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IAS 40 - INVESTMENT PROPERTY

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Abstract:
This paper provides a comprehensive examination of IAS 40 Investment Property, a pivotal standard within the IFRS, which stands for "International Financial Reporting Standards", aimed at enhancing the transparency and comparability of financial reporting for entities holding investment properties. It delves into the objectives, scope, recognition criteria, measurement models (cost and fair value), and disclosure requirements of IAS 40, highlighting the standard's significance in ensuring accurate and relevant financial information. Through real-world case studies, the paper explores the practical application and challenges of implementing IAS 40, including issues related to fair value determination and the impact of changing use on property classification. Future directions, such as considerations for sustainability and the implications of new leasing standards, are discussed to anticipate how IAS 40 might evolve in response to global financial and environmental trends. This analysis underscores the crucial role of IAS 40 in the broader context of financial reporting.

Keywords: IAS40, Investment, Property, Reporting

1. INTRODUCTION: IAS 40 INVESTMENT PROPERTY

The landscape of financial reporting is complex and varied, stretching across geographical boundaries and adhering to different legal systems and market conditions. In this intricate world, the IFRS (International Financial Reporting Standards) serve as a beacon of uniformity and transparency. Established by the IFRS Foundation, these standards aim to bring consistency to accounting practices worldwide, facilitating stakeholders to have a better understanding and comparison of financial statements throughout the world.

One critical standard within the IFRS suite is IAS 40, Investment Property. This standard is pivotal for entities that own property (building, land, or only a part of a building and/or land) as an investment, either for capital appreciation, rental income, or both. Unlike assets that are used for administrative purposes or held for sale as part of regular activities, investment properties are held for capital appreciation, to accumulate rentals, or both, which necessitates distinct accounting treatment.

The importance of IAS 40 lies in its role in clarifying the criteria for recognizing, measuring, and disclosing investment property. By doing so, it improves the transparency and how well financial statements compare, providing stakeholders with reliable and relevant data to make informed investment decisions. This introduction sets the stage for a comprehensive exploration of IAS 40, from its objectives and scope to its implications for financial reporting and the challenges it presents in practice. (IFRS, 2024)

2. OBJECTIVE OF IAS 40 INVESTMENT PROPERTY

The primary objective of IAS 40 is to dictate the accounting rules for property that is meant as an investment as well as the requirements for its disclosure. The IAS 40 aims to provide stakeholders with pertinent data regarding a company's property investments, which is crucial for assessing the company's financial status and efficiency. Unlike property, plant, and equipment (PPE), which primarily supports the creation of services and goods, or inventories held for sale as part of the company's usual activities, investment property is held for capital appreciation, to generate rental income, or both.

IAS 40 addresses the need for a distinct accounting treatment for investment property because the reasons for holding such property differ significantly from those for holding other types of property. This distinction impacts how entities measure the carrying amount of investment property and recognize related income and expenses.

By providing a framework for consistently accounting for investment property across entities and jurisdictions, IAS 40 enhances the comparability and reliability of financial information. This comparability is essential for creditors, investors, and other stakeholders, all of whom depend on financial reports to make economic judgements, such as whether to invest in, lend to, or participate in other business with a company. (IAS PLUS, 2024)

3. SCOPE OF IAS 40 INVESTMENT PROPERTY

The IFRS' IAS 40 applies to the reported accounting for property building, land, or only a part of a building and/or land) held for capital appreciation, to earn rentals, or both, by the company. This includes investment property held by an entity under a lease and is accounted for as if it were owned, as well as property being constructed for the eventual use as an investment property.

However, the standard is not applicable to:

- Assets classified as biological and related to agricultural activity (covered by IAS 41-Agriculture).
- Mineral rights and reserves (natural gas, oil, as well as other non-regenerative resources.)

Furthermore, IAS 40 offers guidance on establishing whether a property qualifies as investment property or, importantly, distinguishes it from plant, property, or equipment. The standard also addresses situations in which a property includes both owner-occupied property and investment property, requiring the portion that is rented to others under a lease to be considered investment property only if it could be sold separately.

The exclusions and specific guidance ensure that IAS 40 is applied only to the types of property for which its requirements were intended, enhancing the

4. RECOGNITION OF INVESTMENT PROPERTY

The criteria for recognition of investment properties under IAS 40 are fundamental to ensuring that only the appropriate assets are accounted for under this standard. A company shall recognize a property as investment property only if it meets the definition of investment property, and it is likely that future economic benefits associated with it will be received by the company. Moreover, the cost of the previously mentioned property can be reliably evaluated. This requirement aligns with the objective of providing data that is reliable to the stakeholders of the company.

For a property to be considered as investment property, it must be held for capital appreciation; available for lease to provide rental income, or both. The initial recognition occurs at the cost of the property, including transaction costs. The standard mandates that after initial recognition, entities must decide between the cost model and the fair value model for future measurement of investment property. (Viewpoint, 2022)

The recognition process is very important for the financial reporting of investment properties, ensuring that the assets reflected on the balance sheet accurately represent those that are held for capital appreciation or create rental income. The rigorous application of these criteria ensures the reliability and relevance of financial information, providing a sound basis for the decisions of stakeholders.

5. MEASUREMENT AT RECOGNITION

Upon initial recognition, investment property is measured at cost. This cost includes the purchase price as well as any directly attributable expenditure necessary to bring the property to the state required for it to operate in the expected way. Directly attributable costs include property transfer taxes, professional fees for legal services, as well as other transaction costs.

The initial cost also includes the estimated cost of disassembling, removing, and repairing the place in which the asset can be found, which is an obligation that a company bears when the asset is obtained or as a result of using it for purposes other than making inventory during a specific time period.

IAS 40 requires that an entity determine whether it will use the cost model or the fair value model for future estimations at the time of the recognition of the investment property. This decision affects how future measurements and valuations of the investment property are handled, highlighting the importance of the initial measurement as a foundation for subsequent accounting. (International GAAP, 2020)

6. SUBSEQUENT MEASUREMENT

IAS 40 allows for two models of subsequent measurement: the fair value model and the cost model. Entities must select the model that will apply to all of their investment property.

Fair Value Model: The fair value model needs a company to always measure investment property at fair value, with any shifts in the fair value recognized in the profit or loss statement. This approach shows the conditions of the market at the time of reporting, providing more accurate data to the stakeholders but also introduces volatility to the profit or loss statement.

Cost Model: The cost model is regarded as the more conventional or well-established approach to PPE asset accounting. After acquisition, the asset is valued using this model at cost minus any accrued depreciation or impairment losses. This model is similar to the accounting for plant, property, and equipment in IAS 16 and involves depreciating the asset over the course of its useful life and testing it for issues according to IAS 36, Impairment of Assets.

The choice between the models has significant implications for the financial statements, affecting not only the measurement of investment property but also the presentation of financial position, the volatility of earnings, and the comparability of financial information across entities. (IAS PLUS, 2024)

7. TRANSFERS

IAS 40 provides guidance on transfers to and from investment property. Such a transfer can occur only when the use of the property is changed, as shown by:

- The owner begins using the asset themselves, turning it into an owner-occupied asset
- Development of the asset for the purpose of selling it, turning it into inventories.
- The owner no longer occupies the property, turning it into an investment property
- Leasing the property, transferring it from inventories to the investment property classification

These transfers are accounted for at the property's carrying amount at the moment of change in use, and the standard requires companies to apply IAS 40's rules to judge if an asset can qualify as investment property. This aspect of IAS 40 ensures that the classification and measurement of properties reflect their current use and intention of management, providing relevant and reliable information to stakeholders. (IFRS, 2024)

8. DISPOSAL OF INVESTMENT PROPERTY

The disposal involves removing the asset from the balance sheet and recognizing any resulting loss or gain in the profit or loss statement for that period. According to IAS 40, the difference between the asset's carrying value at the time of disposal and the net disposal proceeds must be used to calculate any gains or losses from the sale of investment property. This treatment ensures that the effects of the disposal on the company's financial performance and position are appropriately shown in its financial statements.

IAS 40 mandates that the loss or gain from disposal should be included in the profit or loss statement at the time when the disposal happens. This approach aligns with the principle of recognizing income and expenses for the period they occurred, providing users of the financial statements with timely and relevant information about the entity's financial activities.

For investment properties measured using the fair value model, the loss or gain would reflect changes in the fair value of the asset up to the sale date, illustrating how the fair value model captures market conditions and their influence on the company's financial results.

9. DISCLOSURE REQUIREMENTS

IAS 40 sets out comprehensive disclosure requirements that aim to provide stakeholders with the data necessary to understand the impact of investment property on a company's financial performance, financial position, and cash flows. These disclosures are as follows:

- Whether the entity applies the cost model or the fair value model.
- When the fair value model is applied, a disclosure of the significant assumptions and methods applied in the determination of the fair value of investment properties, as well as the extent to which these values are based on valuations by professional, independent valuers.
- The total carrying amount of investment property and, for properties measured at fair value, the range of estimates within which the fair value is most sensitive to changes in assumptions.
- The amounts recognized in the profit or loss statement for income from rentals, as well as direct operating expenses, which should include those from investment properties which provided rental income during that time and those that did not, and the cumulative shift in fair values as shown in the profit or loss statement on a sale.

These disclosure requirements are designed to provide a comprehensive overview of how investment properties are accounted for and valued, offering insights into the assumptions and methods used in their valuation and the financial impact of investment properties on the entity. (IFRS, 2024)

10. CHALLENGES AND CRITICISMS OF IAS 40

Applying IAS 40, particularly the fair value model, presents challenges and criticisms. One significant challenge is the determination of fair value, especially when no active markets are available for some investment properties. This situation requires entities to use valuation techniques, which introduces estimation uncertainty and requires significant judgement, thereby affecting the accuracy and comparability of the financial statements.

Critics argue that the volatility introduced by the fair value model can distort a company’s financial performance, as unrealized gains or losses from changes in the fair value of investment properties flow through profit or loss. This volatility is seen as not reflective of a company's operational performance, particularly for entities that hold investment properties for long-term rental income.

Moreover, the choice between the models can lead to inconsistencies and reduced comparability across entities, as two entities with identical investment properties might report significantly different financial results and positions based on the model selected.

11. COMPARISON WITH OTHER STANDARDS

IAS 40 interacts with several other IFRS standards, such as “IFRS 13-Fair Value Measurement” and “IAS 16-Property, Plant and Equipment”. It is crucial to understand these interactions to apply IAS 40 effectively. For example, the distinction between owner-occupied property and investment property involves assessing the purpose for which a property is held, requiring judgement and consideration of the guidance in IAS 16.

Comparatively, the accounting treatment of investment properties under IFRS and properties under US GAAP (ASC 842, Leases, and ASC 360, Property, Plant, and Equipment) reveals differences in classification, measurement, and disclosure requirements. These differences can impact the financial statements of multinational entities and entities that report under both GAAPs. (IFRS, 2024)

12. CASE STUDIES AND EXAMPLES

To illustrate the application of IAS 40 in real-world scenarios, consider the following case studies:

Case Study 1: Transition from Cost Model to Fair Value Model

A real estate company, which previously used the cost model for its portfolio of investment properties, decided to switch to the fair value model to provide a more accurate representation of its assets' worth. This decision impacts its financial statements significantly, with an increase in the carrying amount of its properties reflecting market values. The case study explores the process of revaluation, the challenges in determining fair values, and the impact on financial ratios and stakeholders' perception.

Case Study 2: Determining Investment Property Status

A multinational corporation owns a large office building, part of which is leased to external tenants, while another part is used for its headquarters. This example delves into the criteria for segregating the asset into owner-occupied property and investment property, the accounting treatment for each part, and how changes in use can affect the classification and measurement of the property.

These case studies demonstrate the practical challenges and considerations entities face when applying IAS 40, emphasising the standard's flexibility and the need for judgement in its application.

13. EXAMPLE: BLACKSTONE GROUP'S REAL ESTATE INVESTMENTS

Overview of the Company

The American multinational private equity, alternative investment management, and financial services company, "Blackstone Group" is well-known for having a substantial global footprint in the real estate industry. As one of the largest real estate private equity firms across the globe, Blackstone acquires, manages, and capitalises on real estate properties across various sectors.

Application of IFRS IAS 40

IAS 40 concerns properties held for the purpose of earning rentals, for capital appreciation, or both. Blackstone's strategy aligns with the criteria of IAS 40 as it invests in properties primarily for the purpose of earning rental income and/or selling them at a higher price.

Specific Investment Strategy

One of Blackstone's notable strategies is the acquisition of commercial real estates such as office buildings, retail spaces, and logistics centres. These properties are often purchased during market downturns or when they are undervalued, managed and improved to increase their value, and either leased to generate rental income or sold when their market value increases.

Case Example: Acquisition of Stuyvesant Town-Peter Cooper Village

Background: In October 2015, Blackstone and Ivanhoé Cambridge, a Canadian real estate company, purchased Stuyvesant Town-Peter Cooper Village, which was a considerably large, residential complex in Manhattan, New York, for approximately $5.3 billion.

Objective: The primary objective was to generate stable rental income from the over 11,200 apartments and to benefit from the long-term appreciation of New York City real estate.

Financial Strategy: The deal included an agreement with the city to preserve a portion of the apartments at below-market rents which not only secured income but also provided social benefits.

Outcome: This investment exemplified Blackstone's strategy of buying undervalued properties, managing them effectively, and holding them as a long-term investment for both rental income and capital appreciation.

Financial Reporting

According to IAS 40, Blackstone would classify properties like Stuyvesant Town as investment properties, initially measuring them at cost, plus transaction costs. Blackstone then has the option to choose either a fair value model or a cost model for determining the investment property’s value. The fair value model would require the property to be re-measured at the end of every reporting period, and changes in the fair value would be recognized in the profit or loss statement for the period in which they occur.

Conclusion of Example

Blackstone's acquisition of Stuyvesant Town and similar investments highlight its effective implementation of a strategy aligned with IAS 40. These investments not only generate considerable rental incomes but are also aimed at benefiting from capital appreciation, reflecting a robust business model in the real estate sector. This strategy enables Blackstone to leverage market cycles and add significant value to its investment portfolio, maintaining a strong position in the competitive real estate investment market.

14. FUTURE DIRECTIONS

Recent developments and ongoing discussions about IAS 40 include considerations for incorporating sustainability and climate change impacts into the valuation of investment properties. As the global emphasis on environmental, social, and governance (ESG) criteria grows, the accounting for and disclosure of investment properties may evolve to reflect these factors more explicitly.

Furthermore, IASB (the International Accounting Standards Board) continues to assess the interaction between IAS 40 and other standards, particularly in light of the new leasing standard, IFRS 16, to ensure consistency and clarity in accounting for leases related to investment properties. (IFRS, 2024)

15. CONCLUSIONS

IAS 40 Investment Property plays a crucial role in the landscape of financial reporting, offering entities a framework for accounting for properties held to earn rentals or for capital appreciation. By distinguishing investment properties from owner-occupied properties and inventories, IAS 40 enhances the relevance and reliability of financial information, aiding stakeholders in making informed decisions.

The standard's flexibility, allowing for the use of either the cost model or the fair value model, caters to different entities' needs and market conditions. However, this flexibility also introduces challenges, particularly in the determination of fair value and the potential for reduced comparability across entities.

As the business environment evolves, particularly with increased focus on sustainability and the impacts of climate change, IAS 40 may undergo further refinements. The ongoing dialogue between the IASB, preparers, auditors, and users of financial statements will ensure that the standard continues to meet the needs of the market while maintaining its core objective of enhancing transparency and comparability in financial reporting.

This paper has traversed the breadth of IAS 40, from its objectives and scope through to its application challenges and future directions, providing a comprehensive overview that underscores its significance in the accounting and reporting of investment property. (IFRS, 2024)

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LEADERSHIP STYLES IN A CULTURALLY DIVERSE ENVIRONMENT

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Abstract:
The success or failure of an organization is mainly determined by the leadership style adopted by its leaders. Leaders must choose their methods wisely, as each approach yields different outcomes. How leaders work and relate to their people will always determine their success or failure. Future leaders can significantly impact individuals with different backgrounds by understanding the importance of choosing the right leadership style in different cultural settings. This means leaders can inspire and empower their teams to succeed in multiple cultures with the right approach. The paper's main aim is to identify how each leadership style could influence the success of a leader in different cultures or settings. We expect to find out how a leader can easily pick up a style and achieve great results regardless of culture.

Keywords: Leadership, Culture, Success

1. INTRODUCTION

The concept of leadership has always been a crucial topic in the business world because leaders are the ones who shape people and their well-being in an organization. Leaders are the ones who possess a complex mix of skills, qualities, actions, and beliefs that help others achieve their goals in different aspects of their lives and work. As Martin Luther King, Jr. said "A good leader takes a little more than his share of the blame, a little less than his share of the credit. A genuine leader is not a searcher for consensus but a molder of consensus. Martin Luther King, Jr.".

As leadership advanced throughout history, leadership styles emerged as distinct approaches and behaviors that leaders employ deliberately to guide and influence. Some of these styles are the following: autocratic and democratic styles, transactional leadership, transformational leadership, laissez-faire styles, servant leadership, and charismatic leadership. Each style has its unique characteristics and advantages, and leaders must consider their preferred style depending on the environment they find themselves in.

It is crucial to recognize that an organization's culture can play an essential role in determining the most effective leadership style. As Geert Hofstede said, "Which animal the ruler should impersonate depends strongly on what animals the followers are." In other words, leaders must be able to adapt their leadership style to the culture and context in which they operate.

Our goal is to help leaders understand the importance of knowing various leadership styles and how to apply them effectively in different cultural contexts. By identifying their team and organization's cultural norms and values, leaders can choose the best leadership style that suits their needs.

Our research in this area was conducted using a comprehensive approach. We thoroughly examined multiple articles and considered various perspectives from experts, professionals and individuals actively involved in this field. We analyzed the data with great attention to detail to ensure its accuracy and comprehensiveness. Our goal was to gain a deep understanding of the subject matter and provide insights that can be valuable to those interested in this area. We believe that our research can contribute to the existing body of knowledge and assist decision-makers in making informed choices.

2. LITERATURE REVIEW

Gary Yukl (2006) defines leadership as "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives."

On the other hand, the emergence of leadership styles is a result of discovering effective methods that work for oneself or others. Some of these styles are the following: autocratic and democratic styles, transactional leadership, transformational leadership, laissez-faire styles, servant leadership, and charismatic leadership. In this chapter, we are going to explore the particularities of each style.

Let's define these styles and understand what they represent:

The autocratic and democratic styles:

In 1939, Kurt Lewin identified these two concepts. The autocratic concept describes a leader who has absolute control over his people. They don't allow too much input from their members; they like to make almost every decision and create highly structured environments. On the other hand, the democratic leader allows everyone to participate with ideas and they usually organize brainstorming sessions, so everyone gets a chance to speak their mind.

Transactional leadership:

In 1947, Max Weber conducted a study and developed a management style that he called Transactional Leadership. This approach is based on a more structured and rigorous system of checks and balances throughout a company's production lifecycle. Typically, employees are assigned short- and long-term goals and are expected to work towards them under supervision. The company sets strict guidelines that everyone is expected to follow. Employees who meet their goals are rewarded, while those who fail to meet their deadlines are reprimanded.

Transformational leadership:

Developed in three phases, first discovered by James V. Downton in 1973, then expanded by James Burns in 1978, and Bernard M. Bass in 1985, it is mainly a management philosophy that encourages and inspires employees to innovate and develop new ways to grow and improve the path to a company's future success. Using this method, executives give trusted employees the independence to make decisions and support new problem-solving approaches.

3 important characteristics:

- Giving a sense of purpose to its employees.
- Communicating effectively with its people.
- Trusting its team and making them trust him.

Laissez-faire styles:

It was discovered in 1930 by Kurt Lewin and other researchers. It aims to make leaders have trust and reliance on their employees. This style allows their employees to feel creative in the company, it allows their employees to use the knowledge and the resources of the company to meet its goals.

Let's explore some characteristics of this style:

- Little guidance from leaders
- Employees can make decisions
- Leaders take responsibility for overall actions and decisions
- Access to many resources and tools

Servant leadership:

Robert K. Greenleaf discovered the servant leadership style, and he mentioned it in his paper during the year 1970. Servant leadership prioritizes the welfare and development of individuals and their communities. Unlike traditional leadership, which emphasizes power accumulation and exertion at the top, servant leadership is characterized by power-sharing and prioritization of the needs of others, thus enabling individuals to perform at their best.

Charismatic leadership:

According to the study conducted by Max Weber in 1922, charismatic leadership is defined by the leader's traits. Such leaders possess an inspiring vision and can captivate and motivate their followers through their powers of persuasion and emotional influence. This approach to leadership is associated with a trait-based perspective and a somewhat idealized view of leadership. However, the perception of charisma is subjective and depends on the characteristics of the followers. This implies that the followers' traits also play a significant role in identifying who qualifies as a charismatic leader.

What is Cross-Cultural Leadership?

By examining its name, we can understand that cross-cultural leadership explores the differences between nations. It aims to unite nations by using different approaches so that a leader can have a significant influence over any nation. This type of leadership can bring individuals from different cultures together, direct them toward a common goal, and enable them to showcase their talents. It also helps leaders avoid cultural biases that can lead to misunderstandings, confusion, and offense when interacting with people from diverse cultural backgrounds. A global mindset is essential for leaders, which allows them to assess the potential impact of decisions across various cultural settings and make decisions that are sensitive to diverse needs and values.

Research Question 1

How do leadership styles (transformational, transactional, autocratic, etc.) affect employee job satisfaction and engagement in various organizational contexts?

Research Question 2

What is the relationship between perceived leadership effectiveness and organizational performance metrics such as productivity, profitability, and employee turnover?

Research Question 3

How do cultures and differing nationalities affect leadership styles?

Research Question 4

In high-stress work environments, how do different leadership styles impact employees' mental health and well-being?

Research Question 5

What role does leadership play in promoting diversity and inclusion within organizations, and how does this influence organizational culture and performance?

3. RESEARCH METHODOLOGY

To write this research paper, we have gone through with reading over three dozen peer-reviewed articles and have compared trends between countries and chose which ones to use based on their age (newer articles were favored over older ones), and their relevance (which we measured by how in-depth the research is and its limitations). Accordingly, this research paper has its limitations. The research methodology includes as such, both quantitative and qualitative research, a case study that compares two continents as a proof of concept for our proposed solution and answers the five questions that this research is based on, based on the accounts of people working in Europe and Asia respectively. Using this analysis, we aspire to add something of value to the management world.

4. FINDINGS

According to Tomas Chamorro-Premuzic and Michael Sanger (2016), ‘the core ingredients of leadership are universal (good judgment, integrity, and people skills), the full recipe for successful leadership requires culture-specific condiments. The core rationale behind this approach stems from the variation in cultural perceptions regarding leadership, specifically the underlying beliefs and assumptions about the traits and behaviors that are necessary for an individual to be recognized as a leader.’

We have already defined most of the leadership styles in the introduction, however, the exact definition and its characteristics differ from continent to continent. We will go through each continent and then compare the most common and effective Leadership Styles used, on a continent-by-continent basis, to find their similarities and differences. At the end, we will talk about our solution, Cross-Cultural Leadership.

4.1 Leadership Styles Common Within Asia

Servant Leadership: This style focuses on the leader serving their team, like the benevolence and care shown in Paternalistic, Benevolent, and Moral Leadership. Servant leaders prioritize the growth and well-being of their team members and the communities to which they belong. They share power, put the needs of others first, and help people develop and perform as highly as possible, akin to the Guiding Leadership style.

Transformational Leadership: This style is characterized by leaders who inspire and motivate their teams to achieve extraordinary outcomes and, in the process, develop their leadership capacity. Transformational leaders help followers grow and develop into leaders by responding to individual followers' needs, empowering them, and aligning the objectives and goals of the individual followers, the leader, the group, and the larger organization. This style reflects aspects of Strategic Leadership, Harmony Leadership, and even elements of Moral Leadership.

4.2 Leadership Styles Most Common Within Europe

Democratic Leadership: Also known as Participative Leadership, is characterized by leaders who encourage and value the input of team members and other stakeholders in the decision-making process. These leaders prioritize inclusiveness and collaboration, fostering a sense of ownership and engagement among their team members. Characteristics of this style include:

Inclusiveness: Actively seeking input from team members.

Empowerment: Encouraging team members to take an active role in decision-making.

Collaboration: Fostering a team environment where ideas and opinions are freely shared.

Adaptability: Being open to different ideas and perspectives.

This leadership style can be particularly effective in fostering innovation and creativity. It's common in countries with a strong emphasis on egalitarian principles, such as the Scandinavian nations.

Transformational Leadership: Specifically modified to Europe’s standards, this style involves leaders who inspire and motivate their teams to exceed their current capabilities and to innovate. Transformational leaders focus on big-picture visions and lead changes within the organization. Key traits include:

Inspirational Motivation: Motivating team members through a compelling vision of the future.

Intellectual Stimulation: Encouraging innovation and creativity.

Individualized Consideration: Providing support and encouragement to individual team members.

Charisma: Using personal appeal and charm to inspire and lead.

Transformational leadership is particularly effective in environments that are dynamic and require a high level of creativity and innovation. It can be found in various European countries, especially those that are rapidly evolving or have a strong focus on innovation and technological advancement.

It is important to note, however, that there is a difference in culture between Western Europe and Eastern Europe, particularly in the contrast between individualistic and collectivist approaches. Eastern leadership tends to emphasize the collective aspect more strongly, with leaders showing a high degree of commitment to both their team and the overall organization.

4.3 Leadership Styles Common Within America

Autocratic Leadership: This style is characterized by individual decision-making, with the leader having full control over decisions and little input from group members. Key aspects of this style evident in the description include:

Individual Responsibility: The emphasis on managers being accountable for decisions in their areas aligns with the autocratic approach where the leader assumes full responsibility.

Centralized Decision-Making: Despite discussions in open forums, the ultimate decision and responsibility lie with the leader, reflecting an autocratic tendency.

Power and Titles: The focus on power and the significance of titles, even if they don't always reflect the actual importance of the individual, suggests a hierarchical structure typical of autocratic leadership.

Transactional Leadership: This style focuses on the exchanges that occur between leaders and their followers. Leaders provide clear instructions and expectations, and reward or punish team members based on performance. Aspects of this style seen in the description include:

Accountability and Rewards: The idea that "outstanding success will inevitably bring outstanding rewards" is a fundamental principle of transactional leadership, where the leader uses rewards and penalties to motivate employees.

Performance-Oriented: Emphasizing the results and holding leaders accountable for their decisions aligns with the transactional focus on performance outcomes.

When it comes to disagreements, the approach is to confront the deadlock head-on, often with a great deal of emotion. This forthright and vigorous style of debate, while sometimes perceived by cultures that value harmony as a sign of deteriorating discussions and a cue to withdraw, is regarded positively in American settings.

4.4 Leadership Styles Common Within Africa

Transformational Leadership: This style, found on many other continents as well. When discussing its specific characteristics on the continent of Africa, it involves inspiring and motivating followers to achieve more than they originally intended or thought possible. Characteristics that align with the specifics of African leadership include:

Holistic View of Leadership: Seeing leadership as extending beyond the individual to encompass the entire community resonates with the transformational leader’s focus on collective progress.

Focus on Relationships and Community: Emphasizing the importance of relationships and the needs of the group rather than the individual is a hallmark of transformational leadership.

Servant Leadership: This approach focuses on the leader serving their team, prioritizing the needs and development of their followers. Aspects of African leadership that align with servant leadership include:

Collectivist Orientation: Focusing on the needs of the group rather than individual achievements.

Consensus-Oriented Decision Making: Prioritizing group agreement and collaboration over hierarchy and control.

Spiritual Perspective on Leadership: Viewing leadership to serve the community aligns with the servant leader's ethos of prioritizing the well-being and development of their team members. There are some similarities with the Asian model of Servant Leadership that include the spiritual facet.

4.5 Mentions Of Less Used Types On The Continents

According to the Indeed Editorial Team (2023), The Laissez-Affaire management style is more used in Europe and the American continent and often referred to as 'delegation leadership,' the laissez-faire style of leadership leverages the unique strengths and abilities of team members when assigning tasks or projects. In this approach, employees are given the autonomy to decide on their methods of work and achieve the organization's objectives, provided their actions align with the organization's broader interests and do not cause harm. This style is markedly different from autocratic leadership, where detailed instructions and close supervision are typical, with decisions and task methods being dictated by top-level leaders.

Laissez-faire leadership is particularly effective for employees that are confident in their abilities and prefer taking ownership of their work. It suits industries where innovation and creativity are crucial, such as the arts, technology, and entertainment. In these sectors, the freedom and flexibility afforded by laissez-faire leadership can foster a more innovative and creative work environment. One example of a major company that uses the Laissez-Faire style was Apple; under the management of the late Steve Jobs, who was said to use the Laissez-Faire style to let his workers shine and develop new skills on their own. The company believes that it’s easier to turn experts into managers than to train a manager to handle the work of an expert.

4.6 Similarities

Asian and Western leadership styles, despite their differences, share several key attributes. Both value teamwork and cooperation, albeit in different ways, with a common goal of uniting team members toward shared objectives. Leaders from both regions are goal-oriented, driving their teams toward achieving specific goals. They also recognize and reward good performance, understanding its importance in motivating team members. Emphasizing continual learning and development, leaders in both styles are committed to personal and team growth.

African and Asian leadership styles have in common their spirituality and their almost parental way of managers watching over and taking care of their subordinates. African and Western leadership styles have a lot in common, as African leadership styles developed with the help of Western leadership styles because of Globalization and shared ethics.

4.7 Differences

According to Hidayat Rizvi (2023), Asian leadership styles are characterized by a strong hierarchical structure with leaders holding considerable authority, contrasting with Western leadership which often favors a flatter organizational structure that encourages open communication and collaboration. In decision-making, Asian leaders typically favor collective consensus, while Western leaders emphasize individual participation and contributions. Communication in Western contexts is usually direct, whereas Asian leaders often prefer indirect communication to maintain harmony and respect. The role of the leader in Asian cultures is often paternal, providing guidance and protection, while Western leaders tend to act more as facilitators or coaches, empowering their teams. When it comes to conflict resolution, Asian leaders generally prefer harmonious solutions to maintain relationships and group cohesion, whereas Western leaders may address conflicts more directly, seeing them as opportunities for growth and improvement. Lastly, in terms of risk tolerance, Western leadership is often more open to risk-taking and innovation, while Asian leadership usually leans towards stability and cautious progression.

In comparison to Western leadership, the concept of leadership in Africa is generally characterized by a community-based and collective approach. African leaders are seen as servants of their community, focusing on the collective good rather than individual achievements. Key qualities expected of these leaders include selflessness, honesty, and humility. They are also tasked with building consensus and uniting people towards shared goals. This style reflects a deep-rooted cultural emphasis on community, collective responsibility, and unity.

Western leadership styles tend to be more individualistic, with a focus on personal goals and achievements. Leaders in Western contexts are often valued for their ambition, competitiveness, and assertiveness. Culture typically rewards individual accomplishments and emphasizes personal success, often in a competitive framework. This approach to leadership is influenced by cultural values that prioritize individualism, personal achievement, and direct communication.

5. CONCLUSION

Our exploration of diverse leadership styles across continents highlights the need for Cross-Cultural Leadership in today's globalized environment. While Asian leadership often emphasizes hierarchy and collective decision-making, Western leadership is more individualistic and risk tolerant. African leadership, focusing on community and collective good, blends elements of both. These variations underline the importance of a leadership approach that adapts to different cultural contexts.

Leadership styles that emphasize support, relationship-building, and transformational characteristics have been identified as crucial for enhancing job satisfaction and employee well-being. These styles, though stemming from varied theoretical backgrounds, share a common thread in that they involve leaders who exhibit behaviors of empathy, concern, and support towards their team members.

Recommendation: Cross-cultural, empathetic Leadership stands out as a vital skill for leaders in the modern world. It involves not just understanding but effectively adapting leadership styles to suit various cultural environments. This approach enables leaders to manage global teams more effectively, bridging cultural differences and leveraging diverse team strengths.

