18th century.

Our reflection was fostered by the collection and analysis of both primary and secondary sources.

Numerous primary sources were collected by drawing on the documentary heritage stored in the Archivio Storico del Banco di Napoli, the Archivio di Stato di Napoli and the Biblioteca della Società Napoletana di Storia Patria.

The synergistic combination of primary sources enables us to reconstruct the normative *corpus* arranged by the Bourbon government in the late 18th century to regulate and reform the complex running of the public banks. The study and

consultation activities concerned documentary sources of various kinds. We are talking about measures of legislative nature, such as Royal Dispatches, Royal Decrees, and Regency Regulations as well as some records of administrative and accounting nature, such as letters and official records (included in the so-called *borri*), governing bodies' meetings minutes, regulations, and handbooks useful to appreciate fully the governance reorganisation and banks functioning.

Conversely, the secondary sources include records on the history of the Kingdom of Naples, the banks, and the public accounting functioning. Thanks to the study of historiographical and academic, it has been possible to observe the banks reality depending in the socio-economic reference framework. An inductive approach was adopted with the purpose of reconstructing the environmental trends, moving from the particular to the general, to acquire a critical comprehension of the main evolutionary tendencies and make consistent comments.

Hereafter, the results of our analysis will be presented retracing the main events that marked the phase of decline of the banks life.

Historical background

Birth and flowering of the Neapolitan public banks

Since the 15th and 16th century in the city of Naples public banking was almost exclusively carried out by *luoghi pii*, namely private charity associations that were meant to provide needy people belonging to the same social or professional group with economic assistance, through confraternities, conservatories and religious-type bodies (Avallone, 2007; Avallone & Salvemini, 2020).

The Capital suffered from lack of money circulation and absence of credit institutions that provided lending operations, leading to the spread of disproportionate usurious praxis by private banks (Avallone, 2007; Broggia, 1743; Filangieri, 1782; Galanti, 1793). For these reasons, the *luoghi pii* played a fundamental role when they started to grant loans⁽¹⁾, free but secured by pledge, for the sole philanthropic purpose. Two *Monti di pegni*⁽²⁾ were the first among all in the city of Naples: *Monte della Pietà*, established in 1539⁽³⁾, and *Monte dei Poveri* established in 1563 (Tortora, 1890). Thus, a phenomenon of hybrid characterisation

⁽¹⁾ The pledge-free loan service was applied by *Banco della Pietà* and by *Banco dei Poveri*, the interest-bearing loan developed only after 1628 (Demarco, 1996, pp. 258-259).

⁽²⁾ For further details with regard to the spread of the *Mounti di Pietà* between XV and XVIII centuries: Garrani, 1957, pp. 139-174; Avallone, 2007, pp.79-83. It is interesting to observe that the spread of such associations was not positively welcomed by all. Some criticised the phenomenon believing that it was a tool aiming at reducing the misery of the city rather than enabling the development of productive initiatives, in this respect see De Rosa, 1987, pp. 45-48.

⁽³⁾ Generally, the establishment of the *Monte della Pietà* is led back to one of the expulsion of Jewish people from the Kingdom, in particular to the most effective of them, namely the one ordered by the Edict of Charles V dated 10th November 1539 (Filangieri, 1940, p. 31).

began to take form, halfway between religious-welfare and economic aspects (Avallone, 2007, p. 71) ⁽⁴⁾

The *Sacro Monte e Banco della Pietà* was declared public bank in 1584 (Tortora, 1890), while the *Sacro Monte e Banco dei Poveri* was identified as public institute in 1585 ⁽⁵⁾.

These institutions did not play the role of banking institutes but, instead, of charity institutes, whose main goal was to contrast the phenomenon of usurious credits granted by private banks ⁽⁶⁾. The Neapolitan public banks, whose origin is attributable to a series of motivations widely investigated in doctrine, were born from such a proven need (Filangieri, 1940; Demarco & Nappi, 1985; Demarco, 1996; De Matteo, 2005). The decline of private banks, the need for these philanthropic entities to be competitive compared to “non-institutionalised” economic-financial operators (Avallone, 1995, p. 69) and, moreover, the growing and spasmodic research by the state of alternative credit sources for war expenses in which Spain was involved (Avallone, 2007). Enlivened by the same philanthropic determinism, other pre-existing *luoghi pii*– such as *Casa dell’ Annunziata e di Sant’Eligio*, and *Ospedale degli Incurabili*– and newly established – such as *Conservatorio dello Spirito Santo* and *Ospedali di San Giacomo e della Vittoria*– decided to request authorisation to carry on the business of public banking.

Other five public banks were established in the city of Naples: the *Banco della Santissima Annunziata* or *Ave Gratia Plena* (1587), the *Banco di Santa Maria del Popolo* (1589), the *Banco dello Spirito Santo* (1590), the *Banco di Sant’Eligio* (1592) and the *Banco di San Giacomo e Vittoria* (1597). Also, the eighth bank, the only merchant bank open in Naples, namely the *Banco del Santissimo Salvatore* (1640) ⁽⁷⁾ was established further in time on the initiative of contractors of the tax on flour.

The banks operated as depository, currency issuance and transfer banks (Avallone, 2007). Compared to other public national banks, their peculiarity was

⁽⁴⁾ On this point, see also Maragi M., (1956). *Cenni sulla natura e sullo svolgimento storico dei Monti di Pietà*, estratto dall’opera: Archivi storici delle aziende di credito, Vol. I, Associazione Bancaria Italiana, Roma and Barbieri G., (1961). *Origini ed evoluzione dei Monti di Pietà in Italia*, in *Economia e Credito*, Palermo.

⁽⁵⁾ The first acknowledgement of the *Banco dei Poveri* occurred through a charter granted by Viceroy Duke of Ossuna, but, for a series of vicissitudes, only in 1600 was legally acknowledged as bank. Historians referenced the establishment of the Bank, taking into account the operations carried out up to 1585; for this reason, historians define it as the second public bank established in Naples (Tortora, 1890, pp.42-61; Demarco, 1996, pp. 17-18; Filangieri, 1940, pp.47-48).

⁽⁶⁾ For further details on the motivations underlying the decline of private banks, see Demarco, 1996, pp. 12-14.

⁽⁷⁾ About the origins of Neapolitan public banks: Somma A., (1884). *Trattato de’ banchi nazionali del regno delle Due Sicilie*, Di Barnaba Cons. Publisher, Napoli.

the issue of *fedi di credito*, namely debts securities received as cash that could be changed in money at all the desks of the banks existing on the territory (Ferrandino, 2013; De Matteo, 2005)⁽⁸⁾. Naples, as the Capital of the Kingdom, represented the epicentre of the serious difficulties and problems that the Country was facing (De Matteo, 2005; De Rosa, 2001). It was catalysed repeatedly, because of its political and economic role, as well as its population size, moments of economic and social crises in whose management the public banks played a fundamental role⁽⁹⁾.

The Neapolitan public banks – all except for the *Banco della Santissima Annunziata* that went bankrupt in 1702 (Demarco, 1996) – kept running their business operating for two and a half centuries. This could happen thanks to a wise organisation, their functioning and capability to provide the Court and the city of Naples with prompt responses, managing to overcome extremely harsh monetary public crises, *mala gestio*, political wars, pandemics and adverse events clarified by the most illustrious historical authors⁽¹⁰⁾. “They achieved all their aims so fully (...) they balanced the distribution of wealth and regulated its circulation” (Filangieri, 1940, p. 133).

The outbreak of the Neapolitan public banks’ crisis

Until 1792, the conditions of the banks were flourishing (Filangieri, 1940; Dello Joio, 1942; Maiello, 1980), continuing to operate prosperously until the French Revolution (1789), or rather until the effect of this Revolution did not develop and marked a deep political-financial crisis in Europe and irremediably in the Kingdom. In effect, the reputation of the banks had already begun to falter in 1771, before the events of the French Revolution, with the scandal occurred in the *Banco dello Spirito Santo* in which the Delegate, a man named Giovanni Pallante, reported to the King the waste of money and the irregular behaviours carried out by the banks itself. That event led the King to order a reform for all the banks: through dispatch, dated 28th October 1771, he delegated to the *Real Camera di Santa Chiara* to examine statutes, charities and investigate on the abuses and unnecessary expenses incurred by all the banks. Undoubtedly, the reform would allow bringing to light the real situation of the banks, enabling a timelier intervention of reorganisation of them, but it was never completed. Indeed, Tortora, believing that “the demanded reform (...) would have accelerated of thirty years the downfall of the banks” but “there is nothing on file that concerns the compilation of the plan”, claims that the cause of that would be due to the inertia of the Royal Chamber

⁽⁸⁾ For an overview of the main operations carried out by the banks, see Demarco, 1982, pp. 291-293.

⁽⁹⁾ For details, see Bianchini, 1839; NAPPI, 1999.

⁽¹⁰⁾ Among the most meaningful moments of crisis, the monetary crisis of 1621-1622, the anti-Spanish revolt of 1647 (so-called Revolution of Masaniello) and the plague that hit the Kingdom in 1656 (Filangieri, 1940, p. 65 and ff.; Tortora, 1890, p. 111 and ff.; Demarco, 1996, p. 253 and ff.) are remembered.

(Tortora, 1890, p. 39). Another attempt, in this regard and in the same period, was the establishment of the *Giunta degli Abusi*. Even this initiative was not carried forward because, according to the claims by Filangieri, the reports collected proved to be valid (“good”) blurring any suspicion about the business of the banks themselves. However, the outbreak of the banks’ crisis could not be connected to an event of managerial inefficiency, which may be natural in a context of increasing operational complexity, but rather derives from a series of events that have occurred in a time span that arises from 1792 to 1796 until their extinction occurred in 1806⁽¹¹⁾.

