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- Peer Review -

The peer review process has a vital role in achieving both the goal and the objectives of the journal, evaluating originality and quality of articles submitted for publication. Within this process, reviewers may suggest improvements of form and content of the articles reviewed.

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TREND AND CHARACTERISTICS OF PUBLIC AND PRIVATE FOREIGN DEBT IN ROMANIA

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Abstract: *In the article, the authors analyse the evolution of long-term private and public external debt in Romania in the period 2008-2022, as well as the evolution of related services, highlighting some of their characteristics, especially from the point of view of costs. The research shows that although medium and long-term public external debt increases almost continuously during the analysed period, while medium and long-term private external debt fluctuates, the costs are higher in the case of medium and long-term private external debt. Thus, the private external debt service in the medium and long term is higher than the public external debt service in the medium and long term, a situation generated by better loan conditions in the case of public external debt. The authors also show that the medium and long-term external public debt, respectively the related service, has deeper annual fluctuations compared to the medium and long-term external private debt. The methodology used combines the empirical analysis of statistical data and their interpretation, with the identification of causalities.*
Keywords *: foreign loans, external debt service, causes, evolution, risk, costs.*
JEL Classification: *F34, H63.*

1. Introduction

Contracting external loans allows the debtor country to make a higher volume of investments than it would be possible using only domestic resources, from savings or credits. Also, *the external debt supports the internal demand* of the country that receives the loans and it represents *a source of financing the temporary deficits of the balance of payments*. If the balance of payments' deficit is permanent, long-term financing through external borrowing may delay the economic adjustments necessary to offset it, and it may worsen the fundamental problems of the balance of payments.

The external debt service includes all external payments (capital rates, interest and commissions) derived from foreign debt, during a year. When it reaches *a significant amount, the debt service raises two problems for the indebted country*: on the one hand, there is the need to earn or save the foreign currency necessary for its payment, and on the other hand, there is the problem of public financing, which entails the generation of budget revenues, in local currency, equivalent to the external payment duties. That is why governments are interested in their own payment obligations, related to the external debt, which affect both budgets and foreign exchange reserves of the countries. Also, governments can be involved in providing foreign exchange to cover payment obligations for the service of the private sector's commercial debt.

The most important issue about debt in general is ensuring its sustainability.

The authors define *debt sustainability* as a property that makes the evolution of the debt to ensure the payment of the debt service in the medium, and possibly long term, without the need for significant changes in the economic policies, without generating shocks and/or tensions on the domestic market, without inducing major fluctuations of some macroeconomic variables of the national economy. Sustainability allows fluctuations in the debt, being important to obtain the expected, positive effect in the medium and long term. Milea (2019)

Long-term debt sustainability is a dynamic concept, which depends not only on the debt stock and its associated service, but also on the growth rate of new loans, on the evolution of the fiscal situation, on the debt profile, on the effects of debt in the economy, on the behaviour-answer of the economic agents, on the financial flows that a country can absorb effectively, and their yield, on the volume of foreign exchange reserves, etc. Thus, debt is not sustainable if the borrowing country accumulates debt at a faster rate than the increase of its ability to pay debt service, especially over the long term.

From the definitions existing in the debt sustainability literature, a criterion of debt sustainability emerges, namely the borrowed capitals must be used for investments with a yield at least equal to the interest rate paid on the contracted debt, or for the implementation of economic reforms.

We can describe an *"almost risk-free country"* by several economic characteristics: a small ratio of foreign debt to the ability to pay (GDP or/and exports), low share of short-term debt in foreign exchange reserves, low value of external public debt in tax revenues, and an exchange rate of the national currency that is not excessively overvalued (Manasse P., Roubini N., 2005).

In the context of the restrictive measures adopted by the government to combat the pandemic, state aid has been greatly increased, which has led to a significant rise in public debt in recent years.

Currently, Romania is facing a situation of uncertainty and risk, with a war at the border, the reorientation of commercial and capital flows, political and legislative changes, which rather stimulate savings and the postponement of investments by companies.

In the article, we will analyse public and private external debt, and the characteristics of their evolution, highlighting some causes that induced their trend.

2. Characteristics of the public and private foreign debt of Romania in the period 2008-2022

Total medium and long-term external debt has increased between 2009 and 2022, except for the period 2013-2018.

The medium and long-term foreign public debt has increased almost continuously during the analysed period (except for the years 2015 and 2022), in 2020 being the most important annual growth of the analysed period (see figure no. 1).

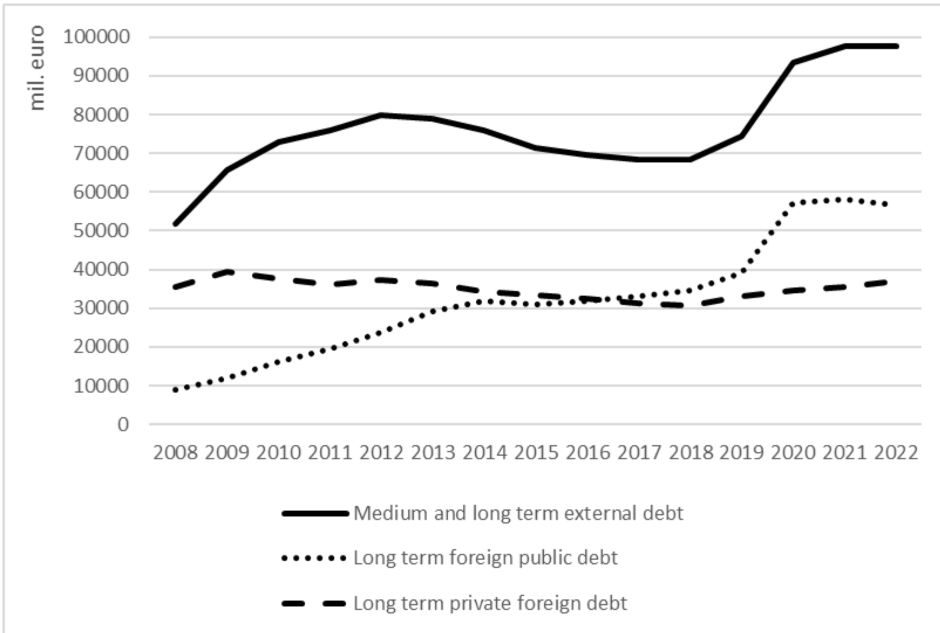

Figure no. 1 – The trend of long term public and private foreign debt in Romania
Source: NBR data and authors' calculations

The increase in the public debt in 2020 was generated, on the one hand, by the rise in public spending aimed at first to limit the spread of covid-19 and to treat the sick people (including purchases of health products), and a few months later to support the economy, respectively to counteract the economic effects caused by the first measures, including the decrease in income, the economic contraction, the loss of jobs. On the other hand, it was due to the expansionary measures adopted before the pandemic: the increase of pensions and other social expenses, the reduction or elimination of some taxes and fees, the decrease of some social contributions, etc.

The level of the budget deficit is one of the most important causes of the increase in external public debt. The budget deficit was in a process of consolidation, since 2013 until 2016, when significant progress in its adjustment was made. Starting from 2017, the budget balance has deteriorated continuously, the situation getting worse in 2020, both due to the inertia of expenses growth measures from previous years, as well as a result of the increase in administrative expenses in the context of the unfavourable evolution of the pandemic and its socio-economic consequences. Thus, the budget deficit has increased, both in absolute value and as a share of GDP (9.5% in 2020, respectively 6.8% in 2021, from 4.5% in 2019).

The budget deficit and the negative goods balance make it necessary to resort to external loans in the next period as well.

The medium and long-term external private debt decreased almost continuously between 2010 and 2018, and has increased between 2019 and 2022. As of 2017, medium and long-term external public debt is higher than foreign private debt (see figure 1).

In the period 2009-2020, medium and long-term public external debt had a higher annual growth rate compared to private debt (with the exception of 2015, when both types of external debt decreased, public debt at a slightly higher rate). In the year 2020, there was the highest annual increase in long-term external public debt, the borrowed capitals being necessary to support the economy, as well as natural and legal persons affected by the measures adopted by the authorities at national and international level to prevent the spread of the coronavirus. We can say that the external shocks (the economic-financial crisis of 2008 and the medical crisis of 2020-2022 had deeply negative consequences on the Romanian economy.

In most of the years of this period (except 2015), external public debt increased, while external private debt decreased (except for 2009, 2012 and 2019-2022). Between 2019 and 2022, external private debt has grown, in the last 2 years having a higher annual rate than that of medium and long-term external public debt (see figure no. 2).

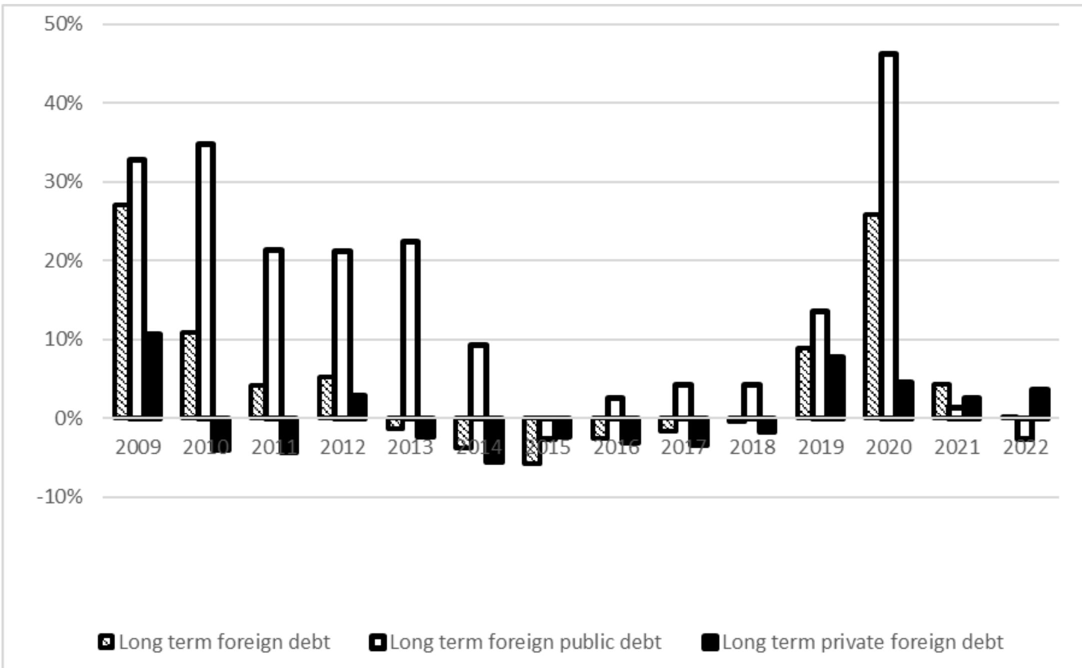

Figure no. 2 – The trend of long-term public and private foreign debt in Romania (annual rate)

Source : NBR data and authors' calculations

It is noticed that the external public debt in the medium and long term has steeper annual fluctuations compared to the external private debt in the medium and long term.

Analysing figure no. 3, we find that during the period 2008-2016, the share of external private debt in GDP is higher than that of external public debt in GDP. Starting from 2013, the indicator related to private debt decreases, peaking at around 15% in the period 2017-2022. The share of external public debt to GDP fluctuates more, with growth between 2008 and 2014, followed by decrease until 2018, an increase in 2020 and slight reduction in 2021 and 2022. Between 2017 and 2022, the share of external private debt to GDP is lower than that of the external public debt in GDP.

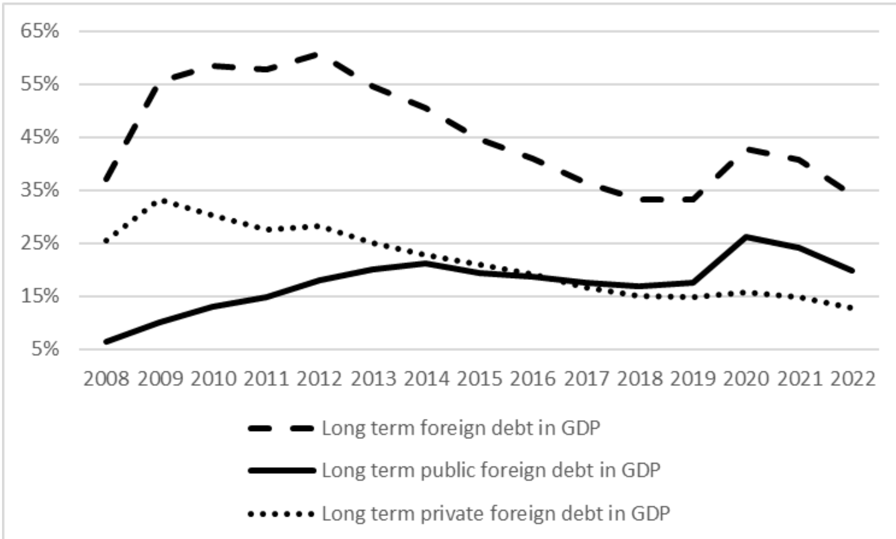

Figure no. 3 – Long term private and public external debt as a share of GDP in Romania

Source: NBR data and authors' calculations

Even if, at the level of the European Union, Romania is among the countries with public debt relative to GDP below 60% and with a relatively small external debt relative to GDP, the constant, repeated resort to foreign loans will cause these indicators to deteriorate. Already according to the trend of the last years of the total external debt in GDP (increase from 49% in 2019 to 58% in 2020), we can assume that, in the medium term, Romania will exceed the 60% threshold imposed by the Maastricht Treaty, through the convergence criteria for joining the Euro area. In 2022, the average interest rate at which Romania has borrowed on foreign markets is around 9%, the highest from all European Union countries. High interest rates can become burdensome, to the point where newly contracted loans are used only to roll over older debts with unsustainable interest rates at a certain level of economic development.

The evolution of the share of total external debt in GDP is positive in 2021 and 2022 as it drops to 50%.

The share of medium and long-term external public debt in the total medium and long-term external debt had risen during 2008-2020, and has decreased slightly in 2021 and 2022. The share of medium and long-term private external debt in the total medium and long-term external debt has decreased discontinuously in the analysed period. The public debt indicator is higher than that of the private debt indicator starting with 2017 (see figure no. 4).

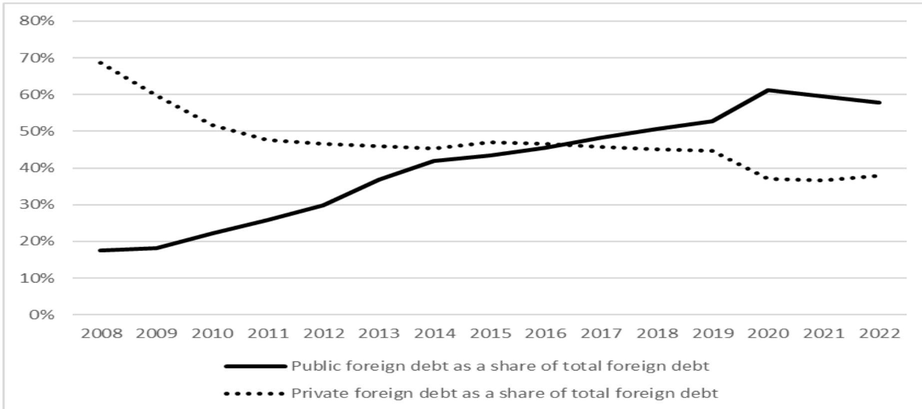

Figure no. 4 – The public and private external debt as a share of the total long term external debt in Romania

Source : NBR data and authors' calculations

Throughout the analysed period, it takes place the consolidation of international reserves and the harmonization of their currency structure (euro 55.6%, USD 19.6%, in 2021) with that of the medium and long-term foreign debt (73% euro , 13.5% RON, 9% USD), and with that of the medium and long-term foreign debt service. The high level of international reserves indicates a low liquidity risk.

The evolution of Romania's international reserves shows our country's solidity and credibility from a financial-banking point of view, and it supports the sustainability of the Romanian economy.

3. Characteristics of the service of the public and private foreign debt of Romania in the period 2008-2022

The debt service represents the amount that must be paid in the respective year on account of the debt borrowed in the previous years, and it consists of the principal (a part of the amount borrowed, which must be repaid to the creditor in the respective year), and the related interest and the commissions (the cost of the debt).

The service of the medium and long-term external debt fluctuates throughout the entire analysed period, rising in some years (2010-2013, 2015 and 2022) and decreasing in the others.

The service of the medium and long-term external private debt is higher than that of the medium and long-term external public debt. Considering the evolution of the two types of debt and their related services, we can say *that private external loans are obtained under harsher credit conditions* (interest rate, commissions, total cost, return period, repayment scheme, grace period*) than external public loans* (see figure 5).

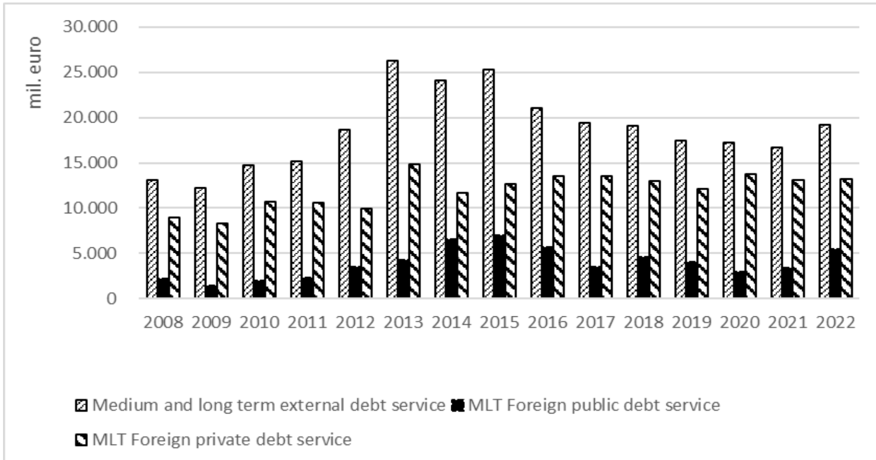

Figure no. 5 – The trend of long-term public and private foreign debt service in Romania

Source: NBR data and authors' calculations

The medium and long-term external debt service has had a fluctuating evolution, with increases and decreases from year to year, both for private and public debt. In the analysed period, the years 2010, 2012, 2014, 2018 and 2022 stand out with significant annual increases in the case of medium and long-term external public debt service (2022 being the year with the most important increase). These developments are explained, in part, by the loans contracted by Romania to fight the effects of the economic-financial crisis in 2009, of the covid-19 pandemic and of the measures adopted by the authorities to prevent the spread of this virus in 2020 and 2021 (see figure no. 6).

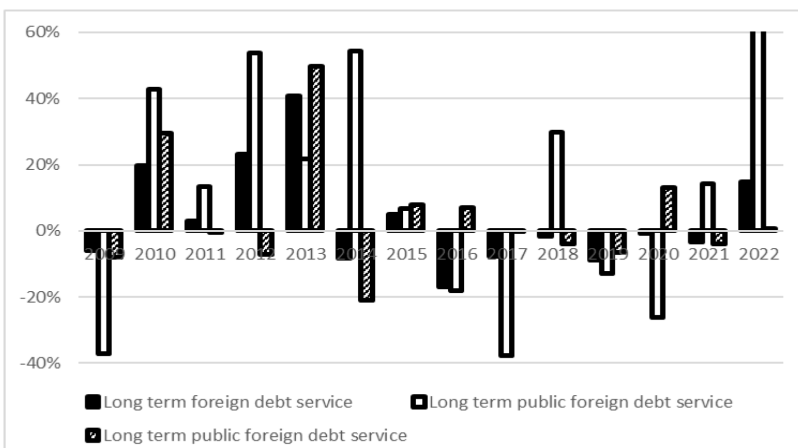

Figure no. 6 – The trend of long-term public and private foreign debt service in Romania (annual rate)

Source : NBR data and authors' calculations

The service of the private external debt shows the largest increases in 2010 and 2013.

It is noticed that the service of the external public debt in the medium and long term has higher annual fluctuations compared to the service of the external private debt in the medium and long term.

Throughout the entire analysed period, the service of private external debt as a share in GDP is higher than that of public external debt in GDP (see figure 7). The evolution of this indicator shows a better schedule of maturities, or longer payment dates in the case of public external debt (hence better loan conditions), considering that starting from 2017, public external debt is higher than private external debt, the increase in the public foreign debt being significant in 2020.

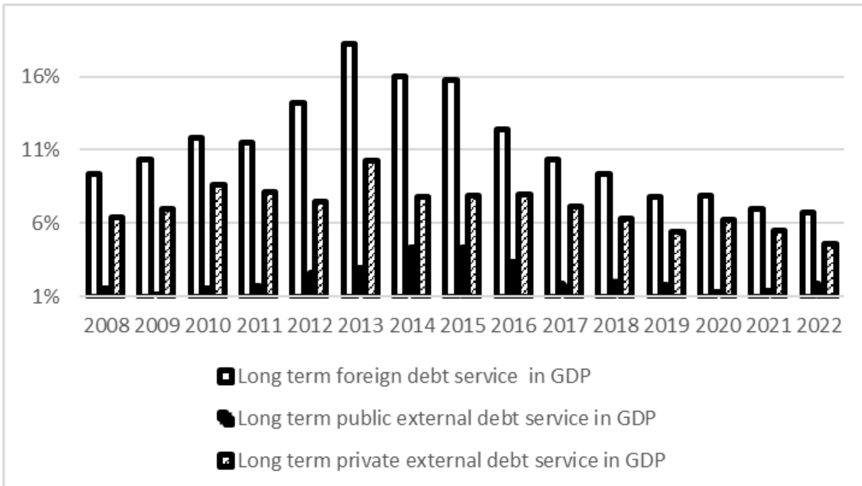

Figure no. 7 – The service of the long term private and public external debt as a share of GDP in Romania

Source : NBR data and authors' calculations

Also from figure no. 8, we can see that, in Romania, private external debt has a higher cost compared to public debt.

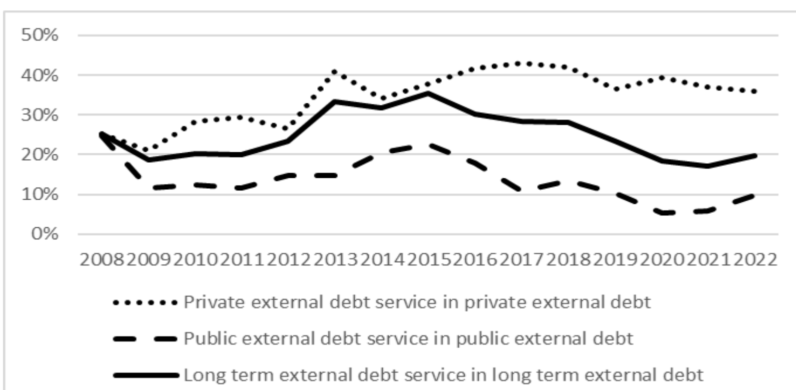

Figure no. 8 – The service of the long term private and public external debt as a share of the private and public external debt in Romania

Source : NBR data and authors' calculations

The share of private external debt service in the total service of the medium and long-term external debt is higher than the same indicator related to public external debt throughout the period 2008-2022. The values recorded by both indicators do not have constant evolutions, fluctuating (see figure no. 9).