Recent research, particularly in the context of the Covid-19 pandemic and the shift to remote work, has reinforced the importance of supportive leadership. Studies during this period have highlighted that leadership styles, which focus on caring for employees' needs and concerns, play a significant role in boosting job satisfaction. This finding underscores the pivotal role of empathetic and supportive management practices, especially in challenging times when traditional work environments are disrupted.

According to Lundqvist, D., Reineholm, C., Ståhl, C. (2022) the leadership style of the closest manager focused on the concern of the employees is related to increased job satisfaction and general well-being, decreased tension, stress, and symptoms of burnout of employees when working from home during the pandemic.

These insights suggest that adapting leadership styles to be more supportive and empathetic can have a profound impact on employee morale and productivity, particularly in unprecedented situations like a global pandemic.

This empathy should go together with a heightened cultural awareness. The concept involves a deep recognition and comprehensive understanding of the diverse values, beliefs, and traditions inherent in various cultures. This understanding extends to realizing how cultural diversity affects individuals and societal dynamics, particularly in aspects such as communication styles, collaborative efforts, and approaches to decision-making. Essentially, it encompasses an acknowledgment and appreciation of how cultural differences shape interactions and perspectives in a multicultural environment.

It is the conclusion of this article that all managers and leaders stand to benefit from learning to be empathetic with their employees, and to adopt the cross-cultural leadership style that combines the richness of every culture, adding to the role of the manager in promoting diversity and therefore a highly efficient working environment.

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EVOLUTION AND PERSPECTIVES ON PUBLIC DEFENSE EXPENDITURES IN THE COUNTRIES OF THE EUROPEAN UNION

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Abstract:
In the current global context, characterized by a sequence of tensions among countries all over the world, national defense has become a central and essential objective in the policy of each state. The allocation and management of financial resources in the field of defense should be determined by the national defense strategy, in close liaison with the cooperation treaties and alliances concluded at the level of each state. The aim of this paper is to analyze the level and structure of defense expenditure committed by the member states of the European Union, thus carrying out a comparative analysis of the financial efforts made by the member states to ensure national security. The study also seeks to identify and exploit future opportunities for complementing defense financial resources, as established by the European Defence Fund, to ensure the financing of objectives of interest to the European security.

Keywords: Expenditures, Defense, Security, European Union

1. DEFINITION OF PUBLIC EXPENDITURE AND ITS IMPORTANCE IN CURRENT CONTEXT

The post-pandemic recovery of economies appears to be facing a global economic crisis, putting pressure on the states' budgets, which is being escalated by the current geopolitical context: armed conflicts and instability in the socio-economic and political-military plan which leave reminiscences in the memory of the parties involved. Consequences of war (regardless of its size or damages) – loss of life, destruction of material goods, associated economic crises, impact on civilians, effects on the human component – influence in concrete terms nations of the whole world. The political-military component impacts the international economy, as well as all other security dimensions: through a persistence in theaters of operations in Ukraine, the outbreak of the conflict between Hamas partisans and Israel, and, degradation of political relations between North Korea and South Korea. All these aspects are drastically manifested on the current international security environment.

All the above mentioned require drastic changes in the elaboration of defense strategies and governance programs, which creates panic not only at the level of the central apparatus of the states, but especially among the civilian population, deeply impacted by the uncertainties in the current security environment, determining the most diverse behavioral phenomena: terrorism, riots and national crises (in ideological, religious, gender, racial background, etc.), cross-border organised crime, trafficking in human beings, high levels of suicide (such as in the case of Japan) and so on.

Thus, the Member States of the European Union are forced to reconsider the concept of national defense and security by taking a distinct perspective of the destination of public spendings. Based on this assumption, the main objective of this study is to analyze the impact of political and military events in the monetary area, on the allocation of public financial resources, in the field of defense, developments and prospects regarding public defense expenditure, in the countries of the European Union.

The level of public spendings fluctuates from state to state and from one time to another as well, in relation to the mission of public authorities, provided by the state as a leading player in the conduct of economical, financial, political, military activities, affecting natural and legal persons, who are in fact direct taxpayers, in different proportions.

According to the study conducted by Fritz and Zimmermann, the factors influencing the defense-related public expenditure axis are of three types: economic, political and military [1]. Therefore, the approach to national security, in terms of securing financial resources, must take account of the interrelationships among the three pillars. From the perspective of the economic-political-military trinomial, it is important to identify and allocate the necessary resources appropriately to ensure that public policy objectives in the field of defense are met.

The performance of the country's defense state as guarantor of national security can be exercised, including through participation in international political-economic (EU), political-military (NATO) bodies, and involves the annual allocation of significant public financial resources. As such, the state carries out a series of expenditures, called public expenditure.

Public expenditure expresses economic and social relationships in a monetary form, which are manifested between the state, on one hand, and natural or legal persons, on the other hand, when the state's financial resources are distributed and used to carry out its functions [2].

The national defense is a pure public good, the beneficiary of which is the citizen. Whether we refer to national or supra-national space, its supply is ensured and provided by the state, through the specialized structures of the national and international armed forces. As a consequence, in line with their purpose, this category of public expenditure is divided into two major groups: *direct expenditure* and *indirect expenditure*.

Direct defense expenditure includes military maintenance in the country or in foreign territories, expenditure on military technique, military equipment and livelihoods, not least war, expenses, which are usually managed by the Ministry of Defense of each state [3].

Indirect defense expenditure covers expenses related to liquidation resulting from the end of wars; remunerations for the repayment of public debt incurred during the war; war compensation due to the winners; subsidies to prisoners of war; transfers to the invalids, widows and orphans of war. Under this sub-category, we also see expenditure on the application of military agreements, on scientific research for military purposes, on the financing of military education and beyond [4].

In order to develop specific national defense policies regarding the allocation of military budgets, this is necessary to be included in the decision-making agenda. The government is the main actor in drafting the state budget in a fiscal year. The changes taking place at international level have a particular impact on the policy adopted by the countries from all over the world, but in terms of defense spending they are heavily influenced by developments at social-economic and political level.

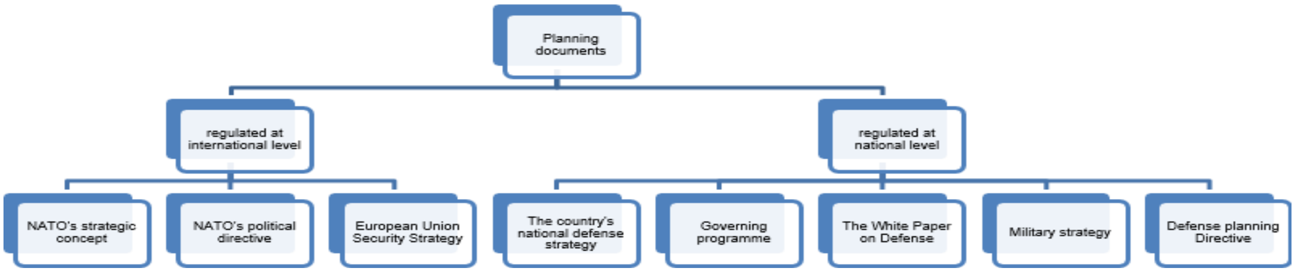
2. STRUCTURE OF PUBLIC DEFENSE EXPENDITURE IN ROMANIA

As a social system, the armed forces has required and still does require great efforts for supplying, provisioning and ensuring national defense on a day-to-day basis. The implementation of all these key-points has most of the times determined the victories in theater operations. In other words, they were justified by the level of endowment and equipping of the troops, by the method of procuring materials for preparation and leading the military campaigns. "Modern conflicts have accentuated the role of both technological development (high-technology integrated weapons systems, field digitalization etc.) and military logistics (scope, structure, quantities, transport speed, costs etc.)" [5].

The new geopolitical reality that is taking shape at international level raises even more the focus to be laid upon the ensuring of national territories security and the achievement of the military alliances objectives. Hence, the financial resources allocated in this direction are given strategic importance. In order to understand the dynamics and the structure of public defense expenditure, at the level of the member states of the European Union, we will initially focus on the national area.

The amount of public money for defense sector financing should take into account a set of significant factors, such as the country's security environment, the state's capabilities for financing, the efficiency of the use of public money, but also the national consensus on this issue. The planning, allocation and expenditure of the amounts intended to ensure the national security objectives are undertaken and planned, by means of a number of strategic documents in the field of defense, as summarized in the diagram below[6]:

Figure 1. Defense planning documents at national level

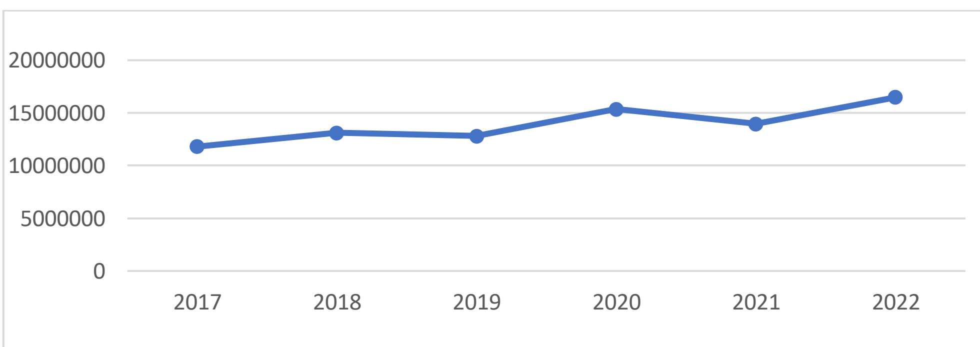


Source: Realized by the authors

With a view to analyzing the structure of public defense expenditure in Romania, we have chosen as the reference period 2017-2022. Using the data present in the defense budgets, for the mentioned period, we intend to highlight how the amounts allocated to national defense are divided by objectives and purpose, in order to achieve strategic aims and align with the prospects of international agreements. The formulation of the structure of defense expenditure is based on a number of factors, with a considerable effect, including: the economic potential of a state; technological and logistical progress; the total number of military personnel; production capacities in the military area; infrastructure and, last but not least, geographical location. All these aspects outline the possibilities for achieving the objectives for current defense provision and supply.

In order to enhance the relevance of defense allocations, we will conduct a volume and dynamic analysis, built on the information included in the representative chart for the evolution of the defense budget.

Graph 1. Development of the defense budget in Romania between 2017-2022, thousand lei



Source: Authors' processing, using data from EUROSTAT, available at https://ec.europa.eu/eurostat

In accordance with the data indicated, the level of funding in the period 2017-2022 scored a relative increase of 39.59% in 2022 compared to 2017. The most significant increase can be seen in 2020, which is 1.2 times higher than the previous year.

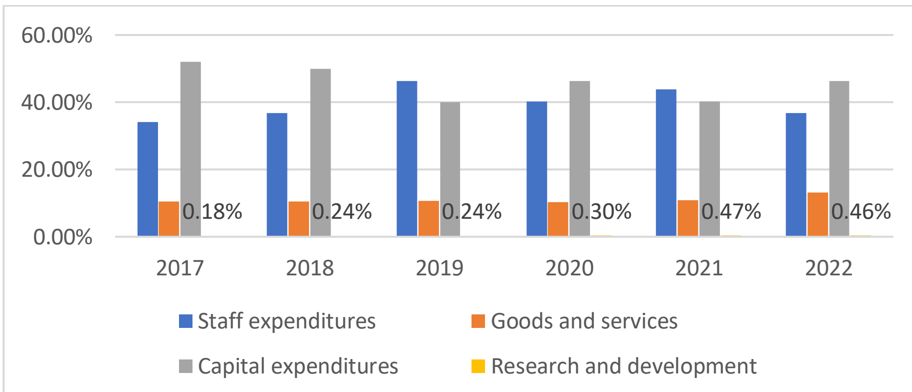
In 2020, the boost was due to the adoption of a new national Defense Strategy for the period 2020-2024, a key document for the establishment of financing targets in the defense sector. "Personnel costs, military equipment expenditure and infrastructure investment are considered the most important chapters of a defense budget"[7], thereby, according to the attached schedule, a significant share of capital expenditure is registred in 2020, with a percentage of 46.32 %, also staff costs, with a percentage of 40.20%.

The agreements reached at international level have a significant impact on the way the budgets of the countries of the world are set up. In this respect, it should be mentioned The Sustain Wales Summit, held in 2017 at the level of NATO allies, against the background of the instability of the strategic/geostrategic security environment. It establishes member states commitment to achieving the 2% of GDP target for defense expenditure and to maintaining it for 10 years. The commitment also states that at least 20% of the defense budget will be allocated to the acquisition of major equipment and training in the research and development operations.

Staff expenditure, as well as defence goods and services expenditure had an upward trend between 2017 and 2022. The defense's objectives to improve the life of the military personnel as well as the appealing of a military career in the defense field have led to a rise in this spending, with a relative increase of 58.39% compared to the first year of the analysis.

In terms of capital expenditure, the signing of the agreement on the constant allocation of 2% of GDP has been translated at national level into an increase in capital expenditure, accounting for 62.29% of GDP. At the same time, the increase can be associated with the adoption of the Endowment Plan of the Romanian Army, for the period 2017-2026, which has led to the submission of procurement programs in the defense sector and, by extension, to the need for funding. The national and international legal framework in the field of defense is the main direction, in terms of the amounts allocated.

Graph 2. The structure of Romania's defense expenditures in period 2017-2022, percentage values



Source: Authors' processing, using data from EUROSTAT, available at https://ec.europa.eu/eurostat

The National Defense Strategy of 2020-2024 of Romania establishes expenditure on research and development under the heading of vulnerability, as the sharpening of the technological gap and the insufficient exploitation of the benefits provided by the use of new technologies have a negative effect upon ensuring national safety in the medium to long term.

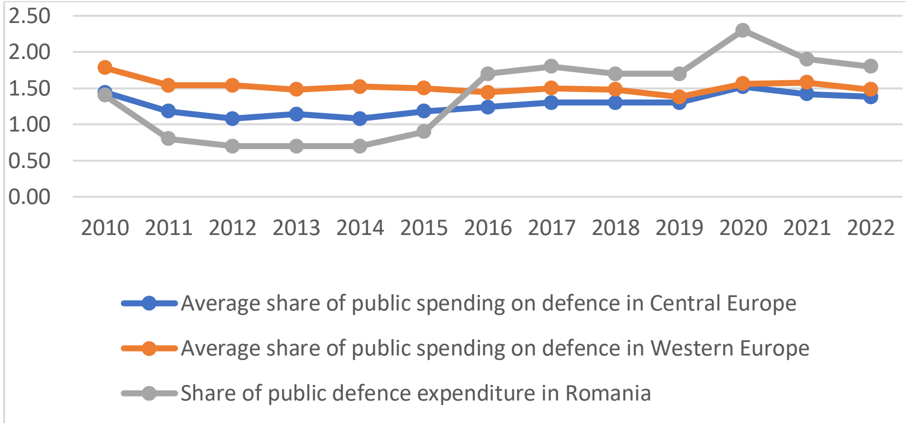
The decisions taken to mitigate the negative impact are: "ensuring at least 2% of the defense budget for research and development innovation"[8] and accessing European funds for research and development to address the shortcomings, which have favored increasing the share of research spending in the defense budget and its nominal value. By comparing the results, we can see that in 2022 compared to 2017 was and an increase in the share of this category of expenditure from 0.18% to 0.46%.

3. THE SHARE OF PUBLIC DEFENSE EXPENDITURE IN GDP, IN THE EUROPEAN UNION COUNTRIES

Europe comes in the second place after the United States of America in the top of the management of defense expenditures . The main causes, which have led to this output, are assessed as the ineffectiveness of spending, against the background of redundancies, lack of interoperability and technological disproportionality.

In this section, we aim to consider and analyze the evolution of the share of public defense expenditure, in other words the perspective of the member states of the European Union and the importance of preserving territorial integrity and protecting the citizens of the European space. For this analysis, we have selected a ten-year timeframe, starting with 2010, looking at two groups of states, Central Europe and Western Europe respectively. For Central Europe, we will focus our attention on: Bulgaria, Croatia, the Czech Republic, Poland and Romania, and in the case of Western Europe on: France, Germany, Greece, Italy and Portugal. The defining selection criterion, in order to shape this study, was the simultaneous membership of the chosen states, both in the European Union (EU) and in the North Atlantic Treaty Organization (NATO).

Graph 3. Average public spending on defence in GDP in Central Europe, Western Europe and Romania between 2010 and 2022, million USD



Source: Authors' processing, using data from EUROSTAT, available at https://ec.europa.eu/eurostat

In the above chart, there are presented the results following the calculations to determine the average of government defense expenditure as a share of GDP in the Central Western Europe area, compared to Romania's developments in this field. By looking at the information relating to the selected geographical areas, we can see a substantial difference in the annual averages allocated by these states to the category of defense expenditure.

A superficial interpretation of the data, represented in the chart, could suggest that central countries have little interest in the national security sector, without taking into account the economic potential, which is, moreover, a fundamental criterion and an impact on the establishment of budgets. It goes without saying that countries such as France, Germany or Italy will be able to finance the defense sector through considerable funds, compared to economically less developed countries such as Romania, Croatia or Bulgaria. Also, the involvement of the Central states, from an economic perspective, can be considered superior to the Western ones. However, is is noticeable the increase of efforts to guarantee the security and territorial integrity of those states situated near the border with Russia. In this way, although the countries located in the central hemisphere apparently account for a high percentage of GDP connected to defense expenditure, we can notice a considerable increase in the percentage of GDP allocated to defense, in the case of countries that are less economically able, which are threatened by the danger of war.

In support of the aforementioned idea, we can distinguish that at national level, the strategic defense objectives are materialized, as Romania is a state that allocates a significant share of GDP to national defense. Over the ten years, we can remark the development of the amount for defense, the most significant Figure being in 2020, at around 2.3%.

Alliance commitments have a direct impact on defense spending. In this context, we have focused on public defense expenditure before and after 2017, which was marked by The Sustain Wales Summit. On the agenda was mentioned the defense expenditure at the level of the states. While, before 2017 the amounts allocated had evolved steadily, almost linear, afterwards it could be ascertained an upward trend in expenditure, which is the source of starting up new security policies, in correlation with major investments in this sector, caused by existing threats.

4. EUROPEAN DEFENCE FUND

"A Europe that reassures and protects" [9] are the words of former President Jean Claude-Junker upon taking the lead of the international alliance. He pleaded for stronger European cooperation in the defense sector. The European Union is facing the biggest security challenges of the past 60 years, as the former President of the European Commission, Jean-Claude Juncker, had emphasized in 2014 against the backdrop of the conflict for Crimea, a situation which is reaching its peak with the new nowdays armed conflict in Ukraine. Hence, 2017 is represented as the estabileshment of a program, through its structure, aimed at improving safety in the member states of the European Union.

The initiative to support defense investments and propose capability development programs is one of the duties of a state, and therefore the mobilization of EU instruments and policies, within the framework of the treaties, could not be a substitute for low levels of investment, on defense matters of the member states instead, the European Commission aims to make recommendations and coordinate member states efforts to develop defense structures to address security challenges, as well as to support the European defense industry by developing a comprehensive program.

The action plan focuses on three main directions, addressing different but complementary needs: the initiation of a European Defence Fund, the encouragement of investment in defense supply chains, including the strengthening of a single defense market. At the same time, the European Commission supports civil-military synergies throughout the EU policies.

The European Defence Fund is a comprehensive and complex plan, including investment programs, in the field of defense. It was consolidated on two components, interdependent and spread over time:

- *research component*: it aimed to fund research projects in the field of defense at EU level. For the period 2017-2019, grants were confered grants, fully and directly financed through the EU budget, amounting to 90 million euros, with the objective of boosting research in defense;
- *development component*: it aims to promote cooperation, innovation and to improve the competitiveness of the european defense industry in order to achieve cross-border autonomy. This program ran over two years, 2019-2020, totaling 500 million euros by funding means of the financial involvement of European members [10].

In brief, we must outline the evolution of the importance accorded by EU countries to the two fundamental European Defence Fund programs, defense research and development in industrial sectors, with the purpouse of strengthening security. In terms of the allocation of financial resources, we realize an increase from 590 million euros in the period 2017-2020, to 8 billion euros, which was outlooked for 2021-2027 interval of time, of which: on one side, 2.7 billion euros will be earmarked for defense research on emerging threats, on the other side, 5.3 billion euros will be allocated to finance the collaborative capacity development projects, complementing cross-state contributions.

5. CONCLUSIONS

Ensuring financial resources related to defense needs is an essential objective in the states policies, but also a challenge, in terms of allocating the necessary amounts and the effective distributions to specific destinations, being correlated to real needs from a national security perspective.

The recent military events impacting global security, which have in the same way changed the course of action throughout the world, have led to a paradigm shift in terms of managing public defense expenditure, both at the level of state policies and at the level of political-economic or military alliances. In sight of the current political climate, the European Union has presented itself as a promoter and guarantor of the security of states and citizens, by adopting a European Defense Fund, with an increasing emphasis on the symbiosis of economic and security objectives. In other words, the core of security at the level of EU allies is made of the timeliness of research and development spendings for defense sector, thereby encouraging cross-state collaboration.

In other words, an integrated approach is required by the state apparatus of the more tangible, economic and financial aspects, with higher order, strategic, social and geopolitical issues, which are often considered more abstract. Understanding how economic security relates to geopolitical dynamics at the strategic level should guide and respond to current pressing issues.

In the absence of a more comprehensive vision, policy makers risk reacting fragmentarily and *ad hoc* to the complex challenges posed by the current international space. Solid ideas and multidimensional knowledge are the basis for productive political discussions and effective decisions on the process of allocating financial resources.

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THE OFFICIAL ECONOMY VERSUS THE UNDERGROUND ECONOMY IN ROMANIA

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Abstract:
The paper aims to make a comparison between two parallel situations, the official economy and the underground economy. Studying the two components of the state highlights the importance of maintaining a structured approach for the state's evolution. This paper presents significant aspects as well as a brief comparison between the two. It examines the impact of these two aspects on the economic and social development of a country. By investigating the factors influencing each type of economy, their advantages and disadvantages are highlighted. Additionally, methods of measuring the size of the underground economy and its effects on society and governmental institutions are explored. The study emphasizes that a strong official economy is essential for the stability and prosperity of a nation, while the underground economy can create economic and social distortions, undermine trust in governmental institutions, and lead to tax revenue losses and economic inequalities.

Keywords: GDP, Economy, Transaction, Income, Economic Stability

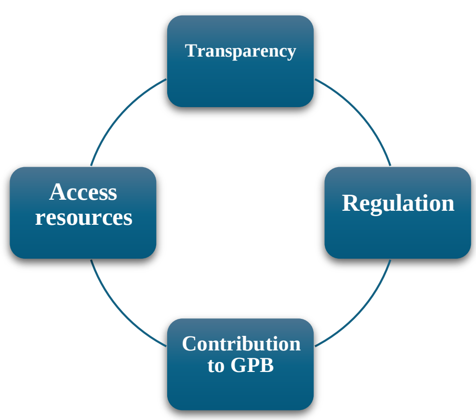
1. INTRODUCTION

This research focuses on analyzing the differences and impact between the official and underground economy in Romania. The official economy refers to all transactions and economic activities recognized and reported to the government, including production, trade, and services. On the other hand, the underground economy involves unofficial activities such as tax evasion, undeclared work, and trafficking of goods. The research explores the extent, causes, and consequences of both types of economies for society and the government. It analyzes the effects on income distribution, economic stability, and the legitimacy of governmental institutions. Additionally, it examines methods of estimating the size of the underground economy and combating the phenomenon. This research provides a deeper understanding of the economic dynamics in Romania and the challenges associated with both types of economies.

2. THE OFFICIAL ECONOMY

The official economy represents the formal sector of an economy, which is recognized and regulated by governmental authorities. It includes the production and exchange of goods and services that are registered and monitored in accordance with tax and commercial laws.

Figure 1. Main Characteristics of the Official Economy



Economic transactions are recorded and reported transparently, allowing the government to collect taxes and monitor economic activity. Economic activities are subject to regulations and laws that ensure the rights and obligations of the parties involved, as well as the protection of consumers and the environment.

The official economy directly contributes to the gross domestic product (GDP) of a country and is often used to assess the overall economic performance of that country. Thus, companies and individuals in the official economy often have access to financial, technological, and human resources, as well as financial and capital markets.

The official economy is the backbone of any nation, representing all economic activities that are recorded and regulated by governmental authorities. It is the foundation through which a society organizes its resources, sets its priorities, and builds its economic progress. The development of the official economy is essential for the well-being of a country and its citizens.

Figure 2. Key Aspects Contributing to the Development and Functioning of the Official Economy

A healthy official economy requires strong and efficient governmental institutions and private organizations, such as central banks, finance ministries, tax authorities, stock exchanges, regulatory bodies, and other entities that ensure compliance with laws and regulations and promote stability and transparency in the economic environment.

A clear legal framework and appropriate regulations are essential for the functioning of an official economy. They provide legal certainty and stability for investors, businesses, and consumers, thus stimulating investment and innovation and facilitating the development of markets and the private sector. Adequate fiscal and monetary policies are crucial for maintaining macroeconomic stability and supporting sustainable economic growth within the official economy. These policies should aim to balance growth stimulation and inflation control and ensure fair income distribution and opportunities within society.

A robust infrastructure, including transport, communication, energy, and technology networks, is crucial for supporting economic activities and sustainable economic growth. Infrastructure investments can stimulate economic growth by supporting production, trade, and workforce mobility. Participation in international trade and attracting foreign direct investment can bring significant benefits to the official economy. Access to external markets can boost exports and diversify income, while foreign investment can bring capital, technology, and know-how into the economy, stimulating innovation and growth.

Investments in education and vocational training are fundamental for developing human resources and increasing the capacity for innovation and adaptation of an economy. Well-trained and skilled workforce can boost productivity and competitiveness of enterprises, contributing to economic growth and poverty reduction.

By developing and promoting these aspects, a country can strengthen its official economy, creating a solid foundation for prosperity and long-term development.

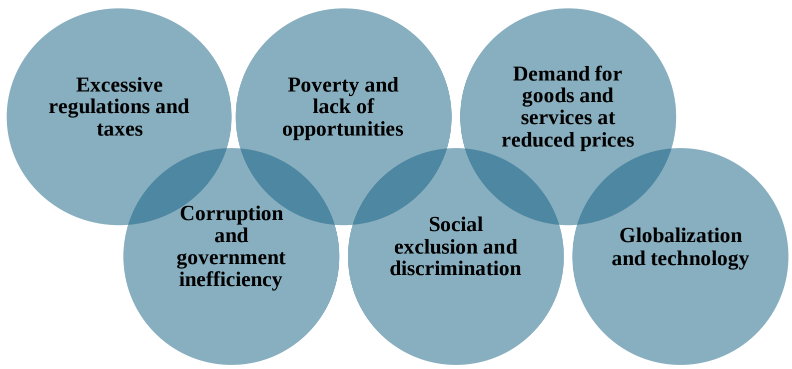
3. THE UNDERGROUND ECONOMY

The informal economy, also referred to as the underground economy or the black economy, encompasses economic activities that are not recorded or regulated by governmental authorities, thus escaping taxes, regulations, and monitoring. These activities may include the sale of goods and services, as well as other financial transactions conducted outside the legal and official framework of a country.

The underground economy is a complex socio-economic phenomenon of particular importance that today's state/states face, the consequences of which they seek to limit as much as possible by finding small "loopholes" to avoid tax and tax payments.

For the implementation of an underground economy, the state in question must go through certain "diversifications" of society to push citizens towards the formation of such an undesirable part.

Figure 3. Main Characteristics of the Underground Economy



Excessive regulations and high taxes can drive economic agents to seek ways to avoid them through unofficial or unregistered activities. Additionally, corruption and law enforcement inefficiencies can make it easier to conduct illegal or semi-legal economic activities without significant consequences.

In developing countries or marginalized communities, poverty and lack of opportunities can lead people to seek alternative sources of income through the underground economy. Socially marginalized or excluded groups, such as immigrants or ethnic minorities, may be drawn to the underground economy due to barriers to accessing the official labor market.

Consumers may seek products and services at lower prices than those offered in the legal market, fueling demand for goods and services offered in the underground economy. Thus, consumers become increasingly tempted to obtain the goods and services they need from various sources that offer lower costs. Globalization and modern technologies can facilitate underground economic activities through online trade, cryptocurrencies, and other means of communication and fund transfer that are more difficult to monitor by authorities.

This form of economic activity operates outside the legal and official framework of a country, escaping governmental regulations and taxes. Although it is difficult to quantify the exact size and impact of this underground economy, it plays a significant role in global economies, both in developing and developed countries.

The causes of the underground economy are diverse and interconnected. Excessive regulations and taxes imposed by the government can drive economic agents to seek ways to avoid them through unofficial or unregistered activities. Corruption and governmental inefficiency can create an environment in which illegal or semi-legal activities can be conducted without significant consequences. Poverty and lack of opportunities can lead individuals to seek alternative sources of income through the underground economy, while social exclusion and discrimination can limit access to the official labor market.

The disadvantages of the underground economy are multiple and affect both society as a whole and the individuals involved in these activities. For society, the underground economy can lead to significant losses in tax revenues, affecting the government's ability to provide essential public services and invest in infrastructure. It can also distort competition in the legal market and undermine trust in governmental institutions and the economic system. For individuals involved, the underground economy can bring legal risks as well as economic insecurity and lack of social protection.

There are numerous methods used to avoid the underground economy and reduce its negative impact. These include improving regulations and governmental transparency to reduce the incentive for unofficial economic activities. It is also important to provide economic opportunities and access to the labor market for all citizens to reduce the need to participate in the underground economy due to poverty or lack of opportunities. Education and public awareness can also play a crucial role in combating the underground economy by promoting a culture of tax compliance and law abidance among the population.

4. CASE STUDY: THE EVOLUTION OF THE ECONOMY IN ROMANIA (CAUSES, EFFECTS)

To better understand the concept of the underground economy, we will conduct a thorough analysis of how the level of the underground economy has affected Romania's economy in recent years, as well as its percentage in the national economy, compared to the member states of the European Union.

4.1 Evolution of Romania's Underground Economy Over the Last Two Decades

According to a study published in the journal "Cronicile," the underground economy of Romania has ranged between 25% and 35% of GDP in the last two decades, with the most significant source fueling it being undeclared work.

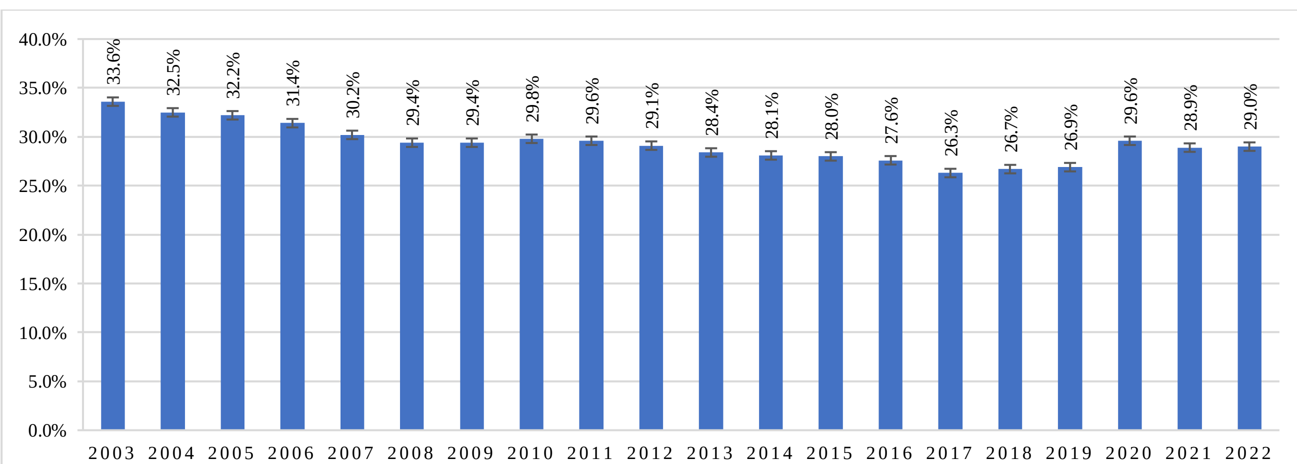
"If after the economic crisis of 2008-2009, the share of the informal economy in GDP has consistently decreased, it has increased significantly in the last three years, in the context of the outbreak of the pandemic and the war in Ukraine, according to an analysis conducted at the European level.