In fact, the news of the French Revolution aroused anger and fear in the Kingdom, because of the close kinship that bound the respective families – Maria Carolina, wife of Ferdinand, was the sister of Marie Antoinette, wife of Louis XVI (Maiello, 1980, p. 32) – as well as the threatening news from Paris. In this atmosphere of turmoil and concern, the King decided to join the coalition against France, promoted by Austria (Tortora, 1890). That choice led to the imposition for the Kingdom to meet significant expenses for armaments and military equipment, which impacted negatively, and irremediably, both reputation and funds of the Neapolitan public banks⁽¹²⁾.

The Royal Court did not have a favourable economic situation and, to cope with war expenses, devised plans to obtain the necessary amounts since it was not easy to obtain the money needed for the rearmament. The government, in need of instant cash, attempted to increase state revenue through the disposition of new taxes and sourcing precious metal to be converted into money⁽¹³⁾ by ordering the banks to carry out checks in their coffers about the possible presence of foreign coins to be melted and recoined⁽¹⁴⁾. That decision allowed to detect, in the *Banco di San Giacomo*, a treasure that was sent to the *Giunta per la monetazione* with the purpose of being converted into money⁽¹⁵⁾.

In this regard, even private individuals were asked to offer on loan the precious metal they own to the Royal Court, in exchange of an annual interest of

⁽¹¹⁾ From 1803 onwards there was, indeed, a slow clearance of their business, so that when the French arrived, the *Banco di Corte* and the *Banco dei Privati* were established, the succession was only formal since the old banks remains were the only thing left (Maiello, 1980, p. 97).

⁽¹²⁾ It seems, actually, that the King was unwilling to intervene in war, for both the relevant expenses to deal with and the fear that rumours of war could cause doubts on the safety of the money in the banks (Maiello, 1980, p. 34).

⁽¹³⁾ At that time, in the Kingdom existed two *giunte della monetazione*, whose task was to collect metal to convert into money: the *giunta della monetazione del rame* (for copper coinage) and the *giunta della monetazione dell’argento* (for silver coinage). They jointly formed a sort of “Council of coinage” in the Kingdom of Naples (Maiello, 1980, p. 33).

⁽¹⁴⁾ A.S.B.N./B. POP. /A.P., *Dispacci e rappresentanze*, matr. 44, fasc. 92.

⁽¹⁵⁾ A.S.N./M.F., A.S.N./M.F. Ministero delle Finanze, *Lettera del Consiglio di finanze al Banco di S. Giacomo, Napoli*, 15 November 1792, fasc. 2138. The treasure at issue consisted of 80,000 “hard pieces” from Spain (Maiello, 1980, p. 33).

three percent on the value corresponding to the loaned metal. The Court itself wanted to set an example by offering all the silverware of the Royal set for the conversion into money (Maiello, 1980).

Nevertheless, those attempts did not have the desired effects because the coinage timing was too slow since the *Zecca di Napoli* (Mint of Naples) could only coin a hundred thousand ducats per month at most (Maiello, 1980) – and, in the meantime, a deposit that permitted to guard the metal offered by private individuals was not available. For these reasons, the director of the *Zecca*, a man named Antonio Planelli, proposed to send the metal of private individuals to the banks asking them to guard it in exchange of monetary consideration. The Royal Court accepted that proposal ⁽¹⁶⁾.

Despite the sums received for the decisions implemented, the Court failed to restore its financial situation and consequently the King and the government, driven by the need of obtaining money, took the decision to benefit from the credits available in the banks and, thus, attack these latter. That decision represented a culminating event for the outbreak of the crisis. In fact, it was the beginning of a real haemorrhage of cash from banks coffers (Demarco, 1982) whose ratio was to support the Royal Court in incurring public expenses.

The first real trauma for the banks happened on 25th November 1792, following the issue of a dispatch by the Council of Finance. It ordered the Delegates of the banks to deliver all the tied money available in the coffers with the purpose of using it for the benefit of the State, offering to the capital holders an interest of 2% ⁽¹⁷⁾.

Thus, the Real Court partly succeeded in increasing the number of men for the army in 1793, but that measure was not enough to compensate for military expenses and scarcity of wheat harvest of the last two years ⁽¹⁸⁾.

⁽¹⁶⁾ As indicated in a letter of the Council of Finance to the Director of the Mint, the Court considered that measure neither harmful for the banks nor suspicious for the public, believing that the metal stored represented “substance that would become money within a few days”. Archivio di Stato di Napoli. Ministero delle Finanze, *Lettera del Consiglio di finanze al Direttore della zecca*, Napoli, 10 December 1792, fasc. n. 2138. See also Maiello, 1980, p. 34.

⁽¹⁷⁾ The dispatch at issue did not expressly refer to the banks and reported this statement: “all the different sums, by any magistrates, are into the power of presidents Marchese Porcinari and Bisogni and the tax lawyer Cianciulli, so that they are, until new Royal provision, exclusively deposited. This gives them the right to call the sums back from anyone’s hands in order to use the money for the benefit of the State. As a precaution for the sums, all effects of the Royal Patrimony and, especially the fund repurchased batches, remained”. However, considering that conditioned and secured deposits existed almost exclusively in the banks’ coffers (and were, mostly, represented by certificates of credit), the initiative affected these latter bodies the most (Tortora, 1890, pp. 318-319).

⁽¹⁸⁾ It should be remembered that the banks anticipated, free of charge, every year the sums required for the supply of wheat (in July 1789, 1790, and 1791 the banks loaned every year two hundred thousand ducats to the city). The famine of 1792 and 1793 made the banks

For this reason, the Royal Court on 4th February 1793 ordered that the public money available in the coffers was loaned to the treasury and the town hall, withdrawing the sum total of 1,980,023.55 ducats, with the promise of returning, as soon as possible, the sums borrowed⁽¹⁹⁾. This return occurred gradually with *fedi di credito* (so with a mere certification) and never with actual money (Tortora, 1890; Maiello, 1980).

The withdrawals made in those years entailed a shortage of cash in the banks coffers, also in more solid ones – as the *Banco di S. Giacomo* or the *Banco dello Spirito Santo* (Maiello, 1980)⁽²⁰⁾.

As a result, the situation of the banks at the beginning of the summer of 1794 was quite severe, since money in the coffers became increasingly scarce. The trust in the public was henceforth affected because the scarcity of cash, according to many, was due to maladministration of the banks (Maiello, 1980). In this context the King and the government implemented further, and more incisive, measures to restore the financial situation of the banks and, especially, their good reputation among the population.

Results

In the context of turmoil and concern described, the King took a decision that laid the foundation of the enslavement of the banks to the government and significantly reduced their autonomy. According to the analysis performed, the complex reform promulgated by Ferdinand IV for the restoration of the Neapolitan banking system consisted into two decisive legislative acts: the establishment of a supervisory body, the so-called *Giunta dei banchi* and the institution of a central bank, “*Banco Nazionale di Napoli*”, resulting from banks’ merger and concentration. The perusal of unpublished archival sources has supplied interesting information on the actual functions and attributions of the *Giunta* as well as on the unifying role actually played by the new institution.

Until 1794 the Royal Court controlled the banks business through the Protector Delegates⁽²¹⁾, but with a royal dispatch dated 17th September 1794 these

situation worse so that they, due to poor wheat harvest a, had to loan to the city and the Court over three million ducats in all, mostly in cash (Maiello, 1980, p. 35).

⁽¹⁹⁾ The letter sent by the director of the Finance of the Kingdom (Mr. Corradini) to the delegate of *Banco del Popolo* (Mr. Porcinari) Naples, 4th February 1793 read: “*the sums that the banks respectively gave, for specified need, shall be returned to them, as soon as current conditions will permit it*”, A.S.B.N./B. POP. /A.P., Dispacci e rappresentanze, matr. 44. See also Tortora E. (1890), *New documents (...)*, Ibid., p. 319.

⁽²⁰⁾ The Author reports also negative results related to account books and patrimonial budgets examination, to banks closure on 31st December 1793 and to the general state of them on 10th May 1794, in which he shows an evident worsening of the patrimonial and economic situation.

⁽²¹⁾ The Protector Delegates were the seven banks’ directors. For further details on the functions and the structure of Neapolitan public banks at that time, see Avallone, 1991, pp. 489-546.

latter were fired and immediately lost their roles. All the duties were assigned directly to a committee, the *Giunta dei banchi* (a sort of a general Council of Banks), composed of illustrious personalities directly appointed by the King himself, managing to deprive the banks of their autonomy and obliging them to the sovereign approval⁽²²⁾. In effect, at the setting-up, it was not entirely clear what the powers of the new committee should be. These were clarified only several months later, assigning to the *Giunta* an inspection and supervisory function.

The establishment of this body was the first real and serious attempt by Ferdinand IV to return to the banks the usual necessary public's trust and boost the operations and effective verifications on them (Tortora, 1890). Despite what the King explicitly stated in the dispatch, that measure represented the first of a series of acts by means of which they tried to destroy the banks independence and make the money deposited in their coffers available for the government (Maiello, 1980, p. 42).

However, this intervention was not enough to revive the banks situation⁽²³⁾. The Royal Court continued to incur excessive expenses to damp the political and financial negative effects of the French Revolution, hence attacking the banks. Due to the "*malice of someone, a panic fear conceived by others and the greed of many of taking advantage unlawfully of coin trade*", King Ferdinand IV decided to intervene again incisively (Nappi, 1999, pp. 33-37).

The royal firmly believed that "*the disasters occurred to the banks had derived from considering them as being seven institutions disjointed and separated from each other*" (Tortora, 1890, p. 331). Therefore, the King decreed on 29th September 1794 through the pragmatic sanction *XV de Bancis*, that all the banks, hitherto considered as seven political and moral bodies, totally disjointed and separated from each other, were to merge in a unique state-run institute named "*Banco Nazionale di Napoli*" (Giustiniani, 1804, pp. 67-68)⁽²⁴⁾.