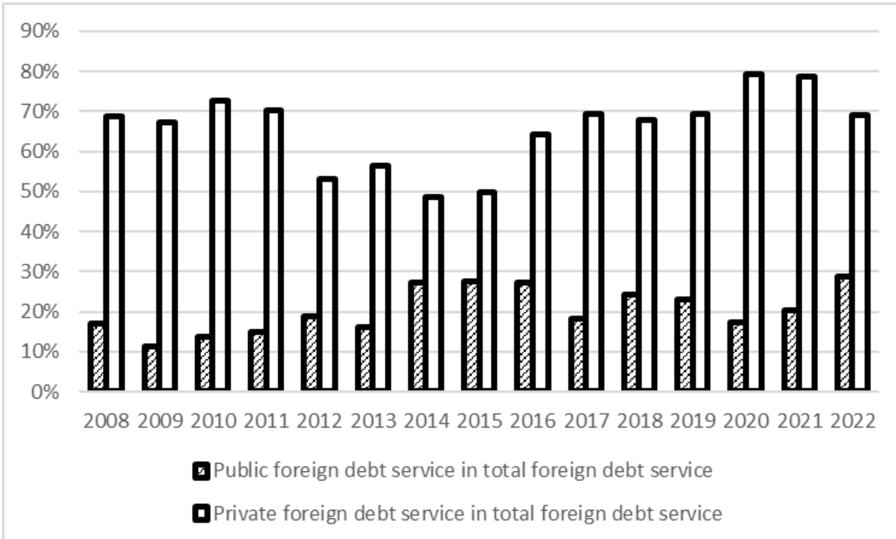

Figure no. 9 – The public and private external debt service as a share of the total long term external debt service in Romania

Source : NBR data and authors' calculations

One of the most important current and prospective risks is the boost in the cost of debt service. This is due to the high level of debt (especially public debt), corroborated with the trend of accrual in interest rates at the international level, given that central banks around the world have raised interest rates over the past year in an attempt to control high inflation. Under these conditions there are concerns about the leverage effect in the financial system.

4. Conclusions

In most years of the analysed period, medium and long-term external public debt had a higher annual growth rate compared to external private debt.

The year 2020 has witnessed the largest annual increase in long-term external public debt since 2009, the borrowed capital being necessary to support the economy, and natural and legal persons affected by the measures adopted by the authorities at national and international level in order to prevent the spread of the coronavirus.

Although, in Romania, public debt is below the level established by the Maastricht criterion, its evolution in recent years requires the adoption of measures meant to temper its growth, considering that *the dangers of excessive growth of public debt exist and should not be ignored.*

The fact that public debt creates intergenerational inequity must also be taken into account. Because high public debt means that the current generation spends more than it produces, shifting the burden of bearing the cost of this higher standard of living onto future generations.

Traditionally, public debt management should focus on achieving a trade-off between, on the one hand, minimizing the cost involved in issuing government securities (which is usually lower in the case of short-term securities), and on the other hand, minimizing the risk related to the public debt profile of the respective country (which, as a rule, is lower in the case of long-term securities) (Cerna, 2019).

It is found that the external public debt in the medium and long term, respectively the related service has larger annual fluctuations compared to the external private debt in the medium and long term and its service.

The trend of the analysed indicators shows a better schedule of maturities, longer payment dates, smaller costs in the case of public external debt (hence better loan conditions). Thus, we can say that, *in Romania, private external loans are obtained under harsher credit conditions than external public loans*.

One of the most important current and prospective risks is the accrual in the cost of debt service. This is due to the high level of debt (especially public debt), corroborated with the trend of increasing interest rates, given that central banks around the world have raised interest rates over the past year in an attempt to control high inflation.

We might say that Romania should not be worried about the absolute or relative value of its public debt, but about the country's ability to pay its loans. Thus, debt sustainability does not require only maintaining the indicator below a certain critical level, but also ensuring that additional indebtedness has its counterpart in assets or structural changes in the economy, which would allow the payment of debts in the future, without high sacrifices for future generations.

The experience of the shock caused by the covid-19 pandemic shows that there are totally unknown, unanticipated events that can deeply affect the national economy and the world economy, and that the economic prospects can suddenly worsen, therefore a mix of policies is necessary to improve Romania's financial situation by balancing the budget, reducing the current account deficit, and maintaining the upward trend of economic development.

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CREATIVITY AND SUSTAINABILITY – THE CORRELATION BETWEEN CREATIVITY AND SUSTAINABILITY AND THEIR IMPORTANCE

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Abstract: *Could there be any chance that creativity can promote sustainability? Regarding change in any activity, it is necessary to accept changes by implementing new ideas, skills, abilities, experiences, and many more. Creativity can favor sustainability as they are both playing an important role in bringing about a change, human capital with the potential to achieve long-term performance. In order to attain performance in this sense, the organizations are reliant on performance employees; thus aiming to achieve creative and sustainable organizations. In this article we are going to analyse creativity, the environment necessary for employees to feel encouraged and supported as to express their creativity and use available resources in order to develop new and innovative ideas, and how all these are closely related to the promotion of sustainability within organizations.*

Key words: *creativity, innovative ideas, performance, sustainability.*
JEL Classification: *D83, O31, M12, Q56.*

1. Introduction

As mentioned in the previous statement, in any organization creativity should be promoted, as it is closely related to sustainability, with the both of them assuming a very important role in the long-term development of the organization.

New models that aim to introduce a development in a continuous process of human society and maintain the earth system in an intact and sustainable structure are required. In order for this to be achieved, it becomes necessary to implement some creative ideas in all areas and aspects of work. Therefore, as it has been previously mentioned in the statement above, we can argue that sustainability and creativity are strongly connected to one another.

Creativity, at its core, constitutes the essence of sustainability, being immersed in not only all economic, social, but also in cultural and environmental practices. This represents a renewable resource and in continuous development in terms of human nature and its talents. Creativity is something that every person/employee possesses, but it is required to be developed and ultimately implemented in order for successful results to be obtained.

In the present day, sustainability tends to become increasingly essential in terms of maintaining relevance in companies, but also the sustainability of competitiveness in today's world. This could not conclude and could not be implemented within companies without the existence of creativity, as by implementing new ideas and developing new technologies we could take sustainability to the highest level. Thus we could bring ideas in the process of implementing new technologies and new ways of using existing technology; these innovations aim to overcome the obstacles of adaptability, scalability, replicability, durability and accessibility. Any new process implemented or technology brought to the organization should meet the commitment to make people's lives easier, and those that do not fulfill this objective cannot be considered innovations.

2. Research methodology

In the context of organizations aiming to secure a competitive edge over their profile counterparts in a business landscape where environmental challenges and complexitites continue to arise, innovation becomes mandatory. In order for it to be implemented, organizations are become compelled to nurture and elevate the creativity of their workforce and human capital, as creativity represents the very base upon which innovation is built. In this article, we aim to observe the interplay between creativity and the initiatives undertaken by organizations in order to establish and perpetuate enduring sustainable practices throughout the course of their future development.

The concept of ecological innovation is progressively gaining acknowledgement as an important constituent along the trajectory towards sustainability, as companies strive to make environmental improvements while establishing economic growth and social well-being within companies and organizations. Subsequently, a compelling imperative emerges for organizations to pay considerable attention towards promoting creativity in order to obtain results in terms of innovation and sustainable development while seeking economical profit, but also to align with the global efforts made as to ameliorate climate change impacts and preserve our natural resources.

With a commitment to ensuring that all issues relevant to this subject are addressed, we have adhered to following a plan in the writing of this article. Consequently:

- we began by researching the importance of creativity within organizations and its impact on performance, both individual and organizational, while consulting various sources such as books, scientific articles, case studies, reports and previous research.
- we identified concepts relating to ecological innovation, as well as examples of organizations that have proven to be succesful in implementing inventive solutions to environmental issues .
- we established how creativity, innovation, and sustainability are directly related to one another and explained why creativity is deemed necessary in order for companies to grow sustainably.

The writing of this article involved a fundamental and comprehensive literature review. Through the consultation of diverse sources such as articles, books and sources in digital libraries, the author brings substance to the arguments and validates the conclusions through a synthesis of existing research and theoretical constructs within the relevant area and domain. The author extracted pertinent insights from the sources of choice that have been studied and consulted, structuring and organizing the resulting material in a systematic manner that aligns with the themes of this article. The findings resulted from the comprehensive literature review were integrated into the article's discourse, thereby reinforcing the enunciated arguments and ultimate conclusions. The author further goes on to establish a connection between research and theoretical frameworks with concrete examples and illustrative case studies as to effectively present the manner in which creativity and innovation promote the advancement of sustainability principles.

3. Importance of creativity within the organization

Creativity is an inherent human ability, nevertheless it manifests itself differently depending on the field of applicability. This multifaceted skill that man possesses encompasses mental vitality, adaptability, ingenuity but also curiosity. While creativity represents a positive trait, its expression may vary across different positions within a company.

In contemporary organizational practices, there is a growing emphasis on promoting creativity, primarily due to the noteworthy correlation observed between creativity and the financial performance of skills, as well as between the well-being of employees and creativity. When presented the opportunity to be express their creativity and contribute by offering valuable insights, feedback, and ideas to the company, it has been demonstrated that employees not only become more motivated and engaged, but there is an improvement in their mood as well.

Creativity serves as a driving force for sustainable long-term growth, stimulating exploration and experimentation within an organization. It plays a key role in identifying untapped markets, fostering the development of new revenue streams, and inclining the organization towards enduring success and expansion. Organizations that focus on creativity possess the capacity to conceive distinctive products, services, and branding strategies that stand out amidst a competitive market, thus not only gathering the attention of potential customers but also creating the opportunity of brand loyalty to emerge, culminating in a sustainable competitive advantage over its profile counterparts.

Within the context of change in the business environment, as companies confront uncertainties and challenges, creativity becomes a necessity. With empowering effects upon individuals and teams, it facilitates not only adaptive responses to the occurring changes but also the attainment of thriving outcomes amid dynamic circumstances. Creative individuals within a organization embody a mindset oriented towards embracing change and display willingness to explore new possibilities. Distinctively, they possess the capacity to perceive disruptions and shifts in the market landscape as opportunities and openings for growth rather than mere threats.

4. Creativity in the context of sustainable practices

Within an environment characterized by creativity prone to and aiming to implement innovation, eco-innovation is a concept that emerges at the convergence of innovation and sustainability.

The principal objective of eco-innovation revolves around the resolution of environmental challenges and to purse a more sustainable trajectory within organization for the future. It involves finding creative and inventive solutions to environmental issues, taking into account both economic feasibility and social acceptability and seeks changes in practices, products, or systems, aimed at creating positive environmental impacts.

Eco-innovation is further defined as "the production, assimilation or exploitation of a novelty in products, production processes, services or in management and business methods, which aims, throughout its lifecycle, to prevent or substantially reduce environmental risk, pollution and other negative impacts of resource use (including energy)" (OECD, 2009, p. 6).

The concept of eco-innovation is gaining growing recognition as an important element in the trajectory towards sustainability, as it strives for environmental improvements while promoting economic growth and social well-being. It plays a vital role in enabling businesses, industries, and societies to attain their environmental objectives and makes contribution to the global endeavors to mitigate climate change and conserve natural resources.

5. Literature review

In numerous specialized studies, the importance of showing keen interest in investigating creativity and sustainability has been emphasized. This approach is deemed crucial for overcoming the behavioral obstacles inherent in the transition towards sustainability. This is further supported by researchers in many specialised studies (Dentchev et al 2016; Pislaru et al 2019; Lucia et al 2016; Schulz 2021 Przychodzen 2016). These studies indicate that, thus far, creativity has primarily concentrated on the advancement of novel sustainable technologies, leading to a relative oversight of the strategies for implementing sustainability within the economic, institutional, and social context.

Subsequently, these implications also caught the attention of other researchers who then carried out work on the previously mentioned (Brem and Puente-Díaz 2020, Kagan et al 2020, Sovacool et al 2018), aiming to explore potential solutions to expedite the transition to sustainability through the utilization of creativity.

An analysis in the market of studies regarding creativity, innovation and entrepreneurship (CIE) highlights the fact that most of them study the role of private-market companies in the development of innovation and entrepreneurship (Edwards-Schachter and Wallace 2017; Bourdeaux et al 2019, Li and YU 2018, Gibb 2002). These studies are profit-oriented and economic. The initial references regarding sustainability primarily focus on flexible and profitable management rather than addressing the enduring ecological and societal dimensions of sustainability. Creativity, over-development, but also innovation with an emphasis on economic interests can expose natural disasters and dangerous situation.

6. Findings

Our findings are based on conceptual approaches, these being analyzed in the context of 4 levels: community, organizational, institutional and individual based on those previously mentioned.

The expansive nature of creativity and sustainability extends beyond their professional purposes, translating into meaningful contributions to personal development in individuals' daily lives.

With the evolution of technology, exceptional access to what sustainability means was allowed.

Creativity and sustainability are two pillars of overwhelming importance for the success and sustainable development of companies in the modern world. Reflecting on personal experiences and observations, I understood that these two concepts are deeply interconnected and that they could have a crucial influence the way companies evolve and progress in an ever-changing business environment.

Creativity within companies can be the power source of innovation and transformation. In a world characterized by rapid technological and environmental change, companies must find new and unconventional methods to address their challenges and grow their products and services. Innovative approaches can come in a variety of forms - from disruptive business models to advanced technological solutions and innovative marketing strategies. In this regard, creativity enact a central role in opening up new opportunities and generating significant competitive advantages for companies.

It is to be take into account that organizations started to put more emphasis on everything that means and implies creativity. Based on the previously mentioned and on a number of studies conducted on themes of creativity and sustainability, as it is mentioned by Grübler (2003, p. 341) in "paradox of technology and the environment" which shows us that the degradation of the environment could be saved through creativity, thus finding - are plausible solutions to stop the decay of the ecological surroundings. It is imperative for organizations to proactively invest in initiatives and workshops aimed at fostering these two critical elements.

Furthermore, it has been noted that it is crucial to make investments in employees and leaders, equipping them to effectively confront crises and risks (Bassous, 2022).

In articles published by Steffen et al. (2015) and Steffen et al. (2018) regarding the development of human societies, the Earth system and the planetary boundary, they have observed a detrimental effect resulting from the rapid evolution of humanity and its implications for sustainability, leading to an adverse relationship between people and the planet. On the other hand, creativity proved that people could help and change this concept.

It should be noted that with the time, as these two important aspects are cultivated and encouraged, the world evolves for the better: creativity leads to an accessible and enhanced life experiences, while sustainability ensures ecological preservation for a harmonious coexistence with the environment. It can be argued that sustainability is intrinsically linked to creativity, as for new technologies to exist and be implemented, they necessitate the inherent role of creativity.

7. Conclusions - impact on the economic environment

In an environment that continues to evolve and increase in competitivity, it can thus be asserted that organizations that prioritize sustainability and creativity in their strategic approaches are inclined to gain a growing competitive edge in the market. By innovating their products, services, and processes with a focus on sustainability, organizations have the potential to not only attract new customers but also nurture long-term customer loyalty.

We also noticed that a creative approach to issues in the terms of sustainability have the potential to result in improvements in the areas of a company's operational efficiency, thus reducing the negative impact on the environment and use of resources.

On the other hand, by the appliance of creativity in the area of sustainability, organizations appear to be able to generate a better response when subject to future challenges and are more likely to adapt in a timely manner to the shifts in market landscapes.

It is not to be omitted that the commitment to sustainability and creativity has a positive impact on the levels of trust offered by company's stakeholders, including partners and employees.

To conclude, we can thus say that an approach committed to creativity and sustainability does not only lead to the attainment of profit in the economic area, but also encompasses a significant number of advantages of social and environmental nature. Organizations that promote innovation assume a fundamental role in shaping a sustainable future for individuals and society.

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CAR LIABILITY INSURANCE IN THE CURRENT MARKET

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Abstract: *Car liability insurance is the most well-known type of insurance in Romania. The role of liability insurance is to allow people injured in an accident to be compensated without having to wait for compensation from the liable party or, in the worst case, until the discovery of the liable party itself. The civil liability insurance mainly covers damages resulted from an accident caused by the insured liable party, for which, according to the legislation in force, the liable party owes due compensation to the injured parties. Considering this, all legal entities and private individuals who own a motor vehicle registered on the territory of Romania, have the obligation to take out a car liability insurance, for cases of damages caused by vehicle accidents. The paper aims to present the situation of car liability insurance in the context of the insurance market in post-pandemic Romania. Based on the quantitative method, but also the qualitative one, the present paper is an exploratory research, aiming to highlightsome relevant information from the insurance field.*

Keywords: *insurance, compulsory car liability insurance, general insurance, insurers, gross written premiums.*

JEL Classification: *I15.*

1. Introduction

The insurance market has gone through many changes recently, especially in the last 2 years. Years marked by the Coronavirus pandemic.

In the first quarter of 2022, the insurance companies, authorized and regulated by the Financial Supervisory Authority, reported gross premiums of approximately 8.76 billion lei, sums bigger by approximately 37% compared to what has been previously reported during a similar period in 2021. Still, the Romanian insurance market remains oriented towards a more general form of insurance activity, which has a share of 83% of the total gross premiums subscribed by authorized and regulated insurance companies.

When looking at insurance overall, a special case study is the civil liability insurance. Civil liability insurance can be defined as a contract between the owner of a vehicle and an authorized insurance company. Based on this contract, a document called an RCA policy is issued, by which the company offers compensation to third parties in the event of an accident caused by the insured. Like any insurance, an RCA policy has to be law-abiding. Based on the legislation, vehicle owners have the obligation to acquire such an insurance policy. Considering this, all business entities and normal citizens who own a vehicle registered on the territory of Romania have the obligation to buy car civil liability insurance, in case of any civil liability, which may occur as a result of vehicle accidents.

The specific laws pertaining to insurance (Law no. 132/2017 on compulsory auto liability insurance for damages caused by third parties in vehicle and tram accidents; Law no. 20/2017 on car insurance, Law no. 22/2017 On calculating the premiums for the compulsory auto liability insurance for damages caused by third parties in vehicle and tram accidents), highlight the scope, but also the importance and the degree of notoriety of road insurance.

2. Research methodology

Taking into account what has been presented above, the main objective of this work is an analysis into the civil liability insurance in the current market.

The purpose of this research is to present the state of the market in the years of the pandemic, but also to highlight the insurance market trends in a post-pandemic world, as well as highlight some measures taken by Romanian insurance providers regarding the harmonization of the specific rates of these insurances.

This work is based on various types of data provided by insurance companies through different sources of information, which gives it a qualitative and quantitative character.

3. Data analysis

The general insurance market remains dominated by car insurance. Car insurance, including class A3 (ground vehicle insurance, other than railway) and class A10 (car civil liability insurance, including carrier liability), approximate 78% of the total of gross premiums subscribed for the general insurance activity and 65% of the total gross premiums subscribed by insurance companies in the 1st quarter of 2022.

The most important segment of 2022 continues to remain the RCA segment, with an increase of 102.2% of the gross premiums, up by almost 2.4 billion lei.

On June 30 2022, according to the data on the insurance markets provided by ASF, the following insurers carried RCA insurance activities, namely: Allianz Insurance SA, Romanian Insurance - Asirom Vienna Insurance SA, Euroins Romania Insurance SA, Generali Romania Insurance SA, Grawe Romania Insurance SA, Groupama Insurance SA, and Omniasig Vienna Insurance SA. The number of ASF authorized insurance providers for the RCA insurance activity has decreased from 9 to 7, following the withdrawal of City Insurance, and subsequently the exit from the RCA market of Uniqa Insurance SA. In a positive twist, in the fourth quarter of 2021, AXERIA started its activity on the RCA market, based on the right to start trading on the territory of Romania (FoE-Freedom of Establishment).

Regarding the market share of RCA insurance providers, the first 3 insurers accumulated about 71% of the RCA insurance portfolio in Romania.

Table no.1. RCA insurance market share on June 30, 2022

NO.	INSURANCE SOCIETY	MARKET SHARE
1.	EURIONS	31,81%
2.	GROUPAMA	30,64%
3.	ALLIANZ-ȚIRIAC	18,49%
TOTAL (1-3)		**70,94%**
4.	ASIROM VIG	7,73%
5.	OMNIASIG	7,41%
6.	GRAWE	6,36%
7.	AXERIA IARD	5,64
8.	GENERALI	1,92%
TOTAL		**100%**

Source: https://asfromania.ro/uploads/articole/attachments/6332ba70ba626329480232.pdf

We observe that in the first six months of 2022, the company Axeria Iard recorded a volume of RCA gross premiums of 254 million lei, which is 5.6% of the total gross premiums subscribed for the RCA segment.

In the first six months of 2022 another market segment of the insurance market reached the value of approximately 4.25 billion lei, the rest up to class A10 represents the insurance for the transported goods as a carrier, and RCA insurances subscribed on the territory of other EU member states based on the right to a free market. Compared to the same period of 2021, the value of gross written premiums increased by around 89%.

Table no. 2. Gross premiums related to RCA insurance in the period Q12021-Q22022

	Q1 2021	Q12022
Gross premiums in lei	**2.25**	**4.25**

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].
(Here are included only companies authorized and regulated by ASF).

We note that the RCA gross premiums had an upward evolution in the first semester of 2022, compared to the first semester of 2021.

Expressed in annual units (to account for different policy durations), the number of RCA contracts concluded by June 30, 2022 was 3.68 million contracts, up 5% from the same period in 2021.

Table no. 3. The number of RCA insurance contracts in the period Q1 2021-Q1 2022

	S12021	S12022
No. concluded contracts	6,703,688	4,212,194
No. Contracts in annual units	3,516,747	3,683,470

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].
(Here are included only companies authorized and regulated by ASF).

Considering the validity of RCA policies, as of 30 June 2022, the largest number of insurance policies had a validity of 12 months. In the first quarter of 2022, there was a greater preference for contracts with a validity of 12 months compared to previous years.

Table no. 4. Share of the number of contracts concluded in the period, Q1 2021 – Q12022

Period	Q12021	Q12022
Over a 12 month period	27,88%	82,28%
Over a 11 month period	2,79%	0,06%
Over a 10 month period	0,04%	0,06%
Over a 9 month period	0,13%	0,10%
Over a 8 month period	0,10%	0,09%
Over a 7 month period	0,13%	0,10%
Over a 6 month period	36,17%	7,89%
Over a 5 month period	0,05%	0,02%
Over a 4 month period	0,10%	0,06%
Over a 3 month period	4,25%	0,54%
Over a 2 month period	2,25%	0,34%
Over a 1 month period	26,12%	8,46%
Total	**100%**	**100%**

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at:

<https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor>
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On average, an annual RCA insurance policy was around 1,154 lei, an increase of 81% compared to the same period of the previous year.