"The latest studies estimate that the level of the underground economy in Romania has decreased significantly in the period 2003-2019, according to a report prepared by the Department for Economic, Scientific and Quality of Life Policies at the request of a committee in the European Parliament. The report is signed by Professor Friedrich Schneider, one of the most important researchers of this phenomenon.

"If in 2003, the underground economy in Romania accounted for 33.6% of GDP, by the year 2019, it had decreased to 26.9%. In 2020, the informal economy increased to 29.3%, marginally decreasing one year later."

The graph below illustrates the evolution of the underground economy in Romania over the past two decades.

Figure 4. Evolution of the Underground Economy in Romania during the years 2003-2022 (% of GDP) - Own processing



Source: insse.ro

4.2 Level of Romania's Underground Economy Compared to EU Member States (+The United Kingdom)

In comparison to EU member states, Romania is among the countries with the highest percentage of the underground economy. Despite the fluctuation of this level, Romania has remained among the top positions of the ranking for the past 20 years.

The table below illustrates the percentage of the underground economy relative to GDP for each EU member country.

Table 1. Level of the Underground Economy in EU Member States from 2003 to 2022 (% of GDP)

Country / Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Austria	10.8	11.0	10.3	9.7	9.4	8.1	8.5	8.2	7.9	7.6	7.5	7.8	8.2	7.8	7.1	6.7	6.1	7.2	6.9	6.6
Belgium	21.4	20.7	20.1	19.2	18.3	17.5	17.8	17.4	17.1	16.8	16.4	16.1	16.2	16.1	15.6	15.4	15.1	16.2	16.0	16.0
Bulgaria	35.9	35.3	34.4	34.0	32.7	32.1	32.5	32.6	32.3	31.9	31.2	31.0	30.6	30.2	29.6	30.8	30.1	32.9	32.4	33.1
Croatia	32.3	32.3	31.5	31.2	30.4	29.6	30.1	29.8	29.5	29.0	28.4	28.0	27.7	27.1	26.5	27.4	26.4	29.6	29.0	29.7
Czech Republic	19.5	19.1	18.5	18.1	17.0	16.6	16.9	16.7	16.4	16.0	15.5	15.3	15.1	14.9	14.1	13.6	13.1	14.2	13.9	13.5
Denmark	17.4	17.1	16.5	15.4	14.8	13.9	14.3	14.0	13.8	13.4	13.0	12.8	12.0	11.6	10.9	9.3	8.9	9.8	9.6	9.7
Estonia	30.7	30.8	30.2	29.6	29.5	29.0	29.6	29.3	28.6	28.2	27.6	27.1	26.2	25.4	24.6	23.2	22.1	23.6	23.1	22.7
Finland	17.6	17.2	16.6	15.3	14.5	13.8	14.2	14.0	13.7	13.3	13.0	12.9	12.4	12.0	11.5	11.0	10.6	11.4	10.9	10.8
France	14.7	14.3	13.8	12.4	11.8	11.1	11.6	11.3	11.0	10.8	9.9	10.8	12.3	12.6	12.8	12.5	12.4	13.6	13.1	14.2
Germany	16.7	15.7	15.0	14.5	13.9	13.5	14.3	13.5	12.7	12.5	12.1	11.6	11.2	10.8	10.4	9.7	8.5	10.4	10.0	8.8
Greece	28.2	28.1	27.6	26.2	25.1	24.3	25.0	25.4	24.3	24.0	23.6	23.3	22.4	22.0	21.5	20.8	19.2	20.9	20.3	20.93
Hungary	25.0	24.7	24.5	24.4	23.7	23.0	23.5	23.3	22.8	22.5	22.1	21.6	21.9	22.2	22.4	22.7	23.2	26.0	25.0	25.4
Ireland	15.4	15.2	14.8	13.4	12.7	12.2	13.1	13.0	12.8	12.7	12.2	11.8	11.3	10.8	10.4	9.7	8.9	9.9	9.4	10.1
Italy	26.1	25.2	24.4	23.2	22.3	21.4	22.0	21.8	21.2	21.6	21.1	20.8	20.6	20.2	19.8	19.5	18.7	20.4	20.2	20.3
Latvia	30.4	30.0	29.5	29.0	27.5	26.5	27.1	27.3	26.5	26.1	25.5	24.7	23.6	22.9	21.3	20.2	19.8	20.9	20.2	19.9
Lithuania	32.0	31.7	31.1	30.6	29.7	29.1	29.6	29.7	29.0	28.5	28.0	27.1	25.8	24.9	23.8	23.0	21.9	23.1	22.9	22.4
Luxembourg	9.8	9.8	9.9	10.0	9.4	8.5	8.8	8.4	8.2	8.2	8.0	8.1	8.3	8.4	8.2	7.9	7.4	8.6	8.4	8.3
Malta	26.7	26.7	26.9	27.2	26.4	25.8	25.9	26.0	25.8	25.3	24.3	24.0	24.3	24.0	23.6	23.2	22.0	23.5	23.1	23.4
Netherlands	12.7	12.5	12.0	10.9	10.1	9.6	10.2	10.0	9.8	9.5	9.1	9.2	9.0	8.8	8.4	7.5	7.0	8.1	7.8	8.2
Poland	27.7	27.4	27.1	26.8	26.0	25.3	25.9	25.4	25.0	24.4	23.8	23.5	23.3	23.0	22.2	21.7	20.7	22.5	22.0	21.9
Portugal	22.2	21.7	21.2	20.1	19.2	18.7	19.5	19.2	19.4	19.4	19.0	18.7	17.6	17.2	16.6	16.1	15.4	17.0	16.5	15.7
Romania	33.6	32.5	32.2	31.4	30.2	29.4	29.4	29.8	29.6	29.1	28.4	28.1	28.0	27.6	26.3	26.7	26.9	29.3	28.9	29.0
Slovenia	26.7	26.5	26.0	25.8	24.7	24.0	24.6	24.3	24.1	23.6	23.1	23.5	23.3	23.1	22.4	22.2	21.5	23.1	22.5	22.1
South-Cyprus	28.7	28.3	28.1	27.9	26.5	26.0	26.5	26.2	26.0	25.6	25.2	25.7	24.8	24.2	23.6	23.2	22.1	24.3	23.7	23.9
Spain	22.2	21.9	21.3	20.2	19.3	18.4	19.5	19.4	19.2	19.2	18.6	18.5	18.2	17.9	17.2	16.6	15.4	17.4	16.9	15.8
Slovakia	18.4	18.2	17.6	17.3	16.8	16.0	16.8	16.4	16.0	15.5	15.0	14.6	14.1	13.7	13.0	12.8	12.2	14.0	13.7	13.1

Source: insse.ro

4.3 Sources of the Underground Economy in Romania

The main driving forces influencing the development of the underground economy in Romania are the self-employment rate, the unemployment rate, the part-time employment rate, and government efficiency.

Additionally, from the perspective of Romanian entrepreneurs, lack of trust in public officials, poor quality of business legislation, fiscal policy, government support for entrepreneurs, relatively high social contributions, corruption, political instability, relatively high tax rates, and uncertainty about regulatory policies have all contributed to the expansion of the underground economy. Although GDP growth is not a determining factor in the level of the underground economy, neither in Romania nor in the EU in general, due to the increasing income inequality, the authors of the study mention that for Romania, GDP growth explains only slightly over 1% of the underground economy.

4.4 Effects of the Pandemic on the National Economy

To combat the challenges generated by the coronavirus pandemic, the Romanian government launched several "packages" of economic policies in 2021 and 2022. These measures, although temporary, could indirectly contribute to reducing the size of the underground economy, according to the authors.

Households and companies that have benefited from these policies, including tax exemptions, grants, and other forms of assistance, would be encouraged to exit the underground economy and enter the formal one, according to theory. "Such measures represent incentives for exiting the underground economy and transitioning into the formal one," underline the authors of the study.

On the other hand, the cost-of-living crisis faced by Romania and the rest of the world could have the opposite effect, encouraging tax evasion due to financial difficulties. Despite the government's introduction of measures aimed at mitigating the impact of the energy crisis, fiscal and budgetary restrictions impose certain limits on the support that can be provided, they point out.

4.5 Underground Economy Versus the Official One in Romania (2016-2024)

In 2016, the underground economy in Romania was one of the largest in the European Union, accounting for approximately 28-30% of the country's GDP, according to estimates from the National Institute of Statistics (INS) and international organizations such as the International Monetary Fund (IMF) and the World Bank. The main sectors affected by the underground economy during this period included construction, agricultural trade, transportation services, and tourism.

Factors contributing to the growth of the underground economy during this period:

1. **Corruption and excessive bureaucracy**:

Corruption is a widespread phenomenon in Romania affecting all levels of governance and the private sector. Corruption creates an environment where individuals in power can solicit or accept bribes to grant favors, such as obtaining government contracts or avoiding taxes and regulations. This illegal behavior leads many people to seek alternatives in the underground economy to avoid corruption and protect their interests. Romania faces cumbersome and inefficient bureaucracy, hindering the conduct of legal business and other economic activities. Lengthy and complicated procedures for obtaining licenses, permits, and other necessary documents can discourage people from conducting their activities legally and push them towards the underground economy, where they can avoid such obstacles and delays.

2. **Lack of job opportunities**:

In conditions of high unemployment rates and low wages in certain sectors, many people have been drawn to informal activities to secure additional income. In the absence of decent and well-paying job opportunities in the formal sector, many individuals may be compelled to accept employment in the underground economy, where wages may be lower, and working conditions may be poor. The lack of social protection and workplace safety in this environment can push people to take risks and work illegally.

Evolution of the underground economy from 2016 to 2024:

1. **Legislative and institutional improvements**:

In recent years, Romania has made progress in combating corruption and improving government transparency through legislative and institutional reforms, which could reduce the incentive for informal economic activities.

2. **Investments in infrastructure and economic development**:

Infrastructure development and formal economy growth can create more business and employment opportunities. With more employment and business opportunities, people may be less tempted to rely on the underground economy to earn income. Investments in infrastructure and economic development can contribute to increased tax revenues through increased legal economic activity. These tax revenues can then be used to finance essential public services and development programs, reducing dependence on the underground economy to avoid paying taxes. Developed infrastructure, such as efficient transportation and communication networks, can improve access to services and resources for businesses and the population, reducing transaction costs and making it easier for businesses to operate legally without resorting to the underground economy to avoid obstacles and delays.

3. **Digitalization and technology**:

Technological advancements and digitalization in the financial sector could facilitate monitoring and regulation of financial transactions, thereby reducing the possibility of tax evasion and other illegal activities.

Relevant examples contributing to the growth of the underground economy:

1. **Illegal construction**:

Illegal construction allows builders and property owners to avoid the costs associated with complying with legal construction regulations and standards. These costs may include taxes, permits, utility fees, and other legal requirements. By engaging in illegal construction, they can significantly reduce their expenses, leading them to rely on the underground economy to conduct their activities without being subject to regulations and taxes. These constructions may be more profitable for developers and owners as they allow them to avoid additional costs associated with legal compliance. Thus, they can achieve higher returns on their investment without the need to pay taxes or comply with construction standards. This encourages them to engage in illegal activities and rely on the underground economy to maximize profits.

2. Unauthorized agricultural trade:

The sale of unauthorized or undeclared agricultural products has been a common practice in some regions, affecting the state's tax revenues and jeopardizing food safety. Trading in unauthorized agricultural products allows evasion of regulations and taxes associated with the legal production and marketing of these products. Legally, farmers and traders must adhere to various regulations regarding the quality, packaging, labeling, and transportation of agricultural products, as well as pay taxes and duties. Through the underground economy, these legal requirements are often overlooked or circumvented, allowing traders to maximize their profits and offer more competitive prices. Illegal trading in agricultural products can be more flexible and faster than legal trading because no approvals, permits, or formal inspections are required. Thus, illegal traders can quickly respond to market demand without being slowed down by bureaucracy or other legal constraints. This flexibility attracts many consumers and traders to the underground economy.

3. Undeclared labor and tax evasion:

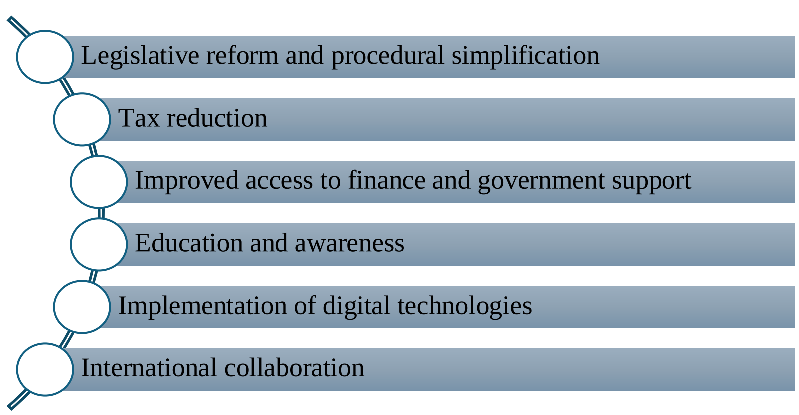
Undeclared work allows employers to avoid paying salaries and the social and fiscal taxes associated with legal employment. Therefore, they can reduce costs and gain a competitive advantage over competitors who operate legally. This cost reduction encourages employers to resort to undeclared work and rely on the underground economy to carry out their activities. For employees, undeclared work can bring financial benefits in the form of higher incomes or avoidance of taxes and social contributions. In the absence of taxation and contributions, employees can receive higher payments or keep a larger portion of their earnings, which may lead them to opt for undeclared work and thus contribute to the underground economy. Tax evasion allows companies to offer products and services at lower prices than competitors who pay taxes. This gives them a competitive advantage in the market, attracting consumers to the underground economy. Consumers may prefer lower prices and overlook the risks associated with purchasing products or services from unauthorized or undeclared sources.

In conclusion, the underground economy in Romania from 2016 to 2024 was influenced by a variety of factors and had a significant impact on the economy and society. Despite the progress made in combating this phenomenon, continuous efforts are needed to reduce the size and impact of the underground economy and promote sustainable economic and social development.

5. METHODS OF COMBATING THE UNDERGROUND ECONOMY

Although at the national level, several methods have been attempted to reduce the level of the underground economy, they have not yielded very good results. However, there are several solutions that need to be implemented and which, if used simultaneously, could discourage the underground economy. Here are a few solutions that could be implemented at the level of Romania:

Figure 5. Methods for reducing the underground economy at the national level



Complex and bureaucratic legislation can create confusion and uncertainty for citizens and businesses. By reformulating laws and simplifying procedures, the legal framework can be clarified and streamlined, making it easier for people to understand and comply with. This can reduce the temptation to resort to the underground economy to avoid the obstacles and risks associated with legal compliance. Simple and clear legislation can encourage more individuals and businesses to abide by the law and conduct their activities legally. When legal requirements are straightforward and understandable, people are more likely to adhere to them and avoid the risk of being penalized for breaking the law. Thus, legislative reformulation can contribute to increasing compliance and discouraging participation in the underground economy.

By reducing taxes, financial pressure on citizens and businesses can be alleviated, which may reduce the incentive to resort to the underground economy to avoid taxes. High taxes can reduce the economic competitiveness of a country or sector, sometimes leading businesses to engage in illegal practices or relocate their activities abroad to avoid taxes. By reducing taxes, economic competitiveness can be enhanced, and businesses may be encouraged to operate legally and contribute to the formal economy.

Limited access to financing may drive some businesses to seek alternatives in the underground economy to secure the funds needed for development and operations. Through government or institutional programs that facilitate access to credit and investment, development and growth of businesses in the formal sector can be encouraged, thereby reducing dependence on the underground economy for financing. Access to financing and government support can stimulate entrepreneurship and innovation in the formal economy. Entrepreneurs and innovators may be less inclined to seek solutions in the underground economy when they have access to resources and support to develop their ideas and businesses legally and sustainably.

Education can help people understand the legal and social implications of participating in the underground economy. Individuals who are aware of the legal and social consequences of their illegal activities may be less willing to engage in behaviors that could affect them in the long term. Education can promote respect for the rule of law and government institutions. Educated individuals who understand the role and importance of law and government may be less likely to violate laws and regulations, which can contribute to discouraging participation in the underground economy. Education can help people understand that there are legal and sustainable alternatives to meet their economic and social needs. Promoting entrepreneurship, financial literacy, and professional skill development can provide people with options to earn income and conduct their activities legally and responsibly.

Digital technologies can be used to increase transparency and monitoring in various sectors of the economy. For example, information systems and online platforms can be used to track financial transactions, monitor deliveries, and trace flows of goods and commodities. This can reduce the possibility of conducting illegal activities in secret and discourage participation in the underground economy. Digital technologies can be used to simplify administrative processes and reduce bureaucracy in various sectors. Integrated information systems, online platforms, and digital services can facilitate compliance with legal and tax obligations, thereby reducing the incentive to resort to the underground economy to avoid complex and costly procedures.

Digital technologies can contribute to improving tax compliance by automating reporting and payment processes for taxes and social contributions. For example, electronic tax filing and payment systems can make it easier and faster to fulfill tax obligations, thereby reducing the incentive to avoid tax and tax payments by participating in the underground economy.

Collaboration between states and international organizations can facilitate the exchange of information and best practices in combating the underground economy. Through this knowledge exchange, countries can learn from each other about effective strategies and tools used to combat illegal activities and promote tax and legal compliance. International collaboration can facilitate cooperation between law enforcement authorities from different countries in investigating and combating illegal activities. Through the exchange of information and coordination of efforts, authorities can more efficiently identify criminal networks and take more effective measures to disrupt them and bring them to justice.

6. CONCLUSION

In conclusion, the analysis of the official economy versus the underground economy in Romania highlights the complexity and profound impact of both spheres on society and the government. While the official economy serves as the foundation for the nation's stability and prosperity, the underground economy brings distortions and threatens the legitimacy of government institutions. Temporary economic policies can indirectly influence the reduction of the underground economy by encouraging the transition to the formal economy, but financial difficulties and the cost-of-living crisis can fuel tax evasion and poverty. To effectively address these issues, a balance is needed between coherent economic policies, combating corruption, and promoting trust in government institutions, ensuring the sustainable and equitable development of Romania's economy.

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CONSUMER BEHAVIOUR IN TIMES OF CRISIS AND MARKETING RESILIENCE

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Abstract:
Consumer behaviour is an extremely volatile concept that directly affects the way every company, organisation or even government conducts its business. Our article aims to synthesize the different ways that changes, especially in times of crises, have affected the working order of different corporations. The main goal of our research has been to find concrete solutions that have been successfully implemented, and that could be the stepping stones for further development of marketing resilience and prevention of crisis for companies ranging from local businesses to global corporations. In order to achieve this, specialty literature, articles, personal experience and knowledge have been used in the collection of information process, creation of a clear methodology process, and finally in the choosing of examples and case studies to back up our findings and make them easier to understand. As we dug deeper in research papers and articles, there were a few big outliers that took shape clearer and clearer. These were the following: digitalisation of services has reached its highest point of importance, a process that was severely rushed by the Covid pandemic. Secondly, people seem to have organically transitioned to preferring local services and products, which ties in with the third point that became clear as we were approaching the end of our paper, the increase in the number of people and the degree of their concern about the sustainability of the economy, both ecologically and financially. While not new concepts, the development of (especially newer) crises have definitely facilitated the progress of these trends in consumer behaviour.

Keywords: Adaptability, Flexibility, Innovation, Panic, Misinformation

JEL classification: D12, M31

1. INTRODUCTION

Nowadays, the word “crisis” and the phrase “consumer behaviour” are becoming more and more prevalent. These two terms tend to be widespread in various aspects of life thanks to their expansive character, hearing them together comes out as no surprise. During times of crisis, consumer behaviour is significantly altered, leading to both opportunities and threats for businesses. Not only does consumer behaviour undergo shifts during times of hardship, but marketing strategies should as well. For instance, lacking knowledge regarding consumer behaviour is detrimental to businesses of any kind. Should there be a time of crisis, the consequences of this lack of information would be even more visible through the company’s key performance indicators (KPIs). Decreased sales revenue, non-existent customer retention or loyalty, stockouts or excess inventory and losses in market share are all signs of alarms of a lack of knowledge regarding consumer behaviour.

The purpose of the study is to discover to which degree consumer behaviour is affected during times of crisis, as well as its impact on marketing overall. While researching we have come across numerous case studies based on established companies that we will discuss throughout the article. In addition, this study will touch upon a handful of anticipated alterations in behaviour such as panic buying, herd mentality, and discretionary spending [1], to name a few. Should businesses consult this or any other veracious study, the knowledge gained would be of paramount importance for the ones looking to mitigate risks, maintain customer relationships, identify opportunities and threats, and overall raise the bar higher in terms of performance and strategic decision making.

A thorough literature review of a plethora of historical materials regarding behavioural models was the beginning of this research. Afterwards, various other patterns of behavioural spending and of marketing resilience will stem from established historical theories and notions. Finally, as we draw conclusions about consumer behaviour and its impact, this research strives to add value to academic study for any given unforeseeable crisis.

2. LITERATURE REVIEW

Throughout our research, two terms stand out as mentioned time and time again due to their importance. These two terms are “Consumer Behaviour” and “Marketing Resilience” they stand at the foundation of the research. As defined by QuestionPro [2], Consumer Behaviour encompasses “all the actions and decisions that people or households make when they choose, buy, use, and dispose of a product or service.” Their behaviour is subject to many psychological, sociological, and cultural elements. On the other hand, Marketing Resilience does not have a stable definition. It can be considered both a mindset and a set of activities which empower business agility. Its focus is on adapting to the “new normal” which is more likely than not going to be a prolonged period filled with uncertainty.

Undoubtedly, the topic of consumer behaviour during crises is no stranger to other research papers. Moreover, the use of various theoretical frameworks facilitates the research process. Maslow’s Hierarchy of Needs [3] and The Cognitive Appraisal Theory are the two which helped our process the most. A study by Stacy Wood for the Journal of International Marketing entitled “How Consumers Behave in a Crisis: International Lessons (and Innovations) from COVID-19” [4] tackles the subject of protective strategies taken by consumers during the pandemic. The consumer may turn to official institutes for answers. Moreover, stockpiling or hoarding is seen as a protective strategy, however, down the road, the result is nothing more than a dreadful and threating mismatch between the consumer and the seller or sellers. Panic-buying, an action based on irrational decision-making is, by no means, without consequences. Moreover, companies have no data to turn to for stock predictions when times of crisis arrive.

3. CONSUMER BEHAVIOUR DURING CRISES

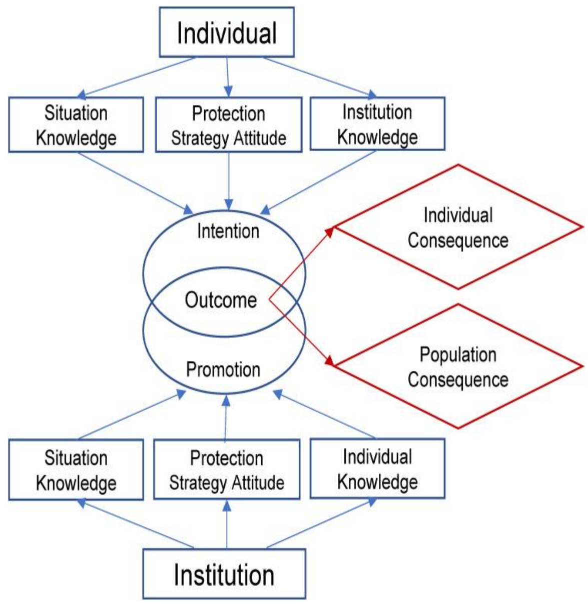
Framing the question as “How do consumers behave in a crisis?” empowered us to look for clues across not only worldwide crises, such as the COVID-19 pandemic or the 2007-2008 financial crisis, but also the ones affecting only one country at a time, such would be the case with the hyperinflation in Zimbabwe. One wrong presumption is that consumer behaviour undergoes the same changes, no matter the nature of the crisis. Should that be proven to be true, companies of all kinds would profit of an “one solution fits all” situation. Nevertheless, the reality is completely different. Whereas some trends are visible in almost all types of crises, from panic buying to herd mentality, most effects are always subject to the circumstances in play.

3.1. COVID-19 Pandemic

When discussing times of crisis, the most impactful one in the last decade is, by far and away, the COVID-19 pandemic. With more than 700 million cases worldwide, accompanied by a dreadful amount of over 7 million people who have lost their lives, it is crystal clear that every country, with no exceptions, was affected by the pandemic, either directly, or indirectly. During the pandemic, selective panic buying, accompanied by an unprecedented herd mentality, were visible in certain territories. Nevertheless, shortages were no stranger to the situation. Thanks to demand shocks, numerous companies saw the potential of engaging in the activity of price gouging. Although being perceived as a malicious activity, numerous companies got away with it, being detrimental to family businesses and startups. Whereas the hope of regaining a sense of normalcy [5] is a crucial factor when it comes to impulsive buying decisions, media influences should not be overlooked, as they are, by no means, any ordinary, trifling matter. Consumer behaviour is closely linked to the decision-making process. From the moment the need or want is identified to the post-acquisition period, during crises, need prioritization is of paramount importance. Threats are the perfect example of triggers of needs. Moreover, the acquisition of utilitarian products is preferred. The decision-making process can be affected by both internal and external factors. It encompasses both the products bought, as well as the reasoning behind the purchase.

Marketers from all around the world understood that different people respond to challenges created by the pandemic based on a plethora of innumerable internal and external factors. Therefore, as they have predicted the demand for essential commodities, by the time the consumer wanted to purchase the product, the price had already significantly increased. On the other hand, non-essential commodities, such as jewellery, had gone the complete other way with deals and offers everywhere. Undoubtedly, discretionary spending [1] became a thing of the past for the low-income side of the society. Moreover, developing countries all around the world had even more to lose, being detrimental to their economic and financial sectors. One aspect of this pandemic that made it unique and unlike anything seen in the recent past was personal protection, reflected in both direct and indirect health choices. From masks and vaccines to the avoidance of indoor group activities, public institutions had an opinion on the choices made by the population. One in particular was the one and only, "World Health Organization" [6]. Despite their advice reaching billions of people, it was not long until conspiracy-theory groups made their presence known spreading false information.

Figure 1. Relationship Between Individual and Institution [4]



Source: PubMed Central

The importance of the interaction and overall relationship between the individual and an institution, especially during times of hardship, is prone to the risk of not generating only positive outcomes. As seen in Figure 1., PubMed Central has created an unrestricted scheme for re-use and analyses in any form or by any means. Thankfully, it represents how the outcome of the interaction between the individual and the institution, should it be local government, non-profit organization, and so on, may impact not only the parties involved but the entire population with unforeseeable consequences. An individual's protection strategy is based on circumstances and knowledge of the situation, as well as knowledge of the institution, whereas for the institution, knowledge of the individual is of paramount importance. While a lot has been learned since the outbreak of the COVID-19 pandemic, there is no doubt that there is still more left to learn regarding its long-term effects. Therefore, this pandemic will forever be known as truly unique, especially in the field of historic crises.

3.2. The 2007-2008 Financial Crisis

Known also as the Global Economic Crisis [7], the 2007-2008 financial crisis set the benchmark for the most severe worldwide economic crisis since the notorious Great Depression. What followed was a period of hardship not only in the United States but across the globe. Nevertheless, governmental cooperation was key as each country strived to prevent a collapse of the global financial system. Although its causes are the subject of a complex discussion, past regulations, and policies, accompanied by increased borrowing by banks and excessive risk-taking, have all led to serious effects. The ones most closely related to consumer behaviour and marketing resilience are the fallen prices of housing, high numbers of unpaid loans, bankruptcies of more and more financial institutions. Nevertheless, increased government spending and cooperation, alongside stronger oversight of financial firms were the response of governments all around the globe.

One key feeling among everyone was depression, followed by anxiety. In the wake of companies going bankrupt left and right, people were terrified about the security of their money. Therefore, bank runs [8] were common as people were running to banks to withdraw as much money as possible. Unfortunately, as none of these banks had enough liquidity, some of them had to file for bankruptcy, although they would have been thriving otherwise. Furthermore, during these times, consumers have prioritized their basic needs over any desires they had. As money became a scarce resource, physiological and safety needs were the most crucial ones. Thanks to Maslow's Hierarchy of Needs [3] as well as other frameworks, marketers all around the world were able to identify the needs prioritized to the detriment of others, such as self-actualization ones. Herd mentality was also present, as investors and individuals lacked trust in the power of their country's currency. Therefore, many of them engaged in panic buying of gold and treasury bonds, seeking to protect their wealth and status. However, this artificial increase in demand proved to be even more detrimental to the economies of many countries. One key issue with herd mentality and panic buying is the lack of supply which cannot be quickly and sufficiently increased. Consequently, a misallocation of assets is produced as consumers rush to secure their stock of one product, helping suppliers increase prices. Nevertheless, as seen in the cognitive appraisal theory, stress is a major deciding factor for an individual, leading to false interpretations made based on crisis-related stimuli. Discouraging this negative consumer behaviour is no trifling matter.

4. MARKETING RESILIENCE

One of the most important factors of marketing is the ability to adapt to challenges as they come. This is highlighted in today's current business world, seeing as how consumers are becoming more interested into what they are spending their hard-earned money on. The item itself is no longer the only thing that is being taken into account anymore, consumers are now interested in the ethics behind the brand itself. This makes navigation in marketing considerably harder in current years than in the past. Marketing experts must be flexible and ensure that their marketing strategies are adaptive to keep up with fast moving challenges. One of the ways that is accomplished is by having multiple different channels and tactics, this reduces any vulnerabilities that they may face. The main component when it comes to marketing resilience would have to be risk management.

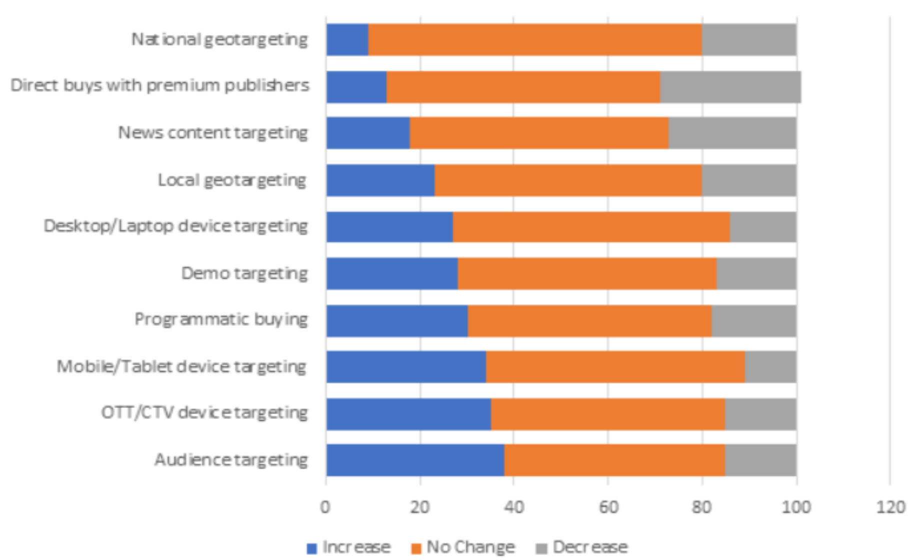
4.1. Risk Management

Oxford dictionary defines risk management as "the forecasting and evaluation of financial risks together with the identification of procedures to avoid or minimize their impact." Kate Gibson illustrates the need in an article called "What is Risk Management and Why is it Important?" [9] that was published on Harvard Business School Online in 2023. In it she gives four main reasons on its importance. The first being that it protects the reputation of organizations, as keeping a positive reputation is crucial for any business, this is only emphasized during crises. Effective risk management keeps a close eye on the brands reputation and anticipates any potential threats, these could range from negative publicity to just customer dissatisfaction. Which allows them to create proper strategies to safeguard their reputation. The next one is that it minimizes financial losses, this can be in relation to even workplace misconduct fines. Not only do things of that nature result in losses in the form of fines, but can also negatively impact the character of the brand. By minimizing loses businesses are able to then focus on their growth and innovation. This just so happens to be Gibson's third reason as to why it is important. When risk management is mentioned, one tends to assume it is just about managing negative outcomes. This is not the case, however, one of the reason's that it is so important is that it focuses on innovation as well. Environments that are rich in innovative spirit tend to foster adaptable business model. This creates new opportunities and creative endeavours to propel businesses forward. The last point she made, and arguably the most important is that it enhances decision making. By integrating interactive scenario practices, it helps sharpen one's ability to make proper management decisions using the factors that were past mentioned. These elements are important in the day-to-day operations of any business, yet it becomes crucial in times of crisis such as the COVID-19 pandemic.