The King explicitly clarified the motivations underlying this decision in the pragmatic sanction at issue, in which he tends to recall the institution ratio and the continuation of the banks business. Their business had to be solely and exclusively for the benefit of public service, regardless of the venue and the name of the bank in which their possessions were deposited and that the assets owned by the banks coming for the public itself were to be dedicated and employed to its advantage. Finally, he believed that if any of them had failed, this would have led to a

⁽²²⁾ The governors could not take up any employment without the sovereign approval (Tortora, 1890, pp. 329-330; Maiello, 1980, p. 42).

⁽²³⁾ It is not possible to know exactly the financial situation of every single bank in 1794, because, although the *Giunta* had asked each of them to send a report on their general state, the only one found was that of the *Banco del Popolo* (Filangieri, 1940, p. 142).

⁽²⁴⁾ There are those who believe that it was thought to save from bankruptcy the least solid banks making them solidly debtors (Filangieri, 1940, p. 143). Others, instead, believe that such choice was made in order to "have a greater freedom in plunging hands in the banks coffers" (Demarco, 1982, p. 298).

significant damage for the whole community (Giustiniani, 1804; Tortora, 1890). That institute envisaged, thus, “for greater convenience for citizens” (Giustiniani, 1804, p. 68), the subdivision of the seven banks in seven separate coffers and branches with different denominations, whose only interest was not only the capital and the Kingdom, but also the whole nation (Tortora, 1890, p. 331).

In this regard, banks structures were reorganised, including five governors for each coffer to be substituted each semester, deprived of all their ancient authorities⁽²⁵⁾, and the responsibility *in solidum* among banks was introduced. The *Giunta* was instructed to proceed with the organisation of the seven banks evenly and this was implemented through the following restructuring plan: *Piano per le Officine della Razionalia, Ruota, Archivio e Revisione; Piano per i Giornalisti; Piano per l’Officina delle Casse; Piano per le Officine dei Pegni con interesse, vendita dei pegni, portieri, facchini, avvocati e procuratori; Piano per i Revisori dei Pegni*⁽²⁶⁾

Furthermore, the powers of the *Giunta dei banchi* were better specified, making it “the absolute master of the banks” (Tortora, 1890, p. 332). The creation of the *Giunta dei banchi* allowed the King to deny the banks their autonomy, while their concentration in the *Banco Nazionale* wanted to ensure that they would also lose their distinct legal personality, but the unification never actually happened, since it was only on paper. In fact, the seven institutes continued to maintain a separate management and a distinct accounting system, generating a situation in which the governing bodies of each bank ignored one another (Maiello, 1980).

Finally, the institution of the *Banco Nazionale* represents, indeed, one of the first examples of banking concentration whose purpose was not to make the banks management more efficient, but rather to have greater awareness and cognition of loss. Especially, the concentration allowed the Royal Court to make use of “both banks and public assets comfortably” (Tortora, 1890, p. 331) becoming debtor to the banks themselves⁽²⁷⁾. However, considering that the Banks continued to carry on their business, we can assume that the King did not want such unification to be operationally working, since a formal status was enough to ensure

⁽²⁵⁾ Governors were not allowed to incur any expense, the appointment as office workers and, no less, the correspondence with ministers and public official (Tortora, 1890, p. 332).

⁽²⁶⁾ The recovery plan of Neapolitan banks bears the signature of the Prince of Luzzi, the Earl of Policastro, the Marquis of Fuscaldo, the Marquis of Gagliati, the lawyer Antonio Crisafulli and the trader Gennaro Rossi. Archivio Storico del Banco di Napoli. Prima Giunta dei Banchi. *Stabilimenti riguardanti il Sistema di tutti i sette rami del Banco Generale: Piano per le Officine della Razionalia, Ruota, Archivio e Revisione; Piano per i Giornalisti; Piano per l’Officina della Casse; Piano per le Officine dei Pegni con interesse, vendita dei pegni, portieri, facchini, avvocati e procuratori; Piano per i Revisori dei Pegni.*, 1794-1797, matr. 34, ff. 1-38.

⁽²⁷⁾ In the late 1795, the Royal Court was debtor to banks for over 461,189.28 ducats (Filangieri, 1940, p. 143).

the government control. These measures, as we will discuss later, resulted to be fatal for the ancient Neapolitan banks.

Discussion

Since their inception, the Neapolitan public banks experienced alternate events unavoidably connected to the destiny of the city, contributing, sometimes, to determine its trends. So did the happenings that marked the history of the Kingdom of Naples in the late XVIII century. The European crisis burst with the French Revolution had serious repercussions for the resistance of Bourbon institutions (Rao, 2021, pp. 15-19), already worn out by the difficult modernisation of the management of the *res publica*. In a territorial context difficult for the development of local economy²⁸, the news from Paris, also given the family tie, caught Ferdinand IV off-guard. He found himself unprepared to cope with the treacherous difficulties that would soon arise.

Before going into the merits of the measures taken by the Bourbon government aimed at new regulation of credit system functioning, it is useful to perform, preliminarily, a more analytical examination about the origin of the banks malaise. Indeed, a company crisis phenomenon always has a complex of causes that must be sought as necessary premise to obtain a clear understanding of its evolutionary dynamic and achieve a correct interpretation of its consequences.

Table 1 reports a synthetic schematisation of the main causal factors that determined the banks' crisis that sparked in the late XVIII century.

Table 1. Causes of the Neapolitan banks' crisis in the late XVIII century

ENDOGENOUS FACTORS	EXOGENOUS FACTORS
<ul style="list-style-type: none"> • Inadequate costs structure • Internal controls weakness • Abnormal/injurious behaviours • Risky lending practices 	<ul style="list-style-type: none"> • Prices increase • Agricultural crisis • Credit demand changes • Currency depreciation • Inefficient model of taxes exaction • Paper inflation • French Revolution

Source: Original elaboration.

The crisis of Neapolitan public banks is, therefore, due to a wide range of internal and external factors that contextually refer to environmental dynamics, internal managerial and administrative weaknesses, and to their reciprocal influence. In the phenomenon of company crisis herein examined, the exogenous factors become etiological factors of a pathological situation that originates especially from misconducts by those who oversaw the banks' government.

⁽²⁸⁾ In the late XVIII century, the growth of southern economy was restrained by the serious decline of craftsmanship, lack of infrastructures and foreign trade reduction. For details, see Ciasca, 1940, pp. 153-156; Chorley, 1965, pp. 84-89; Croce, 1966, pp.180-187.

In the late XVIII century, in the light of an increasingly complex operating activity (De Marco, 1982; Avallone, 2008), as well as a structure of risks immobilisation tendentially unbalanced, the banks struggled to cover the increasing operating costs and satisfy the increased demand for consumer loans. At the same time, it must be considered that such institutes carried out, besides the credit function, a delicate monetary function and were supposed to support the State in bearing public expenditure that did not find adequate financing through the sole tax collection (Bianchini, 1835; Ostuni, 2007).

At the outbreak of the international political crisis, the banks were, as was natural, overwhelmed by the consequences of the unfavourable economic situation and were crushed by the burden of the Court interference. The unholy debt policy, implemented by the Bourbon government to ensure the participation of the Kingdom of Naples to the coalition against France, forced the institutes to accept lending practices contrasting with the rule of sound and prudent management, exacerbating the patrimonial depletion. Fuelled by paper inflation and currency depreciation, the banks liquidity crisis advanced in the general atmosphere of panic and degenerated soon into evident insolvency. Thus, in a short time, there was the disastrous fall of the ancient Neapolitan public banks that handled the political and economic hardship of the Kingdom for over three centuries.

The reorganisation of the Neapolitan financial and credit system is placed in the complexity of the dynamics described above. As already highlighted, the reform process launched by Ferdinand IV did not have the desired outcome and was unable to remedy the banks' crisis adequately. However, it assumes absolute importance for the range of technical-organisational and administrative innovations introduced, outlining the essential features of a banking governance model that will be resumed in the following reformative interventions (Dello Joio, 1942) and that found more mature functioning conditions half a century later.

Actually, the establishment of the *Banco Nazionale di Napoli* represents a last resort solution to the crisis of credit institutions that arrives after a long series of measures aimed at coordinating “desired protections to negative consequences” that banks could support²⁹. With the dispatch, dated 17th September 1794, they tried to remedy banks “disasters” subjecting them to a procedure that we would today call as extraordinary administration.

In fact, the establishment of the *Giunta dei Banchi* helped to redesign hierarchical and functional structure of the banks, with the precise purpose of supporting the possibility of an effective consolidation. The *Giunta dei banchi* was designed as a full-fledged governing body.

Nevertheless, the remodelling of the administrative, accounting, and supervisory system of the Neapolitan banks could not be considered as concluded.

²⁹ A.S.B.N./B.P./A.P., *Conclusioni ed ordini originali*, matr. 292 ex 414, ff. 310-315.

After the establishment of the *Giunta*, with the dispatch dated 23rd September, there was the issue of a whole series of restrictions, aimed at reordering the banks activity by binding every investment operation to Royal consent³⁰.

Finally, the enslavement of the banks to the State became complete through their fusion in a unique political and moral body.

In the pragmatic sanction XV, *de Bancis*,³¹ issued on 29th September 1794, the unification of the banks was celebrated as a salvific measure for the financial fortunes of the Kingdom, made in the name and for the protection of the higher purpose of the public interest. It might be thought that the King, looking at the lucky example of the Bank of France, was sincerely convinced of the advantages of such radical restoration of the banking institution. However, according to historians, there is no doubt that the declared intentions were anything but truthful.