Table no. 5. RCA average insurance pricebetweenQ1 2021 – Q1 2022

	Q12021	Q12022
Market total	639	1.154
Private individuals	496	904
Legal entities	1.176	1.978

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor>
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(Here are included only companies authorized and regulated by ASF).
**Note: The first average RCA was calculated using annual units for which all policy terms were considered.*

Regarding the first RCA average price, depending on the duration of the concluded policies, the following is noted:

Table no. 6. RCA average premium as of 30 June 2022, counted by the duration of the concluded policies

	Total	Private Individuals	Legal Entities
RCA average premiums for 12-month contracts (calculated as the ratio between the volume of premiums subscribed for 12-month contracts and the number of RCA contracts with a 12-month validity) - lei	1.112	872	1.906
RCA average annualized premiums for 6-month contracts (calculated as the ratio between the volume of premiums subscribed for 6-month contracts and the number of RCA contracts with a 6-month validity, multiplied by 2) - lei	1.353	1.162	2.014
RCA average annualized premiums for 1-month contracts (calculated as the ratio between the volume of premiums subscribed for 1-month contracts and the number of RCA contracts with a 1-month validity, multiplied by 12) - lei	4.841	3.612	6.836
Annual average RCA (PBS divided by annual exposure units) - lei	1.154	904	1.978

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor>
[Accessed 15 February 2023].
(Here are included only companies authorized and regulated by ASF).

Regarding the compensations paid for bodily injuries and the number of paid related claims, the situation is presented according to the table below:

Table no. 7. Claims paid in the period Q1 2021–Q1 2022 for personal injury, property damage and related claims

	Q12021	Q12022
Bodily injuries (thousand lei)	386,007	412,285
Number of claims	5,713	13,971
Material damage (thousand lei)	1,376,720	1,144,000
Number of claims	187,402	147,824

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].

(Here are included only companies authorized and regulated by ASF).

It should be noted that at the end of the first quarter of 2022, compared to the same period in 2021, the number of average claims increased by 5%, while the purchase of an RCA policy by a first-time client increased by 81%.

Regarding the damages paid to private individuals, the situation is presented in table no. 8:

Table no. 8. Claims paid for RCA - personal injury in Q1 2021-Q1 2022

	Q12021	Q12022
Claims paid for private individuals (thousand lei)	**229.653.749**	**236.060.032**
Claims paid for legal entities (thousand lei)	**156.352.883**	**176.225.182**
Totalclaims paid	**386.006.632**	**412.285.214**

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].

(Here are included only companies authorized and regulated by ASF).

Regarding the material damages paid through RCA, it is noted that for private individuals in the 1st quarter of 2022, 854,169,605 thousand lei were paid, compared to Q1 of 2021 where 862,253,615 thousand lei were paid. For legal entities the damages paid were 289,830,727 thousand lei in Q1 2022, compared to 514,466,021 thousand lei in Q1 2021.

Table no. 9. Claims paid for RCA – property damage in Q1 2021-Q1 2022

	Q12021	Q12022
Claims paid for private individuals (thousand lei)	862.253.615	854.169.605
Claims paid for legal entities (thousand lei)	514.466.021	289.830.727
Totalclaims paid (thousand lei)	**1.376.719.636**	**1.144.000.332**

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].

(Here are included only companies authorized and regulated by ASF).

It is noted that in all analysed quarters, the damages paid for private individuals were higher compared to those paid for legal entities, both for bodily injuries and for material damages.

Regarding the average damages paid by RCA policy, they were calculated as the ratio between the compensations paid and the number of claims filed and paid. A major discrepancy can be observed between the average damages paid for bodily injuries (about 29,500 lei) and those paid for material damages (7,700 lei) for quarter 1 of 2022.

The average damages paid for bodily injuries, both for private individuals and legal entities, are presented in table no. 10.

Table no. 10. Average claims paid for RCA - personal injury in Q1 2021-Q1 2022

	Q12021	**Q12022**
Average private individual claims paid (thousand lei)	57,993	88,214
Average legal entities claims paid (thousandlei)	89,192	15,602
Total average claims paid (thousandlei)	67,566	29,510

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].
(Here are included only companies authorized and regulated by ASF).

The average damages paid for RCAmaterial damages, both for private individuals and legal entities, are presented according to table no. 11. We can see an increase in the first quarter of 2022 in compensations regarding average material damages.

Table no. 11. Average claims paid for RCA – property damage in Q1 2021-Q1 2022

	Q12021	**Q12022**
Average damages claims paid for private individuals (thousand lei)	6,819	7,613
Average damages claims paid for legal entities (thousand lei)	8,440	8,134
Total damage claims paid (thousand lei)	7,346	7,739

Source: created by the author based on: ASF Romania, 2022. *The Report on the evolution of the insurance market in Quarter I of 2022.* [online] Available at: <https://asfromania.ro/ro/a/2345/2022---rapoarte-pia%C8%9Aa-asigur%C4%82rilor> [Accessed 15 February 2023].
(Here are included only companies authorized and regulated by ASF).

4. Conclusions

In conclusion, covering everything that was presented:

- Over 83% RCA policies covered a maximum period of 12 months, while only 5.75% covered a period of 6 months (the most subscribed to period by far). About 10% of the policies covered a period of 1 month.

- The diversification process continued through the presence of a new insurer on the market with a notable share, AXERIA Iard, a company that entered the market under the Freedom of Establishment (FOE) system in December 2021;

-According to ASF, the majority of insurance companies, authorized to sell RCA, remain interested in the market. Euroins, Allianz-Țiriac and Groupama hold over 70% of the RCA market;

- In the first quarter of 2022, the largest market segment was held by policies with a validity of 12 months;

- In the first quarter of 2022, the share of RCA contracts concluded with private individuals reached approximately 75% of the total market. Contracts with legal entities reached over 24%;

- At the same time, it is noted that the average claim damages paid for bodily injuries and material damages, was higher for private individuals than for legal entities in the first half of 2022.

In conclusion, the RCA market continued to strengthen in the year 2022, with most authorized RCA insurers remaining interested in selling RCA policies. There is also a diversification of insurance products, but also a development in the e-commerce platform sector.

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INTELLECTUAL PROPERTY AS A SOURCE OF GROWTH OF THE COMPANY'S ASSETS

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***Abstract**: This article, emphasize the fact that in real conditions, in order to achieve the effectiveness of the management object, it is not so important who owns the property, but the way the owner manages the property to increase the cost of the company.*

***Key words**: intellectual property, effect, motivation, contract, manager, project, cost.*
***JEL Classification**: O34, O15.*

1. Introduction

The effective investment of capital with aim to invest in the development of production is one of the main tasks the managers are facing with. In complex economic conditions, management must ensure the vital activity of an economic entity, its independently development and implementation of investment policy.

In relation to the objects of investment, investments are divided into real investments, or investments in tangible and intangible assets, as well as financial investments. Intellectual property is one of the types of intangible assets of the company, that is a new object for the economy.

Intellectual property it is the property of the results of intellectual activity, intellectual product, which is part of the totality of objects of copyright and inventive right. In a market economy, intellectual property acts as a tool for gaining and maintaining market positions, i. e. an element of creating competitive knowledge-intensive products, as well as an independent object of transaction.

It may be counted by the joint-stock company as a contribution to the authorized capital, as it is the equivalent of cash when accounting for the founders' contributions and distribution of shares in the authorized capital.

2. Research materials and methods

Realization of potential opportunities of intellectual property and its contribution is wider than a simple function of contribution to the authorized capital: the cost of intellectual property often exceeds the value of all other monetary and property contributions, and the received additional profit provides a real increase in the copmpany's assets during the next 5-10 years. In this case, there is a contribution of human capital – capital in the form of intellectual abilities and practical skills acquired by the manager in the process of his education and practical activity.

The use of know-how in production activities (technological secrets of production, practical experience of production, technical, commercial, managerial and other activities that are of commercial value, applicable in production and professional practice) ensures strategic economic security of companies for a certain period of time. The transformation of know-how technologies into intellectual property is a definite process in terms of time and of costs.

As a result of making use of intellectual property, which contributes to increased (additional) profit and increase the assets of a joint stock company, entrepreneurial capital is created, which has a completely different content compared to financial investments. For example, goodwill (conditional value of business relations of a business entity) - the image of the company in the market provides competitiveness of products and presence of regular customers.

The effect (product) obtained as a result of acquisition (implementation) of intellectual property is in demand on the market, as it is able to increase the cost of the object.

While developing mechanisms for motivation managers, it is necessary to take into account that the manager's payment should be adequate to the obtained economic effect. In a tough competitive struggle, managers need to realize intellectual property by making huge efforts to solve super-tasks associated with great risks, that large labor collectives cannot always undertake.

Depending on the mechanism used, the system of motivation for managers can be a short-term and a long term ones (Fig. 1).

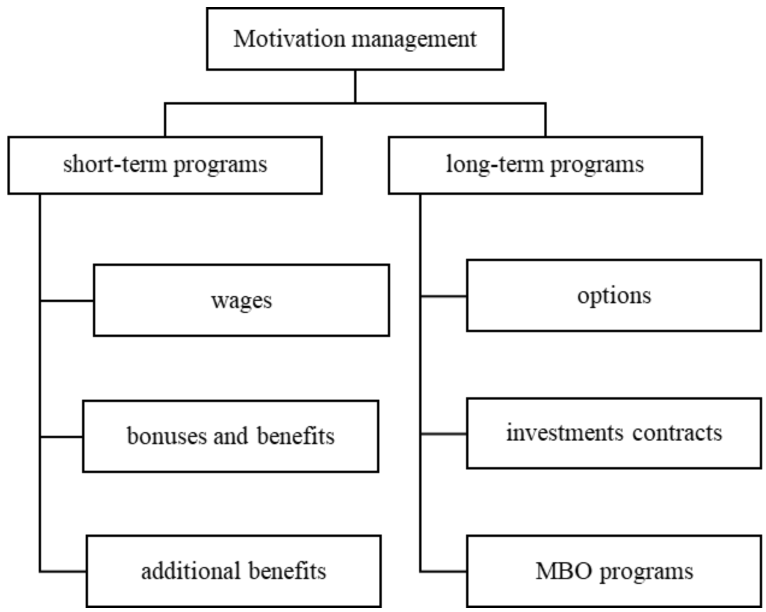

Fig.1. Scheme of motivation management

In matters of improving the effectiveness of management, long-term motivation programs are of the greatest importance, which are based on human capital and personal goodwill of top managers (CEO level - Chief Executive Officer or top managers), who play a leading role in reforming the company.

In order to protect the business of efficient acting companies and long-term attraction of highly qualified management, the best option is to provide top managers with the opportunity to buy back a large block of shares, including the controlling ones (Management Buy-out system, called MBO).

The MBO system has a number of advantages, including:

- attracting of promising highly qualified management, as far as the buyout under this system will takes place 5 - 7 years after the contract's signing;

- implementation of strategic tasks in an evolutionary way without disturbing the usual rhythm of the company during its reorganizing;

- the possibility of using new forms of management motivation, that will improve the efficiency of the company;

- increasing the responsibility of management staff for the final results of work, since management has complete and objective information about the state of things at the company;

- the transformation of managers into owners of the company and the emergence of personal interest in the efficiency of the management object,

- protection of the interests of shareholders, since after the company's management buys out a controlling stake, the constituent documents may stipulate measures and actions that the management carries out independently and require to taking into account the opinions of other owners.

Payment for shares by top managers in the conditions of the MBO system can be made through the mechanism of virtual options and phantom shares - acquired after the implementation of terms of the investment contract.

3. Investment Agreement – Managerial Incentive mechanism

The main points of the investment contract are:

1) a mandatory investment project (a business plan);

2) approval of the concluded contract of investment at the general meeting of the companys' shareholders;

3) the presence of an individual (or a group of such persons) as being the owner of a controlling stake. When concluding an investment contract with a group of persons, the latter act on the basis of a joint activity agreement;

4) making payment by the owner of the controlling block of shares by offsetting as a payment the amount of investments in the company made by him;

5) transfer of a controlling stake to the owner for validity period of the investment contract, the right to vote at his own discretion with shares to be transferred to him at the end of the investment contract, with the exception of voting on certain material issues of the company's activities related to the reorganization of the company, amendments to the constituent documents, changes in the authorized capital, sale and other alienation of immovable property of the joint-stock company.

When concluding an investment contract, the manager submits to the shareholders' meeting for approval an anti-crisis management program (investment project) designed for a period of at least 5-10 years. Taking into account the industry specifics, the state of sales markets, territorial location of the business entity, as an effect from the implementation of crisis management can be considered the provision of certain parameters of profitability of sold products over a long period of time.

The contract of investment stipulates that a part of additional (increased) profit earned by the company (in excess of shareholders' expectations, including in excess of the standard profitability level of 15 - 25%) is allocated for the purchase of the company's shares.

In a simplified form, the manager of a joint stock company should ensure a certain level of established indicators, for example, profitability of at least 15 – 25 %. Additional profits received from the implementation of functional programs for production development and its team, the introduction of a new system, unparalleled forms of management, resource - saving technologies, i.e., the result of the use of intellectual property of the manager.

4. Results

The repurchased shares over the pased period are transferred to the trust management of the manager on account of realization of the investment contract as payment for the manager's contribution to the share capital of the joint - stock company.

Intellectual contribution to the share capital is an increase of the shareholder cost, which is a direct repurchase of shares.

When the manager fulfills the terms of the investment contract, then the transfer of rem rights takes place. The joint-stock company finally settles accounts with the owner of intellectual property, i.e. shares repurchased at the expense of additional (increased) profit and transferred earlier to trust management are transferred to the manager's property (Fig. 2).

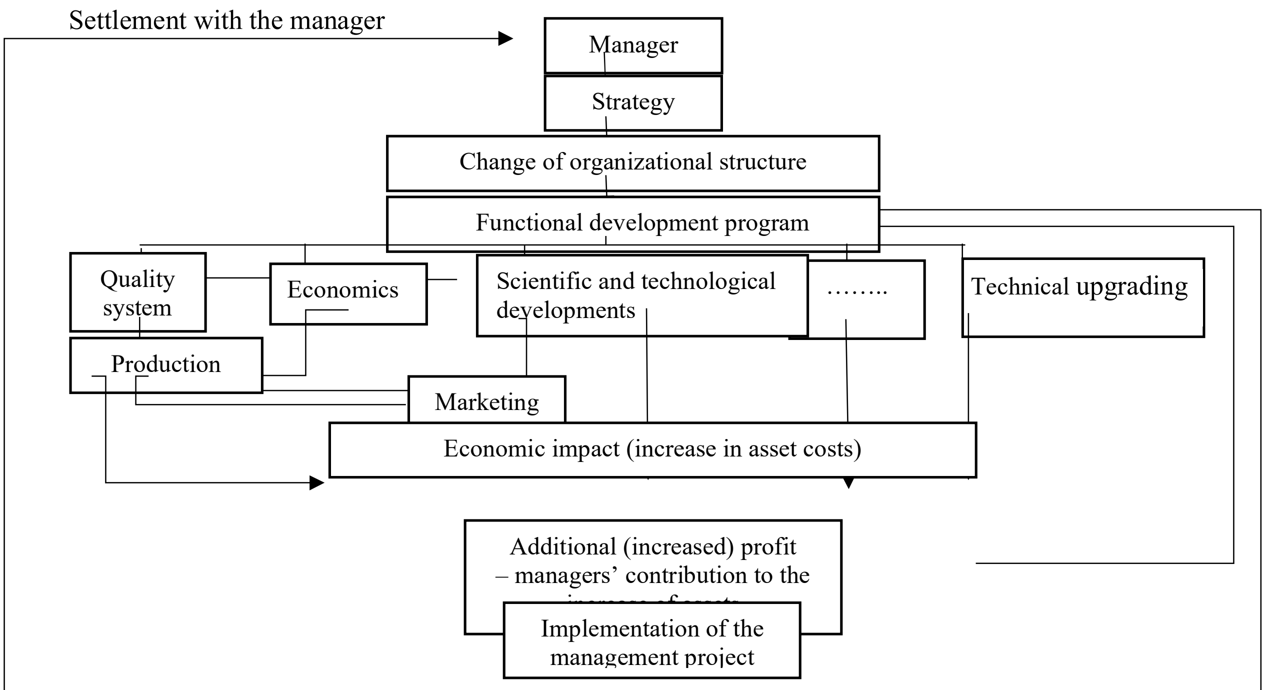

Fig. 2. Scheme of settlements between the joint-stock company and the manager when implementing an investment contract

The cost of shares repurchased by the company and transferred to the manager is the real equivalent to the increase in the economic potential of the joint-stock company.

With aim to motivate top managers of senior management staff, alongside with investment contracts, a bonus system may be applied, which gives manager the right to purchase shares in excess of the number stipulated in the investment contract.

The number of shares purchased as a bonus is limited. The amount of accruals to the manager for the past year it might be limited (for example, no more than 50% of the accruals).

If there is an investment contract, the bonus can be received by the manager only after the implementation of the contract activities. The remuneration (shares) set by the bonus during the implementation of the investment contract is accumulated in the bonus bank and, subsequently, paid by the manager at the share cost of the corresponding period.

On annual basis, the manager should publish and approve the enterprise development programs in all areas of production and economic activity for the current period and report on the implementation of the anti-crisis management program for the past period.

As a criterion in evaluation of the effectiveness of property management, can be taken:

- scientific and technical criteria - the effectiveness of the implemented solutions, patentability, the introduction of new technologies, the possibility of applying the results obtained in further developments;

- organizational and economic criteria - the effectiveness of management structures, ensuring information flows between departments, the efficiency of remuneration;

- production criteria - the areas location of raw material sources, materials and component parts, the state of the production fleet of machinery and equipment, reducing production costs;

- market criteria - conformity of the produced nomenclature with the market needs, the planned volume of sales, the total market capacity in relation to the offered and similar products, the elasticity of the price of products, the need for marketing research and advertising to promote products on the market and risk minimization;

- financial criteria - investment amounts and start-up costs, expected annual profit, compliance of the proposed management system with the criteria of capital investment efficiency, the scope of tax benefits provided by the legislation.

5. Conclusions

When concluding an investment contract, the management's responsibility for the final work results increases significantly, being associated with an increase of the risk to be dismissed in case of a decrease in the efficiency of the joint-stock company's work, and, correspondingly, the failure to pay remuneration and receiving a "zero" bonus.

The manager-owner will be interested in the increase of the company costs, receiving a decent remuneration and, at the same time, avoiding the risks of making wrong decisions.

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AUDIT QUALITY AND FIRM FINANCIAL PERFORMANCE

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Abstract: *The study examines the relationship between audit quality and firm financial performance. The study focuses on two financial performance measures, namely return on assets (ROA) and earnings per share (EPS). It employed Auto Regressive Distributed Lag (ARDL) and Dynamic Ordinary Least Square (DOLS) techniques for analysis of data. The research utilizes secondary time series data covering the period from 1981 to 2021. In Model 1, which explores the effect of audit quality on return on assets, the findings reveal both short-run and long-run effects between audit quality and ROA. The study indicates that audit independence has a positive but insignificant impact on ROA. On the other hand, auditor tenure has a negative effect on ROA, though it is also statistically insignificant. Audit firm size demonstrates a statistically significant negative effect on ROA. In Model 2, which examines the effect of audit quality on earnings per share, the results show that audit independence has a negative but insignificant impact on EPS. Surprisingly, auditor tenure has a positive effect on EPS. However, this effect is statistically insignificant. Similar to Model 1, audit firm size has a statistically significant positive effect on EPS. In summary, the study reveals a significant short-run and long-run effect of audit quality on return on assets (ROA) in Nigeria. However, audit quality does not have a lasting impact on earnings per share (EPS) over the long term. These findings suggest that companies with higher audit quality experience improved profitability (ROA) in the short and long term, while EPS is not significantly affected by audit quality in the long run.*
Key words: *Audit Quality, Firm Financial Performance, Return on Assets, Earnings per Share.*
JEL Classification*: M42, L25.*

1. Introduction

Audit quality and firm performance are two critical aspects in the field of accounting and finance that have garnered significant attention from researchers, policymakers, and practitioners alike. The quality of financial reporting and external audits plays a crucial role in ensuring the reliability and transparency of financial information provided by companies to their stakeholders. At the same time, firm performance represents the overall success and efficiency of an organization in achieving its strategic objectives.

Audit quality refers to the extent to which external audits provide credible and reliable information about a company's financial statements. High-quality audits are essential for maintaining investor confidence, as they enhance the trustworthiness of financial information and reduce the risk of misstatement or fraud. The main objective of an external audit is to express an opinion on whether a company's financial statements are presented fairly in accordance with the applicable accounting standards and regulations. Several factors contribute to audit quality, including the competence, independence, and objectivity of the audit firm and its professionals. A well-performed audit involves thorough testing and verification of financial data, adherence to professional standards, and effective communication with company management and audit committees (Ayora & Ogeto, 2022).

Firm performance is a comprehensive measure of how well an organization is achieving its business objectives and creating value for its stakeholders. It encompasses various dimensions, such as financial performance (profitability, liquidity, and solvency), operational efficiency, market share, customer satisfaction, and overall competitive advantage. Strong firm performance not only attracts investors but also ensures the company's sustainability and growth in a dynamic and competitive market environment. The relationship between audit quality and firm performance is an intriguing and complex area of research. A well-conducted audit is expected to provide greater confidence to investors, creditors, and other stakeholders, which can positively influence a company's reputation and access to capital. The assurance provided by high-quality audits can reduce information asymmetry between management and external parties, leading to improved decision-making and resource allocation (Ivungu et al., 2019).

Moreover, higher audit quality may also have a positive impact on firm performance through various channels. For instance, it can mitigate the agency problem between shareholders and management by aligning their interests. Additionally, transparent financial reporting resulting from high-quality audits can lead to better access to credit and lower financing costs for the company. On the other hand, a lack of audit quality can have adverse effects on firm performance. Misstatements or errors in financial reporting may lead to incorrect assessments of a company's financial health and future prospects, thereby affecting investor decisions and stock prices negatively (Soyemi et al., 2021; Ozegbe and Jeroh, 2022).

Numerous studies have been conducted to explore the correlation between audit quality and firm performance, recognizing their significance. This research aims to add to the existing knowledge by examining how audit quality influences firm performance, specifically focusing on the case of First Bank of Nigeria from 1980 to 2021. By studying this relationship within a specific context, we hope to provide valuable insights that can benefit regulators, auditors, investors, and company management, potentially influencing policies and practices in the Nigerian banking industry. It is worth noting that, according to the researcher's knowledge, only a limited number of studies have attempted to decompose dependent variable against explanatory variables to investigate determine if the results align with previous well-regarded studies or differ from them.

This research aims to address the following inquiries: What is the notable impact of audit quality on the financial performance of firms? What is the significant influence of auditors' independence on the financial performance of firms? What is the significant effect of audit firm size on firm financial performance? The study will break down audit quality into auditors' independence, audit firm size, and timeline, while firm financial performance will be analyzed based on earnings per share and return on assets. The remainder of this research is organized into three sections: literature review, methodology, and conclusion.

2. Literature Review

2.1 Conceptual review

2.1.1 First Bank of Nigeria

First Bank of Nigeria, commonly known as First Bank, is the oldest and one of the largest financial institutions in Nigeria. First Bank of Nigeria was founded on March 31, 1894, in Lagos, Nigeria. It was established as the Bank of British West Africa (BBWA) to cater to the banking needs of the British colonial administration and the trading community in Nigeria. The bank commenced operations with a focus on providing banking services to British firms and colonial officials. In the early 20th century, the Bank of British West Africa expanded its operations beyond Lagos, opening branches in other Nigerian cities and neighboring West African countries. The bank's growth was mainly driven by its role in financing trade and facilitating economic activities in the region. Over the years, First Bank of Nigeria has maintained its position as one of the most financially stable and respected banks in Nigeria and the African continent. It has consistently ranked among the top banks in terms of assets, customer base, and profitability. First Bank of Nigeria remains a prominent player in the Nigerian banking industry, providing a wide range of financial products and services to its diverse customer base (First Bank of Nigeria Limited [FBN], 2023).