4.2. Marketing Strategies During the Pandemic

The COVID-19 pandemic was a new challenge that the whole world felt at one time. Businesses had to quickly shift and adapt to these new issues, often forced to rely on government grants to keep from becoming bankrupt. Marketing campaigns were unexpectedly paused or even dropped. During the year of the pandemic there was an increase in audience and device targeting whereas direct buys and geotargeting methods saw a substantial decrease. This is of course due to the fact that everyone had been subjected to a quarantine. Another thing that marketers struggled with was the changing incomes of their demographic. The pandemic brought many hardships, but one that stands out the most is that many either lost their jobs due to the nature of it being very public and could have potentially put them in danger, or they were unable to go to their jobs due to health concerns related to COVID-19. Regardless of the specific reason, employment was a tricky time to navigate during this time, and marketers had to be very aware of this. Todd Hoover, a marketing practice leader states the following in an article posted in May 2020 named *Shift Your Marketing Strategy During Covid-19:* [10] "The last thing you want to do during a crisis is send an unapproachable offer to the targets you think can afford them but cannot. Nor do you want to abandon customers whose circumstances may have changed for the moment." That is to say it is important to keep in mind the situations buyers may be faced with especially during times of turmoil. Hoover also mentions three core elements that when considered can help a business understand their customer's position and their ability to invest, these being: affluence, income, and capacity. Although these are the marketing elements that had the spotlight during the pandemic, what did marketing focus on after?

Figure 2. Types of Tactical Change [11]



Source: IAB

4.3. Marketing in a Post-Pandemic World

The most impactful lesson learned from the pandemic in the world of marketing, is a business's "understanding the situation on the ground, country by country, state by state, zip code by zip code." [9] (Janet Balis, 2021) Marketers that implement strategies aimed at understanding the consumer's situation and values have been shown to positively influence their purchasing behaviour. Alongside this, there has been a shift from competition being solely against other competitors to the competition being against a customer's last best experience. With the rise of customer expectations skyrocketing during the pandemic it is important for brands to be able to keep up. Afterall the pandemic may be nothing more than a pit of nostalgia for most now, the expectations did not fall with it. This is expanded on in an article titled "10 Truths About Marketing After the

Pandemic" by Janet Balis that came out in 2021, with the four C's: Content, Commerce, Community, Convenience.

- **Content -** This is in reference to the information that can be provided through various channels such as emails or mobile apps, in order for this to be effective it must provide relevant and engaging content. To do this there must be an understanding of what the consumer would like to receive and what they would find valuable. Companies typically use AI algorithms to build a consumer profile in order to feed them relevant information and ads.
- **Commerce -** This is how a consumer would be able to obtain a company's product or service. Even before the pandemic there had been a steady increase in e-commerce, however during it had almost entirely replaced physical retail. Now there is a call for a more hybrid experience, but there is still a high demand for e-commerce. Businesses have become reliant on technology for mobile payments, inventory management, and personalized product recommendations (using the aforementioned AI algorithms.)
- **Community -** Businesses can take advantage of their own communities through the form of Virtual Trade Shows and Webinars in order to foster connections with other businesses. This is important to share knowledge, and collaborate with customers, partners, and stakeholders.
- **Convenience -** This is significant because it offers consumers easy access to products and services which a business may offer. It may consist of features such as loyalty programs, discounts, exclusive offers, etc. For example, a consumer who goes to the same coffee shop every morning before work may feel some frustration if there is no loyalty program being offered.

In conclusion, there are two major take aways that marketing departments learned from the pandemic; the consumer should be more centralized than ever before, and that flexibility and agility is crucial. Although that is not a new concept, as time goes on there are efforts to make any disconnect between brand and consumer lesser. Whereas flexibility is important to be able to adapt to any challenges that may come their way.

5. CASE STUDY: GLOVO - NAVIGATING GROWTH IN THE ON-DEMAND DELIVERY MARKET

Glovo [12], a Spanish start-up founded in 2015, has emerged as a significant player in the on-demand delivery market. The company offers a wide range of quick delivery services, delivering everything from restaurant meals to groceries and medicines. With the onset of the COVID-19 pandemic, Glovo experienced a surge in demand as lockdowns prompted consumers to rely more heavily on delivery services. This resulted in a doubling of revenue from the previous year, positioning Glovo as a key player in the evolving landscape of on-demand delivery.

5.1. Challenges [13]

- **Market Expansion:** Despite its success, Glovo faced the challenge of expanding its market presence while maintaining profitability. The company sold its Latin American operations to Delivery Hero in September, signalling a strategic shift towards focusing on growing markets, particularly in eastern Europe.
- **Profitability:** While Glovo has seen significant revenue growth, achieving profitability remains a key objective. The company aims to turn a net profit by early 2022, but achieving this goal requires careful management of costs and continued revenue growth.
- **Competition:** The on-demand delivery market is highly competitive, with rivals expanding their offerings to compete with Glovo's diverse service portfolio. Maintaining a competitive edge in such a crowded market requires innovation and strategic partnerships.

5.2. Strategies

- **Diversification:** Glovo's success lies in its ability to diversify its service offerings beyond restaurant meals. By delivering groceries, medicines, and even forgotten belongings, Glovo caters to a wide range of consumer needs, making it a one-stop solution for quick delivery services.
- **Investment in Growth Markets:** Glovo is strategically investing in growing markets, particularly in eastern Europe, to capitalize on emerging opportunities. By focusing on markets with high growth potential, Glovo aims to consolidate its position as a leading player in the on-demand delivery space.
- **Strategic Partnerships:** Collaborations with established retailers like Carrefour have enabled Glovo to expand its reach and offer additional services to customers. By leveraging such partnerships, Glovo enhances its value proposition and strengthens its competitive position in the market.

5.3. Future Outlook

Glovo remains focused on driving sustainable growth while maintaining profitability. The company's commitment to innovation, strategic expansion, and customer satisfaction positions it for continued success in the dynamic on-demand delivery market. While challenges lie ahead, Glovo's resilience and adaptability are key strengths that will fuel its future growth and success.

6. CONCLUSIONS

Throughout the extensive research, several key findings stood out from the meticulous analysis of past crises, such as the COVID-19 pandemic and the 2007-2008 financial crisis. These crises in particular have proven time and time again that consumer behaviour is drastically changed by factors such as herd mentality and panic buying. Therefore, the concept of adaptability has been key to businesses all around the globe. Nevertheless, if it weren't for marketing resilience strategies, the situation would have been quite different at the present time. Risk management and diversification have been clearly outlined by companies, one of them being studied in our research paper: Glovo. Thanks to its strategic partnerships, alongside its vision beyond restaurant meals, the company had a victorious emergence from the pandemic.

Overall, the aim of this research paper has been fulfilled through its findings. Should any business of any size use the information above, along with its own research, the once-unforeseeable future would take shape and become clearer. As we continue to move across this unknown path, any discovery, no matter its size, serves as value for the next generation.

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COMPARATIVE ANALYSIS OF HISTORIC IFRS DEVELOPMENT IN GERMANY AND ITALY

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Abstract:
This study aims to analyze and compare the development and implementation of International Financial Reporting Standards (IFRS) in Germany and Italy, highlighting the distinctive pathways and outcomes in these two countries of the European Union. Employing a qualitative literature review, this paper delves into the historical progression, motivations, and impacts of IFRS adoption, examining the experiences of Germany and Italy together with their unique regulatory, economic, and cultural backgrounds. This research outlines the steps each country took to integrate IFRS into their legal frameworks, examines the motivations behind their transitions, and evaluates the effects on financial reporting quality, transparency, and investor relations. Furthermore, it provides a comparative analysis of the challenges encountered, such as resistance to change and debates over specific provisions, alongside the broader economic and cultural factors influencing their adoption strategies.

INTRODUCTION

International Financial Reporting Standards (IFRS) serve as a universal language for financial reporting with the goal of ensuring transparency, accountability, and efficiency across global financial markets (Abdul & Abdullah, 2022).

The origins of International Financial Reporting Standards (IFRS) trace back to the efforts to harmonize accounting across borders, aiming to facilitate global commerce and investment. The International Accounting Standards Committee, established in 1973, laid the groundwork for what would become IFRS, with the objective of designing a set of standards that could serve as a universal accounting language for businesses around the world. Significant progress was later made with the formation of the International Accounting Standards Board in 2001, which took on the role of developing and issuing these standards. This transition marked a critical step towards global financial reporting uniformity, reflecting the growing need for consistent and comparable financial information in the increasingly interconnected global market (Smith, 2008). Over the years, the adoption of IFRS has been propelled by its capacity to enhance financial transparency and comparability, thereby improving the efficiency of global capital markets and contributing to economic growth (Soderstrom & Sun, 2007).

These standards encompass a wide range of financial reporting areas, including the presentation of financial statements, revenue recognition, and the reporting of financial assets and liabilities. Their global application aims to foster international investment and economic growth by providing a consistent reporting framework for companies regardless of their geographic location (Abdul & Abdullah, 2022).

Overall, the adoption of IFRS has been extensive, with over 140 jurisdictions either requiring or permitting their use. The European Union's decision to mandate IFRS for listed companies starting in 2005 marked a significant milestone in global acceptance (Kaaya, 2016). This widespread adoption highlights IFRS's role in facilitating easier access to global capital markets, reducing information asymmetry, and simplifying the financial reporting process for multinational corporations (Kaaya, 2016).

However, despite the benefits, transitioning to IFRS has also posed challenges, including the substantial cost and complexity, especially for small and medium- sized enterprises (SMEs). The principle-based nature of IFRS necessitates significant judgment, leading to potential inconsistencies in application. Concerns also exist regarding national sovereignty over accounting standards and the influence of IFRS on domestic practices (Ndedi et al., 2017). Exact concerns will also be covered in further detail throughout the exact examinations throughout this paper.

In conclusion, IFRS represents a significant effort towards global accounting harmonization, offering numerous benefits in financial reporting transparency and comparability. Yet, it also introduces challenges that require careful navigation. As IFRS continues to evolve, its contribution to the future of global financial reporting will be crucial, necessitating ongoing efforts to address its limitations and enhance its utility across different economic and regulatory contexts (Salah, 2020).

The following chapters of this paper delve into the historical development of the International Financial Reporting Standards (IFRS) in Germany and Italy. This comparative analysis is rooted in a compelling rationale: both Germany and Italy are significant economies within the European Union that have distinct legal, economic, and cultural backgrounds influencing their approach to financial reporting and adoption of IFRS. Germany's traditionally codified commercial law contrasts with Italy's civil law system, offering a unique perspective on how different legal frameworks accommodate international standards. By exploring the evolution of IFRS within these two contexts, this study not only highlights the divergences and convergences in their financial reporting landscapes but also provides insights into the broader implications for IFRS adoption across varied regulatory environments (Cualain & Tawiah, 2022).

After detailing the development of IFRS in both countries, the paper will compare their respective journeys and conclude with an assessment of the impact of these developments on the global financial reporting paradigm.

METHODOLOGY

This research employs a qualitative literature review methodology to examine the development and implementation of International Financial Reporting Standards (IFRS) in Germany and Italy. A qualitative literature review is an approach that allows for a comprehensive examination of available literature to gain a deep understanding of a specific phenomenon – in this case, the evolution of IFRS within these two distinct European jurisdictions (McCombes, 2023). This method is particularly suited to the research objective as it facilitates an exploration of the nuanced differences and similarities in the adoption and adaptation processes of IFRS, taking into account the socio-economic, regulatory, and historical contexts unique to Germany and Italy.

To conduct this review, academic journals, industry publications, and regulatory body reports were systematically searched to identify relevant literature that discusses the initiation, progression, and outcomes of IFRS adoption in the targeted countries. The search strategy was designed to include a broad range of sources to capture a comprehensive view of the topic. Keywords such as "IFRS adoption in Germany", "IFRS development in Italy", "IFRS comparative analysis", and "IFRS implementation challenges" were used to ensure the retrieval of pertinent studies.

The selection of literature was guided by criteria that focused on the relevance to the research questions, the publication date to ensure the timeliness of the information, and the credibility of the sources. The resulting body of literature comprises empirical studies, theoretical analyses, and case studies that together provide a multifaceted view of the IFRS landscape in Germany and Italy.

HISTORICAL IFRS DEVELOPMENT IN GERMANY

The following assessment explores the evolution of the German financial reporting environment before and after the adoption of IFRS, by not only providing a timeline of relevant events that lead to its introduction, but also examining benefits and concerns that accompanied the switch in Germany.

German Financial Reporting Environment Prior to IFRS Adoption

Before the adoption of the International Financial Reporting Standards (IFRS) in Germany, the financial reporting environment was primarily governed by the German Commercial Code (HGB - Handelsgesetzbuch). The HGB principles were deeply rooted in the historical and economic context of Germany, emphasizing conservatism, the principle of prudence, and creditor protection. These principles ensured that financial statements were prepared with a conservative approach to valuation, which often led to the underestimation of assets and overestimation of liabilities, thus safeguarding the interests of creditors (Beckman et al., 2007).

The HGB was characteristic of the Continental European accounting model, which differs significantly from the Anglo-Saxon model where IFRS and US GAAP (Generally Accepted Accounting Principles) predominate. Under the HGB, financial reporting was more focused on tax implications and the protection of stakeholders, rather than providing a true and fair view for investors, which is a cornerstone of IFRS (Weißenberger et al., 2004). The accounting principles under HGB were closely linked with German tax law, leading to a unique practice known as "Maßgeblichkeitsprinzip," where the commercial accounts directly influenced tax accounts (Dobler, 2005).

The motivation behind the adherence to these principles was not only to maintain a conservative approach to financial reporting but also to reflect the structure of the German economy, which is predominantly made up of closely held companies and family-owned businesses. This structure influenced the lesser emphasis on the need for transparency and comparability in financial reporting from an international perspective (Hellmann et al., 2013).

However, with globalization and the increasing importance of attracting international investment, the limitations of the HGB in providing financial information that is comparable internationally became evident. This realization marked the beginning of a transition towards a more investor-oriented approach in financial reporting, leading to the voluntary adoption of IFRS by a number of German companies before it became mandatory in 2005 (Jermakowicz & Gornik-Tomaszewski, 2006).

Despite initial resistance due to the significant differences between HGB and IFRS, especially regarding principles such as the fair value measurement, the move towards IFRS represented a paradigm shift in German financial reporting. This shift was aimed at enhancing the international comparability and transparency of financial statements, thereby improving the attractiveness of German companies to global investors (Bassemir, 2017).

In conclusion, the German financial reporting environment prior to the adoption of IFRS was characterized by a legalistic, conservative approach that prioritized creditor protection over investor information. The transition to IFRS signified a significant shift towards international standards, driven by globalization and the need to attract foreign investments by enhancing the comparability and transparency of financial reports.

TIMELINE OF KEY EVENTS LEADING TO AND FOLLOWING THE ADOPTION OF IFRS IN GERMANY

The journey toward the adoption of International Financial Reporting Standards (IFRS) in Germany has been marked by significant regulatory changes, the establishment of oversight bodies, and the ultimate integration of IFRS into national law. The following evolution reflects Germany's response to globalization pressures and the need for more comparable and transparent financial reporting standards.

Prior to 2005: Voluntary Adoption

Before the EU-wide mandate, a number of German companies voluntarily adopted IFRS to enhance the attractiveness of their financial statements to international investors. As mentioned in the prior assessment, the German financial landscape during this period was characterized by the dominance of the German Commercial Code (HGB), which was more focused on creditor protection rather than investor information. Despite this, the voluntary shift towards IFRS indicated a growing recognition of the benefits associated with global financial reporting standards (Tendeloo & Vanstraelen, 2005).

2002: EU Regulation on IFRS

A pivotal moment in the transition to IFRS was the European Union's adoption of the IAS Regulation (EC) No 1606/2002, which required all EU listed companies to prepare their consolidated financial statements in accordance with IFRS for financial years starting on or after 1 January 2005. This regulation was a significant step towards harmonizing financial reporting across the EU, including Germany (Jermakowicz & Gornik-Tomaszewski, 2006).

2005: Mandatory Adoption of IFRS

The mandatory adoption of IFRS in 2005 for all listed companies in the EU was a landmark change for German companies. It necessitated substantial adjustments in accounting practices from HGB to IFRS, affecting areas such as asset valuation, financial instruments, and revenue recognition. This shift aimed to increase transparency, comparability, and the overall quality of financial reporting (Brown & Tarca, 2005).

Post-2005: Integration into National Law and Oversight

Following the mandatory adoption, Germany took steps to integrate IFRS into national law, including the establishment of oversight bodies to ensure compliance and proper implementation of IFRS standards. These measures were essential for maintaining the integrity of financial reporting and facilitating the effective enforcement of IFRS. The Deutsche Prüfstelle für Rechnungslegung (DPR), or Financial Reporting Enforcement Panel, was established to examine and enforce the compliance of financial statements with IFRS (Soderstrom & Sun, 2007).

INTRODUCTION IFRS IN GERMANY

The timeline of IFRS adoption in Germany, as depicted in the previous chapter, underscores a strategic pivot towards global financial reporting standards, culminating from both EU mandates and Germany's internal recognition of the need for financial transparency and comparability. The journey, characterized by regulatory reforms, establishment of oversight mechanisms, and legal integration, signifies Germany's commitment to aligning with global financial practices. This alignment was not merely a response to external pressures but was also driven by a proactive desire to enhance the attractiveness of German companies to international investors and to ensure that financial statements could be compared on a global scale (Jermakowicz & Gornik-Tomaszewski, 2006).

For Germany, the adoption of IFRS was seen as a crucial step towards enhancing the comparability of financial statements of German companies, thereby attracting international investment by providing a clear, comparable, and transparent financial narrative to global investors (Brown & Tarca, 2005). The move towards IFRS also reflects a recognition of the limitations inherent in the HGB-focused reporting system, which, while serving the historical economic structure of Germany well, was increasingly seen as inadequate for the demands of a globalized economy. The shift was therefore both a practical and strategic decision, aimed at ensuring German companies remained competitive and appealing to a broad spectrum of international investors (Soderstrom & Sun, 2007).

EFFECTS ON GERMAN COMPANIES

The introduction of IFRS have significantly impacted German companies and the broader financial market, influencing reporting quality, transparency, and investor relations. The adoption of IFRS aims to ensure greater comparability and transparency of financial reporting, a crucial aspect for investors and stakeholders in the global financial market.

Reporting Quality and Earnings Management

Research indicates mixed effects of IFRS adoption on earnings management among German companies. While some studies suggest that IFRS adopters do not present different earnings management behavior compared to companies reporting under German GAAP (van Tendeloo & Vanstraelen, 2005), others find an increase in disclosure quality under IFRS, albeit with increased earnings management in the early stages of adoption. However, the degree of earnings management decreases significantly from the early to the mature phase of IFRS reporting, suggesting an improvement in reporting quality over time (Salewski et al., 2014).

Transparency and Disclosure Quality

The adoption of IFRS has led to a significant increase in the transparency and quality of financial disclosures. Firms that have adopted IFRS or U.S. GAAP voluntarily show higher disclosure quality scores, indicating improved transparency in financial reporting, not only in Germany, but also in other countries, such as Austria, and Switzerland. This enhancement in disclosure quality is essential for fostering investor confidence and facilitating more informed decision-making (Daske & Gebhardt, 2006).

Investor Relations

The mandatory adoption of IFRS in countries with low investor protection, including Germany, has been associated with significant improvement in both forecast accuracy and forecast dispersion, suggesting an enhancement in the information quality available to investors. This improvement in information quality is particularly notable in environments where investor protection is not as strong, highlighting the role of IFRS in leveling the playing field for investors (Houqe et al., 2013).

In conclusion, the adoption of IFRS has had a profound impact on German companies and the financial market at large, enhancing reporting quality, increasing transparency, and improving investor relations. Despite initial challenges, the overall trend indicated a positive shift towards more reliable and comparable financial information, which benefited investors and stakeholders globally.

CHALLENGES AND CONTROVERSIES CONCERNING THE INTRODUCTION OF IFRS

As mentioned in the last chapter, the implementation of IFRS in Germany has also been met with challenges and controversies, reflecting a complex transition from the prior German Generally Accepted Accounting Principles (HGB) to a more global accounting framework with IFRS. This transition had spurred debates over the appropriateness of specific IFRS provisions and resistance from companies accustomed to the HGB standards.

Resistance to Change

One of the primary challenges in the implementation of IFRS in Germany has been the resistance from companies traditionally aligned with HGB standards. The German accounting system, deeply rooted in the country's legal framework, emphasizes the precautionary principle and the protection of creditors, leading to a more conservative financial reporting approach. The shift to IFRS, with its focus on transparency and the fair value principle, represented a significant cultural and operational shift for German companies (Jones & Luther, 2005). This transition challenged longstanding accounting practices, necessitating adjustments in internal reporting processes and potentially impacting firms' reported financial health.

Controversies over Specific Provisions

The adoption of IFRS also ignited debates over specific provisions that were perceived to conflict with German accounting traditions. For example, the IFRS fair value measurement and its impact on financial stability and predictability have been points of contention. Critics argue that the volatility introduced by fair value accounting, especially during financial crises, could undermine the stability of financial reports and mislead stakeholders. Moreover, the IFRS requirement for extensive disclosures has raised concerns about the burden on companies, especially smaller entities, and the potential for information overload that may not necessarily enhance decision usefulness (Christensen et al., 2015).

CONCLUSION HISTORIC IFRS DEVELOPMENT GERMANY

To conclude the historic IFRS development in Germany, the shift to IFRS has significantly altered the financial reporting landscape, emphasizing transparency and investor information over creditor protection. This transition has enhanced international comparability and investor relations, despite initial resistance and controversies surrounding specific IFRS provisions. The adoption of IFRS in Germany reflects a strategic response to globalization, aiming to maintain competitiveness and appeal to international investors by providing more reliable and comparable financial information.

Historical IFRS Development in Italy

We now analyze the Italian context, with particular reference to the role of the Civil Code and the Organismo Italiano di Contabilità and the adoption of International Accounting Principles (IFRS).

Italian Financial Reporting Environment Prior to IFRS Adoption

Italian accounting has ancient roots, but it is only in the Middle Ages that we find its proper theorization, particularly within the monastic orders, where the Figure of Friar Luca Pacioli stands out as the father of accounting. In his work, "Summa de Arithmetica, Geometria, Proportioni et Proportionalita et Divina Proportione," he advocated for the use of double-entry bookkeeping and provided merchants with tools to assess their business performance and act accordingly (Musella Alessio Maria, 2020). This included, in particular, the double representation, static and dynamic, of management; the double representation of the financial position as debts and equity; the dual meaning of income, on one hand understood as an increase (profit) or decrease (loss) that the company's capital undergoes in a certain interval of time, and on the other as the economic result achieved in the same interval of time. (Ciambotti Massimo, 2011).

Modern accounting, however, is based on specific provisions of the Civil Code regulating the preparation of the financial statements. These provisions have been harmonized at the European level through Legislative Decree no. 127 of April 27, 1991, which established the application of the IV EU Directive of 1978 concerning the content of the annual financial statements and accompanying documents, the methods of publication, and the accounting principles to be applied. However, it is noted that these provisions (articles 2423-2435 ter of the Civil Code) provide the basic elements for financial reporting in a rather superficial manner (Adelberg, A.H., 1983). In this regard, the principles of the Italian Accounting Standards Board (OIC) are relevant. Through Law no. 116 of August 11, 2014, indeed, the use of OIC standards has been made mandatory for Italian companies to complement and interpret the provisions of the civil code. This law establishes that the OIC is tasked with issuing national accounting principles based on the provisions of the civil code and, above all, also participates in the development of international accounting principles with the IASB. However, the superiority of the Civil Code provisions over accounting principles remains in case of a discrepancy between the two. Although the application of OIC principles is common among unlisted companies, currently, there is no formal obligation. Instead, for listed companies, since 2005, there has been a requirement to apply international accounting principles (Quagli, A., 2017).

In conclusion, therefore, we can say that Italian financial accounting remains tied to the concept of legal prescription by the State, and that, despite the accounting of the twentieth century was dominated by the Civil Code, strongly influenced by tax regulations, we find a particular diffusion of international accounting principles (Di Pietra, R., 2017).

TIMELINE OF KEY EVENTS LEADING TO AND FOLLOWING THE ADOPTION OF IFRS IN ITALY

Below, we will outline the path that led Italy to adopt IFRS. A path characterized by the search for a meeting point between the provisions of the civil code and international accounting principles.

2005: Adoption of IFRS and delegation to the government

With Legislative Decree No. 38 of 2005, guidelines were established for the adoption of the accounting principles of the IASB, stipulating that for listed companies, banks, financial companies, insurance companies, and electronic money institutions, the mandatory use of both IAS/IFRS in both the individual and consolidated financial statements was required (Quagli, A., 2017). Italy thus emerges as one of the few EU member states to have extended the mandatory adoption of IFRS to unlisted companies as well (Di Pietra, R., 2017).

Post 2005: Adjustment of national principles to IFRS

Between 2013 and 2014, the principles of the OIC were revised to align them with IFRS and avoid conflicts. Directive 2013/34/EU and the reform of articles of the civil code indeed required a profound modernization of national accounting principles (Di Pietra, R., 2017).

INTRODUCTION IFRS IN ITALY

The Italian accounting system is the result of an intense period of interconnected changes involving a series of national and international norms and procedures in continuous adaptation. It is evinced that there is a strong international standardization of rules, a clear distinction between listed and unlisted companies, as well as the gradual acceptance by tax authorities of financial statements prepared according to the new principles (Quagli, A., 2017).

Among the consequences of this change, we undoubtedly have the fact that most Italian companies, not falling within the companies required to apply IAS/IFRS standards, prepare their financial statements according to national principles, while only a small group of companies, representing the most important share in economic terms, prepare them according to international standards. The effect is that, obviously, the possibility of comparing the financial statements of companies operating in the same market is reduced (De Angelis, L., 2010).

EFFECTS ON ITALIAN COMPANIES

The introduction of international accounting principles and their subsequent application in preparing consolidated financial statements place the companies specified in Legislative Decree No. 38 of 2005 in front of numerous challenges, stemming from the differences between Italian and international sources. (Marchini et al. 2005).

This conversion has also led to different outcomes depending on the composition of the assets and income of these companies. In fact, while international accounting principles favor substance, national principles favor form, and this can be advantageous or disadvantageous for companies depending on the composition of their assets and income (Vornoli, J., 2017).

Reporting Quality and Earnings Management

Regarding the quality of accounting data of Italian companies after the introduction of the obligation to adopt IFRS standards, there are no unanimous opinions. Taking into account the presence of discretionary accounting policies, the timeliness of recognizing probable losses in accounting, and the relevance of financial data for investors, according to some studies, the mandatory introduction of international accounting principles has not led to any improvement in the quality of accounting data, but rather to a worsening of the timeliness of recognizing probable losses (Cameran et al., 2014). Additionally, some scholars, including Quagli (2011), Marchi, and Potito (2012), argue that the results obtained from various research are contradictory and that it cannot be claimed that there has been a real reduction in the degree of earnings management. (Capalbo et al., 2019).

Transparency and Disclosure Quality

As in the previous case, opinions on the improvement of transparency are discordant. In fact, while scholars like Morricone et al. (2010) have found that there has been no increase in the value relevance of disclosing intangible assets after the introduction of the obligation to adopt IFRS, others, including Pavan and Paglietti (2011), argue that this transition has instead enhanced the ability of accounting data to provide useful information to investors (Capalbo et al., 2019). Furthermore, it is evident that the adoption of IFRS improves corporate disclosure and reduces agency costs through increased informational transparency (Cameran et al., 2014).

Investor and Financier Relations

The presence of institutional investors appears to be more significant, statistically speaking, for Italian companies that have adopted international accounting principles because using these principles makes the companies more appreciated. Furthermore, these companies are able to access more external sources of financing because, for financiers, financial statements prepared according to IFRS standards are more reliable, and therefore, they do not deem it necessary to demand higher interest rates (Cameran et al., 2014).

Challenges and Controversies concerning the Introduction of IFRS in Italy

The introduction of IFRS in Italy was certainly not a straightforward path without uncertainties. Among the criticisms, it is noted that IFRS makes it difficult to evaluate company performance as studies by Jermakowicz and Gornik-Tomaszewski (2006) and KPMG (2007) suggest it leads to increased income statement volatility.

Additionally, research by PwC (2006) and Ernst & Young (2006) revealed that FTSE 350 company executives find it more challenging to communicate their results, leading to a tendency to avoid using IFRS in their presentations and communications (Dunne et al., 2008). According to Vulceva (2011), the adoption of IFRS entails additional costs for listed companies, potentially driving them out of the market. Darenidou et al. (2006) and Jermakowicz and Gornik-Tomaszewski (2006) explain that there will certainly be costs for additional resources and to adapt IT systems. A PwC study demonstrated that companies had to hire additional specialized personnel to implement IFRS (Dunne et al., 2008). However, unlike in other countries, Italian companies believe that financial statements based on international principles are useful in the decision-making process, despite being lengthy and complex (Dunne et al., 2008). Conversely, according to a study conducted by PwC (2005), there is a different opinion regarding investors' perception, as they believe that IFRS are not useful in changing perceptions about their companies (Dunne et al., 2008).

CONCLUSION HISTORIC IFRS DEVELOPMENT ITALY

In summary, the journey leading to the introduction of international accounting principles was not straightforward, facing challenges such as conversion issues, costs, and comparability concerns. Despite conflicting opinions, studies seem to lean towards the conclusion that, in Italy, the adoption of IFRS did not result in improvements in financial statement data quality or transparency, although many argue that it enhanced communication with investors and improved corporate disclosure. On the other hand, significant benefits are observed from the perspective of financiers and investors, who are more inclined to invest in companies that prepare financial statements according to IFRS principles.

COMPARATIVE ANALYSIS

As we move towards the conclusion of this study, let's now analyze the differences and similarities between the German and Italian models. Among the primary differences is the fact that many German companies voluntarily adopted IFRS standards before 2005, while for Italian listed companies, and others specified by the legislature, it became mandatory only in 2005. Additionally, in Germany, an improvement in the quality of accounting data has been observed after the adoption of IFRS, a situation different from Italy, where some studies report improvement while others disagree, perceiving no difference.

Differences are also observed regarding reporting quality and earnings management. In Germany, the effects of IFRS adoption vary: some suggest an improvement in reporting quality, while others indicate increased earnings management in the early stages of adoption. In Italy, opinions are highly discordant, as seen in the themes of transparency and disclosure quality. In Germany, studies demonstrate that IFRS adoption led to an improvement in both, with companies showing higher disclosure quality scores.

For Italian companies that have adopted IFRS, there is a more significant presence of investors and increased access to external sources of financing, whereas in Germany, there is an improvement in forecast accuracy, thus enhancing the information available to investors.