Apart from the motivations underlying the reformative design, what is important to note herein is the impact the measure had. The model of *Banco Generale* emerged in a very hostile environment, characterised by a deep mistrust and suspicion from the public. The emphasis for the announcement of the creation of the accreditation body and the increase of fruitful positions only partially, and for a short time, succeeded in easing the tensions.

Actually, the merger process only amplified the effects of the state of disorder. The dysfunctional reality of the institutes, which already suffered from a state of significant malaise, affected irremediably also the events of the stronger banks.

Analysing it, the failure of the reformative action is, hence, due to two main reasons. Firstly, the poor incisiveness of the royal measures is attributable to the misalignment between the Royal governance and formal-regulatory governance of the banks. The new banks system was in fact purely formal, lacking the necessary substance to make a complete transformation of the old banking system. Even if they were subject to the supervision of a single strong-willed power, the banks governing bodies continued to operate without an efficient coordination and an effective control. The *Giunta*, in fact, did not fully perform its inspection tasks and mainly conducted mere administrative and organisational activities.

Secondly, the failure to assess the real causes of the banks' economic suffering made it impossible, indeed, to implement a rational restoration of the Neapolitan financial-credit system. In the exasperated search for popular support, the royal measures aimed at reviving banks credit conditions in the short term, but they did not reflect a coherent project, consistent with going concern assumptions.

³⁰ A.S.B.N./B.P/A.P., Volume di Reali Dispacci, *Lettera di Saverio Simonetti al Governo del Banco dei Poveri*, Napoli, 23 September 1794, matr. 177, ff.186-187.

³¹ Biblioteca della Società Napoletana di Storia Patria. *Prammatica XV De Bancis*, 29 September 1794, in Giustiniani L., (1804) *Nuova collezione delle prammatiche del Regno di Napoli*, Vol. III, Napoli, pp. 67-68.

The inability to operate effectively on the causes of the crisis and the absence of a long-term programmatic vision led to a deeply flawed legislation framework, incapable of conducting an organic process of banking consolidation.

In the general disarray of the exceptional events, the reformative action, hence, had a confused implementation and failed in the decisional foresight required to offer long-lasting solutions.

Conclusion

The analysis highlighted the special role played by public banks in the Neapolitan economy, focussing on a historical-evolutionary period that was crucial for the institutional stability of the Kingdom of Naples.

In the arduous management of an operability that became more and more complex, the insufficient attention paid to profiles of functionality and rationality of the organisational structure and internal controls caused a structural weakness of the banks, which resulted to be fatal together with the extraordinary range of hostile forces that deployed in the late XVIII century.

In the aftermath of French Revolution outburst, the banks state of order was already partly compromised, showing the initial symptoms of a worrying monetary imbalance. It is reasonable to think that, in a more peaceful period, the latent difficulties would not have had such a degenerative nature and the institutes would have been able to eliminate, without effort, the alterations occurred.

The banks' crisis became, indeed, irreversible due to the exceptional nature of political and social upheaval, worsened by the precarious financial conditions the State lived in.

As we previously mentioned, the generating causes of the banks involuntional process had different nature, making it difficult to determine to what extent each of them contributed to their deterioration. Actually, the extraordinary rapidity with which the transition from the stage of decline to that of crisis occurred can be explained only considering reciprocal conditioning among the different and several causal factors.

In an attempt not to succumb to the vehemence of the events, Ferdinand IV took advantage of the credit institutes weakness, increasing gradually the government influence on their business. The reformative intervention appears, hence, aimed at taking control of the banks, rather than to promote a rational reordering in the interest of a long-lasting duration of the activity.

According to the examined sources, the governance model proposed for the banking restoration seems to be based on a strongly centralised administration and control process, conflicting evidently with the well-established functioning criteria of the original structure.

The new banks "form" was not sufficient to unify the corresponding governments also under the material profile.

Consequently, on the one hand, there was the definition of the founding characters of an innovative banking-credit system, which had an effective continuation in the following regulatory intervention. On the other hand, the conditions of the socio-economic context were premature for such a radical restructuring to have real chances of success, since Naples still showed the characteristics features of a semi-medieval reality.

The inadequacy of the royal measures led to a deep systemic crisis, given that the banks' failure accompanied that of government institutions, culminated on 21st December 1798 with Ferdinand IV cowardly fleeing to Palermo with more than two million ducats withdrawn from the coffers of the *Banco della Pietà*.

This study shall be considered as a first effort of reconstruction and analysis of the regulatory *corpus* adopted by the Bourbon government to renew the banking management. Although previous studies analysed the origin and the development of the ancient Neapolitan public banks, focusing mainly on accounting aspects, the historical period considered appears to be under investigated among scholars. In addition, this contribution attempted to delve into the banking crisis following a wider economic-business framework, evaluating, in a contemporary key, the reasons of banks' failure and the impact of normative reform on the accounting system as well as on the organisational structure and the governance model of the Neapolitan banks.

It is worth saying that the work carried out is susceptible to further developments and insights. A more coherent confrontation with the following regulatory interventions, for example, would be remarkably interesting in order to reveal the elements of continuity and discontinuity in the problematic restoration of the Neapolitan banking institution.

Conflicts of Interests

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Government Spending And Economic Growth Nexus In Sub-Saharan Africa: An Econometric Analysis

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Abstract

Proponents of larger governments argue that government programmes provide essential public goods like education and infrastructure, which, in turn, stimulate the economy. On the other hand, individuals who advocate for more limited government assert that an increase in public spending will be detrimental to economic expansion due to the fact that many functions of government are inefficient and not in the public interest. Secondary data from World development indicator variables spanning from 1985 to 2021 were analysed. The dependent variable for the study was GDP per capita and the independent variables were institutional quality, government expenditure, capital stock and trade openness. The model used for the study are Pearson correlation, Pesaran's, Friedman's and Frees' cross sectional dependency test, IPS and CIPS unit root test, Pooled Mean Group and Dynamic Fixed Effect regression to test for the long-run cointegration and short-run relationship in 32 African countries. The results of the study suggest that there exists a long-run and short-run relationship between government expenditure and economic growth. Additionally, the study emphasises the importance of institutional quality as a significant determinant of this relationship. Therefore, it is recommended that all accessible government funds be allocated towards the objective of establishing durable and self-sufficient infrastructure.

Keywords: Sub-Saharan Africa, Government Expenditures, Economic Growth, Dynamic Fixed Effect, Pooled Mean Group

Introduction

Economic growth is required for long-term sustainability for every country (Popescu, 2021). The rise in people's living standards and the expansion of the economy are inextricably linked. The primary aim in combating pervasive poverty and providing cause for optimism regarding the prospect of societal advancement is to expand the economy. In most cases, economic growth is computed as the percentage increase in a nation's real GDP from one year to the next (Ruiz, 2018). Providing certain public goods and providing protection (and security) are the two main functions of the government (Ostrom & Ostrom, 2019). Establishing the rule of law and upholding property rights are both components of the protection function, which is responsible for keeping citizens safe. This reduces the likelihood of criminal activity, safeguards individuals and their property, and strengthens the nation's defences against invasion from other countries.

The provision of power, roads, defence, education, and health care are all examples of public goods. However, this list is not exhaustive. Increasing the amount of money spent by the government on social and physical infrastructures is believed by some academics to be conducive to economic expansion. Spending by the government on areas such as healthcare and education, for example, can increase worker productivity and foster the expansion of a nation's overall output. Investing in infrastructure (including roadways, communication networks, and power plants), on the other hand, reduces the costs of production, encourages investment from the private sector, and increases the profitability of businesses, all of which contribute to economic expansion. Researchers such as Popescu (2021) and Onoja (2015) believe that increasing the size of the government's spending contributes to economic expansion.

The two primary categories of expenditures made by the government are as follows. These costs are recurrent expenditure and capital expenditure. The costs incurred by the government to carry out its ongoing responsibilities are referred to as recurrent expenditure. It is considered a spur-of-the-moment purchase for one's own personal use. "Government capital spending" refers to the amount of money spent by the government on investments that raise the country's total capital stock (Fournier, 2016). One of the many goals that governments work to achieve through spending is an increase in the income that is earned by each individual citizen.

In the most recent decades, policymakers have placed a greater emphasis on the discussion regarding the capacity of government spending to stimulate economic growth. It is not entirely clear whether the widespread

adoption of government spending as a tool of fiscal policy has had a beneficial impact on the expansion of the economy (Hasnul, 2015). Despite the country's unusually high public debt rates and overall economic crisis, the Ghanaian economy continues to stand out in this fascinating field, thanks to some research on the subject. This is the case even though there has been much discussion about the relationship between government spending and economic growth (Reinhart & Sbrancia, 2015).

Spending by the government is an essential component in the fight against poverty in the vast majority of developing countries, the majority of which are located in Sub-Saharan Africa. This is something that can be accomplished if governmental spending is directed towards programmes (like infrastructure) that will narrow the wealth gap. Because of the swift increase in population and the rising demand for goods and services, governments are forced to spend money to meet the requirements of their constituents. The government may make purchases in an effort to encourage private investment, which will ultimately lead to an increase in GDP. More money is ultimately spent by governments as a direct consequence of this process (Olaoye et al., 2020). Sub-Saharan Africa is comprised of 48 countries that are divided into four sub-regional blocks.

The economic growth rate of Sub-Saharan Africa in 1980 was 4% and falls to -1.2 percent in 1983 and -0.9 percent in 1992. From 1980 to 2012, the GDP growth rate of Sub-Saharan Africa was 3.1% and later increased to 6.1% in 2006 before dropping to 4.2% in 2012 (World Bank, 2020). These GDP growth rate figures are particularly interesting because they show that growth rates in Sub-Saharan Africa are currently trending in an uneven and erratic way. This is one of the reasons why these figures are so interesting. Because of significant macroeconomic imbalances, the majority of Sub-Saharan African countries saw a gradual decline in their economic performance from the late 1970s to the early 1980s. This trend began in the 1970s and continued through the 1980s. These imbalances included widening budget deficits as well as expanding current account balances (Dramani, 2010).