2.1.2 Financial Performance

According to Amahalu et al. (2019), financial performance pertains to the ability of a firm to effectively utilize its core resources to generate revenue. It serves as an overall assessment of a company's fiscal well-being over a specific period. Analyzing the empirical performance is crucial for making informed policy adjustments in the future. Financial performance is a measure of how well a company has consistently achieved its defined objectives over time. Despite the challenges posed by the global financial crisis and the failure of certain unlicensed domestic institutions, some businesses in Nigeria have demonstrated resilience and maintained their strength. Performance information can be gleaned from financial statements. The initial step in evaluating a firm's performance should involve determining whether it has successfully met the objectives set by its stakeholders (Chinedu et al., 2020).

2.1.2.1 Return on Assets (ROA)

The Return on Assets (ROA) ratio is a key metric for assessing a company's profitability. It serves as a gauge of a company's profitability in relation to its overall asset base. It measures the revenue relative to total assets. It gauges the management team's capacity to turn a profit by making use of available resources. In other words, it demonstrates how effectively the company's resources are employed to generate revenue (Amahalu et al., 2019). This profitability ratio demonstrates the rate of returns and management effectiveness. Additionally, it shows how well a company's management uses all of its resources to produce net income. A greater ROA indicates that a corporation is utilising its resources more effectively. Return on Assets is computed as follows and is shown as a percentage: Return on Assets (ROA) = Profit after Tax/Total Assets (Eshitemi & Omwenga, 2016).

2.1.2.2 Earnings per Share (EPS)

Earnings per Share (EPS) are a financial metric that represents a company's profitability and is widely used by investors and analysts to assess a company's performance. It calculates the portion of a company's net earnings that is attributable to each outstanding share of its common stock. EPS = (Net Earnings - Preferred Dividends) / Weighted Average Number of Common Shares Outstanding. However, it should be used in conjunction with other financial ratios and metrics to get a comprehensive view of a company's financial health and performance (Eshitemi & Omwenga, 2016).

2.1.3 Audit Quality

According to DeAngelo (1981), audit quality is the market-estimated joint chance that a particular auditor would find substantial inaccuracies in the client's financial statements and report those inaccuracies. Furthermore, DeAngelo (1981) uses a two-dimensional approach to characterise audit quality, first identifying substantial financial statement inaccuracies and errors and then disclosing them. DeAngelo (1981) defined audit quality as being a function of the external auditor's technical capabilities (ability to identify substantial misstatements) and willingness (auditor independence) to disclose the errors.

According to Houghton et al. (2010), the accounting literature on audit quality supports the idea that auditor competence and independence are two factors that contribute to audit quality. Any study examining the effects on audit quality (within nations) must take into account participants' perceptions of the independence and expertise of the auditor. Many people believe that auditor independence is the foundation of the auditing function, and this belief has served as the driving force behind numerous audit reforms worldwide since 2001 (Houghton et al., 2013).

2.1.3.1 Audit Independence and Financial Performance

Donatella et al. (2019) suggest that the concept of independence encompasses both impartiality and the absence of bias in one's mindset. Consequently, the degree of independence exhibited by auditors is influenced by the regulations and procedures of the audit firm, along with the attitudes of the employees involved in performing audit tasks (Geiger & Kumas, 2018). Amahalu and Obi (2020) define audit independence as the auditor's ability to maintain objectivity while carrying out their duties. Audit independence refers to the ability of the external auditor to act with integrity and impartiality during his/her auditing functions. Auditor independence may be impaired by auditor tenure. As the relationship between the auditor and client lengthens, the auditor may develop close relationship with the client and may likely act in favor of the management such like, impair objectivity and audit quality (Chinedu et al., 2020). Audit quality in recent times has become a source of worry globally as most auditors seem not to be discharging their duties independently (Ivungu et al., 2019).

2.1.3.2 Audit Tenure and Financial Performance

The term "audit tenure" refers to the full time that an auditor has a customer. As the parties' personal relationships and familiarity build, it may become harder for the auditor to remain objective, which could lead to a lack of focus on the part of the investigator. This could happen when there are longer stretches between the auditors and their clients. In addition to endangering independence, if the audit appointment becomes routine over time, the auditor will have less time to look for weaknesses in internal controls and risk sources (Capkun et al., 2016).

2.1.3.3. Audit Firm Size and Financial Performance

Audit firms are service–driven professional and expertise-intensive organizations set up to uphold high-quality reporting among entities. Results from extant researches suggests that the size of audit firms have been used as proxy for audit quality given that larger audit firms are known with a reputation of upholding and guaranteeing impartial and high-quality audit services (Chinedu et al., 2020).

2.2 Theoretical Framework

2.2.1 Agency Theory

The interaction between the primary (shareholders) and the agents (business manager) was the focus of Jensen and Meckling's (1976) agency theory. The term "agency relationship" refers to a legal arrangement whereby one or more parties (referred to as the principal(s)) appoint another party (referred to as the agent(s)) to carry out specific tasks on their behalf. In order to make decisions on behalf of the principal (the business owner), this entails giving the agent some of their authority. If the agent refuses to follow the principal's instructions when making decisions, the principal may decide to limit deviations from his interest by giving the agent the right incentive and incurring costs for monitoring the agent's activities (Aliyu et al., 2015).

Understanding the role of an auditor in the creation of high-quality reports for the business requires an understanding of the principal-agent relationship as portrayed in agency theory. This is due to the fact that principals rely on their agents to work in their best interests, but information asymmetries between principals and agents lead to principals and agents acting with conflicting goals. In order to build up their agents' trust, principals may not have enough procedures or mechanisms in place. One such tool is the audit. The agency theory is a practical economic theory of accountability that sheds light on how audit quality has evolved generally.

2.3. Empirical Literature

Studies on audit quality, size, independence, tenure, and other topics are widely available. For instance, Egbunike and Abiahu (2017) conducted a research study to explore the impact of various audit firm characteristics on the financial performance of money deposit banks in Nigeria. Specifically, the study aimed to investigate how audit quality, audit fee, and audit report lag influenced the return on assets, earnings per share, and net profit margin of Nigerian banks. The researchers utilized an ex post facto and correlational research design for their study. The study encompassed all money deposit banks that were operational as of the end of the 2015 financial year. The findings of the research indicate that audit quality significantly affects the return on assets of Nigerian banks. Moreover, both audit fee and audit report lag were found to have significant effects on the return on assets, earnings per share, and net profit margin of Nigerian banks.

In Nigerian listed manufacturing enterprises from 2006 to 2016, Chinedu et al. (2020) looked at the impact of audit quality on financial performance. Out of the 80 listed manufacturing companies in Nigeria, 24 companies were chosen using the stratified purposive sampling technique. The companies' public yearly financial statements were used to collect secondary data. The data analysis used the Ordinary Least Squares method of regression. According to the study, among other things, the independence of the auditor and the size of the firm have a favourable and significant impact on the financial performance of listed manufacturing firms.

For 10 years, from 2009 to 2018, Soyemi et al. (2021) evaluated the impact of audit quality on the financial performance of 40 listed non-financial enterprises in Nigeria. To estimate the model used in this study, ordinary least squares (OLS) was used. These companies' annual reports and audited financial statements were chosen using a stratified selection technique, and secondary data of a panel character were collected from them. Following that, the outcome showed a strong and favourable impact of audit tenure and audit firm size on operating cash-flow. Additionally, there were negligible and favourable correlations between audit fees, audit committee expertise, and operating cash-flow.

In 2022, Ozegbe and Jeroh conducted a study that investigated the connection between audit quality and the financial performance of publicly listed companies in Nigeria. The study employed the Panel Least Square technique, along with descriptive analysis and relevant diagnostic tests, as analytical tools to analyze the data collected. The research focused on data from quoted companies in Nigeria, spanning a period of 10 years from 2011 to 2020. Audit quality was measured using indicators such as statutory audit services, audit tenure, auditor's independence, and audit-firm size, while firm performance was assessed using Return On Assets (ROA). The firm year data used in the study were extracted from the respective annual reports and sourced from the MACHAMERATIOS database. From the results, audit independence exerts significant negative influence on ROA; audit tenure and audit firm size had positive relationship with ROA, although, this relationship was not significant.

Eshitemi and Omwenga (2016) conducted a study to assess the impact of audit quality on the financial performance of publicly listed Parastatals in the Nairobi Securities Exchange. The main focus of the research was to investigate the relationship between various factors related to audit quality, such as auditor independence, audit firm size, attributes of the audit team, and auditor experience, and how they influenced the financial performance of the listed Parastatals. The researchers collected data from both primary and secondary sources, covering a period of five years from 2009 to 2013. To analyze the data, the researchers utilized multiple regression analysis. The study's findings revealed that there was a positive and significant effect of audit quality on the financial performance of the listed Parastatals. Specifically, the degree of auditor independence was found to have a direct relationship with the firms' substantial net profit margin, meaning that a higher level of auditor independence was associated with greater profitability for the firms. Additionally, the size of the audit firm showed a positive and significant impact on the Return on Equity (ROE) and Return on Assets (ROA) of the listed Parastatals.

3. Research Methodology

3.1. Research Design

This study is anchored on agency theory. The agency theory is a practical economic theory of accountability that sheds light on how audit quality has evolved generally. A data model was developed to investigate the effect of audit quality on firm financial performance in Nigeria, using First Bank of Nigeria as case study being the oldest bank in Nigeria, the choice of selection of the institution premised on purposive sample approach, being time series research work, the study covered forty two years (42).

3.2. Data and Analytical Procedure

The study made use of secondary source of data contained in the annual financial reports of First bank of Nigeria under investigation spanning from 1980 to 2021.

3.3. Model Specification

This study expresses return on asset as a function of auditor's independence, audit-firm size and audit tenure. Accordingly, equation from the regression analysis is predicted as follow:

FFP =f(AUQTY)

(EPS, ROA, ROSF)=f(AUDIND, AUF, AUDTEN) ----Decomposed

EPS=f(AUDIND, AUF, AUDTEN)----------Model1

ROA=f(AUDIND, AUF, AUDTEN)---------Model 2

ROSF=f(AUDIND, AUF, AUDTEN)--------Model3

EPS $= \beta_0 + \beta_1$ AUDIND $+ \beta_2$ AUFSZ $+ \beta_3$ AUDTEN $+ \varepsilon_{it}$ ……. (1)

ROA $= \beta0 + \beta1$ AUDIND $+ \beta2$ AUFSZ $+ \beta3$ AUDTEN $+ \varepsilon it$ ……. (2)

Where: EPS= Earnings per Share; ROA = Return on Asset; AUDIND =Auditor's Independence; AUFSZ = Audit-Firm Size; AUDTEN = Audit Tenure; βo = Intercept or Constant coefficients (the constant term); β1-β3 = Regression Coefficients; εit= Schocastic, disturbance error term (noisy variable).

Table 3.1 Operationalization of Variables

S/N	**Type of variable**	**Variable**	**Measurement**	***Apriori Expectation***
1	Dependent	ROA	Profit after Tax/Total Assets.	
2	Dependent	EPS	(Net Earnings - Preferred Dividends) / Weighted Average Number of Common Shares Outstanding.	
	Dependent	ROSF	(Net Income / Shareholders' Equity) × 100	
1	Independent	Auditor's Independence	This is the ratio of audit fee to the company's revenue	**+Ve**
2	Independent	Audit-Firm Size	A dummy variable, that is coded "1" if the firm is audited by a Big4 and "0" otherwise. However award 2 for Joint Audit	**+Ve**
3	Independent	Audit Tenure	Award number for years spent by audit firm to audit a client's company.	**-Ve**

Authors' Compilation (2023)

4. Data Analysis

This study adopted Augmented Dickey-Fuller Unit Root Test to determine statitionarity and order of integration of the variables.

4.1 Test of Stationarity

This study employed the Augmented Dickey Fuller (ADF) to test for the presence of unit root (absence of stationarity) for Return on Asset (ROA) and Earnings per Share (EPS) variables and each of explanatory variables (AUDIND =Auditor's Independence; AUFSZ = Audit-Firm Size; AUDTEN = Audit Tenure)) examined in the study. The Augmented Dickey Fuller (ADF) unit root test is preferred due to its potency in correcting correlated error through the estimation of the long run variance of the error process. The decision in unit root test is to compare the critical values with The Augmented Dickey Fuller (ADF) t-statistics at 1%, 5% and 10% levels of significance. The null hypothesis of the presence of unit root cannot be accepted if the Augmented Dickey Fuller (ADF) estimated is more than its critical value. The reverse is the case if the ADF statistics is lesser.

Table 4.1 shows the summary of the results unit root test at levels and at first difference for each of the variables in the study.

Table 4.1 Summary of ADF Unit Root Test

Variable	ADF Statistics	At Level 5% critical value	Prob.	ADF Statistics	At First Difference 5% critical value	Prob.	Stationarity Order
ROA	-2.0474	-2.9369	0.2663	-7.9056	-2.9369	0.000	I(1)
EPS	-2.6743	-2.9350	0.2988	-7.2491	-2.9369	0.000	I(1)
AUDIND	-2.4983	-3.5236	0.3273	-7.1992	-3.5331	0.000	I(1)
AUD_SIZE	-3.2287	-3.5236	0.9311	-6.2174	-3.5261	0.000	I(1)
AUDTENURE	-2.10911	-3.5236	0.5256	-6.6196	-3.5266	0.000	I(1)

Source: Author's computation with E-Views 10 (2023).

The ADF unit root test results summarized in Table 4.3 shows that ROA, EPS, AUDIND, AUD_SIZE and AUDTENURE are stationary at first difference with ADF statistics and probabilities (-7.9056 (0.000); -7.2491 (0.000); -7.1992 (0.000), -6.2174 and -6.6196 (0.000), respectively. These outcomes reveal that all variables are stationary at order I (1), that is, null hypothesis that variables have unit root cannot be accepted at first difference.

4.2 Co-integration Test – Model 1

The result of the Johansen- Fisher combined (Trace and Max-Eigen) cointegration test is shown in Table 4.2

Table 4.2

Date: 07/28/23 Time: 14:45
Sample (adjusted): 1982 2021
Included observations: 40 after adjustments
Trend assumption: Linear deterministic trend
Series: ROA AUDIND AUD_SIZE AUDTENURE
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**

None *	0.722123	70.09265	47.85613	0.0001
At most 1	0.318690	18.86965	29.79707	0.5024
At most 2	0.082756	3.520158	15.49471	0.9384
At most 3	0.001621	0.064875	3.841466	0.7989

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.722123	51.22300	27.58434	0.0000
At most 1	0.318690	15.34949	21.13162	0.2652
At most 2	0.082756	3.455283	14.26460	0.9119
At most 3	0.001621	0.064875	3.841466	0.7989

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The results of the cointegration tests in Table 4.2 indicate that there is a long-term relationship between audit quality variables (AUDIND, AUD_SIZE, and AUDTENURE) and the Return on Assets (ROA) of First Bank of Nigeria. In the cointegration analysis, the decisive rule is to compare the probabilities of both the Trace and Max-Eigen statistics with the significance level (5%) to determine whether to accept or reject the null hypothesis.

From Table 4.2, the probabilities of both the Trace and Max-Eigen statistics suggest the existence of one cointegrating equation among the selected variables, with a probability value of 0.0000 for this equation. As a result, we cannot accept the null hypothesis of no cointegration, and we cannot reject the alternative hypothesis that at least one cointegration equation exists.

4.2.1 Effect of audit quality on ROA (firm financial performance) with DOLS

Once the stationarity order and the presence of one cointegrating equation among the variables of First Bank of Nigeria have been established, the next step involves examining the impact of audit quality variables (AUDIND, AUD_SIZE, and AUDTENURE) on the firm's financial performance, specifically its Return on Assets (ROA) from 1981 to 2021. The summarized results of the Dynamic Ordinary Least Square (DOLS) analysis for the data of First Bank of Nigeria are presented in Table 4.2.

Table 4.2.1
Dependent Variable: ROA
Method: Dynamic Least Squares (DOLS)
Date: 07/29/23 Time: 13:09
Sample (adjusted): 1982 2020
Included observations: 39 after adjustments

Cointegrating equation deterministics: C
Fixed leads and lags specification (lead=1, lag=1)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AUDIND	68.20558	175.0489	0.389637	0.7000
AUD_SIZE	-11.34214	1.813800	-6.253245	0.0000
AUDTENURE	-0.112911	0.165459	-0.682414	0.5010
C	23.62093	2.907494	8.124154	0.0000

R-squared	0.858212	Mean dependent var	1.839471
Adjusted R-squared	0.792772	S.D. dependent var	4.042049
S.E. of regression	1.840035	Sum squared resid	88.02891
Long-run variance	6.157257		

Source: Author's Computation (2023)

From results of DOLS on the 4.2.1, it is shown that AUDIND exerts a positive effect on ROA. It is in agreement with theoretical expectation. A unit increase in quality of AUDIND will bring about a 68.2 increase in ROA. Effect is, however, not statistically significant as revealed by probability of the t-Statistic of 0.7000 which is greater than the 5% level of significance. AUD_SIZE exerts a negative effect on ROA. This is not constant with *A-priori* expectation. A unit rise in audit firm size will result to a reduction of an 11.342 in ROA. The effect is statistically significant premised on probability of its t-Statistic of 0.0000 (< 5%). Finally, it is revealed that AUDTENURE exerts a negative effect on ROA. It is again supported theoretical expectation. A unit increase in AUDTENURE will bring about a reduction of a 0.1129 in ROA. This effect is not statistically significant as reflected in profitability of t-Statistic 0.5010 (>5% significance level). The coefficient of determination (Adjusted R^2) 0.792772 implies that not less than 80% of variations in ROA of First Bank of Nigeria is explained by audit quality during the periods covered 1981 to 2021 while the rest 20% will be explained by stochastic error term.

4.3 Co-integration Test – Model 2

The result of the Johansen- Fisher combined (Trace and Max-Eigen) cointegration test is shown in Table 4.3.

Table 4.3
Date: 07/28/23 Time: 14:57
Sample (adjusted): 1982 2021
Included observations: 40 after adjustments
Trend assumption: Linear deterministic trend
Series: EPS AUDIND AUD_SIZE AUDTENURE
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace	0.05

No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.436982	47.03025	47.85613	0.0597
At most 1	0.351216	24.05252	29.79707	0.1982
At most 2	0.153407	6.746313	15.49471	0.6073
At most 3	0.002120	0.084906	3.841466	0.7707

Trace test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.436982	22.97773	27.58434	0.1744
At most 1	0.351216	17.30620	21.13162	0.1580
At most 2	0.153407	6.661407	14.26460	0.5299
At most 3	0.002120	0.084906	3.841466	0.7707

Max-eigenvalue test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Results of cointegration tests on Table 4.3 reveal that there is no long- run relationship between audit quality (AUDIND, AUD_SIZE and AUDTENURE) and ROE of First Bank of Nigeria. The deciding rule in cointegration is to compare both Trace and Max-Eigen statistics probabilities with significance level (5%) to decide whether not to accept or the null hypothesis. From Table 4.3, probabilities of both Trace and Max-Eigen statistics indicate at no cointegrating equations among of selected variables. The null hypothesis of no cointegration can be accepted and alternative hypothesis of at least one (1) cointegration equation can be rejected.

Table 4.3.1

Dependent Variable: EPS
Method: Dynamic Least Squares (DOLS)
Date: 07/28/23 Time: 15:04
Sample (adjusted): 1982 2020
Included observations: 39 after adjustments
Cointegrating equation deterministics: C
Fixed leads and lags specification (lead=1, lag=1)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth =
4.0000) 12876.4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AUDIND	-12876.74	7328.023	-1.757191	0.0907
AUD_SIZE	179.7293	75.93062	2.367020	0.0257

AUDTENURE	2.921950	6.926549	0.421848	0.6766
C	-170.1053	121.7156	-1.397563	0.1741
R-squared	0.514592	Mean dependent var	142.7677	
Adjusted R-squared	0.290558	S.D. dependent var	110.2075	
S.E. of regression	92.82600	Sum squared resid	224033.3	
Long-run variance	10790.52			

Source: Author's Computation (2023)

From results of DOLS on the 4.3.1, it is shown that AUDIND exerts a negative effect on EPS. It is not in agreement with theoretical expectation. A unit increase in quality of AUDIND will bring about a 12876 reduction in EPS. Effect is, however, not statistically significant as revealed by probability of the t-Statistic of 0.0907 which is greater than the 5% level of significance. AUD_SIZE exerts a positive effect on EPS. This is also constant with A-priori expectation. A unit rise in audit firm size will result to an increase of a 179.7 in EPS. The effect is statistically significant premised on probability of its t-Statistic of 0.0257 (< 5%). Finally, it is revealed that AUDTENURE exerts a positive effect on EPS. It is not in agreement with theoretical expectation. A unit increase in AUDTENURE will bring about an addition of a 2.92195 in EPS. This effect is not statistically significant as reflected in profitability of t-Statistic 0.1741 (>5% significance level). The coefficient of determination (Adjusted R^2) 0.290558 implies that not less than 51% of variations in EPS of First Bank of Nigeria is explained by audit quality during the periods covered 1981 to 2021.

4.4 Discussion

This study examined the effect of audit quality on firm financial performance in Nigeria using First Bank of Nigeria as case study. Specially, the study investigated the effect of audit quality on return on asset and on earnings per share. The study made use of secondary time series data spanned 1981 to 2021.

In addressing the first Model1 with three objectives on the effect of audit quality on return on asset, results show that there is both short run and long run effects between audit quality and return on asset. The DOLS results reveal that audit independence exerts a positive but insignificant effect on return on asset, similar to the findings of Eshitemi and Omwenga (2016) but contrary to the results of Ozegbe and Jeroh (2022). This effect could be as result of auditors' refusal to be influenced by external parties in the course of examination of financial statements and obtaining sufficient, relevant and reliable evidences to express professional opinion over the years. Auditor tenure exerts a negative effect on return on asset but insignificant. The finding is but not in agreement with the findings of Ozegbe and Jeroh (2022). The reason for this is not farfetched as long period/ tenure could result to familiarity threat which can affect audit quality negative as the same time firm financial performance. So, the lesser the period spent the better the return on asset. However since these effects are insignificant, much inference may not be drawn based on these effects? Audit firm size exerts a statistically significant negative effect on return on asset. This is not consistent with the findings of Ozegbe and Jeroh (2022) and Eshitemi and Omwenga (2016). This is the expected result since too long familiarity with the institution might render the effect of joint audit and audit exercises carried out by Big audit firm ineffective. Actually joint audit and audit exercises carried out by Big audit firm is expected to improve audit quality and the same time influence return on asset positively.

Moreover, some potential reasons why such a negative effect might be observed in certain circumstances: first of all, larger audit firms often handle a significant number of clients, which might result in complex engagements and increased time constraints. As a result, they may allocate fewer resources per engagement, potentially compromising the quality and depth of the audit process. Smaller audit firms, with fewer clients, might be able to dedicate more attention and resources to each engagement, leading to more effective audits. Secondly, smaller audit firms might be perceived as more independent and less subject to external pressures from their clients, allowing them to maintain a higher level of skepticism during the audit process. This increased skepticism could lead to better detection of potential issues, improving the accuracy of financial statements. In addition, larger audit firms may face higher regulatory scrutiny due to their size and prominence, leading to additional constraints or requirements that could impact the quality of their audits. Finally, larger audit firms may charge higher fees for their services, leading companies to seek cost-saving measures. This might result in companies receiving less extensive audit services from larger firms compared to more thorough audits from smaller firms.