One of the primary challenges in Germany was the resistance from companies aligned with HGB standards, given the conservative nature of the German accounting system. In Italy, however, no such challenges were observed, but concerns emerged regarding the evaluation of company performance and results communication.

Controversies in Germany focused more on specific IFRS provisions conflicting with traditional ones, raising concerns about financial stability and result predictability. In Italy, controversies were more about additional costs and IT system adjustments needed to implement IFRS. Nevertheless, unlike the situation in Germany, Italian companies perceive more benefits in adopting international standards for decision-making.

Regarding the adoption of international principles, both in Germany and Italy, they are mandated by the state for publicly listed companies. However, while in Germany, they are compulsory for companies exceeding certain size criteria, in Italy, other categories of companies (companies, banks, financial companies, insurance companies, and electronic money institutions) are also obliged to adopt IFRS.

CONCLUSION

From this research, it emerges how the introduction of IFRS in Germany and Italy has been complex and fraught with challenges but also with benefits, and above all, influenced by a series of factors such as legal tradition, regulatory environment, and national accounting principles. The comparative analysis between Germany and Italy suggests that, although both are in the European Union, their accounting backgrounds present differences that IFRS can bridge, but at the same time, they must deal with somewhat similar challenges and reactions. Hence, collaboration could be established to share resources, information, and especially experience.

Therefore, we can conclude that the evolution of IFRS in Germany and Italy represents an opportunity for global accounting harmonization, with specific benefits in terms of transparency and investor attention. However, it cannot be ignored that the adoption and use of such principles require greater effort from companies in terms of adaptation, conversion, and management of new procedures, but also greater collaboration among different states to implement a common course of action.

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ECONOMIC IMPACT OF WEARABLE TECHNOLOGY

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Abstract:
This paper explores the evolution and impact of wearable technology in the current socio-economic context, accentuated by the global COVID-19 crisis, which has accelerated the adoption of these technologies. Wearable technology, which includes devices embedded in wearables and accessories such as smart watches, interactive glasses and smart textiles, offers users significant improvements in communication and access to real-time information. The paper highlights the benefits of wearable technology, from improved health monitoring to increased work productivity, and examines the challenges of data privacy and technology integration. The methodology used includes analysis of statistical data to assess the adoption rate of wearable technology and its impact across sectors, providing a detailed insight into how these technologies can continue to shape human interactions with technology in a post-pandemic world. The ultimate aim of the paper is to provide valuable insights into the effective integration of wearable technology into everyday life and business, highlighting emerging trends and their potential for future expansion, with particular emphasis on the significant increase in adoption rates in the current context.

Keywords: Wearable, Technology, Smart Textile Innovations

Jel classification: M15

1. INTRODUCTION

The terms "wearable technology", "wearable devices" describe a class of electronic technologies embedded in items of clothing and accessories that are designed to be worn on the body, ensuring a seamless integration of technology into the everyday life of users. These devices offer advanced communications and data storage facilities, significantly improving access to real-time information and providing seamless interaction with the digital environment.

A popular example of wearable technology are smartwatches, which not only display the time for the wearer, but also allow for receiving notifications, monitoring physical activities, tracking health parameters such as heart rate or sleep quality, and even making electronic payments. Smart textiles, equipped with sensors and conductive materials, also turn ordinary clothes into interactive devices that can collect a wide range of data about the wearer. They can track athletic performance, monitor health conditions, or even change the temperature of clothing depending on outdoor weather conditions.

The importance of addressing the subject

Wearable technology is defined by the ability of devices to integrate electronic functions into wearables and accessories, allowing users to access real-time information through comfortably wearable means. Popular examples include smartwatches, glasses, contact lenses and various electronic textiles that provide additional interaction and communication functions.

The aim of this paper is to highlight the benefits and latest trends related to wearable technologies and their impact in the economic landscape, contributing to work productivity and facilitating communication. The paper also aims to provide valuable insights into the integration of these technologies into everyday life and the business environment, exploring the positive effects and challenges associated with the adoption and use of wearable devices. The methodology adopted includes documenting statistical data to understand the adoption rate and impact of wearable technologies, aiming to provide a detailed analysis of how these technological innovations are transforming different economic and social sectors.

Business Impact

Wearable technology has captured the interest of both the consumer and industrial sectors. Industry analyses, such as those conducted by Forrester Research, suggest that the corporate sector could overtake the consumer market in wearable technology adoption due to potential benefits in organizational efficiency and productivity. For example, the use of wearable technology in work environments, such as smart watches and fitness trackers, has been shown to increase employee productivity and safety.

Global Studies and Perspectives

A survey by Harris Interactive found mixed perceptions globally, with increased adoption and optimism in countries such as Mexico, China and India compared to the US. The use of wearable technologies has the potential to transform health management by continuously monitoring vital data, which can be transmitted directly to medical facilities, improving communication and treatment efficiency.

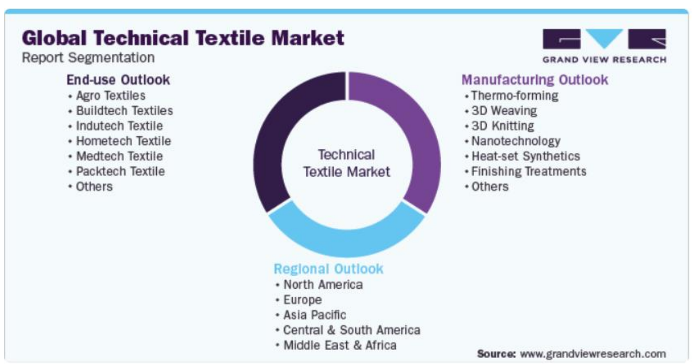
Differentiating between Electronic and Smart Textiles

Although often used interchangeably, smart textiles offer a wider range of applications than strictly electronic textiles. The latter are limited to the integration of electrical signals, while smart textiles can include a variety of interactive and adaptive functionalities.

2. WEARABLE TECHNOLOGY ADOPTION RATE

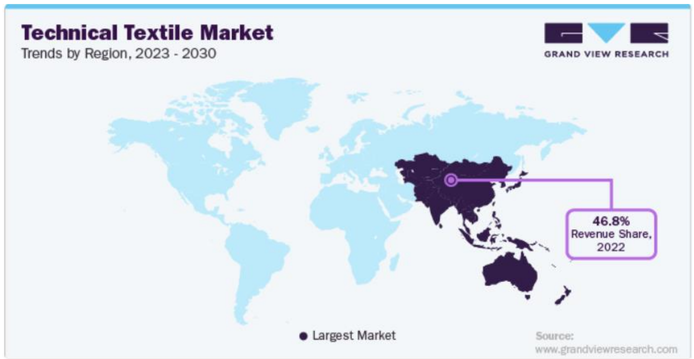
The global market for smart watches, for example, is projected to reach a value of USD 47.94 billion by 2024, at a compound annual growth rate (CAGR) of 6.84%, indicating a significant expansion of the wearable technology market.

Figure 1. Segmentation of the global technical textiles market



The diagram analysed is structured into three main sections, each providing a different perspective on the global technical textiles market. The first section, "Outlook based on end-use", categorises textiles according to their specific uses: Agro Textiles for agriculture, Buildtech Textiles for construction, Indutech Textiles for various industrial applications, Hometech Textiles for household uses, Medtech Textiles for the medical sector, Packtech Textiles for packaging, and other categories for technical textiles that do not fit into the previous groupings. The second section, "Manufacturing Outlook", details production methods, including thermoforming, 3D weaving, 3D knitting, the use of nanotechnology to improve material properties, heat treatments applied to synthetic materials and various finishing treatments. Other manufacturing techniques, which are not specified, are also mentioned. The last section, "Regional Outlook", covers the geographical distribution of the market, listing regions such as North America, Europe, Asia Pacific, Central and South America, and the Middle East and Africa. In all, this chart illustrates the complexity and diversity of the market for technical textiles, highlighting their varied applicability across many sectors and regions of the world.

Figure 2. Graphical distribution of the technical textiles market



This graph shows the geographical distribution of the technical textiles market for the period 2023-2030, highlighting the region with the largest market share. The dark coloured region on the map represents the largest market for technical textiles, accounting for 46.8% of revenue in 2022.

Based on this representation, it is observed that the South and East Asia region including India is marked as the largest market for technical textiles. This reflects the rapid industrial and technological growth in this region, which has generated high demand for technical textiles in various applications, ranging from agriculture and industry to apparel and infrastructure. This significant market may also indicate substantial opportunities for companies producing and distributing such materials in this region.

Figure 3. Distribution of the global technical textiles market

This pie chart illustrates the distribution of the global market for technical textiles in the year 2022, showing how they are used in various areas, expressed in percentages. The total value of the market this year was $188.8 billion. Each coloured segment in the chart represents a specific sector: Hometech Textiles for household applications, Indutech Textiles for industrial applications, Transtech Textiles for transport including automotive and aeronautics, Packtech Textiles for packaging, Medtech Textiles for the medical sector, Clothtech Textiles for improving the functionality of clothing, Sportech Textiles for sports and recreational items, Agro Textiles for agriculture and Protech Textiles for protective materials including personal protective equipment. The chart highlights the diversity and growing importance of technical textiles in many sectors, highlighting their crucial role in innovation and technological development in a wide variety of applications.

Figure 4. Evolution of the smart materials market

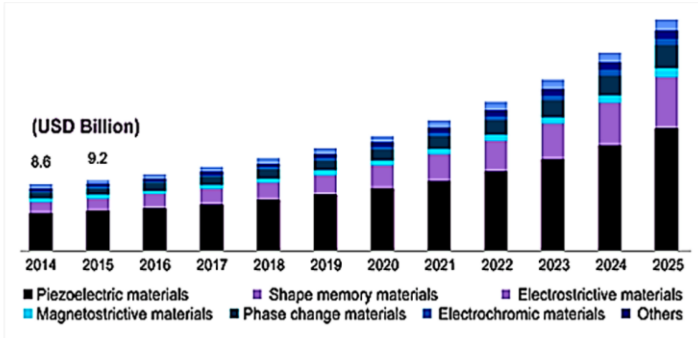
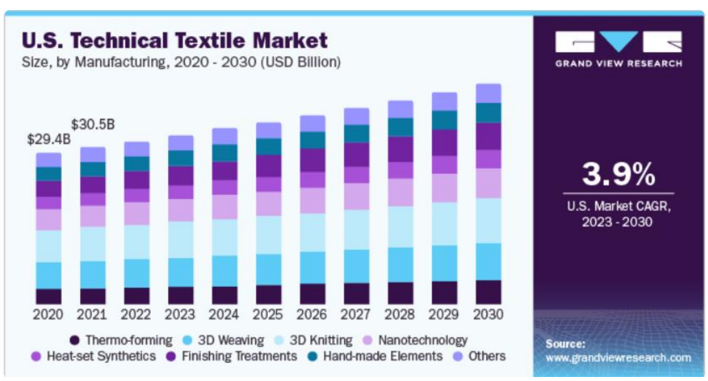


Figure 6. Smart materials market by application (2014–2025).

The analyzed graph reveals the evolution of the smart materials market segmented by various applications over the period 2014-2025 with values expressed in USD billion. A progressive growth of the market is observed, starting from 8.6 billion in 2014 to increasing estimates in the following years, such as 9.2 billion in 2015. Each bar in the graph is divided into colored segments indicating specific types of materials: piezoelectric materials, which generate electricity under mechanical pressure; magnetostrictive materials, which change in the presence of magnetic fields; shape memory materials, which can recover their original shape upon heating; electrorheological materials, which change their viscosity properties when an electric field is applied; and electrochromic materials, which change color or opacity when electrically stimulated. The category 'Other' includes other types of smart materials not classified in the previous categories. The graph highlights not only the year-on-year growth of the market, but also the continued diversification in the use of these innovative materials, suggesting an increasing adoption and integration into various technological and industrial applications.

Figure 5. Evolution of the US technical textiles market



The graph analyzed illustrates the evolution of the technical textiles market in the US during the period 2020-2030, expressed in billions of dollars, and highlights a constant growth of the market, with a compound annual rate (CAGR) of 3.9% between the years 2023 and 2030.

This suggests a continued expansion and diversification of the use of technical textiles in various industrial and commercial fields. Each bar in the graph is segmented according to the different manufacturing technologies used in the technical textile sector, including thermoforming, which is the process of forming materials by applying heat, 3D weaving and 3D knitting, both of which create three-dimensional structures. Also seen is the use of nanotechnology to improve textile properties such as water or dirt resistance, as well as heat treatment of synthetic materials to improve their performance or durability. Finishing treatments involve the application of chemical or mechanical treatments to impart specific properties to textiles, and handmade elements refer to components or finishes added by hand in the production process. The "Other" category includes methods and materials not specified in the previous categories. Overall, the chart highlights the increased importance and adaptability of technical textiles within modern industry, anticipating a continued growth and diversification of their uses.

3. LIMITATIONS AND CHALLENGES OF TECHNOLOGY

While wearable technology offers a wide range of benefits, such as improved health monitoring and enhanced access to information, it also faces a number of significant challenges that may inhibit widespread adoption and use. One of the main obstacles is the need for real-time access to information, which not only requires a constant and stable internet connection, but also prior preparation and effective planning for device use. For example, to get the most out of a smartwatch during a run, the user needs to ensure that the device is charged, that the necessary apps are properly installed and conFigured, and that there is a reliable internet or GPS connection.

In addition to these technical challenges, the integration and acceptance of these technologies is often limited by cultural barriers. In many cultures, wearing technological devices in plain sight can be perceived as an invasion of privacy or a sign of technological dependency. This cultural resistance can hinder the adoption of wearable devices, especially among older populations or in regions with limited access to technology.

In addition, there are concerns about the security and privacy of data collected by wearables. Because they can collect a huge amount of personal data, from geographic location to biometric information, users and regulators are concerned about how this data is stored, processed and protected. Without strict security protocols and transparency in data management, users may be reluctant to adopt these technologies.

To overcome these challenges, it is essential to develop solutions that address both technical and cultural issues. Wearable technology manufacturers must work with data security experts to ensure the highest standards of protection for personal information. Awareness and education campaigns can also help overcome cultural barriers by illustrating the tangible benefits of wearable technology and debunking myths about technology addiction. In this way, wearable technology could reach a higher level of integration and global acceptance, maximising its potential to improve people's lives.

4. FUTURE RESEARCH DIRECTIONS

The proposed text explores various directions for future research in wearable technology, highlighting the importance of a thorough understanding of the integration, impact and sustainability of these devices in society. Topics covered include:

1. Interoperability with other technologies, such as IoT, for more efficient and secure integration.
2. The long-term impact on users' health, investigating the effects of continued exposure to wearable devices.
3. Sustainability of production, with a focus on environmentally friendly manufacturing methods and efficient recycling of used devices.
4. Personalisation and privacy issues, focusing on securing personal data and improving user control over collected information.
5. Dynamics of technology adoption in emerging markets, assessing how cultural, economic and infrastructural factors influence this adoption.
6. Use in education and training, exploring the potential of VR and AR technologies for immersive learning.
7. The long-term effects of the COVID-19 pandemic on the adoption and integration of wearable technology into everyday life.

These research directions are essential to maximise the benefits of wearable technology while ensuring effective management of associated risks.

5. CONCLUSION

Wearable technology and smart textiles are significant catalysts for economic growth in various industries because of the way they transform the interaction between consumers and technology. By improving health monitoring, these technologies not only increase the efficiency of healthcare, but also reduce the costs associated with healthcare through prevention and personalised interventions. Wearable devices, such as smartwatches, boost personal productivity and efficiency by giving users immediate access to essential information and functionality, leading to better management of time and resources.

Integrating these technologies with the internet of things opens up new economic opportunities by automating and customising home and work environments, contributing to economic growth through improved energy performance and resource management. In the fashion sector, innovations in smart textiles are propelling a rapidly evolving market for adaptable clothing that responds not only to the functional but also the aesthetic needs of consumers. This not only meets the increased demand for customisation, but also drives revenue growth in the industry.

In conclusion, wearable technology and smart textiles are a driver of economic growth, revitalising traditional industries and paving the way for new revenues and business models. These technologies anticipate even deeper integration into the global economy, promising continued innovation and expanded economic opportunities.

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TRENDS IN THE LITERATURE ON THE DEFICIT AND SURPLUS OF THE STATE BUDGET IN THE WORLD - A BIBLIOMETRIC STUDY FROM 1977 TO 2023

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Abstract:
Budget deficits occur when government expenditures surpass revenues. They are among the most challenging economic issues that many of the world economies face. The purpose of this paper is to analyze the trends in the literature on it. This research paper uses bibliometric analysis to identify the existing literature on budget deficits. The study uses biblioshiny to get the results. 452 articles were analyzed. United States' research output and citation impact is majority due to its economic position. Authors like Cebula RJ, the most influential contributor, were consistently publishing since 1977 with the same level of quality. The keyword frequency and citation patterns were analyzed. Debt, taxation and fiscal policy appeared to be the majorly researched concepts. The US proved to be the most relevant contributor in this field.

Keywords: Budget Deficit, Bibliometric Analysis, Statistical Reports

1. INTRODUCTION

A budget deficit, in short, occurs when the amount of expenditure exceeds total revenue. This is mainly found in governments, but can also affect businesses and individuals. The budget deficit is usually measured over a financial year and added to the national debt each year.

During recessions or economic downturns, the government loses money because people start losing their jobs and as such pay fewer taxes. This phenomenon reduces government total revenue. In addition to this, excessive and irresponsible spending also can contribute to the creation of a budget deficit. The government can try to prevent this in a few ways: cutting the spending, improving the taxing system and, overall, creating a favorable environment for economic growth.

Budget deficits have quite powerful effects on the world: they affect individuals, businesses and the economy as a whole. As the government takes action to improve the deficit, spending on health programs or social insurance can be reduced. Infrastructure improvements may also be affected. To raise revenue, tax increases may occur for high-income earners or large corporations, which may affect their ability to invest in new businesses or hire new employees.

In many countries, there is an intense debate on fiscal policies and how they should tackle the budget deficit. Some voices advocate spending cuts and austerity measures, while others believe it is necessary to stimulate the economy through public investment, even if this may increase the deficit in the short term.

There is a direct relationship between the budget deficit and public debt. Budget deficits can lead to an increase in a country's public debt. When the government borrows to cover the deficit, this can increase the level of public debt, which can have significant consequences for the country's financial stability.

There is also a complex relationship between the budget deficit and inflation. While an excessive budget deficit can increase inflationary pressure by increasing aggregate demand, in some cases the deficit can be absorbed by the market without causing significant inflation.

The budget deficit is a problem faced by many countries around the world, and how each country manages it can have an impact on the global economy. Analyzing and understanding the differences and similarities in budget deficit approaches between different countries can provide an interesting insight into the global economy and its interconnections.

As well as sustainability and future prospects, assessing the sustainability of the budget deficit involves looking at long-term projections of government revenue and expenditure. A responsible approach to budget deficit management involves long-term planning and risk assessment to ensure a country's long-term financial stability.

The aim of our paper is doing a bibliometric analysis on the theme of budget deficit and budget surplus, with the addition of computer programs that boost our research. We aim to look at the literature written on this subject and to represent it as statistical data, in a way to offer a better understanding of the matter. We also look at budget deficit by taking into account budget surplus.

2. LITERATURE REVIEW

With thousands of articles that exist in the topic of budget deficit and budget surplus, there are very few articles that do a bibliometric research and use computer programs like „biblioshiny". In the Web of Science database, we found 452 articles on the topics of budget deficit and budget surplus, and none of which were doing bibliometric research on the matter.

Even outside of the Web of Science, there are very few bibliometric analyses on the subject. One article we found is a bibliometric analysis of the field of Public Budget, conducted by Kusdiana, Entang Adhy Muhtar, Budiman Rusli and Heru Nurasa, published in 2022 in Pal arch's Journal of Archaeology of Egypt/Egyptology. The aim of this study was to analyze the bibliographic characteristics and content of articles on public budget published in journals indexed by Scopus written by researchers from throughout the world from 2011 to 2022 (Kusdiana, 2022). The topic of this paper is different from our topic, respectively, budget deficit and budget surplus.

Although there aren't articles that do bibliometric research on this subject in the Web of Science database, there are a lot of articles that study budget deficit and budget surplus, from a lot of points of view. One popular article, that has been cited over 600 times is written by Roubini N. and Sachs JD., published in May 1989 and is looking at the budget deficits in OECD countries, which results in a rise in public debt. They concluded that in the period 1975-1985 the deficit is larger in countries where the governments are weak, with political parties in coalition. Those coalitions led to problems with budgetary management (ROUBINI, 1989).

Another popular article, cited over 400 times, written by Alt J.E. and Lowry R.C., from December 1994, is looking at the same thing: the situation with divided governments, regarding the state spendings and the taxing, which are the factors of the budget deficit or surplus. The authors did the study on the United States (ALT & LOWRY, 1994).

Also, a very popular article regarding budget deficits, with over 350 citations, written by Barro R.J, from the spring of 1989, is a paper looking at the Ricardian approach, which is taking in consideration a lot of fiscal factors and Ricardian equivalence, and concludes that this approach is a useful approximation, and that the approach will most likely become a benchwork model regarding the assessment of fiscal policy (R.J., 1989).

One more, very popular paper, that has been cited almost 300 times, written by Hakkio C.S. and Rush M., published in 1991 in July, is looking at the question "is the budget deficit too large", and they concluded that it is indeed. They also say that the incomes must grow, and/or the spending to decrease. They made their research based on real data (Hakkio C.S., 1991).

3. MATERIALS AND METHODS

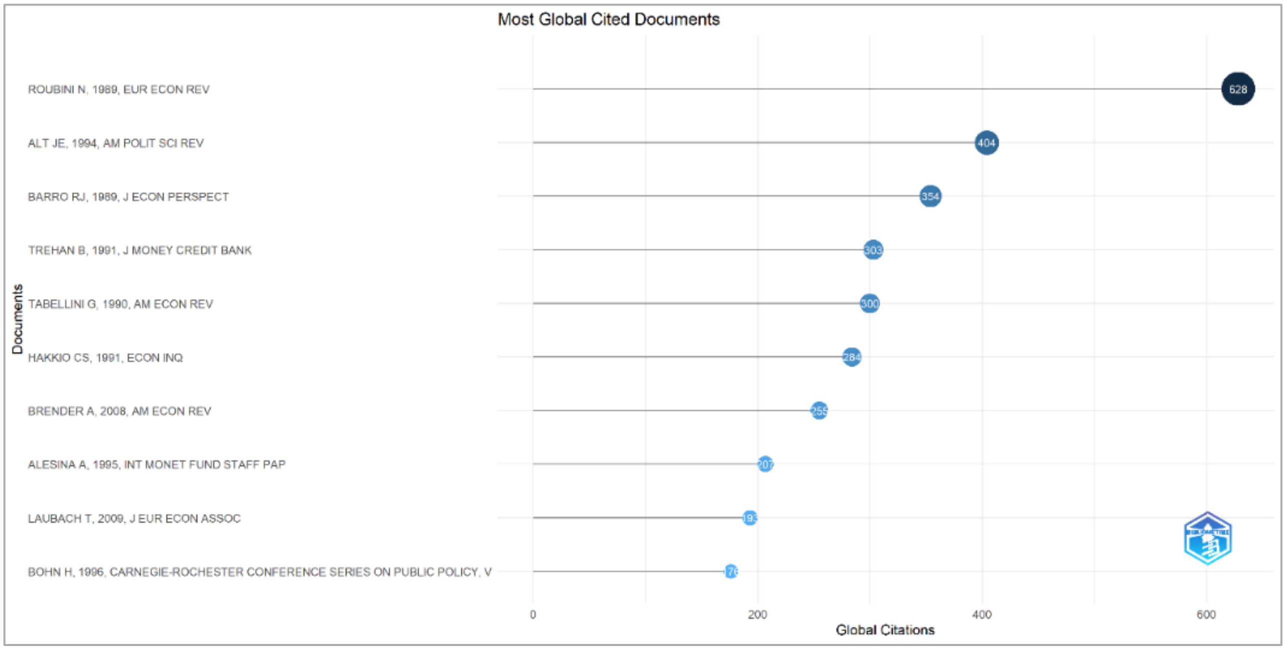
Bibliometric citation analysis involves the evaluation and interpretation of citation data in a particular research area or in relation to a particular author or paper. This process can be used to assess the impact of scientific work or to identify trends in the development of a research area. We have specific issues and methods that we used to perform the bibliometric analysis: Setting our research objectives and questions: starting by identifying what we want to get out of the analysis. What is the research question, and our goal is that we want to assess the influence of authors and articles in a particular field, to identify trends in the development of research in a particular area. Our objectives will guide the whole analysis process. Then comes defining the data set: the criteria for selecting the papers and authors to be included in the analysis. These criteria include field of study, time period, type of publication, etc... Then is identification of data sources: identification of relevant bibliographic databases and tools for data collection. Common databases include Web of Science, Scopus, PubMed and Google Scholar. As repeated in this paper, ours is Web of Science. Next, we are doing data collection: collection of relevant data according to defined criteria. This includes article information (title, author, year, journal, etc.), citation information and other relevant metadata. Not all data is good, so next we do data cleaning and processing: once data has been collected, it may need to be cleaned and processed to remove errors and inconsistencies. This may include standardizing author names, removing duplicates and correcting errors. Next comes the analysis, so we start by calculating relevant bibliometric indicators for the analysis. These include total citations, H-index, journal impact factor, etc... Our next step is Analysis and interpretation of results: analysis of data and interpretation of results in the light of research objectives and questions. Identifying relevant trends, patterns and conclusions that answer the question. Results are hard to grasp by themselves, so next we do visualization of results: using visualization techniques to present the results of the analysis in an easy-to-understand manner. We use graphs and charts that can be useful tools to highlight patterns and trends in the data. The last step is to interpret and communicate the results. We are trying to make sure the results are appropriate for the target audience and provide the necessary context for them to understand them. Following these steps helped us to perform a bibliometric analysis and obtain some significant and valuable results in this topic of budget deficit and surplus.

For this analysis we decided to use one of the most popular databases: Web of Science (WoS) because it holds large amounts of data, over a long period of time. The data was retrieved from the Web of Science website, using title search tool (TI=(budget deficit*)) OR TI=(budget surplus*). The primary literature data were downloaded on 4th of April 2024. Our purpose was to find and use in this analysis all research papers related to budget deficit and budget surplus. We did not introduce any restrictions regarding the topic or time span for searching documents. Our intention is to have an analysis over the whole time span of the papers found. As a result, 647 documents were retrieved. Among publications about budget deficit or budget surplus, the most numerous documents are the articles (69.86%), followed by proceeding papers (9.12%), editorial materials (8.81%) and book reviews (6.03%). There are also other types of papers, making the 647 total. The other types of documents were removed, keeping only articles and proceeding papers, resulting a sample of 511 publications. Excluding duplicates, it leaves us with a sample of 496 articles. The language of all publications is English (100%). Publications in other languages than English were eliminated, remaining 452 documents in the sample. In the sample under analysis, a multitude of types of documents indexed in WoS and referring to the concept of budget deficit and budget surplus can be observed. We kept the editorial materials with citation because some of them have more than 100 citations. The final data collection, which consists of 452 publications, is supported by 5,561 citing articles (excluding self-citations) and has been cited 8,012 times (excluding self-citations), giving it an H-index of 45.

4. RESULTS AND DISCUSSIONS

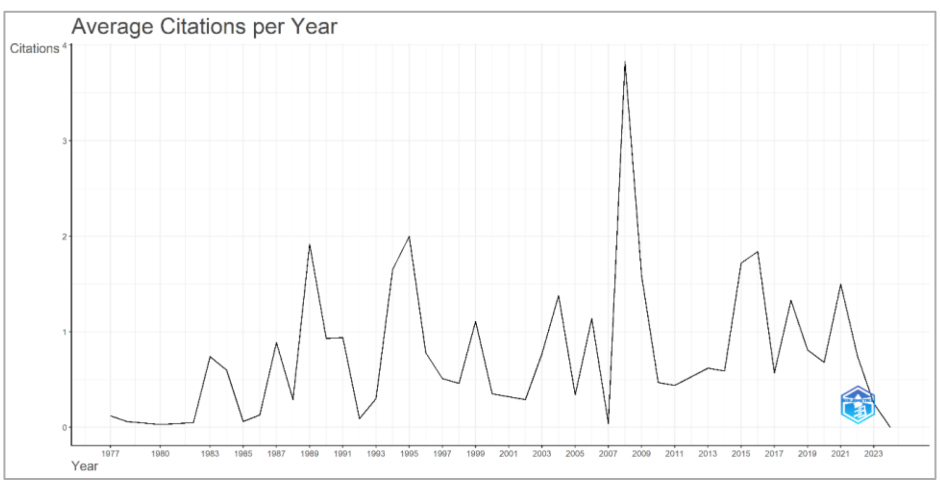
The results and discussions start here. As a note, from analysing the whole 452 articles, we decided to look at the tops in every argument, mostly top tens. We're going to start the analysis with the most global cited documents, so we can find out which papers on the subject are the most popular and influential.

Figure 1. Most Global Cited Documents



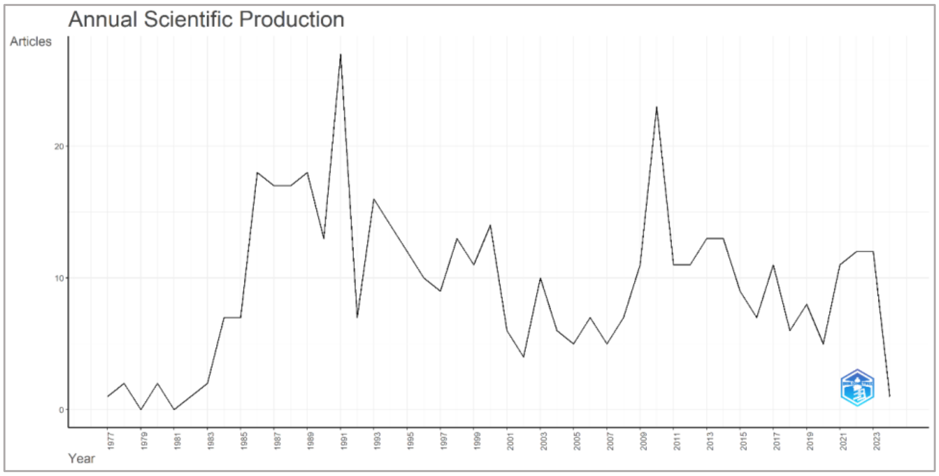
In this graph, we can see in descending order all the global citations of the authors present on the graph with the year of publication and the title of the document. The first position of this graph with the most global citations is occupied by Roubini with 628 global citations. His citations represent about 20.24% of all global citations. The last place in this chart is occupied by Bohn with 176 global citations, his citations represent about 5.7% of global citations. If we add up the documents cited by them, we arrive at a ratio of about 26% of total citations. This means that the others remaining in the chart represent about 74% of the total global citations. If we add up the total citations of all authors, we get a total of 3104 documents cited, this number representing a whole. If we add the author with the most citations and the author with the fewest citations, we get a total of 804 citations, representing about 26% of the whole. The rest of the remaining authors, if we do a tally, have a total of 2300 cited articles, representing about 74% of the total. The second most cited author is ALT, with a total of 404 cited papers, representing about 13% of the total number of citations overall. As for how these citations are distributed through the years, we studied the Average Citations per Year.