In order to bring the macroeconomy back into balance and stimulate growth, governments have adopted more stringent fiscal policies, which have either increased taxes, primarily on the formal sector, or reduced spending (Ismaila & Imoughele, 2015). These decades were irretrievably lost for Africa's economic development. After some time had passed, the World Bank and the International Monetary Fund (IMF) made recommendations regarding programmes of structural adjustment to assist in the implementation of these policies (Thomson, Kentikelenis & Stubbs, 2017). These programmes were implemented in a variety of nations, including Ghana, Kenya, Zambia, and Senegal, to name a few. For example, the National Development Plan, which was carried out in Kenya from 1997 to 2001 and was recognised by the

government as structural reform, was put into effect during that time period. The plan acknowledged investment from the private sector as a primary engine of expansion during that time period (Bhattacharya, Oppenheim & Stern, 2015). In 1997, Kenya's gross domestic product (GDP) growth rate was less than 1%, but it increased to 3% that same year and then increased to 4% by the time the development plan was fully implemented in 2001. Despite this, between 1997 and 1999, government spending (as a percentage of GDP) remained unchanged at 16%; however, in 2000, it decreased by 1%. In 2001, it reached a percentage of 16 percent (World Bank, 2020).

Advocates of bigger governments frequently contend that government-run programmes are accountable for providing crucial public goods, such as infrastructure and education. Serageldin and Grootaert (2017) have posited that governments play a significant role in fostering economic growth through various means. Several factors are involved in the provision of a functional society, such as the establishment of a legal and social structure, the provision of judicial services, defence and police protection, and the safeguarding of property rights. Additionally, addressing market imperfections, constructing economic infrastructure, regulating externalities, and allocating funds to promote social cohesion and enhance labour force productivity are essential components of this process (Liu, Li & Yang, 2018). In addition, it is plausible that governmental endeavours can incentivize entrepreneurs to establish their own enterprises, amplify private investment, and ultimately facilitate the growth of the economy through the synergistic collaboration of public and private capital formations (Ostrom & Ostrom, 2019).

Conversely, advocates of limited government contend that an expanded government could impede economic development due to the inefficacy and misalignment of many of its pursued initiatives with the authentic concerns of the broader public. This assertion is made based on the premise that a government with a larger size of operations tends to have a higher number of employees. The inefficiencies in the delivery of government output may arise due to various factors such as the bureaucratic decision-making process in the public sector, the political strategy of promoting the interests of cohesive minorities at the cost of society, and the activities of interest groups that advocate for the diversion of resources towards rent-seeking endeavours to redistribute income in their favour.

Furthermore, it has been argued that a number of the monetary and fiscal policies implemented by the government may have the effect of distorting economic incentives and diminishing overall system efficiency (Smets, 2018). In the present context, taxes and transfers are perceived as factors that reduce the motivation for engaging in employment and investment by causing market prices to deviate from their natural state (Collado, 2016).

It has been extensively researched in the literature that for SSA countries, the association between output growth and public expenditure is directly proportional (Nurudeen & Usman, 2010; Usman & Agbede, 2015; Kimaro et al., 2017; Ademuyiwa & Adetunji, 2019). The effect of public spending on economic growth in SSA was the primary focus of these studies, rather than the varying degrees of economic success experienced by the various nations. None of these studies has differentiated between the African nations of sub-Saharan Africa that have higher and lower incomes (upper- and middle-income countries).

Policymakers will need to know which aspects of government spending contribute significantly and favourably to output growth in SSA's low- and middle-income economies. It will be possible to design policies that are specific to each income level of SSA countries with the help of policy action based on these empirical findings. This study adds to the body of knowledge on output growth and public spending by categorising SSA countries into three low and middle-income (upper and lower) groups.

The novelty of this study lies in the fact that it examines the relationship between public spending and economic growth while taking into account the varying levels of income in SSA countries. First things first, this study to the best of our knowledge is essentially the first one of its kind because it analyses SSA according to the classification of income levels used by the World Bank. This is extremely important to keep in mind when attempting to draw conclusions regarding the relationship between spending and output growth in the upper and lower countries of SSA. In some earlier studies (e.g. Eze et al., 2022; Njagi, Arsenijevic & Groot, 2018), SSA nations were classified according to their respective regional locations. Even though they are located in the same general region, some countries' economic outlooks couldn't be more different from one another. The policymakers will learn from the analysis based on income classification what the governments of low-income countries should spend and do in the process of allocating resources if they want to improve their economies.

Second, researchers do not take into account how institutional quality influences the link between public spending and economic growth (Usman & Agbede, 2015; Taiwo & Abayomi, 2011). Furthermore, given that SSA is frequently noted for having weak institutions (Liani, Nyamongo & Tolhurst, 2020). Moreover, it is noteworthy that the Southern and Eastern African regions have been consistently identified as possessing inadequate institutional frameworks (Shobe, 2017; Asamoah, Mensah, and Bondzie, 2019). Therefore, it is imperative to identify the precise institutional elements that impede financial progress in the region, consequently hindering its economic advancement. The reason for this is that the regions of Southern and Eastern Africa are often acknowledged for possessing inadequate institutional

frameworks. Rodrik (2000) argues that non-market institutions are necessary for markets to function well, and sub-Saharan Africa (SSA) markets are no exception.

Related Literature

The definition of institutions used most frequently in recent literature is that provided by North (1991, 1993), who defines institutions as a society's rules of engagement (Aluko & Ibrahim, 2020). According to North, institutions are the constraints that humans have developed to structure human interaction. Formal restrictions include laws, rules, and constitutions. Informal constraints include things like standards of conduct, traditions, and self-imposed codes of conduct. Institutions exhibit enforcement traits as well. Institutional quality refers to an institution's suitability and effectiveness, which determines how well they can distribute resources and increase productivity. Despite the differences in these definitions, they all refer to the existence of social structures and systems that affect how different sectors of society—from non-market to market sectors—interact with one another. The sufficiency or quality of institutions is represented in this study by Rodrik's five primary institutional categories (Rodrik, 2000). Market efficiency is made possible by these five crucial institutions.

In his work, Rodrik enumerates several establishments, encompassing those dedicated to the safeguarding of property rights, regulation, macroeconomic stabilisation, social insurance, and conflict resolution (2000). Hence, in order to facilitate financial inclusion and expedite economic growth in Sub-Saharan Africa, it is imperative that these five establishments are functioning effectively within the financial markets. According to Rodrik, a crucial inquiry to make in this scenario is identifying the particular institutions that hold significance and determining the means of obtaining them. The inference can be drawn that it is crucial to delve deeper into the institutional foundations of market economies, rather than solely focusing on price reforms. This is exemplified by the interplay between neoclassical economics and developing societies. The likelihood of incentives leading to employment is minimal, and in the absence of sufficient institutions, this circumstance often results in unfavourable consequences.

According to Adam, Henstridge and Lee (2020), during 2022, Sub-Saharan Africa GDP growth rate was 3.57%, a 0.61% decline from 2021 and was -2.00% in 2020, a 4.6% decline from 2019. This decrease is as a result of the Coronavirus (COVID 19), which started in 2019 and crippled the world economy. Before, the COVID19 GDP growth rate of SSA has experienced an average annual growth rate of 2.4%, leading to a 50% rise in 2015 (Jena & Sethi, 2020). Several justifications have been presented for this reversal. Illustrative instances comprise enhanced macroeconomic strategies, escalated

overseas assistance, and a noteworthy abatement in the indebtedness of sub-regional countries. Throughout the 2000s, the escalation of commodity prices and the proliferation of mineral resource extraction in various nations exerted a notable influence. During the period spanning from 1996 to 2011, there was a notable difference in the growth rate of GDP per capita between countries that possess abundant natural resources, such as Angola, Nigeria, and Zambia, and those that do not, such as Ethiopia, Rwanda, and Mozambique. Specifically, the former group experienced an average growth rate that was 2.2 times faster than the latter group. The nations endowed with abundant resources have made noteworthy contributions to the recent economic growth of Sub-Saharan Africa. Moreover, the emergence of fresh mineral findings indicates that they are likely to persist in their contribution in the times ahead. It is projected that by the year 2020, a mere four to five countries within the subregion will have yet to be exploited. According to the authors, the dissimilarity in growth performance can be accounted for by a greater pace of population growth in nations with limited resources compared to those with abundant resources (wherein the overall GDP escalated merely 1.3 times in contrast to 2.2 times in resource-rich countries relative to resource-poor countries).

The link between government expenditure and economic growth was first raised by Adolph Wagner in 1870, stating that public expenditure increases as national income rises (Wagner's law) (Inchauspe, MacDonald & Kobir, 2022). Then in 1961, Alan T. Peacock and Jack Wiseman confirmed Wagner's Law that public expenditure in the United Kingdom in the period between 1891 and 1955 has positive relationship with economic growth (Peacock & Wiseman, 1961).

According to Cakerri et al. (2014), the act of augmenting government expenditure through the acquisition of funds from private investors does not generate fresh spending capacity in the economy, a crucial element for the promotion of economic expansion. Rather than initiating new and lucrative endeavours that promote economic expansion, the government's borrowing from private investors leads to the redistribution of existing income. Rather than engaging in wealth redistribution among its populace, the nation's economic expansion is propelled by the generation of fresh purchasing power. Increased government expenditure exerts greater strain on the credit market, thereby stimulating a rivalry for credit availability between the public and private sectors, and subsequently leading to an escalation in interest rates. According to Najmuddin (2020), the theory posits that elevated interest rates have the potential to displace private enterprises and impede the pace of economic expansion. Furthermore, a country's national income multiplier is greater when it is funded by external financial resources rather than internal ones.