Model 2 was to ascertain the effect of audit quality on earnings per share under study. Results reveal that audit independence exerts a negative but insignificant effect on earnings per share, not similar to the findings of Eshitemi and Omwenga (2016). However, since this effect is insignificant, much inference may not be drawn based on this effect. Auditor tenure exerts a positive effect on earnings per share but insignificant. The result is non-expected since long period/ tenure could result to familiarity threat which can affect audit quality negative as the same time firm financial performance. So, the lesser the period spent the better the earnings per share. This may be as a result of joint audit exercises employed by the First Bank of Nigeria or employment of rotation audit exercises use to cater familiarity threat. However, since these effects are insignificant, much inference may not be drawn based on these effects. Nevertheless, audit firm size exerts a statistically significant positive effect on earnings per share. This is consistent with the findings of Eshitemi and Omwenga (2016).` This is the expected result since joint audit and audit exercises carried out by Big audit firm are expected to improve audit quality and the same time influence earnings per share positively.

This study investigates the relationship between audit quality and financial performance measures, specifically focusing on return on assets (ROA) and earnings per share (EPS). The analysis employs cointegration techniques to assess both short-run and long-run effects of audit quality on these two metrics. The results indicate a significant short-run effect of audit quality on return on assets (ROA). This suggests that in the short term, companies with higher audit quality tend to experience a positive impact on their profitability, as reflected by ROA. Similarly, the study observes a significant long-run effect of audit quality on return on assets (ROA). This implies that over an extended period, firms with better audit quality maintain a sustainable advantage in generating higher returns on their assets. Contrary to the findings on ROA, the analysis reveals no significant long-run effect of audit quality on earnings per share (EPS). This indicates that while audit quality may influence profitability (ROA) over the long term, it does not have a lasting impact on EPS.

In conclusion, the study highlights the importance of audit quality in shaping a firm's financial performance, particularly with regards to return on assets. While the short- and long-run effects on ROA are positive and substantial, no similar lasting impact is observed on earnings per share. These results emphasize the distinct influences of audit quality on different financial metrics and may have implications for stakeholders and policymakers in their decision-making processes.

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CURRENT TRENDS IN HIGHER EDUCATION IN THE REPUBLIC OF MOLDOVA: FACTORS OF STUDENT ENROLLMENT AND RETENTION

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Abstract: *The article provides an assessment of higher education in the Republic of Moldova for the period 2017-2023 based on data from the National Bureau of Statistics of the Republic of Moldova. It examines the dynamics of higher education institutions, the number of students in educational programs, and gender disparities in the choice of study fields. The aim of this research is to identify factors influencing the dynamics of the number of students in higher education institutions relative to the overall population of the country. The research employed methods of economic analysis and correlation regression. The results of the correlation analysis indicate that the dynamics of the number of students relative to the overall population of the country depend on factors reflecting various aspects of the educational environment by 97.25%, emphasizing the importance of creating favourable conditions for education and ensuring accessibility of higher education in the country.*

Keywords: *enrollment of young people in higher education, gender stereotypes, accessibility of higher education institutions.*

Jel Classification: *J10, I25.*

1. Introduction

In the modern world, the availability and quality of education determine the level of economic development of any country. Countries with a high percentage of educated population have prerequisites for saving budget funds for social protection, health care and other expenses.

However, the percentage of young people enrolled in higher education varies across countries. It depends on a set of factors: the economic development of the country, cultural characteristics, access to and quality of higher education and other factors.

Obviously, there are barriers to higher education in low-income countries. In addition to having to pay for a tuition contract, families must provide financial support for the maintenance of a student who temporarily does not bring income into the family budget.

Cultural characteristics can influence the formation of gender stereotypes (Savinskaya, Lebedeva, Vilkova, 2022; Khasbulatova, Smirnova, 2020). There is a disparity across countries in terms of young women's access to higher education, including engineering and technical education. At the same time, the influence of stereotypes on young people's decision to receive education has not yet been sufficiently studied (Maloshonok et al., 2022).

The accessibility of higher education institutions is an important argument for young men and women in the formation of professional self-determination: location of educational institutions, access to information technologies, financial support from the state, scholarships, social integration (Shmeleva, Froumin, 2020), etc. All these aspects are important for the youth's enrolment rate in higher education and the nature of their manifestation ultimately determines the number of young people in higher education, and the nature of their manifestation ultimately determines the number of students enrolled in higher education institutions each year.

An important condition for making a decision in favor of higher education is also the presence of a high level of schooling of potential applicants (Panina, 2018).

Thus, the above factors, interacting with each other, determine the level of youth involvement in higher education in each country.

The purpose of this research is to evaluate the higher education of the Republic of Moldova and to identify the influencing factors on the dynamics of the number of students of higher education institutions of the country in relation to the total number of inhabitants of the country. The baseline information was the data of the National Statistics Bureau of the Republic of Moldova for the period 2017-2023 (7 years).

2. Research methods

The baseline information for the study was the official data of the National Bureau of Statistics of the Republic of Moldova, characterizing the higher education of the Republic of Moldova for the last 7 years (period 2017-2023).

General methods of statistical data processing and correlation regression were applied as research methods.

Correlation analysis allowed us to comprehensively study and quantify the impact of various factors on the economic phenomenon under consideration in the absence of a functional relationship between the resultant indicator and the arguments.

Application of this method provided an opportunity to consider the factors of interest to the authors and their impact on the resultant indicator by including in the mathematical model the variables for which there is no rigidly deterministic relationship with the economic phenomenon.

3. Results and discussion

3.1. Characteristics of higher education in the Republic of Moldova

The dynamics of key performance indicators of higher education institutions is presented in Table 1.

Table no. 1. Dynamics of main indicators of higher education institutions´ activities

Indicators	2017	2018	2019	2020	2021	2022	2023
Number of institutions, including:	30	29	29	27	24	24	21
- public institutions	19	19	19	18	16	16	13
Total number of students, including:	74 726	65 543	60 608	56 840	59 033	59 647	56 758
- public institutions	62 108	55 341	50 620	47 745	49 549	50 197	47 942

Source: National Bureau of Statistics of the Republic of Moldova, 2023. *Statistical Yearbook of the Republic of Moldova 2022*. [pdf] Available at: <https://statistica.gov.md/files/files/publicatii_electronice/Anuar_Statistic/2022/Anuarul_statistic_editia_2022.pdf> [Accessed 26 October 2023].

Based on the data presented in Table 1, it can be concluded that the number of higher education institutions decreased from 30 to 21 units or by 30% during the period under review. The share of public institutions in the total number of higher education institutions remained unchanged (approximately 60%) for the period 2017-2023.

Against the background of the decline in higher education institutions, there was a decline in enrollment, but at a lower rate (by 24.1% in 2023 compared to 2017).

Despite the absolute decrease in the number of students in higher education, the enrollment of young people in higher education is increasing annually, which is assessed positively (Figure 1).

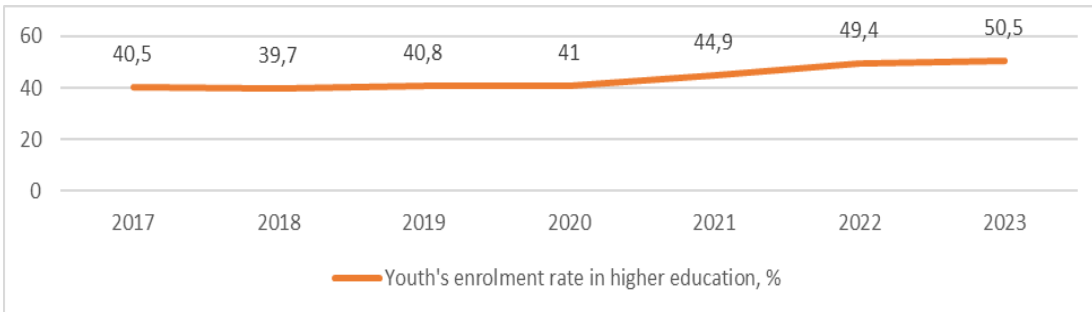

Figure no. 1. Evolution of youth enrollment in higher education
Source: *Republic of Moldova 2023*. [pdf] Available at: <https://statistica.gov.md/files/files/publicatii_electronice/Educatia/Educatia_editia_2023.pdf> [Accessed 23 October 2023].

The structure of higher education students by educational programs (1 - Licence's; 2 - Master's; 3 - Integrated higher education) is presented in Figure 2.

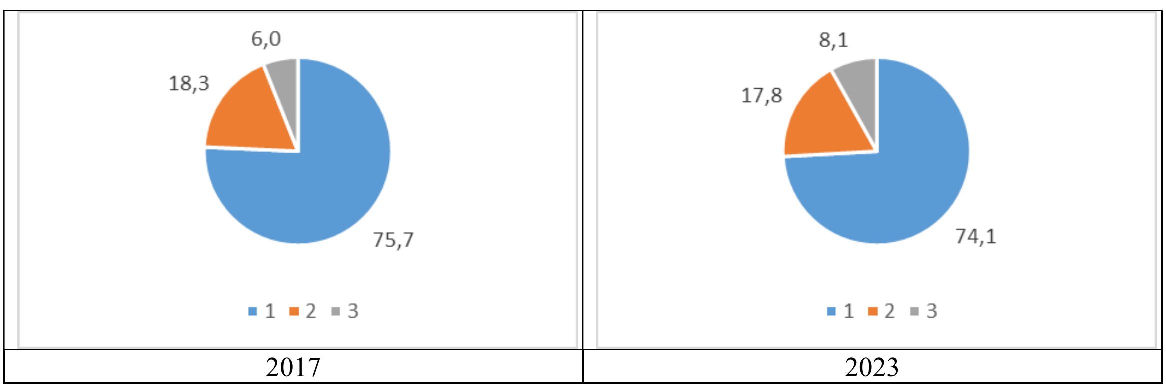

Figure no. 2. The structure of higher education students by educational programs
Source: *Republic of Moldova 2023*. [pdf] Available at: <https://statistica.gov.md/files/files/publicatii_electronice/Educatia/Educatia_editia_2023.pdf> [Accessed 23 October 2023].

The largest share of students of higher education institutions falls on the 1st cycle of study, which practically remained unchanged and amounted to approximately 75% for the period under review. There are tendencies to increase the share of students studying in the 3rd cycle of education (from 6.0% in 2017 to 8.1% in 2023).

Distribution of students by sex and some general field of study in 2023 is presented in Figure 3.

Based on the data presented in Figure 3, it is possible to notice a significant gender disproportion in the contingent of students in some areas of training according to the data of 2023. In particular, the share of female students prevails in educatioan, languaged, social and behavioral sciences (approximately 80-85%), is identical to the share of male students in veterinary veterinary and humanities (approximately 50%), is inferior to the share of male students in forestry, security services, engineering and engineering activities (no more than 20%). As noted earlier, this situation is influenced by gender stereotypes based on the notion that girls are born with less ability to study exact sciences compared to boys (Shmeleva, Froumin, 2020).

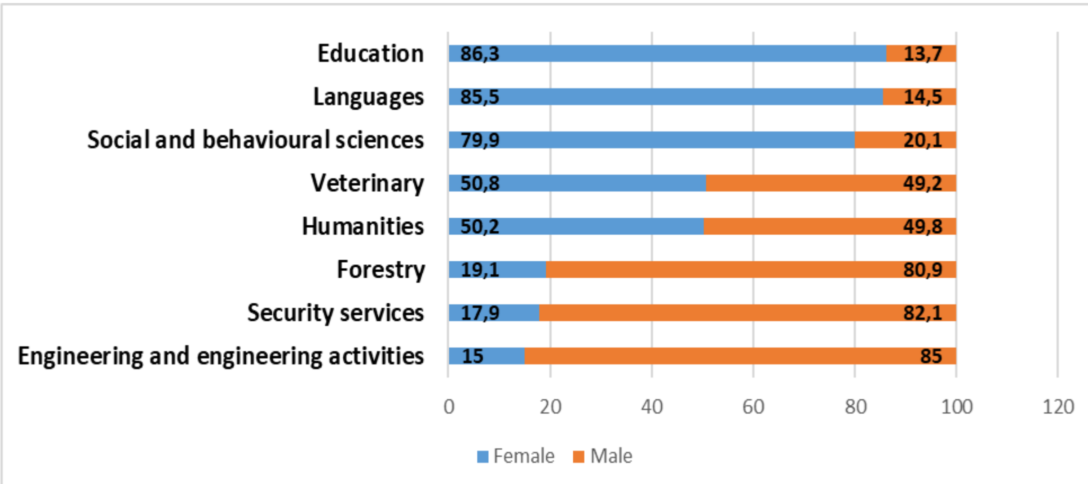

Figure no. 3. Distribution of students by sex and some general field of study in 2023
Source: National Bureau of Statistics of the Republic of Moldova, 2023. *Students in higher education insttitutions,* 2023. [online] Available at: <https://statbank.statistica.md:443/PxWebPxWeb/pxweb/ro/30 Statistica sociala/30 Statistica sociala__07 INV__INV060/INV060060.px/> [Accessed 25 October 2023].

Student retention and graduation is an important issue in higher education.

Student retention measures can include activities aimed at increasing access to education through scholarships and financial support, as well as the provision and improvement of accommodation for students, including youth from less affluent areas.

The dynamics of indicators characterizing different aspects of student support is presented in Table 2.

Table no. 2. Dynamics of indicators characterizing different aspects of student support

Indicators	2017	2018	2019	2020	2021	2022	2023
Share of students in public higher education institutions on a	41.7	42	43.2	43.5	43.9	43.3	43.7

budget basis, %							
Share of students of higher education institutions provided with hostels, %	76.2	69.9	88.1	95.4	86.9	85.7	85.8

Source: National Bureau of Statistics of the Republic of Moldova, 2023. *Education in the Republic of Moldova 2023*. [pdf] Available at: <https://statistica.gov.md/files/files/publicatii_electronice/Educatia/Educatia_editia_2023.pdf> [Accessed 23 October 2023].

Based on the data presented in Table 2, it can be concluded that the situation in the field of student support has improved over the period 2017-2023, as there was an overall increase in the proportion of students studying on budget places and the proportion of students who were provided with a place to live in a dormitory.

At the same time, this situation did not have a positive impact on the dynamics of the ratio of students who graduated from higher education institutions to the total number of students (Table 3).

Table no. 3. Evolution of the share of graduates of higher education institutions in the total number of students

Indicators	2017	2018	2019	2020	2021	2022	2023
Number of graduates, including:	21 886	19 943	18 142	16 266	14 650	14 084	13 847
- public institutions	17 632	16 228	14 945	13 267	12 108	11 653	11 565
Share of graduates of higher education institutions in total number of students of higher education institutions, %	28.4	29.3	29.5	27.8	24.4	23.2	24.1

Source: National Bureau of Statistics of the Republic of Moldova, 2023. *Education in the Republic of Moldova 2023*. [pdf] Available at: <https://statistica.gov.md/files/files/publicatii_electronice/Educatia/Educatia_editia_2023.pdf> [Accessed 23 October 2023].

An alarming point is the decrease in the share of graduates of higher education public institutions in the total number of students of public institutions (from 28.4% to 24.1% or by 4.3 percentage points). Obviously, there are certain reserves to improve the situation by implementing a number of strategies and activities aimed at creating a more favorable learning environment both at the state level and at the level of higher education institutions.

3.2. Multi-factor mathematical stochastic model to establish the relationship between the size of students studying in higher education institutions of the Republic of Moldova and *the existence of favorable conditions for their attraction and retention in the higher education system*

The input data for calculating the multi-factor mathematical correlation model are presented in Table 4.

Based on the obtained results of correlation analysis, we can conclude that there is a linear-correlation relationship between the ratio of higher education students per 1000 inhabitants and the following indicators considered as influencing factors:

x1 - youth enrolment rate in higher education, %;
x2 - share of students in public higher education institutions on a budget basis, %;
x3 - share of students of higher education institutions provided with hostels, %;
t - time, years. The number of observations was 7 (2017-2023).
The multiple correlation equation is as follows:
Y = -5.9592 + 0.7513 * x1 + 0.0946 * x2 + 0.0030 * x3 - 1.9875 * t

Table no. 4. Input data for correlation analysis

Years	Ratio of higher education students per 1000 inhabitants, points (Y)	Youth enrolment rate in higher education, % (x1)	Share of students in public higher education institutions on a budget basis, % (x2)	Share of students of higher education institutions provided with hostels, % (x3)	Time, years (t)
2017	26.9	40.5	41.7	76.2	1
2018	24.0	39.7	42.0	69.9	2
2019	22.6	40.8	43.2	88.1	3
2020	21.5	41.0	43.5	95.4	4
2021	22.5	44.9	43.9	86.9	5
2022	23.3	49.4	43.3	85.7	6
2023	22.6	50.5	43.7	85.8	7

Source: Educatia editia 2023, 2023.

The test of regression coefficients by Student's test showed that their value is significant, since the calculated reliability of the correlation coefficient is higher than the tabulated value (Table 5).

Table no. 5. Regression coefficients according to Student's test

Parameter	Coefficient	Critical value of Student's T-test	Calculated Student's T-test
Intercept	-5.9592	42.6506	-0.1397
b 1	0.7513	0.1898	3.9581

b 2	0.0946	0.9568	0.0989
b 3	0.0030	0.0485	0.0616
t	-1.9875	0.5976	-3.3259

Source: compiled by the authors.

The economic meaning of the obtained regression coefficients means:

a) b1 - an increase of youth enrolment rate in higher education by 1% will lead to an increase in the ratio of higher education students per 1000 inhabitants by 0.7513 points, which when rounded off will amount to 1 student per 1000 inhabitants;
b) b2 - a 1% increase in the share of students on a budget basis will result in an increase in the ratio of higher education students per 1000 inhabitants by 0.0946 points;
c) b3 - a 1% increase in the share of students provided with hostels will increase the ratio of higher education students per 1000 inhabitants by 0.0030 points;
d) t - the ratio of higher education students per 1000 inhabitants is reduced annually by 1.9875 points, which, when rounded off, will amount to 2 students per 1000 inhabitants (for this set of factors).

The obtained value of the coefficient of determination (0.9725) indicates the integrity of the relationship equation. The change in the ratio of higher education students per 1000 inhabitants by 97.25% is influenced by the factors included in the mathematical model. The correlation coefficient is 0.9862. Evaluation of the results by Fisher's criterion showed that the value of the multiple correlation coefficient is considered significant because F calculated = 17.701 (number of degrees of freedom f1=7, f2 = 7-4-1=2 and significance level q=0.1) is greater than F tabulated = 9.35 (Raspredelenie Fishera (F-raspredelenie), 2019).

5. Concluding remarks

The level of economic development of any country depends on the quality and availability of education. In countries with a highly educated population, conditions for accelerated development in various spheres of the economy arise.

Against the background of the reduction of higher education institutions and decrease in the number of students, there is an annual increase of youth enrolment rate in higher education. The largest share of students of higher education institutions falls on the 1st cycle of education (more than 74.1% in 2023).

The distribution of students by general field of study is characterized by a disproportion in terms of gender, largely due to gender stereotypes.

In order to retain students in the education system and increase the share of graduates of higher education institutions, it is necessary to take measures aimed at expanding the accessibility of education through the provision of scholarships; career guidance work aimed at stimulating interest in higher education; reducing financial barriers through the application of a flexible system of tuition fees; increasing the attractiveness of the educational process by improving living conditions for students, etc. The above-mentioned measures are designed to provide favorable conditions for education.

According to the results of correlation analysis, it was found that there is a linear-correlation between the ratio of higher education students per 1000 inhabitants and the following factors: the youth enrolment rate in higher education, the share of students in public higher education institutions on a budget basis, the share of students of higher education institutions provided with hostels. The results of the analysis can contribute to changing the situation in the field of higher education by influencing the above factors of influence and are of interest to all participants of the education system.

In subsequent studies in this area it seems interesting to identify and assess the degree of influence of factors on the dynamics of the share of graduates of higher education institutions in the total number of students.

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ACCRUAL ANOMALY: A CONCEPTUAL PERSPECTIVE

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Abstract: *The study investigates the occurrence of accrual anomaly globally with specific attention on other countries factors beyond the informatory aspect of stocks price prediction, that account for accrual anomaly worldwide. The conceptual approach methodology was adopted; materials were sourced online and journals of accounting and finance researches from where the findings of most previous related studies were reviewed. We observed that, accrual anomaly is not only associated with the United States and countries that share common characteristics with United States, but with code law countries; country legal system, changes in accounting regimes, influenced accrual anomaly occurrence globally; also, we observed some methodological deficiencies in accrual anomaly measurement in prior studies and a limitation of Sloan coexistence hypothesis of accrual and cash flow anomalies. Hence, we recommend that; first, a pre and post study of International Financial Reporting Standard (IFRS) on accrual anomaly is necessary in order to establish the effect of changes in accounting regimes on accrual anomaly in Nigeria. Second, a validation of Mishkin-test commonly accrual anomaly test and Sloan 1996 coexistence of accrual and cash flow anomalies. Finally, a future study that will include profit and loss firms as sample is encouraged.*

Keywords: *Accounting Regime, Accrual Anomaly, Corporate Governance, Efficient Market, and Misspricing*.

JEL Classification: *M41.*

1. Introduction

The reality of modern accounting practice has a reflect of a mismatch between the timing and amount of cash payment versus the delivery of services. This has led accountants to use estimates to align revenue and cost in a specific period; which is called accrual accounting. The existence of such situation creates some level of discretion in companies' accounts. Operationally, corporate entities have a discrete financial reporting time lag, such as financial year end; this timely frame is mandatory for all corporate business entities that have continuous operating activities. In reality, cash flow effects of the financial transactions of such entities mostly fall outside the circumference of this imposed time lag. Therefore, measurement of entities' performances alone by its cash flows, would definitely amount to a distorted picture, since the cash flows generated alone would not be able to represent the whole economic relevance of the financial transactions executed within a given period. This timing problem is one factor that gave credence to the use of accrual basis of accounting, which is thought to be a proxy for the misdated cash flows.

Therefore, accrual anomaly is the failure of any of the pricing models such as, Capital Asset Pricing Model (CAPM),to hold in relation to stocks prices and returns. Accrual anomaly is a great discovery in the academic field of research. The pricing models relied on the assumption of efficient market hypothesis, which allows the exchange of realized earnings for expected return. However, in the midst of the increasing evidence revealing the existence of this phenomenon in various markets, the rationale for the occurrences of this anomaly still remains an unresolved issue with inconclusive findings. The term anomaly (mispricing) is normally used to describe a situation or behaviour that negates or contradict existing theories. One of the foremost studies in prior literatures on accrual anomaly that aroused researchers' interest among academics and practitioners is that of Sloan (2001). The period of globalization started with a perpetual era of investing in stocks of companies with the unstableness of stocks prices around the world markets. A great numbers of investors all over the globe are involved in stocks transaction for daily survival. Therefore, investors' knowledge about stock market anomalies and causes is of a great relevant as it enables investors to make informed decisions and avert losses, as relates to stocks trading. Therefore, the attraction of researches in this direction in most developed economies and scarcely in emerging economies like Nigeria as revealed in our literature review section.