Figure 2. Average Citations per Year



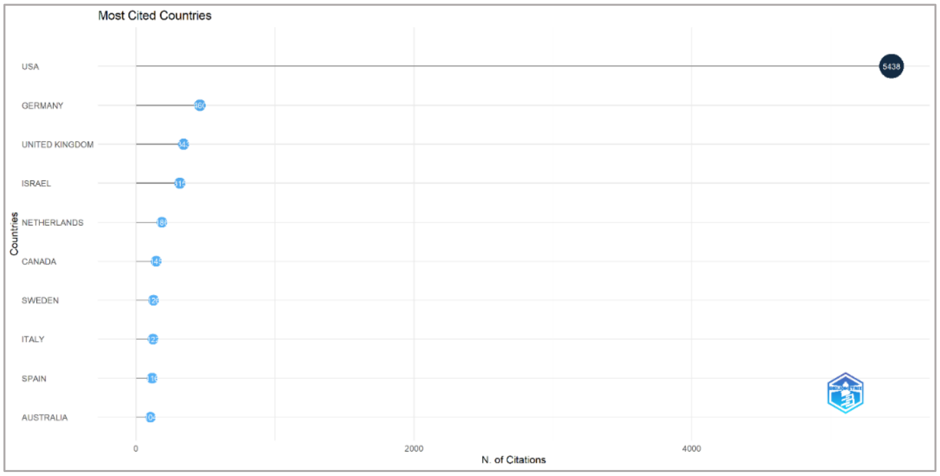
As we can see, this graph shows all the quotations per year about the budget deficit, starting from 1977 until 2023. We can see that from 1977 to 2005-2006 the quotations per year are almost at the same level. From 2007 to 2008 the quotations started to rise, reaching the highest level of quotations since 1977. After the big increase in 2007-2008 citations started to be constant again, decreasing by almost 2 times compared to 2007-2008 citations. The lowest citation spike as can be seen in the graph is in 1983, almost at the very beginning. As we can see from 1983, citations continued to increase until 1995, and then started to decrease until 2005, and then further on reached the highest threshold. One of the most important aspects to analyse, besides citations, is the actual annual production of papers, articles.

Figure 3. Annual Article Production



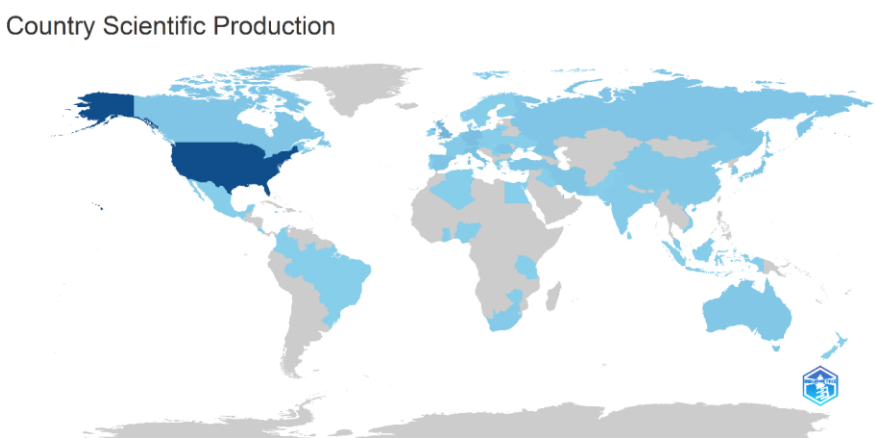
In this graph we can see the annual scientific production. Following the data in this graph we can see a fluctuation of the annual scientific production. The lowest production was in the years 1977 1979 1981 1983. We can see that we have an increase since 1983, and slowly peaking in 1991. People have started to write more and more articles since 1983, perhaps under the guidance of teachers or themselves, in order to pass on new information or to learn and discover new things. Unfortunately, since 1991 we can see a drastic decrease, below 10 articles. After this decrease we can observe a fluctuation from 1993 to 2009. We see on the graph how they decrease and increase from year to year. In 2010 we see a fairly good increase. It's not the same as in 1993 but we can see that again people are writing about the budget deficit and the budget surplus. Again we can visualize from the graph a drastic decrease from 2016 increasing and decreasing the number of written letters. From the year 2023 the number of papers decreases sharply being almost non-existent. People can see that they are no longer interested in writing articles and they slowly disappear. By 2024 we hope for an increase in the number of articles people start writing again to find out new and interesting things about the budget deficit and surplus. Going back to citations, we looked at the most cited countries where the articles were made, because it’s relevant to know where the studies come as it helps understand from what perspective they were written. Countries are different regarding the budget deficit and/or the budget surplus. Articles from different countries will have different points of view due to their different economies.

Figure 4. Most Cited Countries



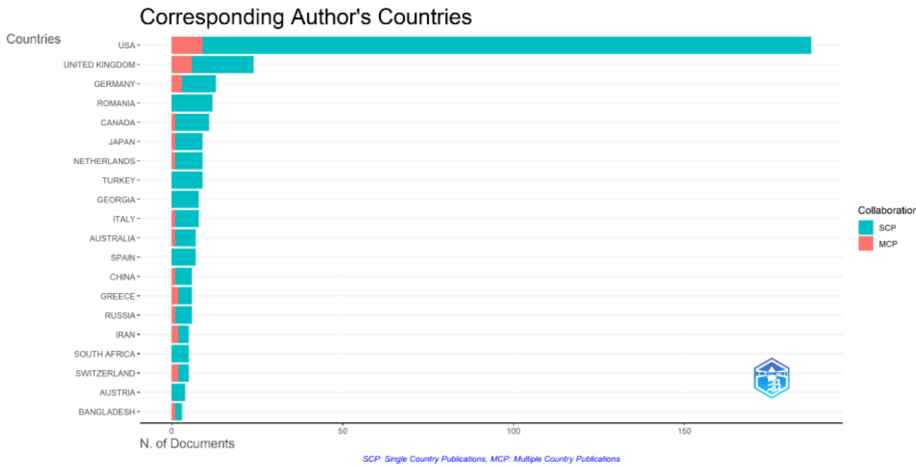
In this graph we see the most cited countries, where the most cited countries are. In 1st place is the USA, where the most citations were made with 5438 citations. In second place comes Germany. In third place is the UK. 4th place Israel. 5th place Netherlands. 6th place Canada. 7th place Sweden. 8th place Italy. In 9th place Spain and in last place we see Australia. We can also observe a tie between 5 countries Canada, Sweden, Italy, Spain and Australia with an almost equal or even equal number of citations. We can also see a near equality between Israel and Great Britain. However from what we see on the graph the USA holds the 1st place in the top 10 countries find the first in this graph the most cited countries. This means that we have articles mostly from an US perspective. Linking to this, we also looked at the countries production of articles, which goes hand in hand with the most cited countries.

Figure 5. Country Production of Papers



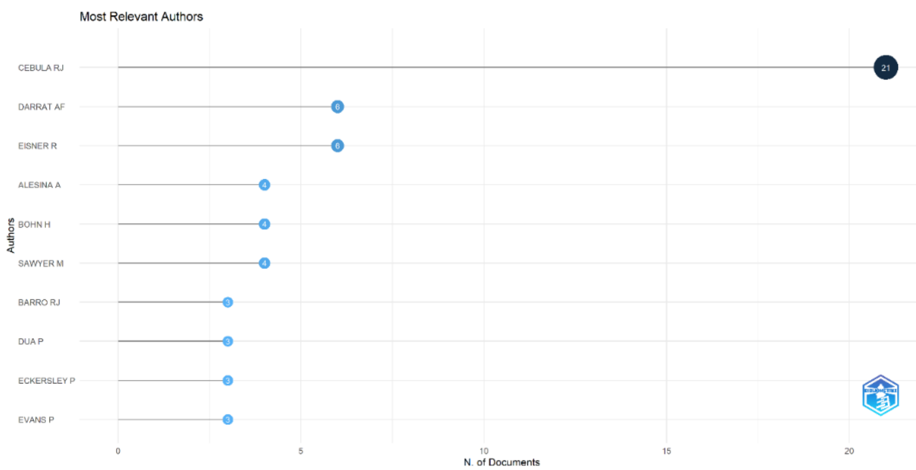
As seen in the image, the United States take the first place in terms of number of papers published, the same leader from earlier. We can also look at this, but taking the form of a graph.

Figure 6. Most Relevant Countries



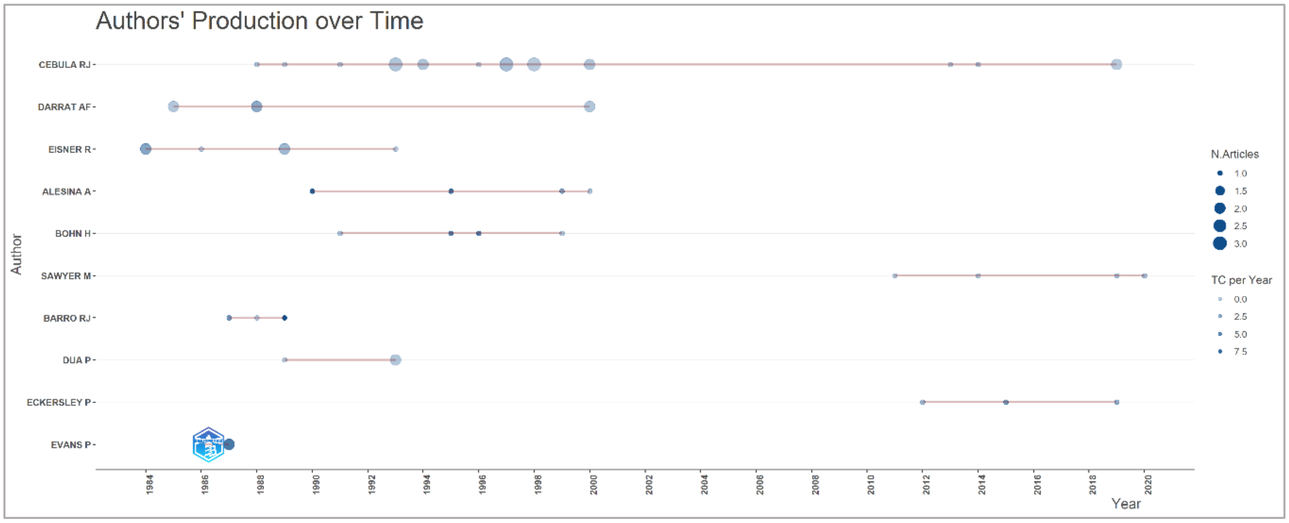
This includes numbers, so we can see way better the giant lead USA has over the rest of the countries. With countries out of the way, we go looking more on authors, the most relevant as of work done in the domain of this subject, and we have the following image.

Figure 7. Most Relevant Authors (documents made)



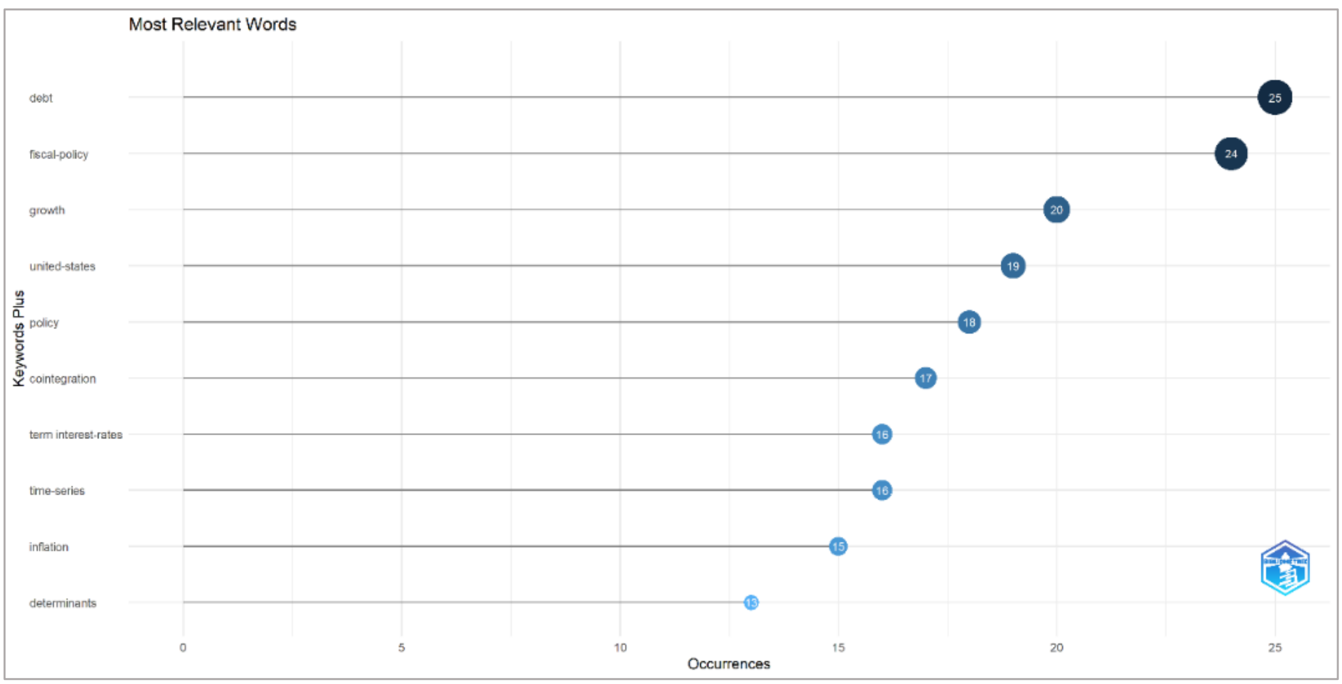
The image shows the most relevant authors who have written about budget deficits. The x-axis shows the number of documents, while the y-axis shows the names of the authors. The size of the bubble indicates the number of documents published by the author. The most relevant author is Cebula RJ, who has published 21 documents. He is followed by Darrat AF and Eisner R, who have published 6 documents each. Alesina A, Bohn H, and Sawyer M have published 4 documents each. Barro RJ and Dua P have published 3 documents each. Eckersley P and Evans P have also published 3 and 3 documents respectively. From this we can see that Cebula RJ is the most relevant author as in number of documents created on the subject. However, the relevance can be debated with the number of document citations mentioned earlier. As Roubini N is the most influential in that regard, his most popular paper has been cited 628 times, but interestingly enough he's not in the list of the top authors in term of number of articles related. Talking about the total number of articles wrote on the subject by each author, we studied their annual production too, as seen in the following image.

Figure 8. Authors' Article Production over Time



We can see from the graph that Cebula RJ has done the most consistent work over time, and spanning the longest. The rest wrote on the subject for shorter periods of time, and also with less consistency and less articles, the bottom of the list being Evans P, only creating articles on the subject for a year. Lastly, going a little deeper into the analysis, we looked at the most common words as keywords.

Figure 9. Most Relevant Words



The image shows the most relevant keywords used in articles regarding budget deficit and budget surplus. The words are listed in descending order of frequency, with the most frequently used word, "debt", at the top. The size and number of the bubble indicates its frequency, the number telling us how many occurrences were in the article keywords. The words are also color-coded, with the most frequently used words' bubbles being dark blue and the least frequently used being light blue. As said, "debt" is at the top with 25 occurrences, and last is determinants, with the least number of apparitions, respectively 13. Interestingly enough, we don't find the words "budget surplus" or "budget deficit" in this top, but we find the notions closely in relation to them

5. CONCLUSIONS

Budget deficits pose significant challenges to governments, businesses, and individuals, particularly during economic downturns. Excessive spending, coupled with declining revenues during recessions, often leads to the creation of budget deficits. These deficits have far-reaching effects, impacting areas such as healthcare, social programs, and infrastructure development. To address budget deficits, governments must consider various strategies, including spending cuts, tax reforms, and fostering conditions for economic growth. The debate surrounding fiscal policies is intense, with divergent views on how to tackle budget deficits. Some advocate for austerity measures and spending cuts, while others argue for stimulus measures to promote economic growth, even if they temporarily increase deficits. However, managing budget deficits requires long-term planning and risk assessment to ensure fiscal sustainability.

Our paper aims to contribute to the understanding of budget deficits through a bibliometric analysis, utilizing tools like "biblioshiny" to explore the existing literature. While there is a wealth of research on budget deficits and surplus, few studies employ bibliometric approaches. Our analysis of 452 articles revealed trends in research output, citation patterns, and author contributions, shedding light on the global discourse surrounding budget deficits. Key findings include the dominance of the United States in both research output and citations, indicating a significant focus on budget deficits from an American perspective. Authors such as Cebula RJ emerged as prolific contributors, with consistent output over time. Additionally, analysis of keyword frequency highlighted central themes such as debt, taxation, and fiscal policy, that are related to, but not the words budget deficit.

Overall, our research underscores the importance of understanding budget deficits in the broader context of economic policy. By synthesizing existing literature and employing bibliometric analysis, we provide valuable insights into this critical area of study.

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REPUBLIC OF MOLDOVA AND EUROPEAN UNION

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Abstract:

In this article, I spoke about the Republic of Moldova and its chance to access the European Union. There are some topics I chose to tell about this theme- 1) its history since independence,2) the territorial conflict and its situation nowadays, 3) for what reason it could not become a member for so long time and 4) the steps they are taking to become part of the EU. A short storyline explains its political and external relationships with other countries which influences a lot the process of accession. I searched about the political and economic situation in this country and prepared the steps one by one they did for the negotiations. I analysed the purpose they want so much to be the part of EU and which countries support Moldova. This article explains where the export goes and what are the plans for the future of export. Last but not least, I guessed what are the chances that this country can be a member of the EU until 2030.

Keywords: Territorial Conflict, Political Situation Since 1991, The Evolution of Events for Accession

Jel classification: A10, F50

1. INTRODUCTION

The Republic of Moldova is a democratic and optimistic country with open arms and enormous aspirations for a prosperous future for the country. After declaring independence on 27 August 1991, this small territory has fought between two fronts: east and west. Due to intense Russification during the USSR, the migration of labour from the east and abusive propaganda led to brainwashing and the creation of a mass of people convinced that aligning with today's Russia would bring us great benefits and natural resources. The other half have been given a breath of air from which they affirm the idea of joining the European Union as the right one. The difference is that the people on the side of the West are young people who want to build their future correctly, and the other people are middle-aged and retired. What is certain is that older people want a return to the times of the last century, because they have a touch of nostalgia, which reminds them of their youth, not because socialist and Soviet policy was the right one. They will logically deny this psychological aspect and will only say that "it was better before". The ratio of these people is higher among the older people because most of the young people do not turn up on voting day and they too are abroad.

Teenagers between 24 and 35 are increasingly going abroad to work and study, as I did. The reason is very clear: there is little chance that the young population will win the vote because they have lost interest and consider their vote a nullity for the existing power in the country. The prospects for the future are much stronger in the European Union, with a balanced economy and social and financial support for young people and students. This vicious circle is leading to a mass loss of the workforce, increasing the average working age from 41.6 in 2015 to 43.3 in 2023. Young people are also much more eager to work now than in 2015. Of those in the country, while 32.1% were working in 2015, 38.7% are working now. The problem is that they are no longer in the country.

2. HISTORY

The Republic of Moldova established its independence in 1991, after the destruction of the Russian Socialist Soviet Union. On 4 July 1991, one of the most liberal citizenship laws in Eastern Europe was adopted. According to the law, all persons living in the Republic of Moldova at the time of the declaration of sovereignty were allowed to become citizens of the Republic of Moldova, irrespective of ethnicity, language, period of residence or other criteria. On 27 August 1991 the Moldovan Parliament, convened in extraordinary session, adopted the text of the declaration of independence of the Republic of Moldova.

The Republic of Moldova was declared a sovereign, independent, democratic state free to decide its present and future without any outside interference, in accordance with the sacred wishes of the people in the historical and ethnic space of its national development. The independence of the new state has been recognised by

Romania, Georgia, Russia, Ukraine, Kazakhstan, Switzerland, the USA, Argentina and others. 27 August was declared Independence Day and national holiday of the Republic of Moldova. On 23 May 1991, the official name of the state was changed from the Moldavian SSR to the Republic of Moldova.

The state anthem of the Republic of Moldova, "Desteapta-te Romane", was adopted and remained in force until 7 June 1994. Since 16 March 1994, the Republic of Moldova participates in NATO's Partnership for Peace.

Mircea Snegur became President of the Republic of Moldova and Alexandru Mosanu, President of the Parliament of the Republic of Moldova. On 29 July 1994, the Moldovan Parliament adopted the Constitution of the Republic of Moldova, and on 22 July 1995 the law on the state anthem of the Republic of Moldova was passed. Our language, after the lyrics of Alexei Mateevici (1888-1917), a military priest from Alexia.

In December 1991, a meeting of the leaders of the 11 former Union Republics, including the Republic of Moldova, took place in Alma-Ata, with the exception of the Baltic countries, which signed the declaration, protocol and convention on the formation of the Commonwealth of Independent States. The Republic of Moldova has signed the documents, but with the clarification that it participates only in economic cooperation. On 15 April 1994, the Republic of Moldova joined the Commonwealth of Independent States de jure. In 1992, the Republic of Moldova became a member of the Organisation for Security and Cooperation in Europe OSCE, a plenipotentiary member of the United Nations, with the unanimous vote of the General Assembly.

3. MOLDOVA AND TRANSNISTRIAN AREA

In 1992, an internal war between the Transnistrian area and the Republic of Moldova began, which in fact started in 1991 in political terms. Relations between Chisinau and Tiraspol worsened. Although the bloody war was declared over at the end of July 1992, the conflict continues to this day between the two territories. None of the other states have declared the left bank of the Dniester an independent state. Transnistria is ruled by Russia and Russia has weapons and ammunition on its territory.

For this reason, for a good number of years we could not join the EU. Now, on 3 March 2022 when Rep. Moldova applied for membership, the Transnistrian area applied for recognition of its independence. This request has so far been ignored. Nobody takes these actions taken by Transnistria seriously because it is a small territory influenced by its borders, with most imports and exports going through Moldova. The main market for Transnistrian economic operators is the Republic of Moldova on the right bank of the Dniester. Data from the so-called Customs Committee reveals that in 2023, some 53.4% of the region's goods deliveries went to the Moldovan market, increasing by more than 30% compared to 2022, to $391 million. The main product "exported" from the Transnistrian region in 2023 was electricity - about $220 million, of which 100% was to Moldova on the right bank of the Dniester. Economic agents deliver not only electricity(a funny detail would be that, Transnistria exports electricity all over Moldova, a majority of cities and counties are supplied by Transnistria which imposes certain taxes and transmission rules. It's just like taking your own money out of your left pocket and putting it in your right pocket), but also agribusiness products, metals and food products, cement, and others. Thus, Pednistrovia is devoted to the Republic, which leads to a paradox of territorial conflict.

3.1 The Territorial Conflict and its Impact on Accession

Now in 2023, this conflict seems to have a minor impact on the accession to the European Union, because other countries with territorial conflicts have joined the EU. At the same time, the Union itself has given the green light to the negotiation process, which shows that this problem can be solved and does not influence the accession process, because it is between the EU and the candidate country, not the territory itself. President Maia Sandu confirms the desire to resolve this conflict as peacefully and effectively as possible at a fast pace, and the option of integrating into the EU without Transnistria will be the last option, in case of emergency. There are about 400,000 inhabitants on the territory, and a large majority of them are ethnic Moldovans with proper papers, and we cannot neglect them and leave them in Russia's hands: "The moment the people on the left bank see how living standards are rising, how pensions and salaries are increasing, how life is improving in our localities, of course they will want to follow the same path," Maia Sandu said in an interview.

3.2 Transnistrian Exports

However, the good thing is that there are chances to join even though we have this open conflict, because Transnistria's exports, according to statistics, reached 70.48% to EU countries, a record figure since the signing of the Association Agreement with Moldova. Romania ranks second in the export market ranking, with a share of 18.4% of total goods deliveries and a volume of $134.5 million. 82% of exports were steel products (reinforcing steel and other metal products).

4. THE RELATIONS BETWEEN MOLDOVA AND EUROPEAN UNION

Its relationship with the European Union began on 28 November 1994 with the Cooperation and Partnership Agreement which entered into force on 1 July 1998. Under this agreement, the European Union has developed a closer working relationship for future economic integration. On 3 March 2022, the Republic of Moldova applied for EU membership, and on 23 June 2022, it obtained the status of candidate state for EU membership (due to the outbreak of war by Russia towards Ukraine). The framework for cooperation with them is also provided by the Association Agreement of the Republic of Moldova with the EU, which includes the deep and comprehensive free trade area DCFTA. It was signed in Brussels on 27 June 2014 and ratified by the Moldovan parliament on 2 July 2014.

The Republic of Moldova was included in the European Neighbourhood Policy, so on 25 February 2005 the Joint Action Plan was signed in 2008 the Moldova-EU Mobility Partnership was launched.

The Republic of Moldova became a member state of the Council of Europe, being the first country from the community of independent states to be admitted to this pan-European fund. In February 2005, the Individual Action Plan Republic of Moldova - European Union was signed. On 24 March 2005, the Parliament of the Republic of Moldova unanimously adopted the Declaration on political partnership with the aim of achieving the objective of European integration. This document promoted. And irreversible, the strategic course of European integration of the Republic of Moldova.

On 21 December 2009, for the first time in the history of the Republic of Moldova's relations with the European Union, a joint declaration was adopted in Brussels, which included specific objectives for cooperation between the Republic of Moldova and the European Union. In February and March 2010, barbed wire was removed from the state border of the Republic of Moldova with Romania.

Since 28 April 2014, citizens of the Republic of Moldova, holders of biometric passports can travel for a maximum period of 90 days within 180 days without a visa to the Schengen area, including Iceland, Norway, Switzerland, Liechtenstein and the EU Member States, which partially apply the Schengen acquis, Romania, Bulgaria, Cyprus. Achieving the liberalisation of the short-stay visa regime involved a complex set of reforms carried out since 2011 under the Visa Liberalisation Action Plan.

4.1 The Start of a New Era

On 27 April 2023, the European Parliament's Committee on International Trade adopted a proposal to increase macro-financial assistance to the Republic of Moldova by a further €145 million. On 18 July 2022, the EU Council adopted a regulation temporarily liberalising trade in 7 agricultural products from the Republic of Moldova which were not already fully liberalised. The Republic of Moldova can thus substantially increase exports of such products to the EU duty-free for one year. The European Commission has proposed to extend this measure for one year until 2 May 2023 and to extend the suspension decision to all remaining duties and quotas for imports from the Republic of Moldova.

On 28 April 2023, the EU Council adopted the creation of an EU sanctions regime for countering destabilising actions against the Republic of Moldova. Initiative launched by Foreign Minister Bogdan Aurescu at the EAC on 20 February 2023. Under this regime, the EU will be able to impose restrictive measures to counter actions that undermine or threaten the sovereignty and independence of the Republic of Moldova, as well as its democracy, rule of law, severity or security.

The establishment of the EU Partnership Mission to Moldova (EUPM Moldova) - a civilian CSDP mission whose creation was strongly supported by Romania - was decided at the FAC meeting on 24 April 2023. Romanian Ambassador Cosmin Dinescu was elected Head of EUPM Moldova on 27 April 2023, following a selection process organised at the EEAS level.

On 8 November 2023, the European Commission issued a recommendation to open accession negotiations with the Republic of Moldova. On 14 December 2023, the European Council decided to open accession negotiations with the Republic of Moldova.

4.2 The 9 Conditions Formulated by the European Commission

A country can become an EU candidate country if it fulfils 9 conditions formulated by the European Commission.

The steps our country had to take by June 2023:

1. Justice reform (4 out of 5 points);
2. electoral framework (4 out of 5 points);
3. fight against corruption (3.8 points out of 5);
4. deoligarchisation and reducing the influence of private interests (3.7 out of 5);
5. fight against organised crime and money laundering (4.4 out of 5);
6. improving public services, public administration reform (4 out of 5 points);
7. public finance management (5 out of 5 points);
8. involvement of civil society (4.6 points out of 5);
9. human rights (4.8 points out of 5).

As a result of the assessment, most of the measures were met, with an overall average implementation of 4.24 points out of the maximum threshold of 5 points. Of the 60 actions taken by the authorities, 24 actions (40%) were implemented without deficiencies, 25 actions (41.66%) were implemented with some reservations, 10 actions (16.66%) are still to be implemented and one action (1.67%) was implemented with substantial reservations.

The President of the Republic of Moldova stressed that the authorities in Chisinau have fulfilled 92% of the recommendations made when granting candidate status.

4.3 Accesion Negociations

After the Republic of Moldova has managed to implement most of the necessary conditions, the European Council has decided whether or not Moldova can start EU accession negotiations. To start these negotiations, none of the EC member countries must vote "against" this issue. Thus, once we have a positive answer, accession negotiations can be declared open. According to the European Parliament" page, Moldova is to negotiate with each EU country on 35 chapters covering certain EU policy areas.

The 35 chapters are:

1. Free movement of goods - the principle of free movement of goods between EU Member States
2. Free movement of workers - the right of citizens to work in other Member States
3. Right of establishment and freedom to provide services - rules on the right of establishment of legal persons and the freedom to provide cross-border services
4. Free movement of capital - removal of restrictions on the movement of capital
5. Public procurement - principles of transparency, equal treatment and free competition in public procurement
6. Company law - rules on the formation, registration, merger and division of companies
7. Intellectual property law - harmonized rules for the protection of copyright and related rights
8. Competition policy - rules and procedures to combat anti-competitive behavior of undertakings
9. Financial services- rules on authorization, operation and supervision of financial institutions
10. Information society and media - rules on electronic communications, information society services, in particular e-commerce

11. Agriculture and rural development - rules on agriculture, food safety and rural development
12. Food safety, veterinary and phytosanitary policy - rules on food safety
13. Fisheries - regulations for the sustainable management of fisheries resources
14. Transport policy - promotion of safe, efficient and environmentally friendly transport services
15. Energy - rules on the internal energy market and its security
16. Taxation - area of indirect taxation, VAT and excise duties
17. Economic and monetary policy - rules on the independence of central banks in member states, prohibiting direct financing of the public sector
18. Statistics - national statistical institutions act as reference and anchor points for the dissemination of statistical information
19. Social policy and employment - standards on workers' rights and social inclusion
20. Enterprise and industrial policy - contribution to the EU budget and management of financial resources
21. Trans-European networks - transport, telecommunications and energy infrastructure
22. Regional policy - structural fund programmes of the cohesion fund reflecting the territorial organization of countries
23. Judiciary and fundamental rights - maintaining the EU as an area of freedom, security and justice
24. Justice, freedom and security - cooperation in the field of justice
25. Science and research - cooperation in the field of science
26. Education and culture - promoting European education and culture
27. Environment - measures to protect the environment
28. Consumer and health protection - the safety of consumer goods and suspension of customs duties
29. Customs union - removal of trade barriers
30. External relations - binding EU legislation
31. Foreign security and defence policy - binding international agreements
32. Financial control - public financial control and independent external audit institution
33. Financial and budgetary contributions to the EU budget and management of financial resources
34. Institutions - cooperation with European institutions
35. Other subjects not falling into other categories

5. CONCLUSIONS

In conclusion, all actions taken by the Republic of Moldova have a success rate for accession to the Union. Several politicians of the member countries have supported the feasibility of joining the European Union by 2030. Thus the European Union supports us and defends our rights. In the coming months, a series of meetings and debates on Moldova's accession will follow. The main reasons why the Republic of Moldova wants to be part of the EU are: the determination of a more stable and better economy, free access to the European market, legal and territorial protection and security, the receipt of financial aid to stabilise the economy, the development of infrastructure and the sustainability of existing products on the market.

For example, the Czech Republic supports the Republic's accession to the European Union and highly appreciates the progress the country is making and how it is managing to complete different chapters in this process and will provide support and backing to the authorities in launching accession negotiations. The statements were made by the President of the Senate of the Czech Republic, Miloš Vystrčil, at a joint conference with the head of the legislature in Chisinau, Igor Grosu. The Czech official praised the results achieved by our country in the process of accession to the European Union and said that Moldova must find itself in the EU. "I am convinced that in the coming period the EU states will take bold enlargement decisions and accept more countries into the EU, and one of them should be the Republic of Moldova," said Miloš Vystrčil.