The utilisation of external financial resources to finance public projects results in the infusion of new economic resources and mitigates the crowding out effects that arise from increased government spending (Shen et al., 2018). Hence, the utilisation of external financial resources for government spending is deemed more efficacious in stimulating economic growth and circumventing potential threats to the expansion of the private sector. The present argument posits that it is advisable for developing countries to restrict their domestic borrowing practises and factor in the necessity of obtaining external financial resources when expanding their public sectors.

The proportion of imports in overall expenditure is a contributing factor to the deceleration of economic growth resulting from government spending. Many government initiatives in developing countries are dependent on the importation of technology and other essential resources. Consequently, the allocation of public investment spending exhibits a reduced focus on domestic affairs, implying that a greater proportion of governmental demand is being financed by imports. According to Shen et al. (2018), a decrease in domestic bias in public investment can lead to a deceleration in economic growth as a result of heightened government spending. The primary outcome of the research indicates that fiscal policymakers ought to be mindful of the negative impact of an upsurge in imports on a nation's reserves and real exchange rates, particularly when such imports are funded by domestic financial resources. This assertion holds particularly true in cases where domestic financial resources are utilised to finance the payment for said imports (Shen & Yang, 2018). Hence, countries should think about the importance of setting up their own capacity to meet government demand rather than heavily depending on imports.

Finally, Gui-Diby (2021) posits that the impact of increasing government expenditure on economic growth is contingent upon the presence of a non-discriminatory tax system. Daun et al. (2015) provide a comprehensive analysis of the taxation system and assert that a nation may accumulate debt when its government spending surpasses its revenue. This phenomenon is prevalent in developing countries, such as the low-income region of Sub-Saharan Africa. The escalation of public debt leads to macroeconomic imbalances that are not sustainable. The private sector may curtail its investment plans in response to the fiscally unsustainable situation where government expenditure surpasses government revenue. The deceleration of private investment can impede economic growth due to its adverse multiplier impact.

To mitigate distortions, it is advisable for governments to evaluate the efficacy of their taxation systems in accordance with the taxation theory of the respective country. Taxation systems ought not to pose a threat to the

sustainability of the private sector. Rather, they should be conducive to promoting cooperation between the public and private sectors.

Additionally, developing country governments should think about how crucial it is to eliminate budget deficits in order to prevent debt accumulation. Budget deficits can be reduced through a combination of government spending cuts and increased tax revenues.

The subsequent sections present research on the correlation between government expenditure and economic development. Nevertheless, the aforementioned research failed to account for the potential impact of incorporating institutional quality into the analysis of the relationship between expenditure and growth, leading to outcomes that lack credibility.

The study conducted by Olayungbo and Olayemi (2018) explores the interconnections among non-oil revenues, government expenditures, and economic growth in Nigeria spanning from 1981 to 2015. The study encompasses the temporal span from 1981 to 2015. Following the identification of the enduring association between the variables, an evaluation of the error correction model was conducted. The impact of government spending on economic growth was found to be unfavourable in both the short and long term, while non-oil revenue was found to have a positive effect on economic growth.

Taiwo and Abayomi (2011) conducted a study that is similar to the present one, utilising the Ordinary Least Squares (OLS) method to examine the relationship between categorical government spending and the growth of Nigeria's economy. The present inquiry employs a combination of Ordinary Least Squares (OLS) approach and time series data in its research methodology. The research indicates that increased government expenditure has a positive impact on the growth of the Nigerian economy.

Facchini and Melki (2013) have presented findings that are consistent with the use of cointegration methods and data spanning from 1896 to 2008. The results indicate a correlation between the Gross Domestic Product (GDP) of France and the magnitude of its governmental apparatus over an extended duration. Bojanic (2013) employs the Generalised Method of Moments (GMM) in Bolivia, a technique that guarantees the ability to generate dependable and precise estimations (Bivand & Piras, 2015; Han & Phillips, 2010), while also addressing the issue of endogeneity (Bivand & Piras, 2015; Han & Phillips, 2010). The sources cited in the text are Chen et al. (2014) and Gopalan & Rajan (2016). The available evidence indicates that augmenting the government's military expenditures in Bolivia can lead to a swifter pace of economic growth.

Chen, Lee, and Chiu (2014) conducted a study using a dynamic panel to examine the correlation between defence spending and economic growth. The study covers a total of 137 nations and employs a two-step generalised

estimating equation (GMM) methodology, which improves the capacity to generate precise estimations (Siddiqui & Ahmed 2013).

Furthermore, Chen and colleagues (2014) have classified nations into four sub-categories according to their income status, namely the lower-income group, middle-lower income group, middle-higher income group, and higher-income group. By adopting this approach, researchers can circumvent the study of nations that lack comparability as a unified entity. Diverse outcomes are documented based on the level of income. According to the study conducted by Kimaro et al. in 2017, there exists a positive correlation between income level and government spending in low-income Sub-Saharan African nations. Obialor (2017) conducted a study which found that expenditures allocated towards healthcare and education have a noteworthy and favourable impact on the growth of Nigeria's output. Kimani and Maingi (2021) conducted a study which found that an increase in government spending on infrastructure, investments, economic affairs, health care, and defence has a positive impact on income. The research revealed an inverse relationship between income levels and debt service costs.

Methods

This section is dedicated to discussing the research methodology that was used for the study. More specifically, this section discusses the model specification, variable measurement, and, finally, the estimation techniques employed for the data analysis. The stationarity properties of the variables were analysed, and the results of the stationarity analysis were employed to determine which estimation method should be used to calculate the error adjustment, short-run relationship, and long-run relationship.

Dependent Variable

Economic growth refers to the expansion in the output of goods and services within a specified timeframe. There are multiple methods for quantifying economic growth. Gross Domestic Product (GDP) is a commonly utilised metric by economists to gauge economic growth. However, there are some who prefer to employ human development as an alternative measure. The study employs the GDP per capita as the standard for gauging economic growth (as seen in Dudzevičiūtė, Šimelytė & Liučvaitienė, 2018; Ahuja & Pandit, 2020). The Gross Domestic Product (GDP) refers to the gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant 2015 billion U.S. dollars, for normalisation the log of GDP per capita was used.

Independent Variables

Government Expenditure: This is the amount that is paid out by the government, and it takes into account all of the organization's recurring costs that are connected to the purchase of goods and services (including compensation of employees). Also accounted for are the vast majority of the costs associated with national defence and security; however, the expenditures made by the government on military activities that are not considered to be part of capital formation are not accounted for. Data are in constant 2015 billion US\$, for normalisation the log of Government Expenditure was used.

Capital Stock: The data provided encompasses estimations for four distinct categories of assets, namely structures (encompassing both residential and non-residential structures), machinery (inclusive of computers, communication equipment, and other machinery), transportation equipment, and other assets. Structures encompass not only residential and non-residential buildings, but also software, other intellectual property products, and cultivated assets.

The file denoted as the capital detail file encompasses a diverse range of topics, including but not limited to the current-cost net capital stock (Kc), capital stock deflator (Kp), capital investment at current national prices (represented by the Ic variables), and capital consumption at current prices. The document delves into additional subject matters, such as capital investment at present national prices, which is denoted by the Ip variables. Each of these subjects is further subdivided into their corresponding categories (Dc). The subsequent elucidation pertains to the correlation: The formula for investment in an asset at constant national prices is expressed as $I_{at} = Ic/Ip$.

The variable K represents the capital stock of a given asset, which is measured at constant national prices and is determined by the equation $1 - at^2$. The expression presented is a mathematical formula that involves the variables K and I , as well as the variable t , which represents time. Specifically, the formula calculates the value of a variable at a given time, where the value is determined by multiplying the value of the variable at the previous time point ($t - 1$) by the constant K and adding the product of the current value of the variable and the constant I . The data is derived from the Penn World Table 9.0 (PWT 9.0) and it measured in the log of capita stock.

Institutional Quality: The institutions in Rodrik's (2000) collection were used to compile an index of institution quality. The set of institutions includes institutions for social insurance, property rights, regulation, macroeconomic stabilisation, and institutions made with principal component analysis (PCA).

Source of Data

The data set covers the time period from 1985 to 2021 and is composed of observations pertaining to 32 countries. The World Development Indicators (WDI, 2020), the Risk Guide and the World Governance Indicators (WGI), and the Penn World Table were the sources that were used to compile the data (PWT).

Table 1: Source of Data

Symbol	Variable Name	Source	Description
ln(GDPPC)	Per Capita GDP	WDI	GDP divided by the midyear population.
ln(INS)	Institutional Quality	ICRG/AUTHOR	A measure of institutional quality is created by combining the five variables of institutional quality and democracy. This is the PCA-derived created measure of financial development.
Ln(GVTEXP)	Government Expenditure	WDI	All current government expenditures expressed in constant 2015 US dollars.
ln(CS)	Capital Stock	PWT 9.0	The relative price of the capital stock is derived from asset-specific investment data
ln(TOP)	Trade Openness	WDI	Export-Import difference

Source: Authors' Own Compilation (2023)

Econometric approach

The present investigation employed the Panel Unit Root Econometric Test. The IM, Pesaran (2005), and Shin (IPS) W-stat (2003) tests were specifically employed. The utilisation of estimation strategies such as Pooled Mean Group and Dynamic Fixed Effect (DFE) was based on panel cointegration.