In literature, there existthree anomaly situations. First, Doddy(1934), asserts that accrual anomaly occurred when stocks with high fundamental to price ratio perform above stocks with low fundamental to price ratios. This kind of stocks behaviour is referred to as Glamour stock. Second, Chan, Chan, Jegadeesh, andLakonishok, (2006) and(Uwuigbe (2018) identified another situation of anomaly where stock with low market capitalization (small stocks) yield returns in abnormally high average returns. Third, Fama and French (1970) described another anomaly situation as where stocks that have high book value in relation to market value of stocks have high average equity revenues. These anomalies, situations that defy existing price models are the focus of this study. It is important to note that, the subject of analysis of financial statements is to predict future earnings, and emphasis is on the element of accrual and cash flow. Also, it is pertinent to know that, one of the main concerns and focus of investors is on reported earnings of entities. The decisions of these investors and other stakeholders as it relate to stock pricing and returns do not correlate with their expectations even after exploitation of the knowledge of capital assets pricing models and efficient market hypothesis in accrual anomaly research.

In the light of efficient market hypothesis, market prices of stocks are expected to reflect all the relevant information available. Therefore, investors cannot make abnormal returns. However, in reality, the reverse is the case, as in most markets in the world; stocks returns are showed some anomalies that contradict the efficient market hypothesis assumption. At same time, the capital assets pricing theories have been defiled by the practical behaviours of stocks returns over time, even in the environments of strong efficient markets as evidenced in literature (Lafond, 2005). More so, there is a limit to which we can generalize the causes of accrual anomaly. The reason is that, most studies in accrual anomaly are focused on developed countries' capital markets, unlike, emerging capital market suchas Nigeria's, which have different organisational settings. Also, the reason for the existence of different results by different researchers across countries as it relates to accrual anomaly is an issue that worth investigating. Therefore, the continuous occurrence of this phenomenon despite the application of capital assets pricing models in a given efficient markets environment implies that, there are other possible factors that could be responsible for the occurrence of accrual anomaly or there exist some limitations in past accrual anomaly studies (measurement deficiency, omitted variable issue, sample selection bias).

Hence, the relevance of this study is that, to the best of our knowledge, this is the first conceptual study in the direction of addressing countries' specific factors responsible for the occurrence of accrual anomaly and methodological deficiencies in prior accrual anomalies studies in an emerging economy. This study is motivated and driven to conceptually respond to the following questions: First, is accrual anomaly a global phenomenon? Second, are there changes in the level of accrual anomaly across accounting regimes? Third, what are the country's specific factors that influence accrual anomalies? Fourth, does accrual anomaly imply cash flow anomaly? Lastly, are there some methodological deficiencies in accrual anomalies' prior studiesfollowing this introduction, is the conceptual definition of accrual anomalies, local and international evidence of accrual anomalies, factors that influences accrual anomaly, methodological deficiencies in accrual anomalies prior studies, theoretical background of accrual anomalies, conclusions, and recommendations for further research.

2. Literature Review: Accrual Anomaly

Seminar work on accrual anomaly began with Sloan (2001). He described accrual anomaly as the representation of the negative relation that exist between stocks returns and accruals. To him, the occurrence of this phenomenon arises from the narrow fixation of investors as relate to stocks returns and accruals. In other words, he asserts that the occurrence of this phenomenon is attributable to a situation where stock market players are unable to perceive accurately or are not aware of the persistence between cash flow and accrual component of earnings. Richardson, Tuna, and Wysochi (2010), defined the concept of accrual anomaly as the misinterpretation of informationrelating to cash flow and accrual, when stock market participants predict stocks returns. Theoutcome of this misconception is a biased prediction of future returnsand inaccurate current prices of equities.

Kothari and Sabino (2005) theory on accrual anomaly states that investors fixate too high on corporate earnings of firms to establish stocks returns. This assertion was later validated by Sloan (1996). In affirmation, Arewa, Nwakanma andTorbira(2014) provided some proof for the earnings fixation hypothesis of Graham, Campbell and Rajgopal (2005), Doddy (1934), carried out analysis to examine the sell-side analysts and auditors' utilization of information in accruals. The study se7eks to find out whether the earnings prediction of these analysts anticipated the less persistence of the accrual element of current earnings. The outcome of the study showed that sell-side analysts looked to be largely unaware to the less persistence of accruals. In furthering the explanation of this concept, several researchers have given their own views (Fairfield, Whisenant, andYohn 2003); and (Richardson, Tuna and Wysochi, 2010). In their opinion, they argued that there exists no relationship between accrual and future earnings but there exists a strong correlation between growths of employed assets invested in previous stocks to scale future returns. Richardson et al. (2005), opined that the calculated error in accruals subscribe to the lesser accruals persistence as explained in the growth element of Fairfield *et al.* (2003). This truly represents the extension of the definition of accrual anomaly that was explained by (Sloan, 2001). Looking in this same direction, Ricardson*et al*. (2005) classified accruals on the basis of reliability and discover that the accrual anomaly is more prominent for the less reliable class of non-current operating accruals and working capital accruals.

However, the outcome of these studies are not universal (Pincus, Rajgopal, & Venkatachalam, 2007). By extension, Pincus, et al. (2005) investigated the simultaneous occurrence of accrual and cash flow anomalies, on the basis of their findings; they asserted that accrual anomaly (mispricing), not the cash flow anomaly, occurs in some countries like the United Kingdom, United States, Canada and Australia while the reverse holds in eight other countries in their study. In addition to these findings, Pincuset al., 2007) equally revealed in their study that the occurrence of this phenomenon (accrual anomaly) appears to be more pronounced in countries with certain institutional and accounting structures, and common law settings. Uwuigbe, Fagbemi & Anusiem (2018) investigated the specific statement of financial position elements of Sloan's accrual estimate in order to identify which element is majorly accountable for the occurrence of accrual anomaly. The study revealed that inventory accrual was more visible in correlation to future stock earnings. In the same vein, Chan, Chan, Jegadeesh, and Lakonishok (2006) could not provide an explicit reason for their result, rather, they attributed this shortcoming in their finding to the economic magnitude of stock accruals and the slow move of some managers to document stock in the face of prevailing slowing demand.

3. Local and International Evidence of Accrual Anomaly

Reecent study by Amna and Danish (2020) showed that, information on the aspect of accrual anomaly and its relationship with conditional conservatism on the pricing of accrual during a profit year. Arewa, Nwakanma and Torbira (2014) observe that accrual anomaly means the failure of the existing stocks pricing models to hold in relation to prediction of stock returns. This study investigates the existence of accrual anomaly in Nigerian stock market. They reported that, the factors that account for market anomalies in Nigerian stock market are traceable to volatility clustering, information gap and heteroskedastic nature of Nigeria stock prices. Also Akenbor and Ibanichuka (2018), Fonseca and Gonzales (2008) and Uwuigbe, Fagbemi and Anusiem (2018) reviewed extant literature on the determinants of accruals, specifically non-discretionary accruals and provided the basis for modifying existing discretionary accruals models.

Sloan (1996) is acclaimed as an eye opener in accrual anomaly research in accounting and finance. In his first investigation of the existence of this phenomenon (accrual anomaly), he asserts the presence of accrual anomaly in United States. From that time, the research on accrual anomaly has spread. He opined that the phenomenon is only associated with the U.S and countries that shared same similarities with the U.S, that is, countries that operate the common law system or accruals accounting system. Contrary to this assertion, studies such as that of Leippold and Lohre (2010); and LaFond (2005) empirically evidenced that the phenomenon is equally presents outside the United States, that is, it also exists in countries that operate the code law systems. Therefore, if this latter assertion holds, it means that accrual anomaly is a global phenomenon. The question that immediately comes to mind and which demands a further investigation is; what are the factors that could be responsible for this mispricing (accruals anomaly)? In response to this question,Pincuset al.(2007);and Leippold andLaFond(2005) attributed the occurrence of accrual anomaly to accrual accounting system, low ownership concentration and weak shareholder protection. These studies test for specific factors that could be responsible for the differences in the occurrence of accrual anomaly in countries in order to establish potential differences among countries in relation to the incidence of accruals mispricing. InPincuset al.(2007);(Leippold and LaFond(2009) employed Ordinary Least Square (OLS) regression analysis and concluded that accruals anomaly (mispricing) is associated to countries that shared common characteristics with US, countries that operate accrual accounting system, and which have wide share ownership. They opined that these results are strengthened by the different accruals estimate and accounting operating systems that can significantly result to country's earnings differences. In furthering research on possible causes of accrual anomaly, Leippold and Lohre (2010); and Dechow, Patricia, Natalya and Sloan (2011) report that accruals anomaly may be experience in countries where earnings have a lower relevance for stock prices and that the occurrence of this phenomenon is attributed to the prompt reaction to the release of news about earnings respectively.

However, Akenbor andIbanichuka (2018) opined that countries with high accruals are predisposed to tax revenues, less volatility are easier to forecast compare to countries that have low level of accruals. Clinch, Fuller, Govendir and Wells (2012) found accrual anomaly in Australian market. Kaserer and Klingler(2008) investigated the existence of accrual anomaly in Germany, and the study showed that, the phenomenon exists under fair value accounting, which create opportunity for managerial discretion. Li, Niu, Zhang and Largay (2011) examined the presence of accrual mispricing in China. The study sampled only firms that made profit, and firms with losses in the year of the study were excluded from the investigation. It is obvious that, there is sample selection bias in this study. This prompts us to ask; is accrual anomaly peculiar to profit firms alone? Furthermore, Lafond (2005) randomly selected seventeen countries to investigate the existence of accrual anomaly. The study revealed that accrual anomaly was found associated with countries with accrual accounting system; and that the existence of the phenomenon is a global issue. Furthermore, they found that the occurrence of accrual anomaly among countries are accounted for by different factors such as; legal system, corporate governance and changes in accounting regimes. Pincuset al. (2007), examined the global existence of accrual anomaly using a sample of 20 countries; they concluded that accrual anomaly exists only in the United Kingdom, United States, Canada and Australia, contrary to Lafond (2005). The alternative explanation to their findings is that accrual mispricing arises from earning management and limits arbitrage. In addition, Pincus, et al., (2007) found that the anomaly is expected to occur more among countries where the practice of accrual basis of accounting is predominantly used, a lesser ownership concentration of share and common law system exist. Also from the international scene, Tatiana, Zvi and Theodore (2019)assert that, there is a behavioural explanation for accrual anomaly that is consistent with mispricing of originating accrual. Another prominent and recent study by Tiago and Carlos (2020) empirically evidence that, accrual anomaly does not persist on the European market, also, this study negates previous assertion about underweighting of accrual component of earnings as, accrual is not best prediction of future stock returns. Therefore, this leads us to look at some possible country-specific factors capable of influencing accrual anomaly.

4. Factors that influences Accrual Anomaly

4.1 Country's Legal System and Accrual Anomaly

The discovery of accrual anomaly has raised an open-ended question as to the reason for the occurrence of this phenomenon in stock markets globally. With respect to the legal system of a country, Uwuigbeet al., (2018) examined the possible influence of a country's legal system on accrual anomaly. The study found that the nature of legal system put in place in a country impacts accrual anomaly. According to the authors, the legal system in countries that share common characteristics with common law nations tends to aimed at all shareholders by intense use of financial statements disclosures to address the problem of information asymmetric. However, this is not same in code law settings. The common law legal system operation is directed to care for only the welfare of the major financial interest holders. These variations in legal system, affect the relevance of accounting information in respect to the intensity with which the conservatism and opportunity result from the approval of the legal setting. Pincuset al. (2007) state that, the legal system is used as a measure for the institutional structure. They indicated the divergence of countries' institutional characteristics such as legal system and shareholders' rights protection is a likely cause of accrual anomaly. With respect to the legal system, they state that common law traditions are relatively more relax, that is, more flexible in relation to accrual anomaly compare to that of the code law tradition. In respect to shareholders' rights, they explained that, countries where legal protection of shareholders' is weak (code law countries) have more avenues for managerial manipulation to the disfavour of the interest of the minority shareholders. By these findings, we aligned with these view, though subject to empirical validation that the occurrence of accrual anomaly is not just a global phenomenon, but associated with a country's type of legal system in operation. In their study, they reported that, the government system of a country affects accruals anomaly. Furthermore, Dechowet al. (2011) found that countries that operate a legal system that share same features with that of United States, that is, the common law system is more prone to experience accruals anomaly compare to the code law countries.

On the contrary, Xu and Lacina (2009) and LaFond (2005) explained that, accrual anomaly is not restricted to a particular country or continent but is a global issue that is associated with accrual basis of accounting system; independent of the type of legal system or investor protection. Leippold and Lohre (2010) and Pincuset al. (2007) conducted separate researches using different countries categorized by their legal systems on the existence of the phenomenon; accrual anomaly in twenty-six (26) developed, covering the period of 1994 to 2008. The findings of their analyses showed that accrual mispricing (anomaly) has a direct relationship with the type of a country's legal system in place. The question we ask here is, if accrual anomaly is investigated in relation to the legal system in emerging country in Africa, will the result be same or different to prior findings in developed countries? Hence, another call for future empirical investigation in emerging economy.

4.2 Corporate Governance and Accrual Anomaly Persistence

Lev and Nissim (2006) investigated the investor response to accruals anomalies and the reasons for the persistency of accrual anomaly. They first established that accrual anomaly continues and that its level has not reduced over the sample period from 1965 to 2003. What this insinuate is that, the reaction to accruals information by institutional investors has been untimely. They classify institutional investors into two groups (transient institutional investors and non-transient institutional investors) by their trading intensity. In order to investigate the timeliness and magnitude of accruals-based trading by institutional investors in the time period from 1982 to 2001. They observed that transient institutions (short duration institutions), trading frequently for short-term profits from price changes, do indeed react to accruals anomalies expediently. The reaction of transient institutions is stronger in the first quarter of the coming year, in which one year returns and accruals of most entities are publicly disclosed. The response to accruals anomalies was also quite firm in the second and final quarter of the subsequent period.

The role of institutional investors to value accrual was also examined by Hribar and Collins (2002). They found that firms with large institutional ownership along with a minimum threshold level of actively trading institutions show low anomaly compare to low institutional ownership firms. This implies that, accrual based hedge portfolio's one year ahead returns are smaller for high institutional ownership firms than lower institutional ownership firms. Moreover, the reaction for the 1992 to 2001 period has been double as large as that for that of ten years before Lev and Nissim (2006). The response by transient institutions to accruals information is shown to precede the change in stock price (Lev & Nissim, 2006). The response to accruals anomalies by non-transient institutions has appeared only in the 1990s and only in the first quarter of the subsequent year. The reaction by non-transient institutions (long duration institutions) in the first quarter has however been greater in magnitude to that of the transient institutions. Their study shows that entities as a whole traded more actively on accruals information during the 1990s than in the previous decade (Lev & Nissim, 2006). Transient institutions are shown to trade actively and expediently on accruals information, yet, accrual anomaly persists. Lev and Nissim (2006) calculated that accruals-related ownership change for extreme-accrual firm's amounts to lower than ten percent of the mean ownership variation in the first quarter and about ten percent of the median variation magnitudes not enough to affect the accrual anomaly (Lev & Nissim, 2006). Furthermore, the studyinvestigates the characteristics of extreme-accrual firms that conclude small size and low book-to-market ratio keep institutional investors from taking significant positions in these firms. They opined that information processing and transaction costs prevent individual investors from implementing an accruals-based trading strategy. They concluded that because of these hindrances for both institutional and individual investors, the accrual anomaly will endure for quite some time.

Contrary to these findings, Li et al. (2011) present evidence that accrual anomaly has demised from its peak in 2000. Green et al. (2011) reported a contradictory finding among academics and practitioners regarding the enforcement of accruals-based trading strategy, academics being skeptical while practitioners actually applying accrual-based models. They further proceed to investigate the degree to which accrual anomaly has persisted to yield positive abnormal earnings. They propose several alternative explanations for the extinction of accrual anomaly, with their primary explanatory factor being the attention of hedge funds towards exploiting the anomaly (Green et al., 2011). They divide their sample period into three sub-periods: one, the pre-Sloan sub-period from the month of July 1970 to the month December 1995; two, the early post-Sloan sub- period from the month of January 1996 to the month of December 2003, which is the last year of returns; and three, the late post-Sloan sub-period from the month of January 2004 to the month of March 2010. Most of the annual returns to implementing an accruals based trading strategy were positive for the first two sub-periods. However, for the last sub-period starting in 2004, returns were not typically positive anymore. (Greenet al.,2011) then investigate various explanations for this demise, inferred that it stems from an increase over time in the capital invested by hedge funds into exploiting the accrual anomaly, and in part from a decline over time in the size of the mispricing of accruals. Under weak corporate governance systems fair value accounting might result in more extensive accrual manipulation. Due to a lack of empirical evidence, they leave open to future research to the question of the effect on accrual anomaly of introducing fair value accounting standards under a stronger corporate governance regime (Green et al., 2011).

4.3 Changes in Accounting Regimes and Accrual Anomaly

The few existinginternational studies offer some evidence on the relationship between accounting standards andaccrual anomaly (Kaserer & Klingler, 2008). Specifically, common law accounting standards have been found to be connectedwith the accrual anomaly. It is however difficult to disentangle the effects of accounting standards fromthe complexities that every institutional setting presents. Ideally, to disentangle the effects thataccounting standards have on the accrual anomaly, one would need to construct a ceteris paribusexperiment where all other factors excluding the accounting standards stay constant (Kaserer & Klingler, 2008). The closestapproximation to this ideal experimental setting as is available to a researcher is to investigate atransition from one accounting standard to another in a single institutional setting in Nigeria. International Financial Reporting Standard (IFRS) becamemandatory in the first phase application in 2011 fiscal year (Clinch, 2012). This transition represents atransition from Statement of Accounting Standard (SAS) to the fair value accounting frameworkof IFRS. Kaserer&Klingler, 2008)investigated the reaction of accrual mispricing in Germany, after the adoption of the International Accounting Standards along with the German local Generally Accepted Accounting Principle (GAAP). They asserted that, the German local GAAP revealed same magnitude persistence for both accrual components and cash flow return. They opined that, accrual anomaly was present in the regime of fair value accounting because it creates room for managerial discretion. Therefore, the introductionof fair value accounting framework introduced accrual anomaly into German institutionalsetting. Kaserer&Klingler(2021) qualify their results by presuming that the effects of adopting a particularaccounting framework depend on the corporate governance system under which the accountingframework is implemented.

On the contrary, Kraft, Andrew, and Wassley (2007) investigate this phenomenon in relation to earnings persistence in Finland and came up with a finding that, those differences in earnings persistence came about over the period of voluntary switching to international accounting standards. Their second set of empirical tests investigates whether stock prices correctly reflect the implications of current earnings components for future annual earnings, and whether the introduction of IFRS has any effects on this. The preliminary results indicate overweighting of the accrual component in the pre-IFRS sub-period under the domestic accounting standards. Overweighing of accruals vanishes by the introduction of IFRS standards. These results are the reverse of those of Kaserer and Klingler (2008) which indicated accrual overweighting only for the post-IFRS sub-period.

Notwithstanding, on the basis of mix findings in prior studies as regards to the effect of changes in accounting regimes on accrual anomaly, we strongly canvass for a future empirical study to validate the conflicting assertions in countries like Nigeria where a transition from local standards; Statement of Accounting Standard (SAS) to the International Financial Reporting Standard (IFRS) has taken place.

5. Methodological Deficiencies in Accrual Anomaly Prior Studies

Upon our critical review of accrual anomaly literature, we discovered some methodological shortcomings along with (Kothari, Sabino & Zach, 2005); and Kraft et al. (2007). These limitations include cases like; sample selection bias, omitted potential variables from the commonly used accrual anomaly Mishkin-test, automatic coexistence of accrual and cash flow anomalies etc. To support our conceptual observation as to these methodological deficiencies, Kraft et.al(2005); and Kothari, et al. (2005), opined in both studies that, most past researches on accrual mispricing suffer some methodological limitations such as, sample selection bias. Also in the study of Kraft et al. (2005) reveals that cash flow and accrual anomaly are associated with companies that buy and hold annual earnings of above two hundred percent (200%) after the elimination of outliers that account for below one percent (1%) of their total samples observed. They found that both the high and low accrual portfolios earned negative abnormal earnings. Also in Kraft et al. (2007) investigation, they criticized previous research on accrual anomaly for not taking into account the potential omitted variable bias resulting from the commonly applied accrual anomaly Mishkin-test (1983). This Mishkin-test only recognizes the current earnings components as explanatory variables for the variance of future abnormal returns. They argue that this might lead to omitted variable bias in the results. On the basis of this, we therefore join our opinion with Kraft et al., (2007) that, to address the observed deficiency, additional control variables such as: earnings-to-price ratio, book-to-market ratio, logarithm of the market value and the beta factor for each of the individual securities should be considered. The first three of these variables have been shown by previous research to earn abnormal returns and the beta factor is included to control for systematic risk differences between the variables (Kraft et al., 2007). The question of interest here is that, whether the results indicating overweighting of accruals anomaly will survive the addition of these control variables to the model? Accrual overweighting may be weakens by the inclusion of additional control variables, but remains substantial and statistically significant for the pre-IFRS sub-period. The overweighting once again vanishes in the post-IFRS sub-period (Kraft et al., 2007). The control variables shown by earlier research to earn abnormal returns are attributed significantly to the coefficients in the abnormal return regression tests. The coefficient of determination also rises to the level common in abnormal return.

Conceptually, from these backdrops, we align our view to this critique that, the earlierMishkin test model has suffered from omitted variable bias. Therefore, for a future robust result on accrual anomaly studies, we are of the opinion that, the aforementioned control variables of Kraft et al. (2007) should beconsidered.More also, there has been some criticism on the lack of robustness testing in accrual anomaly related research. Kraft et al., (2006) list several of the most influential accrual anomaly related studies such as the study of Sloan (1996), as not assessing the sensitivity of their results to extreme abnormal return observations by excluding a small number of extreme company-year observations which showed an inverted U-shaped interaction between abnormal returns and total accruals, instead of a steadily ascending relationship. The same extreme firm-year observations that drove the total accrual anomaly of Sloan (1996) are reported to clarify also the abnormal accrual and growth-related approaches (Kraft et al., 2006). Richardson et al. (2010) hold this inference of the accrual anomaly as being sensitive to outliers as incorrect, since they hold all return realizations other than data errors as valid observations. The average return of an entire portfolio may be influenced substantially by extreme returns, which cannot be considered invalid since they are nevertheless truly realized returns to the portfolio (Richardson *et al.,* 2010). Kothari et al. (2005) report that, the active trimming of data by researchers contributes to a bias in favour of finding systematic mispricing in tests of market efficiency. Due to the fact that most of the preceding researches on accrual anomaly have omitted robustness testing, the effects of outliers to the result are worth investigating. Furthermore, in this context, another deficiency we observed in accrual anomaly literature is the hypothesis and postulate of Sloan, Sloan (1996), he states that the accrual and cash flow anomalies are coexistence. That is, the occurrence of one automatically implies the other. On the contrary, Xu and Lacina (2009) opined that, the attributes of cash flows based portfolios vary from accruals based portfolios. That, the characteristics of accrual based portfolios are different from those of cash flow. This evidence revealed that, though, they are both negatively correlated but may not arise exactly from the same reason. Also, Pincuset al. (2005) reported that the incidence of accruals anomaly does not automatically mean the occurrence of cash flows anomaly, or vice - versa, and that, there is no cross-border proof on the mutual existence of these phenomena in prior studies. Kraft et al. (2006); Goncharov, and Jacob (2014) recognize this to be the correct position when estimating the profit of a trading strategy. However, the need for a conventional robust test is necessary when a researching a theory on a particular hypothesized cause of an anomaly. According to him, the hypothesized cause-and-effect of any relation should not be driven by only a small size of observations.