Moldovan citizens have the will and the materials to complete the accession process. Because of the war in the neighbouring country, the vulnerability in which Ukraine and Russia, as well as the Republic of Moldova, find themselves, may lead to the hastening of all steps and the resolution of the territorial conflict, as happened in the Mountain Carabakh, which, taking advantage of the fact that Russia is weakened by the war in Ukraine, advanced in the resolution of the conflict... Nagorno-Karabakh has capitulated to Azerbaijan's army. This appears to be the end of a 35-year war between Azerbaijan and Armenia. It would be easier for us, because this is not an inter-ethnic conflict. If the political will were there, the situation would move a long way forward, especially as there is a willingness to resolve this conflict in Ukraine too. Russia is weakened and I think now is the time to act. We are talking about the future of the Republic of Moldova within the borders of the European Union. After oscillating between East and West when marking 31 years of independence, the Republic of Moldova is a candidate state for European membership. The road here has been long and arduous, marked by successes and failures, moments of disappointment and joy, as well as lessons learned and reforms undertaken. One thing is certain - the road to EU integration is irreversible!

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ANALYSIS OF THE PUBLIC PROCUREMENT SYSTEM IN ROMANIA IN THE PERIOD 2016-2023

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Abstract:
With the aim to assess the effectiveness, transparency, and efficiency of procurement practices, this paper presents an analysis of the public procurement system in Romania spanning the period from 2016 to 2023. Over this period, Romania experienced significant changes in its public procurement landscape, influenced by both domestic reforms and European Union directives. This introduction of a global analysis of the public procurement system in Romania represents an essential step for understanding the evolution and challenges of this vital field for the economy and governance.
The period we analyzed was chosen due to the fact that, in Romania, the legislation that currently regulates public procurement was updated in 2016. The choice of this period reflects the importance of the moment when the legislative amendments and EU directives entered into force have significantly influenced the public procurement system in the country. Therefore, the comprehensive analysis of the period 2016-2023 provides a comprehensive perspective on how these legislative changes have influenced public procurement practices in Romania.
Methodologically, the research employs a rigorous quantitative approach to analyze procurement data obtained from reports provided by the National Agency of Public Procurement (NAPP). This data, spanning the period from 2016 to 2023, forms the foundation of our analysis, allowing for a detailed examination of procurement trends, patterns, and practices within Romania.
By leveraging quantitative methods, we systematically analyze key metrics such as the volume of contracts, expenditure trends, types of procurement procedures (e.g., open, restricted, negotiated), and the distribution of contracts across different sectors.
Preliminary findings highlight both progress and challenges within Romania's public procurement system. The purpose of research contributes by providing a comprehensive perspective on the performance and effectiveness of the public procurement system, highlighting both positive aspects and existing problems.

Keywords: Public procurement, Acquisition, Romania, System, Period 2016-2023

1. INTRODUCTION

In a democratic and transparent society, public procurement is a crucial component of government decision-making and the allocation of public resources. Romania, as a member state of the European Union, is subject to strict directives and regulations regarding public procurement. Public procurement in Romania is regulated by national and European legislation. Law no. 98/2016 on public procurement transposes Directive 2014/24/EU of the European Parliament and of the Council on the coordination of procedures for awarding public procurement contracts into Romanian legislation.

The public procurement process in Romania usually begins when a contracting authority identifies the need to acquire goods, services or works. The first stage consists in the preparation of the procurement documentation, which includes the detailed description of the needs and requirements of the entity, as well as the criteria for evaluating the offers. This documentation is published in public procurement platforms and/or in the Official Journal of the European Union to notify potential suppliers and contractors.

Afterwards the publication of the documentation, the corresponding procurement procedure has launched, which can be open, restricted, competitive with negotiation or others, depending on the value and nature of the procurement. Interested suppliers or contractors submit bids according to the requirements set out in the procurement documentation, and they are evaluated by the commissions appointed for this purpose.

After the evaluation, the winner is selected and the contract is concluded, and then the execution of the contract follows according to its provisions. Transparency, fair competition and respect for the principles of integrity and non-discrimination are essential throughout the public procurement process.

In Table 1, the procurement award procedures used in the Romanian public procurement system, which we have analyzed within the scope of this study, are depicted. Through our analysis, we have examined the various methods employed by public authorities in Romania to award contracts, shedding light on the diversity and complexity of procurement practices within the country.

The representation serves as a visual aid to illustrate the spectrum of procurement procedures that are being used in Romania such as: open auction, limited auction, framework agreements, competitive dialogue, negotiation, simplified procedure, request for offer and competitive procedure with negotiation. Those previously mentioned represent the base for our research.

Table 1. The types of public procurement procedures in Romania

Type of Procedure	Description
Open Auction	A transparent and competitive method where all interested suppliers can submit bids in response to a public notice. The contract is awarded to the bidder offering the best value for money.
Limited Auction	Similar to open auction, but only pre-qualified suppliers are invited to participate. This method is used for more complex procurements or when specific qualifications are required.
Competitive Dialogue	Involves a structured dialogue between the contracting authority and pre-selected suppliers to explore and define the best solution to meet the authority's needs. It is commonly used for complex projects where technical specifications are not fully defined initially.
Negotiation	The contracting authority negotiates directly with one or more selected suppliers to reach an agreement on the terms and conditions of the contract. It is typically used in exceptional circumstances, such as urgency or lack of competition.
Competitive Procedure with Negotiation	Combines elements of open competition with negotiation. Suppliers submit initial tenders, and negotiations may take place with one or more bidders to improve offers before awarding the contract.
Request for Offer	A simplified procurement method where the contracting authority directly requests offers from potential suppliers based on predetermined criteria. It is often used for smaller-scale procurements or when requirements are straightforward.
Simplified Procedure	This procurement method is characterized by its streamlined and straightforward approach. It is typically used for low-value contracts or purchases where the requirements are relatively simple and well-defined. Instead of extensive documentation and formalities, the contracting authority issues a simplified procurement notice or directly contacts potential suppliers to request offers.

The purpose of this paper is to carry out an exhaustive analysis of the available statistical data related to public procurement in Romania. By examining these data, we aim to identify key trends in terms of the volume, structure and distribution of public procurement in total, but also in various sectors.

2. LITERATURE REVIEW

It is an important step of our analysis to go through the existing literature to be able to place it in the existing academic context and to discover how this work can contribute to the existing knowledge in the field, touching aspects that have not been exposed before.

The public procurement system serves as a mechanism for the allocation of public resources, impacting economic development, public service delivery, and governance effectiveness. In the Romanian context, literature has extensively addressed various facets of the public procurement system, focusing on issues ranging from legal frameworks to implementation challenges and outcomes. This literature review provides an overview of key themes and findings from existing research relevant to the analysis of Romania's public procurement system.

Most of the studies delves into the implementation challenges faced by Romania's public procurement system, including issues related to corruption, administrative capacity, and institutional coordination, emphasizing the importance of addressing governance weaknesses to ensure the efficient and accountable use of public funds.

A real interest is assessing the impact of electronic procurement platforms on transparency and competition, explore factors influencing procurement efficiency, such as procurement methods, evaluation criteria, and supplier diversity.

There are also studies that examines stakeholder perspectives on public procurement in Romania, including views from contracting authorities, suppliers, and civil society organizations and papers that investigate the drivers of corruption in procurement processes and evaluate the effectiveness of integrity mechanisms.

Noticing the absence of a global analysis of the public procurement system in Romania, we identified the opportunity to comprehensively explore and evaluate this aspect. Thus, this paper aims to provide a detailed and comprehensive analysis of the public procurement system in Romania in the period 2016-2023.

3. MATERIALS AND METHODS

As the initial step of the methodology of the work, we started the process of collecting relevant data for the study period, which covers the time interval between 2016 and 2023. To ensure the accuracy and reliability of the information, we relied on the data provided by the National Agency for Public Procurement (NAPP), recognized as an authorized source in the field of public procurement in Romania.

Once we collected the necessary data, we proceeded to synthesize them, identifying the relevant trends and models in the evolution of public procurement during the analysed period. To facilitate the analysis and interpretation of this complex data, we used specialized data analysis software (Business Inteligence) that allowed us to generate graphs and visualize the data in various forms.

The graphs obtained formed the basis of our analysis, providing a visual perspective on the evolution of public procurement over time and its main characteristics. In the next step, we carried out a detailed analysis and interpretation of these graphs, contextualizing them in the wider economic framework. We identified and discussed significant trends, fluctuations, and anomalies in the data, seeking to understand the reasons behind them and their potential implications for the public procurement system and the wider economy.

This methodological approach allowed us to carry out a comprehensive and substantiated analysis of the public procurement system in Romania in the period 2016-2023, thus contributing to a deeper understanding of this field and to the identification of possible directions for improvement and optimization of procurement processes public.

4. RESULTS AND DISCUSSIONS

In this section, we have obtained information analyses related to public activities in Romania in the period 2016-2023. To better highlight and interpret these results, we have structured the information in graphic representations, which provide a clear and accessible image of the trends and patterns identified in the analysed data.

We then interpreted these graphical representations and identified significant trends, variations, and discrepancies in the analysed data. They allow us to better understand the dynamics and characteristics of public goods in Romania during the analysed period and formulate recommendations to be able to do this process.

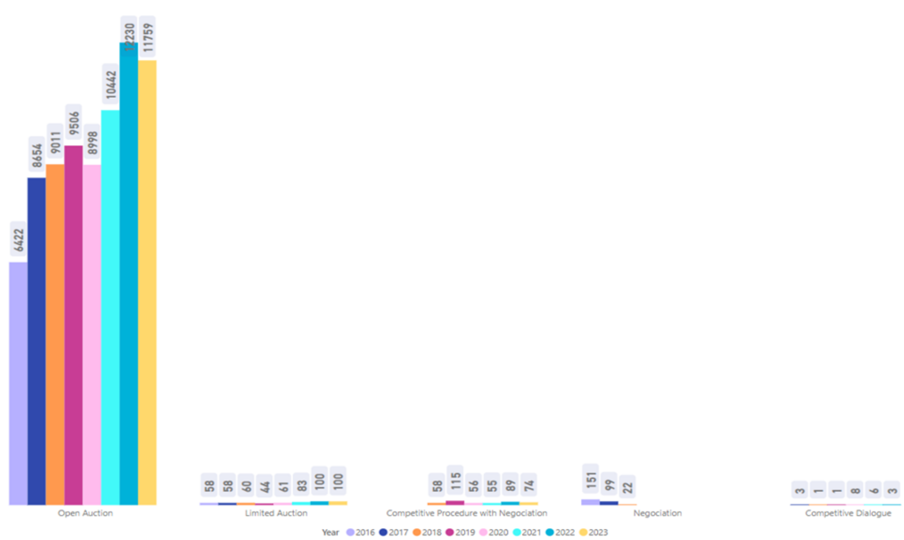
In the first graphic obtained, we can see the number of award procedures carried out through the publication of the participation notice. Looking at the graph as a whole, we can see that most public purchases were made through the open auction. For the analysed period, 75.429 opened auctions were carried out, the highest values being recorded in the year 2022, with a value equal to 12.230, and the lowest value in 2016, of 6422.

We can note the upward trend from the pandemic period (2021-2022), due to COVID-19 pandemic. In Romania, the state of emergency triggered in the context of the COVID-19 pandemic had a significant impact on public procurement. Government and contracting authorities had to act quickly and effectively to ensure the availability of the resources needed to manage the crisis and protect public health. To respond to the urgent needs generated by the pandemic, these procedures allowed the authorities to act quickly and make purchases in the shortest possible time.

We consider that the negotiation was only used in the period 2016-2018 due to the awareness of the contracting authorities regarding the various available procedures and how they can be used to achieve the specific procurement objectives. Thus, there may have been an increase in the use of negotiated procurement procedures during this period due to factors such as the need for flexibility in the procurement process or the complexity of certain procurements.

Negotiation was no longer used as the main method of public procurement in Romania starting from 2019 for several reasons. These include concerns about transparency and competition, the risk of favouritism and the preference for more transparent and competitive procedures in line with European rules. Open bidding and other competitive procedures were considered more efficient and effective in ensuring that the best offers were obtained, both qualitatively and financially. For this reason, negotiations have only been used in certain exceptional, well-justified cases.

Figure 1. The number of procedures for awarding the achievement by publishing the notice of participation



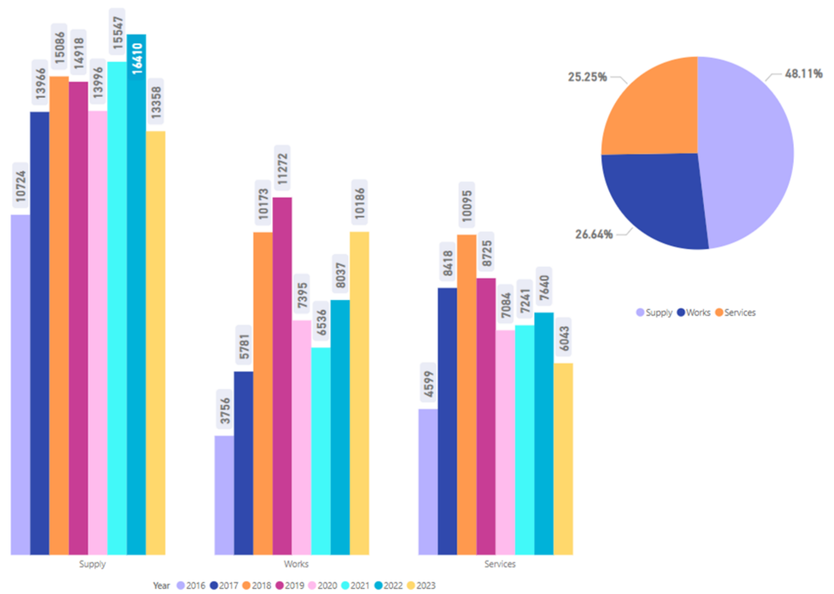
As part of the analysis, as can be seen in figure 2, we segmented the contracts concluded according to their type into 3 categories: supply, works and services. In the period 2016-2023, 114,005 supply contracts were concluded, the lowest value being recorded in 2016, of 10,724 contracts, and the highest value being recorded in 2022, of 16,410 contracts. In the rest of the period, the number of supply contracts fluctuated between 13,000 and 15,500.

Regarding the works category, 63,136 contracts were registered. The lowest value was recorded in 2016, of 3,756 contracts, and the maximum in 2018, of 11,272 contracts. In 2018 and 2023, the recorded values were approximately equal, revolving around the number of 10,100 contracts. In the rest of the periods, the recorded values were in the range of 5700-8000.

In the services category, 59,845 contracts were registered, the lowest value also being registered in 2016, of 4,599, and the maximum of 10,095. In the rest of the period, the values fell within the range of 4500-8725 concluded contracts.

From the analysis above, we can see that the largest share in the number of public procurement contracts is represented by supply contracts.

Figure 2. The number of concluded contracts depending on their type



Regarding supply contracts, in figure 3 we can notice that the most procedures were awarded through the simplified procedure, totaling 58,870 such procedures, the highest value being recorded in 2018. We can note that in 2016 there were no such procedures carried out for these contracts.

At a difference of approximately 10,000 concluded supply contracts, 47,314 open tenders were carried out during the analyzed period, the highest value being recorded in 2022. As regards the request for offers in the case of supply contracts, we can observe the high value of the procedures of policy purchases made by request for offer in 2016, 6418, representing 96.27% of the total of 6667 requests for offer.

We can observe that the rest of the procedures were used less, being organized 409 open tenders, 215 competitive procedures with negotiation, 117 negotiations and 16 competitive dialogues.

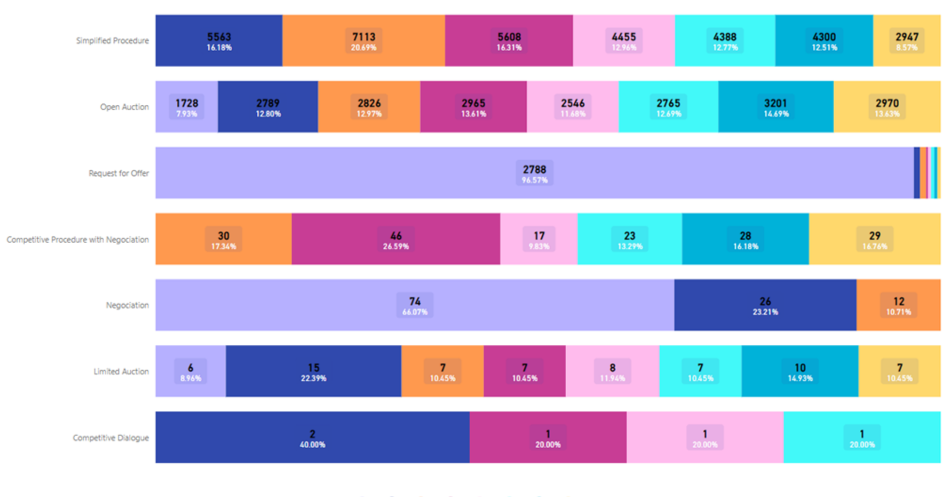
Figure 3. The type and number of procedures used for supply contracts.

Regarding works contracts, in figure 4 we can notice that the most procedures were awarded through the simplified procedure, totaling 50,619 such procedures, the highest value being recorded in 2019. Also, as in the case of procedures used for supply contracts, we can observe that in 2016 there were no such procedures carried out for these contracts.

With a considerable difference, we can see that only 7918 open tenders were carried out during the analyzed period, the highest value being recorded in 2022. As regards the request for offers in the case of supply contracts, we can observe the high value of the procedures of policy purchases made by request for offer in 2016, 3235, representing 96.77% of the total of 3346 requests for offer.

We can see that the rest of the procedures were used, being organized 96 open tenders, 43 competitive procedures with negotiation, 28 negotiations and only one competitive dialogues.

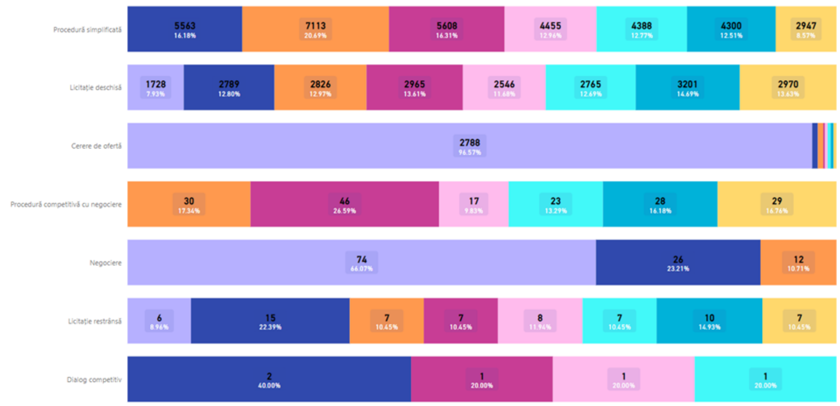
Figure 4. Type and number of procedures used for works contracts.



Analysing the type and number of procedures used for services, we note that 34,374 simplified procedures were completed, the highest share being recorded in 2018, 20.69% of the total. We also note that 21,790 open auctions were carried out. The lowest value was recorded in 2016, with 1728 such auctions, and the highest in 2022, with 3201 such auctions, in the rest of the periods the values fluctuate with small variations between the 2500-2900 range.

Regarding the request for an offer, in 2016 the highest share was recorded, 96.57% of the total of 2876 procedures. Lower values were the competitive negotiation procedure, totalling 173 procedures, the negotiation - 112, the restricted auction - 67 and the competitive dialogue, at the bottom of the ranking, with only 5 such procedures.

Figure 5. The type and number of procedures used for services.



On the figure below we can see the number of award procedures carried out through the publication of simplified participation notice. Looking at the graph as a whole, we can see that most public purchases were made through the simplified procedure. For the analysed period, 144.863 simplified procedures were carried out, the highest value being recorder in 2018, with a value of 26.002 and the lowest value in 2023 with 17.465 procedures.

The procedures carried out through the request for offer totalled the amount of 12,897, the highest share being recorded in 2016 - 12,441 procedures, then the values decreasing substantially, reaching up to 40 such procedures carried out annually (2023). At the end of the analysis, the narrow tender, with 564 procedures, the competitive negotiation procedure, with 447 procedures, the negotiation, which was used only in the 2016-2018 period, with 272 procedures, and the competitive dialogue, with a number of only 22 procedures in 8 years.

Figure 6. The number of award procedures carried out through the publication of the invitation to participate/simplified notice of participation

Figure 7 shows the number of procedures according to their publication in the Official Journal of the European Union. Thus, 53.681 procedures were published, their number increasing from year to year, reaching from 4450 procedures in 2016 to 9254 procedures. The difference of 155,016 procedures were not published in the Official Journal.

Figure 7. The number of procedures sent to the OJEU out of the total number of procedures

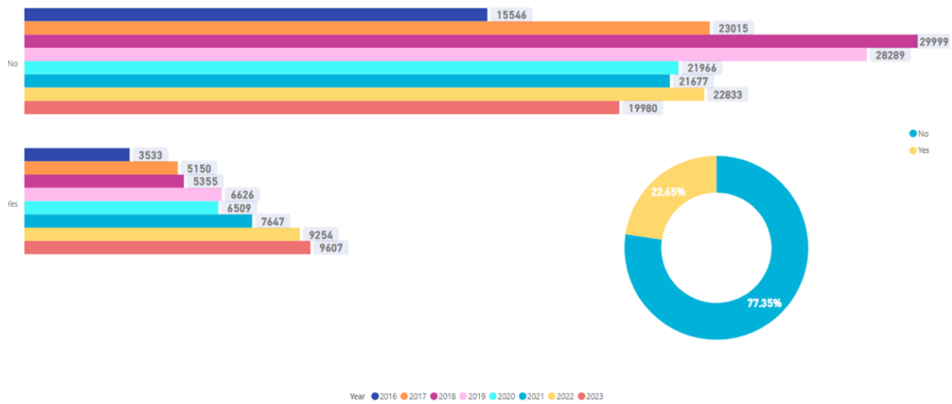
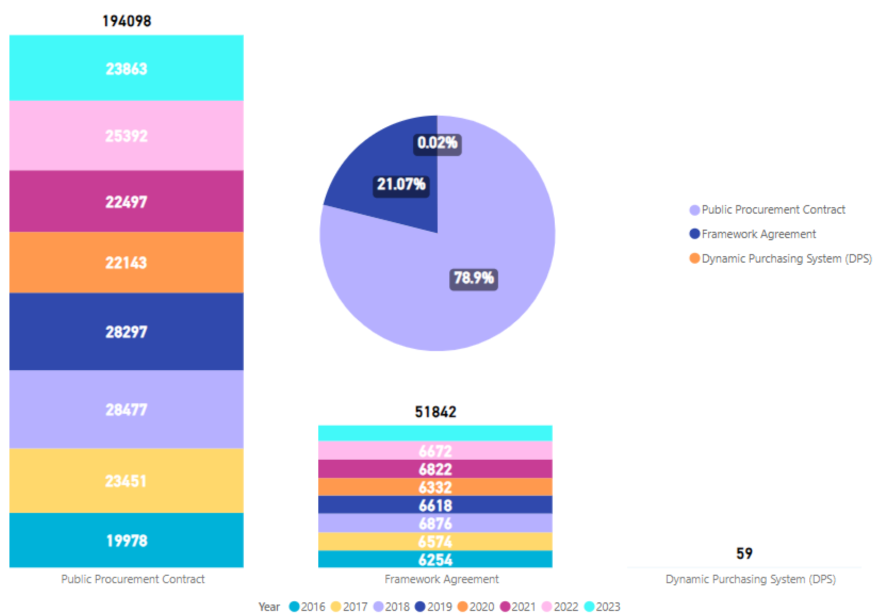


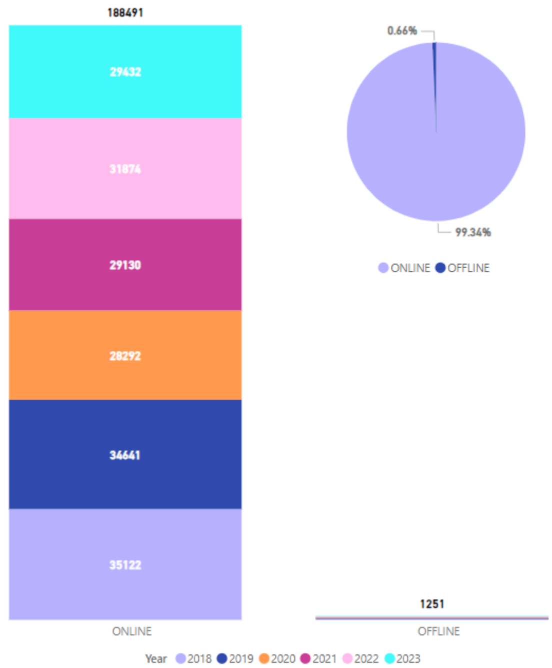
Figure 8 shows the number of procedures carried out depending on the method of awarding. Thus, we can observe that most of these procedures were carried out through public procurement contracts, reaching a value of 194,098 procedures during the analyzed period. As a next preference in public procurement, the framework agreement stands out, with 51,852 procedures, and at the opposite pole to the dynamic procurement system, with only 59 procedures.

Figure 8. The number of procedures according to the method of award



Regarding the way of public procurement processes, we can see that most of them were carried out in the ONLINE environment, on the platform dedicated to public procurement, their number reaching the value of 132,062 procedures, while 49,969 procedures were carried out OFFLINE, noting the preference for organizing procedures digitally.

Figure 9. The number of procedures depending on the method of implementation

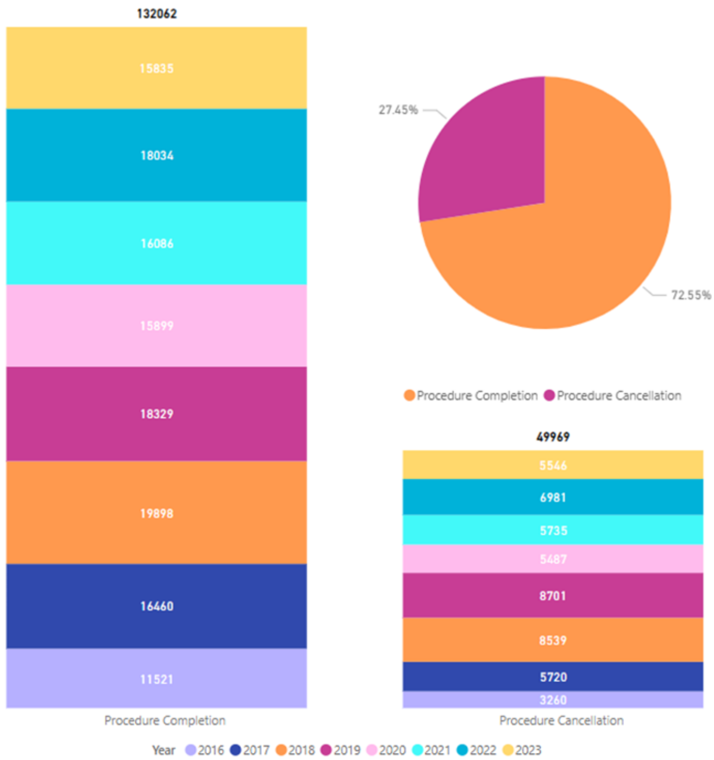


In the table below, we have analyzed the number of procedures according to the method of completion. Thus, we can observe that during the analyzed period 132,062 public procurement procedures were carried out, the maximum value of completed procedures was recorded in 2018, of 19,898 procedures, and the lowest number of completed procedures was recorded in 2016, of 11,521 procedures. In the rest of the periods, the values were between the thresholds of approximately 16,000-18,000 procedures.

At the opposite pole, we note that 49,969 procedures were canceled during the analyzed period, the highest values being recorded in 2018-2018, of over 8,500 procedures. At the opposite pole, the lowest number of canceled procedures was recorded in 2016, with 3260 procedures. In the other periods, the number of canceled procedures was between approximately 5000-6900 canceled procedures annually.

Comparing the number of completed procedures with that of the canceled ones, we can see that there are differences of approximately 40%, something that could be called worrisome, because it indicates the poor training of the staff responsible for managing public procurement departments.

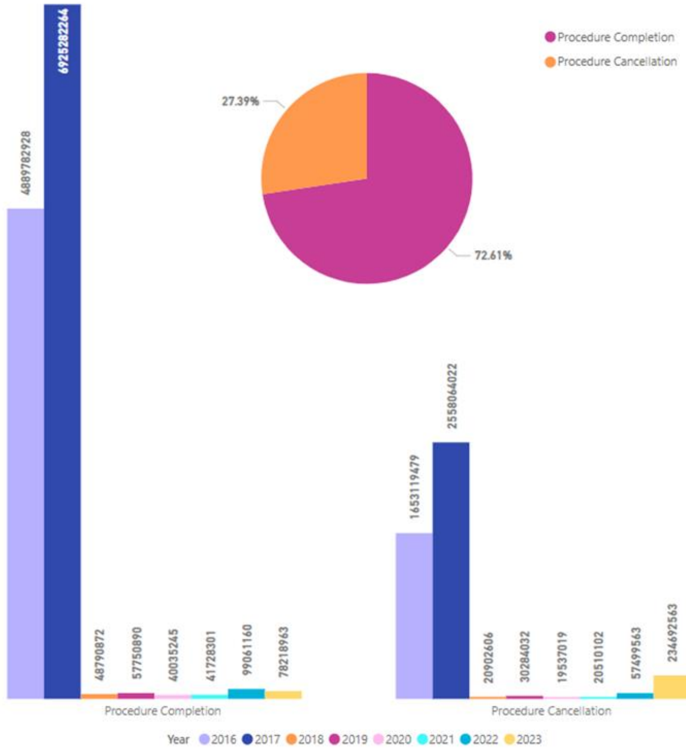
Figure 10. The number of procedures in the operation of the deployment mode



In the figure below, we can see the total value of the procedures depending on the method of completion. At the beginning of the analyzed period, the total value of the completed procedures reached values of approximately 5 billion RON. In the following year (2017), the trend was upward, reaching the highest number of public procurement procedures, their value reaching values of almost 7 billion RON. In the following years (2018-2021), their value decreased drastically, the values reached being between 40-50 million RON. In 2022, the situation became more positive, thus completing procedures worth approximately 1 billion RON. Later, in 2023 the value dropped to approximately 79 million RON.

Regarding the total value of the procedures that were cancelled, it is noted that in 2016-2017 the values recorded were the highest, respectively 1.7 billion RON for 2016, and 2.6 billion RON for the year 2017. In the period 2018-2021, their value decreased significantly, the values being in the range of 2-3 million RON. In 2022, the value of the canceled procedures increased to approximately 6 million RON, and in the last year of the analysis this increased drastically, to the value of 235 million RON.

Figure 11. The total value of the procedures depending on the method of completion



High values can be noted in the years 2016-2016 because Romania had access to European funds during this period through various programs and projects, such as the structural and cohesion funds. In order to benefit from these funds, the Romanian government had to start a series of public procurements for infrastructure projects, services or other activities.

Also, the Romanian Government and local authorities made efforts to modernize and develop the infrastructure during this period. This involved tenders and public procurement for the construction or upgrading of roads, highways, schools, hospitals and other public facilities.

Along with economic growth and modernization, there has also been an increased demand for various services and equipment in the public and private sectors. This boosted public procurement to meet market needs and demands.

5. CONCLUSIONS

The introduction of a global analysis of the public procurement system in Romania in the period 2016-2023 represents an essential step for understanding the evolution and challenges of this vital field for the economy and governance. This research contributes by providing a comprehensive perspective on the performance and effectiveness of the public procurement system, highlighting both positive aspects and existing problems and potential directions for improvement.

Our analysis reveals that, during the analysed period, the public procurement system in Romania registered a significant increase in the volume of contracts and public expenditures, reflecting the increased importance given to this field. However, there are still challenges regarding the efficiency and transparency of public procurement in Romania, including the risk of corruption and unfair practices.

As challenges and limitations of the research, we identified inconsistencies in reporting and difficulties in obtaining data. The next research directions, replicating this research globally, to compare and contrast public procurement systems in different countries and to identify successful practices.