Panel Unit Root Test

It is imperative to ensure that all variables exhibit stationarity prior to proceeding with the appropriate analytical techniques for data analysis. This

task ought to be executed irrespective of whether the variables are of identical magnitude or of a heterogeneous magnitude. To achieve this objective, we employed the IPS W-stat (2003) test, which is a first-generation panel unit root test, in combination with the second-generation panel unit root test proposed by Pesaran (2005) called Cross-Sectional Augmented IPS (CIPS). Both of these experiments were conducted to ascertain the statistical significance of the panel unit root. However, (CIPS) takes into the account of cross sectional dependency in the data set. This is because cross-sectional dependence can emerge due to various factors such as unobserved commonalities, externalities, regional and macroeconomic connections, and residual interdependence that has not been accounted for. This study considers the Cross-Sectional Augmented IPS (CIPS) as a prominent second-generation test, which was introduced by Pesaran (2005). In his work, incorporates the following factors to construct a formula for a panel unit root test that accommodates cross-sectional interdependence: The CIPS statistics is given in equation (1) as

$$CIPS = \frac{1}{N} \sum_{i=1}^N t_i(N, T) \quad (1)$$

where $t_i(N, T)$ is the t-statistic of the OLS estimate for the equation $y_{it} = \alpha_i + y_{it}^o$

Pooled Mean Group (PMG) Estimator

The salient feature of the PMG model is its ability to accommodate cross-country heterogeneity in short-run coefficients, including intercepts, the rate of convergence to long-run equilibrium values, and error variances. However, it mandates homogeneity in long-run slope coefficients across all countries. The most distinctive feature of the PMG is hereby identified. The aforementioned differentiation between the two types of coefficients is of utmost significance. This approach proves to be particularly advantageous in cases where there exist grounds to expect that the association between the variables in the steady-state equilibrium will remain consistent across all nations or a specific subset of nations. It is conceivable to anticipate that the association between the variables in the state of long-term equilibrium will remain constant. The short-term adjustment can be customised to the specific requirements of a given nation, considering factors such as its vulnerability to financial crises and external shocks, as well as its stabilisation policies and monetary policy, which can have a significant impact on outcomes. However, for the methodology to be deemed valid, consistent, and efficacious, several prerequisites must be fulfilled.

In order to establish a long-term association between the variables of interest, it is necessary for the error-correction term's coefficient to possess a

negative value that is equal to or greater than -2. Secondly, for the sake of consistency in the ARDL model, it is imperative to assume that the residual resulting from the error-correction model is serially uncorrelated, and that the variables employed in elucidating the data can be regarded as exogenous. The fulfilment of these requirements can be achieved through the incorporation of ARDL (p,q) lags into the error-correction model for both the dependent (p) and independent variables (q). Furthermore, the relative magnitude of the dimensions of T and N holds significant significance as it governs the feasibility of employing the dynamic panel methodology. This technique aids in mitigating partiality in the mean estimators and resolves the issue of heterogeneity when both T and N possess a substantial populace. According to Eberhardt and Teal's (2010) argument, a crucial element in comprehending the process of growth is the manner in which heterogeneity is addressed. Failure to meet these conditions may lead to inconsistent estimation of PMG.

Dynamic Fixed Effects (DFE) Model

The PMG estimator and the Dynamic Fixed Effects estimator (DFE) exhibit a high degree of comparability. Similar to the PMG estimator, the DFE imposes constraints on the slope coefficient and error variances to ensure that these parameters are comparable across countries over a prolonged period. The validity of the DFE model is contingent upon the satisfaction of an extra constraint. This particular restriction requires that the coefficient of speed of adjustment and the coefficient of short-term effect must be equivalent.

Conversely, the model integrates intercepts that are specific to individual countries. The DFE platform offers users the capability to cluster their data, a process that enables the estimation of intra-group correlation and standard error (Blackburne and Frank, 2007). Baltagi, Gri, and Xiong (2000) have noted that the model is vulnerable to a simultaneous equation bias if the sample size is small. The reason for this phenomenon can be attributed to the endogeneity that is present between the error term and the lagged dependent variable.

The presence of a lagged dependent variable in the model is responsible for this bias. The efficacy of the PMG estimator is contingent upon the presence of persistent connections among the variables utilised in estimations, alongside a suitably augmented lag order of the dynamic specification of the model, to ensure that the regressors are weakly exogenous and the residual is serially uncorrelated. The rationale behind utilising the PMG estimator lies in its ability to estimate the likelihood of a specific variable remaining constant throughout a given period (Karaduman, 2015). Conversely, the DFE maintains consistent slope parameter values across both the short and long term. The autoregressive distributed lag model with a lag order of (p, q, q, q) is specified as the DFE and can be seen in equation (2).

$$\Delta \ln \text{GDPPC}_{it} = \sum_{j=1}^p b_{ij} \ln \text{GDPPC}_{it-j} + \sum_{j=0}^q d_{ij} \ln \text{GOVTEXP}_{it-j} + \sum_{j=0}^q f_{ij} \ln \text{INS}_{it-j} + \sum_{j=0}^q h_{ij} \ln \text{CS}_{it-j} + \sum_{j=0}^q k_{ij} \ln \text{TOP}_{it-j} + v_i + e_{i,t} \quad (2)$$

The equation (2) was then transformed into a panel ECM below:

$$\begin{aligned} \Delta \ln \text{GDPPC}_{it} = & \psi_i (\ln \text{GDPPC}_{it-1} - d_i^\psi \ln \text{GOVTEXP}_{it} - f_i^\psi \ln \text{INS}_{it} - \\ & h_i^\psi \ln \text{CS}_{it} - k_i^\psi \ln \text{CS}_{it}) \\ & + \sum_{j=1}^{p-1} b_i^* \Delta \ln \text{GDPPC}_{it-1} + \sum_{j=1}^{p-1} d_i^* \Delta \ln \text{GOVTEXP}_{it-1} + \\ & \sum_{j=1}^{p-1} f_i^* \Delta \ln \text{INS}_{it-1} + \sum_{j=1}^{p-1} h_i^* \Delta \ln \text{CS}_{it-1} + \sum_{j=1}^{p-1} k_i^* \Delta \ln \text{TOP}_{it-1} + v_i + e_{i,t} \end{aligned} \quad (3)$$

Where; $\psi_i = \sum_{j=1}^p b_{ij}^* - 1$, $d_i^\psi = -\sum_{j=0}^p \frac{d_{ij}}{\psi_i}$, $f_i^\psi = -\sum_{j=0}^p \frac{f_{ij}}{\psi_i}$, $h_i^\psi = -\sum_{j=0}^p \frac{h_{ij}}{\psi_i}$, $k_i^\psi = -\sum_{j=0}^p \frac{k_{ij}}{\psi_i}$ and $b_{im}^* = -\sum_{m=j+1}^p b_{im}$, $d_{im}^* = -\sum_{m=j+1}^p d_{im}$, $f_{im}^* = -\sum_{m=j+1}^p f_{im}$, $h_{im}^* = -\sum_{m=j+1}^p h_{im}$, $k_{im}^* = -\sum_{m=j+1}^p k_{im}$.

The coefficient ψ_i denotes the error correction component, which is expected to possess negative statistical significance and exhibit a smaller magnitude in instances where a cointegration metric is present, indicating a faster rate of convergence towards the long-term equilibrium. The coefficients d_i^ψ, f_i^ψ measure the long-run impacts of the independent variables on growth while the d_{im}^*, f_{im}^* measure the short-run impacts of the financial development, institutional quality and capital on growth per capita. Also, v_i stands for fixed effects and $e_{i,t}$ is the disturbing component.

Results and Discussion

This section presents the outcomes of the investigation, including the correlation analysis, Cross Sectional Dependency test, CIPS unit root test, Dynamic Fixed Effect test. The study variables are accompanied by descriptive statistics.

Descriptive statistics

Table 2 displays the descriptive of the study variables. The Log(GDPPC) range observed in low-income countries falls between 5.12 and 7.76, with an average value of 6.33. The Log(GDPPC) mean value for middle-income countries falls within the range of 6.25 to 9.15, with an average of 7.64. On average, countries with low and middle income have government spending logs of 20.54 and 21.95, respectively. This implies that in contrast to nations with lower income, nations with middle-level income exhibit greater expenditures and possess a higher Gross Domestic Product per capita. The

mean institutional quality of low-income nations was 1.58, with a narrow standard deviation of 0.19. Middle-income countries exhibited higher levels of capital, with values ranging from 0.94 to 1.87. The mean value of trade openness in low-income countries is 20.15, while in middle-income countries it is 21.95.

Table 2: Descriptive statistics

Income	Variables	Obs	Mean	Std	Min	Max
Low Income	<i>lnCS</i>	629	9.22	0.82	7.11	11.50
	<i>lnINS</i>	629	1.58	0.19	0.72	1.88
	<i>lnTOP</i>	556	20.15	1.43	15.48	23.77
	<i>lnGDPPC</i>	629	6.33	0.46	5.12	7.76
	<i>lnGVTEXP</i>	556	20.54	1.36	17.39	23.71
Middle Income	<i>lnCS</i>	518	10.39	0.95	8.61	12.73
	<i>lnINS</i>	518	1.62	0.16	0.94	1.87
	<i>lnTOP</i>	518	21.34	1.52	11.98	25.55
	<i>lnGDPPC</i>	518	7.64	0.69	6.25	9.15
	<i>lnGVTEXP</i>	518	21.95	1.09	18.53	24.98
All	<i>lnCS</i>	1147	9.75	1.05	7.11	12.73
	<i>lnINS</i>	1147	1.60	0.18	0.72	1.88
	<i>lnTOP</i>	1074	20.73	1.59	11.98	25.55
	<i>lnGDPPC</i>	1147	6.92	0.87	5.12	9.15
	<i>lnGVTEXP</i>	1074	21.22	1.42	17.39	24.98

Principal component analysis for Institutional Quality Index

The index of institutional quality was derived by Rodrick through the utilisation of principal component analysis on five institutional variables (200). The aforementioned are the five categories of institutions, namely Institutions for Property Rights, Institutions for Regulation, Institutions for Macroeconomic Stability, Institutions for Social Insurance, and Institutions for Conflict Management. According to Table 3, a factor exhibited an eigenvalue exceeding one and a proportion surpassing 0.5. The institutional variables can be classified into a single factor, which explained 55.3% of the total variance.