Therefore, these mixed findings have cast a doubt on the postulate and hypothesis of coexistence of these two anomalies of Sloan (1996). In our own opinion, one of the scenario that can cause a change in cash flow value without a corresponding change in accrual is, if an asset is exchanged for cash without resulting to increase or decrease in the value of assets and liabilities of an entity. In this case, the mutual occurrence of these anomalies will not be automatic. Hence, we humbly suggest that, there should be a future empirical verification on the mutual existence of these two phenomenons in order to ascertain whether these anomalies arise from same cause or not.

6. Theoretical Background on Accrual Anomaly

6.1 Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) of Fama (1970) asserts that all information, both public and private is reflected in current prices of socks. It states that financial assets prices are based on past and current information and this information are used to predict the future prices without any biases. This hypothesis also demonstrated whether it reflects all type of information (private and public). The EMH classified information into three types: strong (which possesses all type of information), semi (which has only publicly announced information) and weak form (which is based only on past data). The assumption of this hypothesis concludes that current prices of stock have been adjusted for all known information about a firm. Subsequently, efficient market hypothesis views that analyzing company's financial reports, stocks outlines is meaningless. Since all prices are fair and efficient in light of the fact that the smart investors have already offered prices to their appropriate levels, that there is never an error between price and value. According Sloan (2001), practically EMH does not exist in security markets, so there is always a margin for the market players to earn the unusual or abnormal return, whatever an investor earns above the average return of market is due to anomalous behavior of stock prices. He is recognized in literature as the first researcher that documents the accrual anomaly. The later study of Graham, Campbell and Rajgopal (2005) confirmed the outcome of his study. To them, market does not correctly price the securities as a result of the accrual anomaly existence and markets no longer remain efficient. Investors are usually unable to differentiate among persistence of accrual and cash flow while making the future forecast of earning, investors on the basis of current returns make the decision as a result of it, and they get future abnormal loss and profit.

7. Conclusion and recommendations

Accrual anomaly research has attracted lot researchers owing to the proportion of current earnings that is controllable by management despite the given number of empirical studies as relates to accrual anomaly. Researches on this phenomenon are still incipient in Nigeria. In our review, we found that, the earlier studies on this subject revealed that, accrual anomaly was only associated with the United States and countries that shared common characteristics with the U.S. But in our conceptual investigation, we discovered that, these assertions were later refuted by other studies. We found that, the occurrence of accrual anomaly is a global phenomenon that is accounted for by some country's specific factors such as; Country's legal institutional difference, types of government, corporate governance mechanisms and changes in accounting regimes. Therefore, in this study, we aligned with the assertions that, accrual anomaly is not only U.S based phenomenon but a global concept that is attributed to other factors. Also, there exist, some methodological deficiencies in accrual anomaly prior studies as conceptually observed in literature. Consequent upon our conceptual findings, the study therefore makes the following recommendations:

1. A domesticated Study of pre and post IFRS on accrual anomaly is necessary in Nigeria in order to validate the effect of changes in accounting regimes on this phenomenon.

2.There is need to carry out an empirical validation study on the coexistence of accrual and cash flow anomalies hypothesis of Sloan (1996) by future researchers in order to improve accrual anomaly literature

3. Future studies in this direction should include both the profit and the loss firms as sample rather than considering only profit firms in order to address the problem of variables outliers for a better result that will aid an informed judgment by stakeholders.

4. Finally, to address the problem of omitted variable bias associated with the commonly accrual anomaly Mishkin-Test (1983), additional variables such as; earning to price ratio, book to market ratio, logarithm of the market value and beta factor of individual securities should be considered to get a better predictive results.

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AUDIT QUALITY AND EARNINGS QUALITY REPORTING OF NIGERIAN LISTED OIL AND GAS COMPANIES: THE MODERATING INFLUENCE OF AUDIT COMMITTEE

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Abstract: *This study investigates the extent audit committee moderate the link between audit quality and earnings quality reporting of listed oil and gas companies in Nigeria. The study used random sample technique to select a sample of four (4) out of the total population of eleven (11) listed oil and gas companies in Nigeria as at 31st December, 2021. The data was sourced from the audited annual reports and accounts of the companies between 2017 and 2021 and analysed with descriptive, correlation and ordinary least square regression technique. The result indicates that the extent audit committee moderate the link between audit quality and earnings quality reporting of listed oil and gas companies was negative and insignificantly. The study concludes that an increase in the members of the committee elected by board of directors would not enhance the link between audit quality and earnings quality reporting of the listed oil and gas companies in Nigeria. The study recommends among other that the shareholders of listed oil and gas companies in Nigeria should not increase the members of the audit committee among the board of directors because it would not enhance the link between audit quality and earnings quality reporting both at short and long runs.*

Keywords: *Audit Quality; Audit Committee; Agency Theory; Earnings Quality Reporting; Listed Oil and Gas Companies in Nigeria.*
JEL Classification*: M42.*

1. Introduction

The study of earnings quality has gained tremendous attention due to its relevance to the investors and other users for decision-making. In an organisation, earnings are essential area of consideration according to Adegbie, Salawu, and Shiyanbola (2019) because it determines the firm's success and sustainability. Earnings represent the net profit of a company's operations and the amount on which corporate tax is charged. Earnings quality reporting signals lower earnings management by a company; it enables market participants respond positively to information by reducing information asymmetry and increase transparency of the firm. In addition, earnings quality reporting may be used by investors in the stock market to assess the performance, predict future earnings and estimate the investment risk or credit risk because it indicate lower earning manipulation. Quality earnings reporting have significant value relevance to investors according to Ibrahim (2017) because it influences their investment decisions, thus it can be influenced by many factors such as audit quality and audit committee mechanisms.

Audit quality reveals the accurateness of information given by an auditor to an investor to make more accurate estimations of company value. Audit quality is indicated by financial reports that do not present the material misstatement. According to Yusuf (2020), investors required the external audit to provide external examination that will add to the reliability, objectivity, and soundness of financial reports, increase accountability, lessen any astute conduct of the board, and increase the proficiency and adequacy of internal controls, just as that of internal audit. It is believed by the investors that the external auditors increase the credibility of financial reports through their competency and independent review.

However, to enhance the auditors' independence in his opinion, especially if there is need to express reservations about management's accounting policies, is whittled down, the need emanated to have subcommittee of the board of directors: audit committee, comprising only of independent directors, be appointed to act as an arbiter between external auditors and management (Emmanuel & Emem, 2020). This is based on the assumption that the committee is more likely able to protect the best interest of the owners (shareholders) of the business organisation. The audit committee is importance in improving financial reporting quality and according to Galal, Soliman and Bekheit (2022) it is one of the most important components of corporate governance systems and a strong instrument for managing and controlling management.

Despite the expected roles the audit committee to plays particularly to act as an arbiter between external auditors and management which in turn to enhance financial credibility, quality earnings reporting by firms in the recent times is still gaining immerses global academic research interest due to high rate of earning manipulations by managers of companies. For instance, apart from the case of Enron and WorldCom in the last decade where it was observed series of corporate accounting scandals associated with a number of accounting manipulations (Beslic, Beslic, Jaksic & Andric, 2015), in Nigeria, according to Orbunde, Oyewobi and Musa (2021) the operations of the oil and gas industry have been associated with allegations of scandalous financial practices under the watch of the big 4 audit firms that are expected to constrain such unscrupulous practice. This failure of the auditors has made the stakeholders including the shareholders lost confidence and reliability on the auditor as well as the financial reports prepared by management (Directors) for decision making.

Consequently, lots of empirical research has been indicated on the effects of audit quality on earnings quality reporting by companies but most of these studies are foreign based and documented inconsistent and mixed findings (for examples, Idris, 2019; Hasan, Jatiningrum, Fauzi, & Abdul-Hamid, 2019; Orbunde, et al, 2021; Bala, Ahmad, Khatoon & Karaye, 2022) and this may be due to jurisdictional and sectoral differences. Also, it was observed that few of these studies have utilized audit committee to examine the moderating influence on the relationship between audit quality and earnings quality reporting.

Against this backdrop the following question is raised: To what extent audit committee moderates the link between audit quality and quality earnings reporting of listed oil and gas companies in Nigeria after the adoption of IFRSs? To address this question, the study aimed at investigating the extent audit committee moderates the link between audit quality and quality earnings reporting of listed oil and gas companies in Nigeria. The following hypothesis is formulated in null form for testing:

$H0_1$: The extent audit committee moderates the link between audit quality and quality earnings reporting of listed oil and gas companies in Nigeria after the adoption of IFRSs is not significant.

2. Literature Review

2.1 Conceptual Review

Earnings Quality Reporting: According to Ismail (2020), accounting literature provides several definitions for earnings quality reporting and Sepe, Nelson, Tan and Spiceland (2012) defined earnings quality as the ability of reported earnings to predict a company's future earnings. This means that for earnings to have high quality it must be used by investors to forecast the future financial activities that will result to their returns on

investment. Earnings quality also refers to as financial reporting quality is the degree to which earnings reflect underlying economic effects.
Earnings are of higher quality according to Kirschenheiter and Melumad (2002), when they are more informative and closer to the long run value of the firm. Dechow and Schrand (2004) stated that a high quality earnings number is the one that accurately reflects the company's current operating performance, is a good indicator of the future operating performance, and is a useful summary measure for assessing firm value.

Some researchers such as Pagalung (2009) measures earnings quality with accrual quality measured by mapping the current accrual towards the past, present and future cash flow, earnings persistence measured by the regression coefficient of current earnings towards the future earnings, earnings predictability measured by the standard deviation of regression coefficient of current earnings towards the future earnings, earnings smoothness measured by the ratio of earnings variability towards the cash flow variability, earnings value relevance measured by the explanatory power or degree of return regression towards earnings, earning timeliness measured by the explanatory power or degree of earning reversal regression towards return, earnings conservatism measured by the ratio of reversal regression coefficient towards the negative return in the positive return coefficient, earnings quality index measured by the combination of change in the conservatism score and the comparison of conservatism score in the company industry median, earnings based on information contained measured by the explanation degree and the earnings regression coefficient, and earnings based on abnormal accrual measured by the total accrual towards the property, plant and equipment.

Audit Quality: Audit quality is defined by Seyyed, Mahdi, and Mohsen (2012) as a function of the auditor's ability to detect material misstatements and reporting the errors. Together with other similar definitions, they all emphasized on two of the most important aspects of audit quality, namely auditor ability or auditor effort, and auditor independence. Salawu, Okpanachi, and Yahaya (2018) stated that audit quality is the assessment of whether audits have served both the shareholders and other stakeholders' interests through increasing the accountability of managements and reinforcing trust and confidence in financial reporting. Ogadu, Okoughenu, and Igbeneweka, (2017) asserted that, high quality auditors are more likely to discover questionable accounting practices by clients and report material irregularities and misstatements compared with low quality auditors.

In theory, the auditing process is supposed to serve as a monitoring device that reduces management incentives to manipulate reported earnings, as well as to detect earnings manipulation and misstatements (Amat, Oscar, & Petya, 2014). Audit is a key contributor to financial stability and in other to re-establish trust and market confidence. The auditor is entrusted by law with the responsibility of conducting statutory audits and fulfilling an important role in offering an opinion on whether the financial statements are truly and fairly stated (Nwoye, Anichebe, & Osegbue, 2021). Therefore, for an audit firm to render a quality service, it means it must have greater monitoring strength, more closely to financial report and which will reflect the true economic circumstances of the client and the higher information quality (Orbunde et al, 2021).

Researcher provided different view on the relationship between audit quality and earnings quality. For instance, Lopes (2018) argued that audit quality has a relationship between the manipulation of financial statement and accruals reduce when the auditor's firm is a large audit company. Furthermore, Zandi, Sadiq, and Mohamad (2019) looked at the effect of audit quality on earning smoothen and the research argued that the Big 4 auditors are likelier to lessen earnings management. Also, Alzoubi (2016) argued that companies who hire Big 4 auditors have much less discretionary accruals than companies that do not hire Big 4 auditors. Contrary to these researchers, Knechel, Mintchik, Pevzner, and Velury (2018) argued that the Big 4 auditors are well established in states with strong levels of civic collaboration thus will not lessen earnings management. Almarayeh, Aibar-Guzmán, and Abdullatif (2020) confirmed this by providing that the Big 4 auditors had no significant influence in emerging economies and less regulated environments.

Audit Committee: Audit committee is among corporate governance mechanism established by and responsible to the board of directors or commissioners to help perform the duties and functions of the board. In Nigeria, according to Ekumankama and Uche (2009) a new requirement in the Nigerian Companies and Allied Matters Act (CAMA) of 1990 is the introduction of audit committees as an additional layer of control and certification in the bid to make annual accounts of public corporations more acceptable and reliable. The audit committee was introduce under the circumstances that the ability of external auditors to remain truly independent, especially if there is need to express reservations about management's accounting policies, is whittled down. Audit committee size always determines the level of various divergent experiences, contributions and opinions of members according to Salawu, et al. (2018) during the committee's meeting and discussions with external auditor in ensuring audit quality. Generally, the idea of audit committee is that accountability will be enhanced if a subcommittee of the board comprising only of independent directors, be appointed to act as an arbiter between external auditors and management.

Audit committee can measured in many ways and according to Hasan, et al (2019), the measurement includes audit committee independence, audit committee financial expertise, audit committee meetings, and audit committee size. According to Garcia, Barbadillo, and Perez (2012), audit committee size is a very important attribute for monitoring earning management by managers of companies and it is related to high earning quality.

2.2 Theoretical Review

There are severer theories that underpinned the study of earnings quality on how it is affected by corporate governance mechanisms like audit committee. However, this study anchored on agency theory. The agency theory is introduce by Jensen and Meckling (1976) and the theory postulated that the relationship between principal (owners) and agent (manager) is when one or more principals engage another person (agent) to perform some services on their behalf which involves delegating some decision-making authority to the agent. This means that the principal employs the agents to carry out business in the interest of principals, including delegation of authorization for decision making from principals to agents. The different interests between agent and principals are often leads to problems or conflicts that are referred to as the agency problem. The agency problem relates to the difficulties or problems in motivating the agent to work in the best interests of the principal, where the problem arises because of inefficiencies and incomplete information (Rankin, Rankin, Stanton, McGowan, Ferlauto, & Tilling, 2012).

The main cause of agency problem is the principals cannot monitor the daily activities of the agents and ensure that they work under the interests of shareholders. According to Rankin, et al. (2012), this condition leads to imbalance information due to the managers having more information about the current and future prospects of the company than an outsider. The information asymmetry and conflicts of interest between the principals and agents provide an opportunity for managers to maximize their interests, one of which is to conduct earnings management in present information that is not true to the principal, especially if the information is related to the performance measurements of the manager.

Jensen and Meckling (1976) argued that good corporate governance mechanism act to reduce agency costs and to provide oversight by mitigating the opportunistic behavior of managers. Hence, the existence of an audit committee on the board will also enhances the quality of financial statements by reducing agency problems between managers and shareholders. In line with this, Othman and Mersni (2016) argued that an audit committee plays an important monitoring role in the corporate governance structure of the company that improves accounting information quality which is effective to limit the discretionary behavior of managers. However, according to Pincus (n.d) cited in Zgarni, Hlioui, and Zehri (2018) stated that the large size of audit committee can trigger conflicts so that they lose their focus and become less participative than smaller size, thus management will take advantages of audit committee size to achieve their own benefits where they will reduce audit committee involvement by increasing its size.

2.3 Empirical Review

The study of Bala, et al (2022) investigated how audit committee accounting expertise (ACAE) influences the relationship between audit firms attributes (AUFA) and income smoothing (IS). The study employed 616 firm-year observations from 2013 to 2019 and robust logistic regression as a data analysis technique. The results showed that the Big 4 auditors and AUT had a negative and significant relation with IS in firms with a higher proportion of ACAE. The study also revealed that a higher proportion of ACAE overturned the positive effect of Big 4 auditors and AUT on IS.

Contrarily, it was revealed by Orbunde, et al. (2021) that audit committee financial expertise moderate audit proxy with audit firm size will not have an adverse effect on earnings management of the listed oil and gas marketing companies in Nigeria. Fourteen (14) listed oil marketing companies that had consistently published their audited annual financial reports from 2011 to 2020 was used by by the study to investigate the effect of audit quality proxied by audit firm size, auditor industry specialization, auditor tenure, and audit committee financial expertise on earnings management represented by discretionary accruals of listed oil marketing companies in Nigeria. In addition, Pooled Ordinary Least Square (OLS) regression technique was used by the study to analyse data and the findings indicated that the interaction between audit firm size had no significant effect on earnings management. The relationship between the effectiveness of audit committee and earnings management in one of the emerging economies, Jordan was investigate by Idris, et al (2018) and the study also examined how external auditor size might moderate this relationship. A panel data consisting of 64 industrial firms listed on Amman Stock Exchange (ASE) was used, covering the period between 2009 and 2014. The study had four characteristics used to measure the effectiveness of audit committee, namely audit committee independence, size, meetings and financial expertise and the result showed a positive interaction effect of external auditor size and audit committee effectiveness on earnings management, which is supportive of the substitute relationship between the external auditor size and effective audit committee in reducing earnings management and increase earnings quality.

Also, audit committee attributes and audit quality was examined by Uwuigbe, Aronmwan, Uwuigbe and Uwuigbe (2018) and the study focused on the specific requirements of the 2011 SEC code. The study applied the deductive approach via the ex-post facto research design and the Binary probit regression model in analyzing the various hypotheses put forward in study. Data used for the study were gathered for 150 firm-year observations from the annual reports of quoted companies on the floor of the Nigerian Stock Exchange and result revealed that audit committee size, frequency of meetings, number of expertise and overall effectiveness all have a positive relationship with audit quality. However, only size and overall effectiveness was significant in their relationship.

Also, the effect of the audit committee (AC) independence, financial expertise, internal audit function, and audit quality and ownership concentration on earnings quality (EQ) was examined by Al-Rassas and Kamardin (2016) and, consequently, the study ascertained whether the AC's independence and financial expertise has a moderating effect on the relationship between internal audit function and EQ. The sample studied was 508 firms listed on the Malaysia Stock Exchange for the years 2009 to 2012. EQ was measured using two modified Jones models of discretionary accruals by the study and the findings revealed that the independence of AC and investment in internal audit function, as well as the Big4 audit firm, ware related to greater EQ. The study provides evidence that AC's independence and AC's financial expertise moderates the relationship between internal audit function (investment in and sourcing arrangements of internal audit function) and EQ.

Based on the empirical studies reviewed, it was clearly observed that inconsistence, mixed and controversial evidence ware indicated by researchers and this calls for further empirical justification. Therefore, the study presented the following conceptual framework in Figure 2.1 describing the relationship between the explanatory variables and the dependent variable.

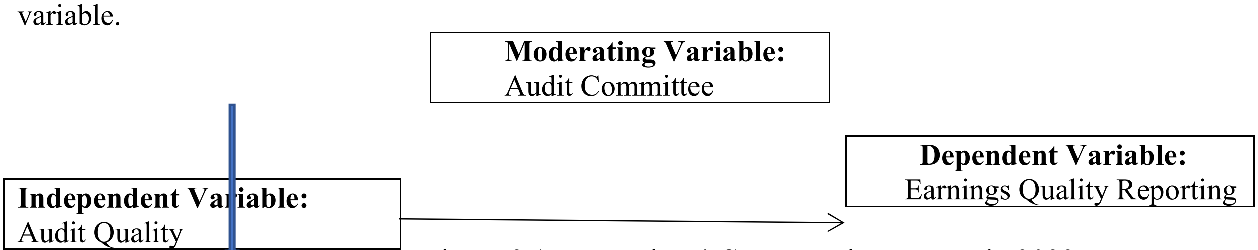

Figure 2.1 Researchers' Conceptual Framework, 2023.

Figure 2.1 is the conceptual framework for the study indicating that audit committee moderate the link between audit quality (independent variable) and earnings quality reporting (dependent variable) and this formed the null hypothesis one ($H0_1$) formulated in the study. It depict that audit committee interact the link between audit quality and earnings quality reporting.

3. Methodology

Ex post facto research design is used by this study because according to Awa and Obinabo (2020), the design enables researchers to makes use of existing data and it is not possible for the researchers to manipulate or exercise any authority over the available data. Therefore, the data used for this study are secondary data obtained between the period 2017 and 2021 from the audited annual reports and accounts of a total population of eleven (11) listed oil and gas marketing and production companies in Nigeria as at 31 December, 2021. The sample size for the study was determined using the Ewododhe (2011) formula which is one-third of the total population and the study arrived at four (4) listed oil and gas companies. In addition, the four (4) were selected by the using purposive sampling approach.

The study adapted DeAngelo (1981) model and the basic model is presented in equation 3.1 as followed:

$ACit= NPATit - CFOit$ -- 3.1

Where: ACit is the accruals component of earnings in year t for firm i representing the earning quality; NPATit is net operating profit after interest and tax in year t for firm i;

CFOit is cash flow from operating activities in year t for firm i. Therefore, to test the formulated null hypothesis in the study, the basic model is modified as followed:

$EQit = \beta_0 it + \beta_1 AQit + \beta_2 ACZit + \beta_3 AQit*ACZit + eit$ ---3.2

Where: EQ is the earnings quality reporting and measured as discretionary accruals; AQ is the audit quality and measured by auditor's compensation and fees; ACZ is the audit committee size and according to Hamdan (2020), it measured by the members of that committee elected by board of directors; AQit*ACZ is the audit committee moderating audit quality and is measured by the total amount payable to the auditor as compensation and fees multiplied by total number of audit committee members; β_0 is constants; β_1, β_2, β_3 is the regression coefficients; e is the error term.

4. Results and Discussions

The descriptive statistics of the variables specified in the model of the selected listed oil and gas companies in Nigeria for the period of 2017 –2021 is presented in Table 1.

Descriptive Statistics

Table 1. Descriptive Statistic

	EQ	ACZ	AQ	AQ*ACZ
Mean	0.020252	5.7	0.51525	29.22453
Median	0.04	6	47657.5	225210
Maximum	0.22	7	99750	598500
Minimum	-0.3	4	10500	63000
Std. Dev.	0.113352	0.923381	27154.14	171685.5
Probability	0.041258	0.508085	0.551054	0.373237
Sum	0.405048	114	1030500	5844905
Sum	0.405048	114	1030500	5844905
S.Sq. Dev.	0.244123	16.2	1.40E+10	5.60E+11
Observations	20	20	20	20

Sources: Researchers' compilations (2023) from Eview Version 9.0.

Table 1 show that on the average, EQ measured by discretionary accrual is 0.020252, AQ measured by the big-4 audit firm is on 0.51525, ACZ measured by the members of that committee elected by board of directors is 6 approximately and ACZ moderating the link between EQ and AQ (AQ*ACZ) is 29 approximately. Hence, this implies that some of the sampled oil and gas companies reported decrease while others increases at some periods within the time frame of this study.