Table 3: Principal Component Analysis for Institutional Quality Index

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	3.2232	2.2592	0.5530	0.5530
Comp2	0.9640	0.1971	0.1225	0.6755
Comp3	0.7669	0.2309	0.1007	0.7762
Comp4	0.5359	0.1211	0.0878	0.8640
Comp5	0.4148	0.3196	0.0693	0.9333
Comp6	0.0952		0.0667	1

Cross Sectional Dependency

Gui-Diby (2021) highlights that cross-sectional dependence is a common occurrence in panel regression and emphasises the importance of addressing it to attain desirable results. The cross-sectional aspect of the study employed various tests, namely Pesaran's test, Friedman's test and Frees' test cross sectional dependency test. The results are elaborated in Table 4, presented subsequently. The results of all three tests indicate the presence of cross-sectional dependency in the panel data.

Table 4: Cross-Sectional Dependency

cross sectional independence	Test value	P-value
Pesaran's test	25.793	0.0000
Friedman's test	285.896	0.0000
Frees' test	9.352	0.0000

Unit Root Tests for Lower Income Countries

Table 5 displays the results of the panel unit root tests. According to the findings, economic growth and financial development are integrated at order one I(1), whereas capital and institutional quality are I(0) variables. Theoretically, panel cointegration estimation using pooled mean group (PMG) and dynamic fixed effect estimators is possible when the variables have a mix of I(1) and I(0) properties (DFE). Table 5 shows the results of the panel unit root

Table 5: Panel Unit Root Test Without Breaks

	Series	All		Low Income		Middle Income	
	Series	IPS W-stat (2003)	Cross- Sectional Augmented IPS (CIPS)	IPS W-stat (2003)	Cross- Sectional Augmented IPS (CIPS)	IPS W-stat (2003)	Cross- Sectional Augmented IPS (CIPS)
<i>lnGDDP</i>	Level	-0.245	2.934	-1.199	1.531	0.985	2.679
	1st Diff.	-9.198***	-12.035***	-6.786***	-10.330***	-6.273***	-6.526***
<i>lnCS</i>	Level	1.774	4.700	-1.652**	1.293	-3.503***	-0.986
	1st Diff.	-7.934***	-13.376***	-3.860***	-5.129***	-3.198***	-5.760***
<i>lnins</i>	Level	-5.794***	-3.983**	-4.057***	-2.760***	-4.187***	-2.886***
	1st Diff.	-20.446	-18.304***	-16.066***	-14.028***	-12.688***	-11.779***
<i>lnGEXP</i>	Level	1.774	4.700	2.876	4.106	0.275	2.515
	1st Diff.	-7.934***	-13.376***	-5.929***	-9.712***	-5.286***	-9.199***
<i>lnTOP</i>	Level	2.487	0.584	2.490	2.325	0.756	-1.566*
	1st Diff.	-14.250***	-21.157***	-12.220***	-14.092***	-7.763***	-15.864***

*** represents unit root significant at 1%, ** represents unit root significant at 5%

Estimates of Long-run, Short-run Coefficients and Error Correction Term

Table 6 displays the results of the PMG and DFE techniques for the impacts of government spending on economic growth in the short and long term, while taking into account the influence of institutional quality. The error correction term obtained from the PMG, and DFE methods are also presented in Table 6.

Table 6: Estimates of Long-run, Short-run Coefficients and Error Correction Term

VARIABLES	All		Middle Income		Lower Income	
	PMG	DFE	PMG	DFE	PMG	DFE
Long-Run Coefficients						
<i>lnGEXP</i>	0.0909 (0.0761)	0.0416 (0.1005)	0.1915*** (0.0417)	-0.0557 (0.1992)	0.1928*** (0.0667)	0.1357 (0.0861)
<i>lnCS</i>	0.0410 (0.0410)	0.1022 (0.1164)	0.2865*** (0.0516)	0.2189 (0.2083)	0.0991 (0.2453)	-0.0628 (0.1792)
<i>lnins</i>	3.4602*** (0.5677)	1.5096*** (0.4435)	0.9412*** (0.1116)	1.2902** (0.5418)	3.1873*** (0.4906)	1.8854*** (0.5929)
<i>lnTOP</i>	0.0799*** (0.0247)	0.1023** (0.0456)	-0.0420 (0.0299)	0.1308* (0.0676)	0.0759*** (0.0247)	0.0815* (0.0457)
Short run						
Error correction Term (ECT)	-0.0313*** (0.0080)	-0.0604*** (0.0169)	-0.0752*** (0.0245)	-0.0596*** (0.0225)	-0.0397** (0.1671)	-0.0648*** (0.0233)
$\Delta lnGEXP$	0.0828*** (0.0172)	0.0263*** (0.0083)	0.0721*** (0.0236)	0.0270** (0.0136)	0.0839*** (0.0297)	0.0259*** (0.0094)
$\Delta lnCS$	0.0210 (0.0279)	0.0065 (0.0203)	0.0539 (0.0395)	-0.0142 (0.0283)	0.0420 (0.5427)	0.0235 (0.0270)
$\Delta lnins$	-0.0215 (0.04877)	0.0008 (0.0333)	0.0153 (0.0264)	0.0157 (0.0447)	-0.04124 (0.0887)	-0.0328 (0.0479)
$\Delta lnTOP$	0.0058 (0.0086)	-0.0036** (0.0018)	0.0199 (0.0167)	-0.0040 (0.0043)	-0.0035 (0.0040)	-0.0034 (0.0022)
Constant	-0.0798*** (0.01717)	0.0396 (0.0704)	-0.0767*** (0.0273)	0.0555 (0.0957)	- (0.0522)	0.0379 (0.0759)
Hausman	17.32**		1.36		0.98	
No. of Country	29		15			14
Observations	1044		540			504

Note: *** Significance at 1% level; ** Significance at 5% level; * Significance at 10% level

According to Table 6, the adjustment coefficients for both methods (PMG and DFE), regardless of the country's type of economy, are between 0 and -1 and are significant at 1%. For the combined data, the error correction terms from PMG and DFE are -0.0313 and -0.0604, respectively. This means that, according to the PMG estimate, only 3.13% of the system's disequilibrium is corrected within a year.

The present study utilised the Hausman h-test to assess the relative efficacy and coherence of the two methods. The results indicate that the computed Hausman statistic is 17.32 and follows a $\chi^2(1)$ distribution. This section culminates in the rejection of the PMG estimator, which, despite being the most efficient under the null hypothesis, fails to meet the necessary criteria. Consequently, the Dynamic Fixed Effect model is the favoured option.

According to the DFE model applied to combined data, a noteworthy correlation exists between government expenditure and economic growth in the short term. However, the aforementioned correlation between government expenditure and economic growth is deemed insignificant in the long term. Over time, it was found that the calibre of institutions and degree of trade openness significantly aided in fostering economic development.

Subsequently, we proceed to recalibrate the models for low-income and middle-income countries situated in sub-Saharan Africa, with the aim of ascertaining the degree to which the aforementioned discovery fluctuates with respect to income bracket. Table 5 displays the outcomes, while the Hausman statistic attains a value of 1.36, signifying that the PMG estimator, which is effective under the null hypothesis, is not refuted. Consequently, the PMG model was deemed necessary for nations with low-income status. The findings suggest a noteworthy correlation between public expenditure and economic expansion in both the immediate and extended periods. The aforementioned outcome is in line with Kouassi's (2018) claim that government expenditure plays a crucial role in fostering economic growth in developing countries. According to their explanation, government spending generates employment opportunities for individuals who lack the means to establish their own industries. The allocation of funds by the government generates job prospects, thereby fostering economic growth.

The findings of the evaluation of the approximations for middle-income nations were analogous to those of the low-income nations. According to the results of the Hausman test, the PMG model is the preferred choice. According to the PMG's findings, the influence of government expenditure on economic growth was noteworthy, encompassing both immediate and prolonged time frames. The results corroborated the study conducted by Olaoye, Eluwole, Ayesha, and Afolabi (2020) which indicated a favourable relationship between government expenditure and economic advancement in the Economic Community of West African States (ECOWAS) during the duration of the research.

The variable of institutional quality was found to have a significant impact on economic growth in all models. Over the course of time, irrespective of the state of the economy, the quality of institutions assumes a pivotal role in the advancement of the economy. The aforementioned outcome substantiates the claim made by Olaoye and Aderajo (2020) that the efficient operation of an institution can lead to favourable consequences in various governmental endeavours. Agostino, Dunne, and Pieroni (2016) posit that economic growth is only impeded by government spending when an institution is weak.

Conclusion

There is a mounting apprehension regarding the influence of governmental expenditures on the economic development of Sub-Saharan Africa. The present study delved into the extent to which the existence of institutional attributes can augment the association between government expenditure and economic expansion, surpassing a mere scrutiny of immediate impacts. The study's findings suggest that government spending can have a positive impact on both short- and long-term economic growth in low- and middle-income countries, provided that institutional quality is present. The utilisation of an estimable form of the model and its application to 32 countries provides confirmation of the theoretical proposition that economic growth is enhanced by government investment spending in the presence of institutional quality. The impact of institutional quality on the correlation between government spending and economic growth necessitates the inclusion of this variable in any analysis. Failure to account for institutional quality may result in inaccurate estimations of the relationship between government spending and economic growth (Government spending and economic growth).

In light of the potential implications of these findings, it is suggested that institutions should possess a strong and autonomous structure, devoid of any unethical conduct, in order to enable the populace to fully capitalise on the government's investments in economic expansion. It is imperative to optimise the utilisation of public funds in constructing infrastructure that is both self-sustaining and resilient.

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