Correlation Matrix

Table 2 Correlation Matrix

	EQ	ACZ	AQ	AQ*ACZ
EQ	1	-0.56444	0.014337	-0.16306
ACZ	-0.56444	1	-0.06076	0.232515
AQ	0.014337	-0.06076	1	0.352719
AQ*ACZ	-0.16306	0.232515	0.352719	1

Source: Researchers' compilations (2023) from Eview Version 9.0

Table 2 shows that the variables are positively and negatively correlated. In addition, according to Peck, Olsen and Devore (2015), correlation values: (1- 0.8) Strong; (0.8-0.5) Moderate; (0.5.-0.1) Weak; (0) Non-correlation. Since the result showed the relationship between the dependent variable (EQ) and independent variables (AQ, ACZ, AQ*ACZ) ranged between moderate and weak relationships, thus, it means that there is no serial correlations between the variables.

Regression Analysis

Dependent Variable: EQ
Method: Panel Least Squares
Date: 03/27/23 Time: 21:42
Sample: 2017 2021
Periods included: 5
Cross-sections included: 4
Total panel (balanced) observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.75222	1.062567	0.707927	0.4892
ACZ	0.002492	0.282287	0.00883	0.9931
AQ	0.873683	3.437048	0.254196	0.8026
AQ*ACZ	-0.89058	3.434787	-0.25928	0.7987

R-squared	0.323266	Mean dependent var	0.020252
Adjusted R-squared	0.196379	S.D. dependent var	0.113352
S.E. of regression	0.101614	Akaike info criterion	-1.55841
Sum squared resid	0.165207	Schwarz criterion	-1.35927
Log likelihood	19.58414	Hannan-Quinn criter.	-1.51954
F-statistic	2.547658	Durbin-Watson stat	1.761161
Prob(F-statistic)	0.092399		

Source: Researchers' compilations (2023) from Eview Version 9.0

Table 3 shows that the goodness fit test had a coefficient of determination of R^2 = 0.32366 (13%) and adjusted R^2 is -0.196379 (-20%); this shows that 13% variation in the dependent variable (QFR) is explained by the independent variables (AQ, ACZ, AQ*ACZ). In addition, the effect of AQ on EQ is positive and not statistically significant given that the probability value is 0.8026 with a coefficient value of 0.873683. This implies that increase in AQ would not have significant increase EQ of listed oil and gas companies in Nigeria. However, the result shows that the effect of ACZ on EQ is positive and not statistically significant given that the probability value is 0.9931 with a coefficient value of 0.002492. The outcome implies that increase in the number serving in the audit committee would not enhance earnings quality at a long run.

Moreover, the extent ACZ moderates the link between AQ and EQ is negative and not statistically significant given that the probability value is 0.7987 with a coefficient value of -

0.89058. This supports the notion that increases in audit committee size would not enhances the relationship between audit quality and earnings quality. Thus, the null hypothesis which stated that the extent audit size moderate the link between audit quality and earnings quality of listed oil and gas companies in Nigeria is not significant would be accepted. Importantly, this outcome agreed with the result indicated by Orbunde, et al. (2021) who concluded that the interaction between audit firm size had no significant effect on earnings management. However, the result did not agree with the result obtained by Idris, et al (2018) that showed a positive interaction between external auditor size and audit committee effectiveness on earnings management, which is supportive of the substitute relationship between the external auditor size and effective audit committee in reducing earnings management and increase earnings quality.

5. Conclusion and Recommendations

The extent audit committee size moderate the link between audit quality and earnings quality reporting of listed oil and gas companies in Nigeria was investigated by this study. Overall, the study showed that audit committee size does not positively and significantly influence the relationship between audit quality and earnings quality reporting of listed oil and gas companies in Nigeria. The study concludes that increase in the members of the committee elected by board of directors would not enhance the link between earnings quality reporting of the listed oil and gas companies in Nigeria.

The study recommends that the shareholders of listed oil and gas companies in Nigeria should not increase the members of the audit committee among the board of directors because it would not enhance the link between audit quality and earnings quality reporting both at short and long. In addition, shareholders of listed oil and gas companies in Nigeria should strengthen other corporate governance mechanisms such independence executive and ownership concentration to help monitor the activities of the management against earnings management which in turn would result to increase in earnings quality reporting.

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AN EXPLORATORY ANALYSIS OF SOME POTENTIAL FISCAL-BUDGETARY VULNERABILITIES IN ROMANIA

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Abstract: *The severe deterioration of public finances during the COVID-19 pandemic and its consequences brought aspects of a fiscal-budgetary nature into the debates, fiscal policy, through its instruments, being considered the main anchor through which the government can stimulate or inhibit the economy in a moment of crisis, but also afterwards. The proposed work is part of this direction of continuing the debates and analyses, aiming exploratory at the possibility of identifying some vulnerabilities or emphasizing some existing ones from the previous period, based on an analysis framework that aims at three important aspects: the evolution of the budget deficit; the evolution of public debt and their positioning in relation to economic dynamics. The result can be a source of information, of possible development and refinement, to the extent that it will signal the existence of significant fiscal-budgetary vulnerabilities in the short and medium term at the level of Romania.*

Keywords: *fiscal-budgetary policy, revenues, expenses, deficit, public debt, vulnerability.*
JEL Classification: *E61, H20, H50.*

1. Introduction

The financial and economic crisis of 2008-2010 produced a sudden and severe deterioration of public finances worldwide, amid the implementation of fiscal-budgetary measures to combat and limit its spread, to support the economic environment, but also due to the fact that the size tax bases was significantly reduced, which led to a decrease in collected revenues. In this context of reduced revenues and increased expenses, the budget deficit increased to historical values, and to ensure the necessary financial resources, loans were resorted to, which led to a rapid increase in the level of public debt.

In this light of the increasing frequency of crises and their diversity, of the severe impact on public finances at a general level, but also at the level of each country, there is an increasing need for analysis of fiscal-budgetary vulnerability, meaning that in this paper we outline an analysis framework on the current state of public finances, with extension in pre and post pandemic, in Romania.

Thus, in this introductory section, we present the framework regarding the concept of fiscal-budgetary vulnerability and aspects related to it, as well as the indicators on which we intend to focus the analysis.

Regarding the concept of fiscal-budgetary vulnerability, it can be characterized by a situation where a government is exposed to the unfavorable possibility of not being able to meet its aggregate fiscal policy objectives. This situation of vulnerability does not explicitly refer to a momentary situation in which the fiscal-budgetary policy may not be adequate to the present economic-social state, but refers to the unfavorable quality and the reduced capacity for recovery of the fiscal-budgetary policy in a time frame that includes the initial, present state and, above all, its short- and medium-term prospects and consequences on the economic and social environment. From this perspective, fiscal-budgetary vulnerability is not a state that is felt immediately, but a discrete state, which can "hide" in apparently stable fiscal-budgetary situations, in two forms: i) underlying, non-transparent and unidentifiable deficiencies in the analyzes and the present fiscal-budgetary results, but with incidences on the future ability to fulfill the aggregated objectives in its charge; ii) these underlying, non-transparent and unidentifiable deficiencies in current fiscal-budgetary analyzes and results may limit a government's capacity to intervene and respond to short- and medium-term fiscal-budgetary challenges and consolidation needs in response to a shock external, of the nature of crises (economic, social, sanitary, conflicts, etc.).

With regard to the general objectives of the fiscal-budgetary policy, it is well known that they subscribe to the functions of financing public goods and services, of intervention and adjustment of the economy, respectively of maintaining a certain social equity through income redistribution. But, beyond these general and generic objectives, the fiscal-budgetary policy develops a series of other objectives depending on the economic level of the incidence of its measures and actions, namely:

- at the macroeconomic level - the objectives and concerns mainly concern the income-expenditure balance and the adjustment of its results - the budget deficit and the public debt;
- at the sectoral level - intermediate between macro and micro - the pursued objectives concern the tax bases, the structure and contribution of certain tax revenue categories, the structure and orientation of expenses, multiplier effects, etc.;
- at the microeconomic level – the objectives aim at the efficiency of expenses and fiscal-budgetary programs (facilities, subsidies, equity).

Manifestation of fiscal-budgetary vulnerabilities is possible and can be analyzed at any of the three levels, but in this paper we track and analyze potential fiscal-budgetary vulnerabilities at the macroeconomic level, for the following reasons:

- the macro (fiscal-budgetary) level indicators - the budget deficit and the public debt - are the most important for the assessment of the fiscal-budgetary state, the evolution and evaluation of the consolidation process and fiscal-budgetary sustainability, which include elements from the subsidiary and temporal levels , especially from the past and present;
- in the strategy and management of fiscal-budgetary policies, elements/measures must also be followed/implemented to ensure a certain flexibility of them in relation to the economic environment, both through fiscal-budgetary recovery devices and automatic adjustment of the effects of economic cycles, as well as through discretionary measures implemented additionally for recovery or through which it is possible to respond in an adequate and timely manner to the need to adjust internal and external macroeconomic imbalances;
- the ability of the government to obtain revenues in a manner that ensures equity, maintaining reasonable and stable tax rates, as well as supporting the economy through public investment projects with multiplier effects.

The mentioned considerations/objectives can turn into fiscal-budgetary vulnerabilities in the situation where the possible inability to meet any or all of these objectives is manifested, which are not independent of each other, but chained / interconnected, and the causality of a vulnerability can arise from both meanings. Thus, a hypothetical situation, which penetrates all three objectives, can refer to the existence of the budget deficit whose financing through the creation of money can generate inflation, and by contracting loans the sustainability of the public debt is endangered, in perspective, following the possibility of a fiscal policy -restrictive budgets, with increases in some tax rates or the reduction of some categories of government expenditure, especially in the sphere of those with multiplier effects (investments). Such interactions also occur between the fiscal-budgetary objectives from the levels stated above, the causality also being in both directions, the weak points in a certain level being able to manifest negatively on the other levels. Potential weaknesses in the rationale and design of fiscal revenue strategies and government spending programs can create vulnerabilities that can spill over into fiscal objectives. Also, a poor design and implementation of fiscal instruments to ensure a certain fiscal equity can have negative effects in the fight against poverty, which can lead to additional expenses of a social nature to reduce poverty, a vulnerability that can be transferred to the macro level.

The analytical framework pursued in the elaboration of the work has as its starting point an analysis and a discussion of the current fiscal-budgetary state, respectively of the indicators of revenues, expenses, budget deficit and public debt, in the sense of their fulfillment as general macroeconomic and fiscal-budgetary objectives. The current fiscal-budgetary situation is useful in the analysis because it encompasses and describes the previous fiscal-budgetary policy, with the possibility of identifying some of its weak points, potentially generating vulnerabilities. The next step is to develop and expose a short-term perspective on fiscal vulnerabilities.

Considering the character and nature of the vulnerability, in general, but of the fiscal-budgetary one, in particular, i.e. the manifestation in perspective of a possible unfavorable situation in terms of reaching or fulfilling some fiscal-budgetary policy objectives, the interpretation of the evaluation results from this the work must be done with caution, with balance and in the context of its descriptive nature.

2. Fiscal-budgetary situations potentially generating vulnerabilities

Usually, a fiscal-budgetary analysis has as its main point of departure the budget, both the previous one and the current one, respectively its underlying assumptions, more concretely, how realistic they are (see the current situation of the budget in Romania, with the erroneous estimation of some revenues and the need to implement some austerity measures on the budget expenditure side). An unrealistically based budget distorts its result, namely the budget deficit, and can create false premises for the next budget course (vulnerabilities, spending commitments, etc.). In this context, the budget becomes, generically, the main source generating fiscal vulnerabilities, which is true, but quite generally, which is why we will also present other fiscal-budget situations potentially generating vulnerabilities, respectively:

- the availability and transparency of statistical data, their knowledge by government authorities, especially regarding the level of gross debt, about its structure (maturity, fixed vs. variable interest, rates and currency composition), are important elements in identifying the risk short-term fiscal;
- the interpretation of fiscal balances can be a source of vulnerability, deriving from the scale and complexity of fiscal-budgetary activities, the structure of revenues and expenses, but above all, the cyclical nature of some of them;
- the composition of expenses is important in assessing vulnerability. An increased weight of administrative expenses in total expenses, limits fiscal-budgetary flexibility in the need to reduce their level, in crisis situations;
- the structure of tax revenues is also important. A good fiscal structure is one in which revenues come from a series of broad-based taxes, ideally, large macroeconomic aggregates (wages, profit and consumption), a situation that will favor a balanced and flexible fiscal system, which is desired from the point of view of facilitating countercyclical fiscal policy through the operation of automatic stabilizers. A revenue structure dominated by one or two taxes with narrow tax bases is a source of

vulnerability, both by increasing a government's exposure to unexpected fiscal developments and by limiting its ability to respond when needed.

Therefore, there are a number of fiscal-budgetary sources and postures that can lead to fiscal-budgetary vulnerabilities.

3. The current fiscal-budgetary situation

The current fiscal-budgetary situation, which also includes historical aspects of the fiscal process and the economic environment in general, can represent a source of vulnerability to the extent that the macro objectives described above are not met. Thus, if the current fiscal position is characterized by large deficits and debts, inability to respond to macroeconomic imbalances (for example, because automatic stabilizers are small and discretionary fiscal policies take time to formulate and implement), and/or high tax rates, then the presumption is created for fiscal-budget vulnerabilities in the short and medium term.

Annex 1 presents data on the evolution of some general indicators, but also on the structure, through which we capture the current fiscal-budgetary state, with an attempt to summarize the situations and situations described previously, potentially generating vulnerabilities, in the period 2007 - 2022.

Total incomes, but also in their structure, record decreases in their share in GDP in 2022, compared to 2007. Thus, at the level of total incomes, there is a decrease in their share in GDP of 1.3 pp, the most important source of the decrease being generated by fiscal revenues from direct taxation, which will be at a lower level in 2022, by 2.1 pp of GDP, compared to 2007, but also against the background of the decrease in the same sense, of other categories of fiscal revenues, including the level of social contributions. Non-tax revenues represent the only revenue category that recorded a higher share in GDP, in 2022, compared to 2007, by +0.7 pp.

Within the analyzed period, the evolution of the share of total revenues and their structure, shows cyclical evolutions, with decreases in the crisis periods (2008 – 2009 and 2020, especially regarding the revenues from direct taxation) and with increases in the post-crisis periods.

Contrary to the general and accentuated trend of reduction of total revenues and in their structure, the share of total expenses registers higher increases in most chapters of their structure. Thus, total expenses have a higher weight in GDP in 2022, compared to 2007, of 1.7 pp. In their structure, the current (administrative) expenses of the state represent the main source of increase in total expenses, they are 4.9 pp higher in 2022, compared to 2007. At the same time, investment expenses (those expenses with a direct impact on the economy, but also on tax revenues through the tax multiplier effects they generate) have decreased by approx. 1 pp in 2022, compared to 2007.

Within the analyzed period, total expenses and their structure increased during the crisis periods (2009-2010 and 2020-2021) and gradually moderated in the post-crisis periods.

A first interpretation of the current fiscal-budgetary situation, based on the income and expenditure situation, suggests a state of imbalance, a state that tends to deteriorate compared to 2007 and which represents a major factor of fiscal vulnerability, especially in the occurrence of an economic, social, health, energy or regional security crisis.

The second interpretation of the current fiscal-budgetary state results from the evolution of the two fiscal-budgetary indicators in relation to the state of the economy. Thus, the imprint of the two major crises that affected the economy can be faithfully observed in the evolution of the two indicators, the incomes being affected, and the expenses requested to boost the economy, the social environment in order to mitigate the effects and overcome the state of economic recession. The period after the economic and financial crisis (2013-2016) generated a consolidation of public finances, both on the basis of economic recovery and on the basis of the constraints implemented at the European level to restore public finances, but the subsequent management of the fiscal space thus created was unfavorable (the administrative expenses of the state increased) and vulnerabilities appeared in the following years, especially on the budget deficit, which led to the opening of the excessive deficit procedure on Romania by the European Commission, a situation suspended as a result of the outbreak of the COVID pandemic in February 2020.

The observed imbalance was recorded annually in the size of the conventional accounting budget balance, deteriorating by -3 pp, in 2022, compared to 2007. The primary conventional budget balance indicates that the size of interest expenses related to public debt service increased from 0.7 pp, in 2007, to 2 pp in 2022.

A relevant indicator in the analysis and evaluation of the fiscal-budgetary policy, in addition to the ones mentioned, but with direct influence on it, is the public debt. It progressively incorporates the annual fiscal-budgetary results and reflects the institutional capacity of fiscal-budgetary management. The evolution of this indicator during the analyzed period indicates an increase of more than 27 pp, in 2022, compared to 2007, respectively from 20% to 47% of GDP, an aspect that clearly shows a weak fiscal performance, especially in the sphere of revenue formation and an excessive expenditure policy, a conjunctural institutional management, which did not seek to implement a balanced conduct, a sustainable path, to the fiscal-budgetary policy. The alternatives of revising some tax rates, consolidating the tax bases, or improving collection, were neglected, for electoral reasons and priorities, resorting exclusively to the contracting of loans, an aspect that transfers to future generations a fiscal burden- difficult budget.

The third interpretation of the current fiscal-budgetary situation is the fact that the deficiencies in the budget process are found cumulatively in the size of the current public debt, this representing a vulnerability factor on the future fiscal-budgetary policy, the current size of interest expenses being 2% of GDP .

Fiscal consolidation resumes with difficulty, being positive signals in 2022, deficits entering a reduction process compared to 2020 and 2021, and the evolution of the weight of the total public debt recorded a reduction of over 1 pp of GDP. However, the fiscal burden is much heavier today, in relation to the period after the economic crisis of 2008, i.e. if the deficit can be adjusted in the next one / two years, the debt burden is much increased, this being, in fact, the "real cost" of the effects the two major crises that humanity and, implicitly, Romania has gone through, but also the effect of a fiscal-budgetary policy unable, in the current state, to generate and collect revenues at the level of some countries in the region with a similar fiscal regime (e.g. Bulgaria).

4. Final findings and comments

The objective pursued in the paper aimed at identifying those characteristics of the Romanian fiscal-budgetary system that tend to compromise the ability to fulfill fiscal objectives (traditional or those newly emerging from the evolution of society, the globalization process, etc.), These characteristics offer the possibility of better management of the potential vulnerabilities arising from them, so as to limit the exposure to possible negative results by improving the ability of the fiscal-budgetary system to respond to its general objectives, but also to unanticipated economic and social developments.

The main unfavorable characteristic of the budgetary fiscal system seems to be the fact that it has accumulated a certain exhaustion in most of its structures, an aspect indicated by the fact that Romania frequently ranks last at the EU level in terms of the level of income generated by certain tax bases, of certain quotas of taxation, of the degree of collection, etc., a situation that manifested itself regardless of the economic state (stability, crisis).

This characteristic is accentuated by the fact that in the analyzed period in the structure of budget expenditures, a broad dynamic of the state's administrative expenditures and an excessive limitation of those for investments can be distinguished, these representing the main factor of inducing multiplier effects in the economy and, subsequently, on tax revenues, by expanding some tax bases.

This state of exhaustion of the fiscal-budgetary system, generated by insufficient revenues and excessive administrative expenses, affected its potential to adapt to the requirements of each stage of national, European and international economic and social evolution. The needs of public funds were covered by borrowing and accumulating public debt at an alarming rate.

From this perspective, the main vulnerability to the fiscal-budgetary policy emerges, namely the excessive indebtedness and the cost of servicing the public debt, located at very high levels in relation to their history at the national level, and their multiplier effect is not found in the economy and society, a fact that will complicate the fiscal burden in the future, practically transferring the affordability of public debt costs to future generations, without significant accumulations in terms of economic desolation, fiscal culturalization, etc.

The Romanian fiscal system is characterized by short-term actions, excessive relaxation, reduced collection, pressures on the deficit and debt, in general a fiscal system insufficiently adequate to the economic situation and not calibrated to achieve strategic objectives of revitalizing fiscal revenues in the short and medium term.

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Annex 1. Data on the current fiscal-budgetary state of Romania (period 2007 – 2022, shares in GDP)

Indicator		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Dif. 2007 – 2022 pp
Revenues	**total**	**34.8**	**32.3**	**30.4**	**32.4**	**32.5**	**32.3**	**33.7**	**34.2**	**35.5**	**32.5**	**31.1**	**31.7**	**31.6**	**32.3**	**32.7**	**33.5**	**+1.3**
	direct	6.7	6.8	6.3	5.7	5.5	5.6	5.6	5.5	6.0	5.9	5.6	4.4	4.3	4.1	4.4	4.6	+2.1
	indirect	11.8	11.7	10.3	11.6	12.7	13.0	12.6	11.9	12.7	11.1	10.2	9.9	9.9	9.5	10.5	10.9	+0.9
	social security contributions	9.9	10.1	9.5	8.9	9.2	8.8	8.7	8.5	8.2	8.1	8.5	10.3	10.7	10.6	10.7	9.8	+0.1
	non-tax	2.1	3.4	2.9	3.9	3.3	3.1	2.7	2.5	2.8	2.4	2.6	2.9	2.6	2.3	2.2	2.8	-0.7
Expenses	**total**	**37.5**	**37.7**	**39.9**	**39.5**	**38.1**	**36.2**	**36.0**	**35.4**	**36.0**	**35.0**	**33.6**	**34.5**	**36.0**	**41.5**	**39.4**	**39.2**	**-1.7**
	stream	31,3	32,4	34,1	35,8	33,4	32,3	31,8	31,2	32,2	29,4	30,6	31,6	33,0	37,8	35,9	36,2	-4.9
	of capital	3,7	4,5	4,6	3,7	4,2	3,3	2,9	2,5	2,6	2,5	2,3	2,5	2,9	3,2	2,8	2,8	+0.9
	other	2,5	0,8	1,2	0,0	0,5	0,6	1,3	1,7	1,2	3,1	0,7	0,4	0,1	0,5	0,7	0,2	+2.3
Budget balance	**conventional accountant**	**-2.7**	**-5.4**	**-9.5**	**-7,1**	**-5.6**	**-3.9**	**-2.3**	**-1.2**	**-0.5**	**-2.5**	**-2.5**	**-2,8**	**-4.4**	**-9.2**	**-6.7**	**-5.7**	**-3.0**
	conventional primary	-2,0	-4,7	-7,7	-5,4	-3,8	-1,9	-0,4	0,4	0,9	-1,2	-1,3	-1,6	-3,3	-8,4	-5,5	-3,7	+1.7
	structural	-5.0	-8.3	-9.2	-5.5	-3.7	-3.7	-1.3	-0.7	-0.3	-1.4	-2.7	-3.1	-4.7	-7.5	-6.0	-6.3	-1.3
Total public debt	share in GDP	**19,8**	**21,3**	**23,6**	**30,5**	**34,7**	**38,1**	**38**	**39,8**	**37,8**	**37,4**	**35,1**	**34,7**	**35,3**	**47,3**	**48,9**	**47,2**	**-27.4**
	annual growth rate	29,9	33,4	34,2	6,8	21,4	15,1	8,7	9,8	2,7	6,1	5,5	9,7	13,1	33,4	15,5	15,5	-

Source: budget executions of the consolidated general budget, available at https://mfinante.gov.ro/domenii/bugetul-de-stat/informatii-executie-bugetara and eurostat data