Therefore, future research could explore ways to improve data quality and accessibility, as well as develop methodological approaches for evaluating and comparing public procurement systems worldwide. These efforts could contribute to the advancement of knowledge in the field and to the promotion of more efficient and transparent policies in public procurement, not only in Romania, but also internationally.

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SUSTAINABILITY REPORTING AND IFRSS WITHIN ECOMMERCE INDUSTRY

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Abstract
Sustainability reporting has evolved as a vital tool for enterprises around the world to clearly explain their environmental, social and economic implications. This article emphasizes the increasing importance of sustainability practices in Ecommerce industry, while highlighting the International Financial Reporting Standards and their significance. Furthermore, this paper explores sustainability reporting and how IFRSs address this reporting matter, while providing arguments for and against the requirement of IFRSs regarding sustainability reporting. Additionally, this paper includes a list of top five most sustainable Ecommerce companies and how they report their sustainability, while also providing challenges encountered by Ecommerce companies when implementing this type of reporting. Overall, this paper highlights an important topic, which can bring benefits to companies from Ecommerce industry, becoming a topic more and more important every day for all stakeholders involved.

Keywords: Sustainability Reporting, Ecommerce Industry, IFRSs

1. INTRODUCTION

Ecommerce refers to the commercial transactions conducted electronically on the internet. It includes the purchase of products and services, online payment processing and secure online transactions. Ecommerce platforms allow businesses to reach a global audience and streamline their operations.

The revolution in Ecommerce and technological advancements are transforming the way businesses are executed. Because of the widespread use of mobile devices and the high rate of Internet penetration, Ecommerce is growing at an exponential rate. The Ecommerce industry is expanding and doing three times better than predicted on a global scale. The adoption of smartphones, which are widely accessible and less expensive than they were a few years ago, has made this easier. Nonetheless, this has made it extremely difficult for retailers to meet the evolving needs of their customers. The difficulty of moving goods from one place to another has made communities more vulnerable to environmental risks. Not to mention, some products are returned to suppliers after delivery for the simple reason that they do not live up to customer expectations for green products. Customers are pushing Ecommerce businesses to implement sustainable solutions as they grow more conscious of the need to stop this scenario. Thus, it is important for the Ecommerce industry, and not only this industry, to adopt reporting and strategic measures regarding sustainability.

Firms started to listen to their customers' needs and a number of significant elements make it clear that sustainability practices are becoming more and more important for Ecommerce businesses:

- Collaborating to advance sustainable Ecommerce: In order to provide a positive environment, manufacturing businesses, logistic service providers, retailers, and consumers must collaborate to enable Ecommerce to achieve sustainable solutions in the production, packaging, shipping and minimizing shipment returns processes. All parties involved will benefit economically from a reduction in operating, goods, shipping, and recycling costs as a result of collaboration. When products are packaged properly, they will require less packing, simplify deliveries and decrease returns. Additionally, consumers will be prepared to pay a premium for products that originate from environmentally conscious businesses. When appropriate packaging is used, greenhouse gas emissions will decrease, contributing to a reduction in global warming.
- Sustainability and ethical issues are becoming more and more important to consumers when making selections about what to buy. They actively seek out companies and goods that share their beliefs as they become more aware of the effects their consumption has on the environment and society. Businesses operating in Ecommerce that include sustainability strategies can draw in and hold on to customers who care about the environment and society, giving them a competitive advantage.

- Stricter laws and mandates pertaining to environmental preservation, social responsibility and sustainability are being imposed by governments and regulatory organizations. These rules must be followed by Ecommerce companies in order to avoid fines and reputational harm. Adopting sustainable practices shows Ecommerce companies' dedication to long-term sustainability and corporate responsibility, in addition to helping them comply with legal requirements.
- It is difficult to guarantee transparency and traceability in Ecommerce due to the intricacy of international supply networks. Demands for supply chain openness are growing from stakeholders and customers in order to confirm ethical sourcing, labor standards, and environmental stewardship. Ecommerce companies can improve supply chain transparency, foster consumer trust and reduce the risks associated with unethical or unsustainable sourcing practices by placing a high priority on sustainability policies.
- Customer loyalty and brand reputation can both be improved by using sustainable business strategies. Ecommerce enterprises may set themselves apart from rivals and cultivate enduring consumer relationships by showcasing their dedication to sustainability through transparent reporting, eco-friendly packaging, carbon footprint reduction and ethical sourcing. Increased sales, client retention, and brand advocacy can result from a positive brand reputation and devoted customers.
- For Ecommerce companies, sustainability initiatives can also result in financial savings and improved operational effectiveness. To cut expenses and increase profitability, packaging and shipping process optimization, for instance, can minimize waste and transportation emissions.

The International Financial Reporting Standards (IFRS) govern the disclosure, assessment, acknowledgment and classification of financial metrics and operations in financial statements for the majority of nations. Companies worldwide utilize them to generate reports for external users in order for them to make financial decisions.

The increasing number of countries adopting "IFRS" is evidence of its importance:

- Organizations that use "IFRS" have higher-quality accounting data than those that don't, even with a decrease in earnings management and earnings smoothing.
- There is a strong association between "accounting amounts," "returns," and "share prices" in IFRS-compliant businesses, suggesting that deficiencies are identified early.
- There is a robust and positive correlation between accounting uniformity and lowering legal risks, simplifying labor-intensive duties, and boosting professional credibility.
- Financial reporting becomes more effective in terms of total assets. Additionally, there is a noteworthy and favorable impact on stockholders' capital, net profit and asset value.

2. IFRS ON SUSTAINABILITY

The external pressure on companies to be more transparent and accountable toward their stakeholders has grown as a result of the financial crises and the growing concerns about the social and environmental impact of their actions. A company's ability to survive can no longer be attributed solely to the economic aspect of profit maximization. Rather, it must be considered as part of a larger narrative that takes into account how the company manages risks associated with the medium and long-term social and environmental effects of its operations and exhibits regarding social responsibility. Thus, the incorporation of non-financial data in annual reports has drawn the attention of scholars, practitioners and standard setters, leading to the creation of methods such as sustainable reporting.

Sustainability reports improve non-financial information's accountability and transparency, enhancing communication with stakeholders and helping firms to show that they are socially responsible.

For a number of reasons, sustainability reporting is essential in contemporary business and society:

- Sustainability is becoming a more important consideration for both shareholders and consumers when deciding to make an investment or purchase decision. Companies may improve their brand image, draw in customers and investors and break into new markets by showcasing their commitment to sustainability through thorough sustainability reporting.
- Sustainability reporting assists businesses in identifying possible threats to their operations and reputation via risk management by revealing social and environmental concerns as well as

opportunities. Businesses may put measures in place to reduce risks, adjust to shifting market conditions and take advantage of new possibilities thanks to this proactive strategy. Resilience and competitiveness over the long run are improved by effective risk management resulting from this type of reporting.
- Transparency regarding an organization's ESG performance is achieved through sustainability reporting. It makes it possible for all parties involved to evaluate how successfully a business is controlling its environmental and social implications. Since openness promotes responsibility and trust, it strengthens the bonds between companies and their stakeholders.
- Compliance regulations requiring sustainability reporting for specific organizations, especially big enterprises or those in sectors with major social or environmental implications, are in place in multiple countries. Companies can avoid fines, harm to their brand image and regulatory attention by adhering to these reporting standards.
- Firms can set goals, monitor development over time and discover areas for improvement by monitoring and reporting on ESG performance. Decision-making, innovation and the alignment of corporate aims with wider environmental and social objectives are all facilitated by this approach, which promotes durability and long-term economic prosperity.

The International Financial Reporting Standards Foundation has recognized the value of sustainability reporting and taken steps to explore its incorporation into financial reporting frameworks, even if IFRSs do not explicitly address it.

Sustainability reporting is subtly addressed by IFRSs. Financial reports that follow IFRS are required to reveal information that is important for investors and other stakeholders to know in order to make wise decisions. If they are thought to be significant to the organization's financial performance and position, this information also contains environmental, social and governance factors. As a result, businesses could have to reveal specific sustainability-related data if it affects how investors evaluate the company's long-term prospects. Furthermore, disclosures regarding an entity's management strategy for a range of risks and opportunities, including sustainability-related ones, are encouraged by IFRS. This could entail summarizing the organization's governance structures for handling sustainability-related matters as well as its policies, strategies and procedures for managing the company's social and environmental impacts.

The following factors have been noted as motivators for the need of international financial reporting standards on sustainability:

- Comparability possibility - Encouraging comparability is the sole manner in which we can make sure that sustainability reporting benefits both internal and external stakeholders. According to IASB, one of the key fundamental traits of accounting data is comparability, which implies that businesses adhere to uniform standards, rules, and practices in order to enhance comparisons. It is necessary to establish norms for sustainability for the benefit of all stakeholders, given the increasing significance of this factor on financial success.
- It encourages businesses to act morally and responsibly, strengthening firms' dedication to environmental and social issues. The current discretionary nature of standard adoption means that different stakeholders are not confident in inconsistent reporting. This problem might be resolved by a common international standard that is imposed in an involuntary manner.
- It is evident that in today's world, business decisions require more thorough knowledge of the conditions in which they are working. Decision-making becomes less effective and efficient when sustainability is neglected. Different kinds of sustainability reporting won't help the problem either. Therefore, having a consistent set of rules and guidelines for sustainability reporting is crucial.
- Because of a lack of confidence, the traditional target audience—stockholders, lenders, consumers, staff members, and local communities—use sustainability reports less frequently. Only with intervention from international accounting organizations like IFRS this issue can be solved.

Even if IFRS standards on sustainability seem a good idea, there are also arguments against this approach:

- There are currently several accounting standards available, giving businesses the freedom to choose the ones that best suit them. It should be recognized that creating a universally recognized standard for non-financial components of a company, such as social and environmental considerations, and getting it approved globally will be a difficult undertaking. Even though IFRS is widely accepted, several nations, including the US, have not ratified it, and those that have are still debating the optimal degree of convergence given the diversity of their respective socioeconomic environments.

- Companies implement the standards that best meet their needs, as stakeholder needs vary. This demonstrates the lack of a universally accepted norm that can meet the needs of all parties involved. The fundamental goals of financial reporting will be hampered by the push for a universal standard that might not work for everyone.
- Many scholars believe that because IFRS is a principle-based norm and focuses more on stakeholders than the stockholders, it will be challenging to converge with other accounting standards that are mostly rule-based. The primary goal of IFRS is to meet the needs of lenders and investors. However, we have different types and a lot more stakeholders to be taken into account for sustainability reporting.
- The intrinsic characteristics of IFRS have a detrimental effect on the durability and convergence of a worldwide standard. Since IFRS are founded on principles, they are susceptible to interpretation and could not be improving the fundamental attributes of financial reporting, including relevance, dependability and comparability.

The growing significance of sustainability principles in accounting and financial reporting is driving the need for a set of globally recognized sustainability reporting guidelines and reporting uniformity. There are many sustainability reporting standards out there, but none of them have achieved the status of a worldwide standard with "universal recognition". We can see that sustainability reporting has become an important topic nowadays and having a universal IFRS on this topic seems to bring a lot of advantages, but it will not be easy to implement.

3. TOP 5 MOST SUSTAINABLE COMPANIES FROM ECOMMERCE INDUSTRY AND THEIR SUSTAINABLE REPORTING WAYS

Ecommerce businesses report sustainability differently depending on industry conventions, organizational priorities and stakeholder expectations. There is no standardized definition or format for sustainability reporting. Companies may pick different reporting standards or frameworks such as the Global Reporting Initiative (GRI) or the Sustainability Accounting Standards Board (SASB), they may undertake materiality assessments to determine the most relevant sustainability challenges for their business and stakeholders, use different KPIs to measure and track their sustainability performance or vary in the level of transparency and disclosure in their sustainability reports . Sustainability reporting is becoming more common, as seen by the increasing number of firms publishing it. Companies are increasingly being held accountable for their impact on stakeholders, the environment and society. The general population's expectations regarding worldwide firms' role in society are growing, yet faith in businesses is declining. This leads to a request for improved corporate governance, transparency, and accountability. Governments are also putting more pressure on firms to prioritize their triple bottom line.

Below are presented top 5 most sustainable Ecommerce companies and how they do sustainability reporting.

1. PATAGONIA

Yvon Chouinard started Patagonia, a prominent outdoor clothing and gear brand, in 1973. Patagonia is known for its commitment to environmental sustainability and social responsibility. It manufactures high-quality outdoor wear and equipment for sports such as climbing, skiing, surfing, and hiking. The organization is well-known for its unique approach to sustainability, which includes recycling materials, minimizing waste, and supporting environmental initiatives. Aside from its products, Patagonia is a strong advocate for environmental conservation and social justice, frequently using its platform to address important topics like climate change and public lands protection.

They approach sustainability reporting with openness and rigor. Patagonia's sustainability reporting includes several facets of their business, including environmental effect, social responsibility and corporate governance.

Their report follows Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) guidelines to ensure consistency and comparability in their reporting.

Patagonia uses from GRI following standards:

- GRI 103 - the company manage and address sustainability impacts, risks, and opportunities on its management approach to sustainability, including its governance structure, stakeholder engagement practices, and integration of sustainability into business strategy.
- GRI 201: reports on its economic performance, including revenue, costs, investments and other financial impacts related to sustainability.
- GRI 301: reporting on its material sourcing practices, including efforts to use recycled or sustainable materials, reduce waste, and minimize environmental impacts associated with material extraction and processing.
- GRI 302: reporting on its energy consumption, sources of energy, and efforts to improve energy efficiency and reduce greenhouse gas emissions.
- GRI 303: reporting on its water use, management practices, and efforts to conserve water resources.

2. ETSY

Etsy, an Ecommerce platform founded in 2005, specializes on handmade, vintage, and one-of-a-kind products. It serves as a marketplace for independent merchants, artists, and producers from all over the world to offer handmade or vintage things, craft supplies, and one-of-a-kind factory-manufactured items.

This company is using ESG reports, which follow TCFD and SASBs frameworks for their sustainability reporting. They are doing each year three types of reports in regards to this topic:

- A sustainability report, which they file with the United States Securities and Exchange Commission (SEC) as part of its Form 10-K. The report is mostly focused on 3 key areas: Environmental impact (Energy consumption, greenhouse gas emissions, waste generation and water usage), Social responsibility (Labor practices, diversity and inclusion, human rights and community engagement) and Governance (Board diversity, ethics and integrity policies and regulatory compliance). Furthermore, the company Etsy shares data and analysis on its sustainability performance, including important indicators and targets for its environmental and social activities. This enables stakeholders to monitor Etsy's progress over time and hold the firm accountable to its sustainability promises. They also focus on this report on specific sustainability efforts, programs, and projects that company has adopted to address critical ESG concerns. This could include initiatives to minimize carbon emissions, promote fair labor standards, help small businesses and build community resilience.
- A transparency report - preserves transparency by freely disclosing its sustainability accomplishments, difficulties, and future goals. The organization recognizes areas for development and committed to continued engagement with stakeholders to effect good change.
- A proxy statement, which provides information that is relevant for stockholders from ESG perspective. This includes a letter from the CEO and company’s goals, strategies and progress in relation to sustainability matters. It conducts a materiality evaluation to determine the most important sustainability challenges for its business and stakeholders. This entails communicating with internal and external stakeholders to understand their problems and prioritizing the subjects to be covered in the report.

Overall, Etsy's sustainability reporting demonstrates its dedication to transparency, environmental stewardship, social responsibility, and ethical business practices.

3. EcoSoul is a category disrupting consumer products company that is on a journey to democratize the market for eco-friendly home essentials and drive the world’s transition to a more sustainable lifestyle. Their line of sustainable home essentials allows customers to make plastic-free and tree-free choices every day.

The GRI (Global Reporting Initiative) framework is a set of guidelines for reporting on a company's environmental, social, and governance (ESG) performance. EcoSoul, a sustainable company, follows the GRI framework in reporting its sustainability efforts.

Environmental Impact:

EcoSoul tracks and reports on its greenhouse gas emissions, water usage, and waste production.

The company measures its carbon footprint and sets targets to reduce emissions.

EcoSoul works with suppliers to ensure sustainable sourcing of materials and monitors the environmental impact of its production processes.

Social Responsibility:

EcoSoul reports on its efforts to support and empower workers throughout its supply chain.

The company provides fair wages and safe working conditions for its employees and suppliers.

EcoSoul engages with local communities and contributes to social welfare programs.

Governance:

EcoSoul discloses information on its corporate governance structure, including the composition of its board of directors and executive compensation.

The company has policies in place to prevent corruption and bribery in its operations.

EcoSoul strives for transparency and accountability in its decision-making processes.

4. Bummer

Bummer developed the Softest, Most Sustainable Fabric known to mankind in vibrant colors. “We take our shit pretty seriously when it comes to mother nature. So naturally, our fabrics are derived, naturally. It’s fascinating to note that about 90% of the undies in India today are made of Cotton and about 70% of that is unethically manufactured in facilities that hog on resources. The Micromodal Fabric we use consumes lesser water, lesser land and also is carbon neutral (we would have provided you the charger though). All our raw materials are sourced from OEKO-TEX certified sustainable factories in India and speaking of factories.”

They use GRI framework for sustainability reporting consisting of several key components, including the following:

- Reporting principles: This includes the key principles that underpin the GRI framework, such as transparency, materiality, stakeholder inclusiveness, and sustainability context.
- Material topics: This involves identifying the key sustainability issues that are most relevant to the Bummer company and its stakeholders. These topics are based on their significance to the company's operations and impact on society and the environment.
- Disclosure requirements: reporting on various sustainability aspects, including economic performance, environmental impact, social impacts and governance practices of the company.

Also, they use some Sustainability Accounting Standards Board standards for supply chain management practices, especially responsible sourcing of materials and environmental impacts, for energy and water use in their products.

5. Neeman’s

“Our passion for reducing the carbon footprint led us in the direction of finding yarns that are natural and organic. Thus, we started our journey of crafting footwear that makes you feel good, look good, do good for the planet.”

Specifically, Neeman's footwear company use the GRI framework to report on key sustainability indicators such as:

- Environmental impact: Neeman's reports on its energy consumption, water usage, greenhouse gas emissions, and waste generation. The company also disclose its efforts to reduce its environmental footprint through initiatives such as sourcing sustainable materials and implementing energy-efficient production processes.

- Social impact: Neeman reports on its workforce diversity, employee health and safety and labor practices.
- Governance practices: Neeman's reports on its corporate governance structure, including board composition, executive compensation, and risk management practices. The company choose also chose to disclose its commitment to transparency and ethical business practices.

Comparing sustainability reporting data among these companies is intricate due to the diverse standards and reporting templates they employ. Each company adhere to different frameworks such as GRI, SASB or TCFD, leading to variations in the metrics measured, methodologies utilized and the depth of disclosure provided. These discrepancies hinder straightforward comparisons, as the nuances in reporting formats can obscure true performance levels. Moreover, the absence of a universal reporting standard exacerbates the challenge. Some of these companies prioritize certain sustainability metrics over others based on industry-specific concerns or stakeholder expectations, while the others adopt a broader approach. Consequently, attempting to juxtapose sustainability data without accounting for these differences risks oversimplification and may yield misleading conclusions.

We can conclude that these Ecommerce companies use different templates and standards in order to report their sustainability practices, as a standard and mandatory template doesn't exist at the moment. Each include the information they find most relevant for their stakeholders, some being more detailed and transparent while others being more specific and with minimal transparency.

4. CHALLENGES FACED BY ECOMMERCE COMPANIES IN IMPLEMENTING SUSTAINABILITY REPORTING

In the current digital world, compliance with sustainability reporting is an important topic for all organizations present in the Ecommerce industry. Following challenges are most encountered by Ecommerce companies when trying to adopt this type of reporting:

- For Ecommerce businesses, obtaining precise and thorough data on the effects on the environment and society along the entire supply chain can be challenging. Their frequent reliance on different partners and suppliers makes it challenging to guarantee the consistency and dependability of the data.
- Transparency in supply chains is difficult for Ecommerce businesses to achieve, particularly when working with several suppliers and subcontractors. This lack of openness can make it more difficult to handle social and environmental issues, evaluate suppliers' sustainable practices and track down products.
- Defining pertinent sustainability criteria and developing standardized assessment techniques can be difficult. They must decide which metrics are most important to their operations, how to appropriately quantify them and how to report on them.
- Ecommerce businesses have to abide by a number of sustainability-related laws and reporting obligations, which differ depending on the location. It might be difficult to stay on top of changing regulatory frameworks and guarantee compliance in several markets.
- Dedicated resources are needed to implement sustainability reporting, including money, time and experience. Resource limitations may prevent Ecommerce companies, especially small and beginning organizations, from creating and implementing comprehensive sustainability reporting procedures.

In order to overcome these obstacles, sustainability must be approached strategically and holistically, involving cooperation with other stakeholders involved. Investing in partnerships, stakeholder engagement programs and data management systems can help Ecommerce enterprises overcome these obstacles and clear the path for a more sustainable future.

5. CONCLUSION

In conclusion, sustainability reporting is an important topic for Ecommerce organizations, providing benefits for all stakeholders involved. The incorporation of International Financial Reporting Standards into sustainability practices provides significant benefits, including increased consistency and comparability in financial reporting across global markets. Even so, there are also arguments that show how it will not be so easy or beneficial to introduce IFRSs regarding sustainability. Furthermore, many companies face challenges when implementing sustainability reporting and, as there isn't a clear and mandatory structure for this type of reporting, companies report their sustainability using what templates and standards they prefer, as shown in our paper. Sustainability reporting is a topic that should be in focus for companies from Ecommerce industry, being a factor that can bring stakeholders and companies closer.

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GREEN FINANCE: THE VANGUARD OF SUSTAINABLE ECONOMIC REVOLUTION IN BIG GREEN`S ERA

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Abstract:
Green finance, the emerging nexus of finance and sustainability, focuses on investments and projects for sustainable development. The economy is taking innovative steps through financial instruments on the green bond side, which are the contribution of the geopolitical sphere to the green economy sector of circularity strategies. The paper aims to follow the structure of five layers of green finance. The first layer provides a conceptual framework of green finance in the literature over the last two decades. The second layer standardizes green finance through a SWOT approach to the negative and positive extremes it faces in an ever-changing economy. The third layer focuses on the frontiers of next-generation technologies with applications in green finance. The fourth layer examines the strategic-investment-ESG-carbon-reduction responses of the top 21 companies in the top seven industries in the S&P 500 for sustainability. The final layer outlines the paper's key ideas, limitations, and future research directions.

Keywords: Green finance, Sustainable investments, Green bonds, ESG, Environmental economics

1. INTRODUCTION

In recent decades, a central theme of debate has revolved around green finance, between sustainability - green money - and tackling climate change. Financial institutions, governments, and companies are shifting their attention from resources to investments that generate profit and promote environmental protection and sustainable development. Green finance is the remedy for boosting sustainability, interfering with the investment area of projects that converge on protecting the environment and supporting the green economy. Environmental sustainability falls under the positive influence of the reality between technological advancement and green finance, which is threatened by economic growth and urbanization. The connection between Big Green and GF revolves around financial transactions towards environmentally sustainable investments and practices. The deployment of sustainable capital is promoted by major financial market players, either institutions or initiatives, that emphasize environmental resilience and reduce climate change risks.

This paper is configured based on 5 concentrated pillars. The first pillar traces the timelines of the last two decades to elucidate green finance in the literature. The second pillar outlines the SWOT analysis of an economy supported by green finance. The third pillar highlights the technological frontier innovations of green finance in a sustainable economy. The fourth pillar follows the analysis of the top 21 companies in the top 7 industries of the S&P 500 and how they are responding strategically – investmentally - ESG - reducing carbon emissions for sustainability. The last pillar notes the highlights of the manuscript, highlighting its restrictions and indicating directions for future inquiry.

2. LITERATURE SYNTHESIS

This essay encapsulates the journey of green finance advancements in the last two decades.

The paper explores how exclusionary ethical investments influence corporate behavior, showing that they lead to fewer investors for polluting firms and an increase in their cost of capital (Heinkel et al., 2001). The financial risks associated with tradable green certificates (TGCs) provide trading strategies that reduce the variance of returns and highlight the demand and supply for financial hedging in this area (Lemming, 2003). Green power methods spotlighted for bearable expansion can contribute significantly to countries' economies and shifting from fossil fuels towards sustainability (Midilli et al., 2006). The spottings of the study show that a real commitment to green management can positively influence financial performance (Molina-Azorín et al., 2009).

Green finance integrates environmental protection with economic profit, focusing on renewable energy, where market mechanisms and policy formulation address internal contradictions and achieve ecological balance (Wang and Zhi, 2016). Companies' green practices influence future market value and profitability, with a note on pollution mitigation actions and green supply chain management (Miroshnychenko et al., 2017). Green bonds have the potential to leverage capital for adaptation and climate change mitigation in emerging countries but face barriers such as a lack of appropriate institutional arrangements and high transaction costs. Proposed solutions include using development banks as intermediaries and providing guarantees by local governments (Banga, 2019).

Proposed remedies pursue the development of sustainable investment vehicles and the adoption of a stable policy framework for sustainable finance (Hafner et al., 2020). The study showcases that eco-conscious finance boosts performance, and the theoretical explanation behind this trend stresses the importance of coordination with public investment in environmental protection (Wen, 2021). Banks' green finance strengths as well as factors influencing green finance policies, thus guiding banks in adopting and developing green finance (Akomea-Frimpong et al., 2022). Green financing and alternative energy have a pronounced restraining impact on CO2 emissions emphasizing the need for promotion to protect the environment (Bakry et al., 2023). Research suggests that green finance is pivotal in lessening environmental damage under the Generalized Momentum Method approach in the BRI region concerning economic growth and improved environmental quality (Chin et al., 2024). GF is a precursor to green innovation, helping to reduce negative environmental impacts, with a focus on dedicated financial resources to be used effectively to advance sustainability goals (Ahmed et al., 2024).

The observations made in the literature review indicated that research gaps are still in this spectrum despite the last couple of decades having intensified the sustainability process and green finance in eco-innovation. The identified gaps aim to be analyzed. Implications of renewable investment on companies in high-carbon industries and to develop concise and accurate methods for gauging the effectiveness of green finance policies and instruments. In addition, greater attention is paid to integrating the social patch into green finance models and green innovation approaches.

3. CHARTING GREEN FINANCE` SWOT

Eco-friendly finance is a driver of sustainable economics, for sustainable economic regeneration, accompanied by financial and non-financial profitability benchmarks, underlined via a SWOT analysis of green finance.

Figure 1. SWOT Analysis of Green Finance

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
• Global advance for sustainable investment. • Acces to govermment funding and incentive programs. • Substantial long-term returns. • Growing public awarness. • Cooperation between governmnents, NGOs and financial institutions. • Technological progress. • Ethics and corporate social responsability.	• Green projects include an exponential risk; • Development and implementation involve high initial costs; • Non-uniform green policy standards and regulations; • Limited financial awareness; • Long project and depreciation period • Price volatility • Intense competition between financial institutions.	• Expanding demand for green products and services. • Technological innovations and falling costs. • Government directions for reducing carbon emissions. • Application for sustainability certificattions and ESG reporting. • Focusing investors on environmental and social issues. • Expanding emarging economies.	• Geopolitical hazard and macroeconomic uncertainties. • Amendment of the legislative framework. • Financial market instability and climate risks. • Vulnerability to climate change and extreme events. • Risksassociated with evolving techs. • Negative reputation and risk of green washing. • Dependence on external funding.

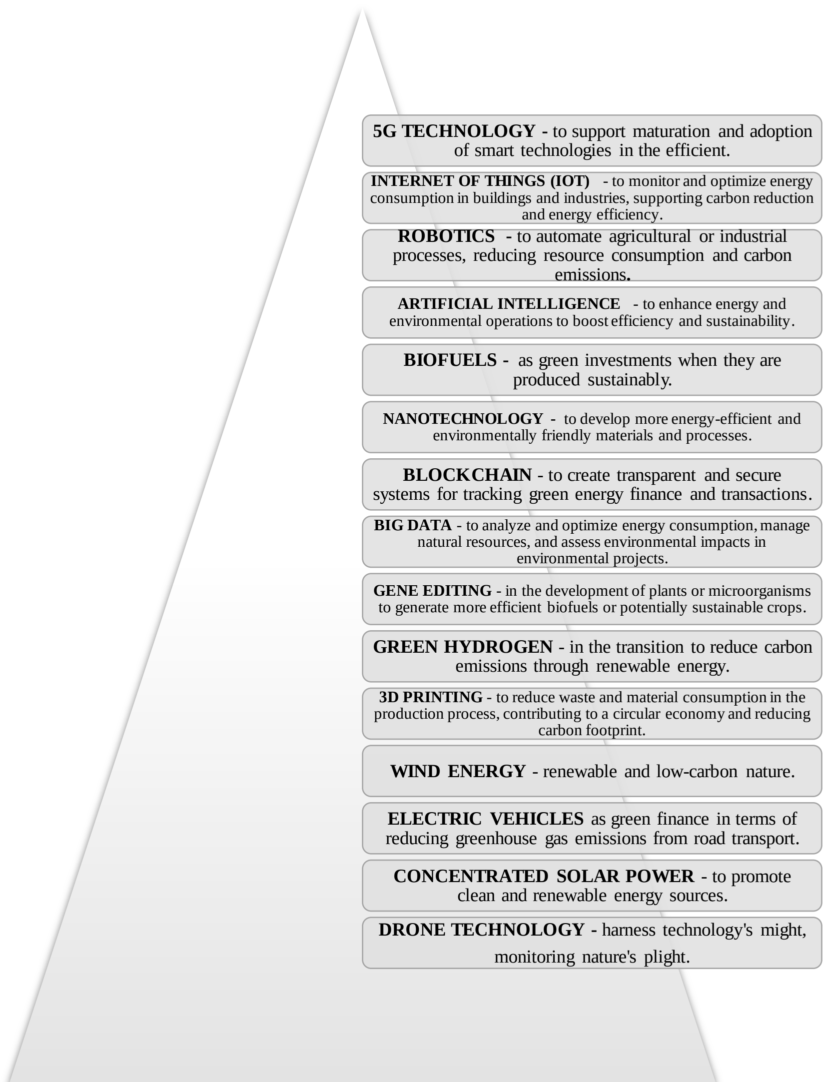
Source: Author`s processing

After the figure, green finance: sustainable investment, ESG focus, innovation, regulation, collaboration, carbon reduction.

4. GREEN INNOVATION AT THE TECHNOLOGICAL FRONTIER

Green investment is beginning to take on a new shape in the global economy, relying in particular on the potential of technological innovations, which are only changing the trajectory of sustainability.

Figure 2. Techs in Green Finance



Source: Author`s processing

Above, technologies support green finance, driving sustainable development and curbing environmental harm.

5. ESG ANALYSIS AND GREEN INVESTMENTS: PREEMINENT 21 COMPANIES IN THE 5&P 500 INDEX

The analysis of sustainability impact is broken down in the table below, where the top-ranking 21 firms in the S&P 500 are analyzed from the top 7 sectors, each with the 3 most valuable companies based on their market capitalization. The analytical track follows each company through 4 elements, such as the amount of money distributed for sustainable investments/green bonds, followed by the sustainability strategies they have on the Green Deal 2030 Agenda, then the target they want to achieve in reducing carbon emissions, and the ESG score (MSCI) on which they rank according to the sustainability actions.

Table 1. Sustainability and ESG initiatives

SECTOR	COMPANY	GREEN BONDS	SUSTAINABILITY STRATEGY (2030)	CARBON REDUCTION	ESG SCORE (MSCI)
Information Technology	**Apple Inc.** $2.8T	$4.7 billion	Carbon-neutral product portfolio	-11.58% p.a.	BBB
	Microsoft Corporation $2.4T	$1 billion	$C0_2$ neutral, water-positive, zero-waste	-3.79% p.a.	AA
	Nvidia Corporation $1.1T	$2.6 billion	Energy-efficient technologies to mitigate climate change	0.59% p.a.	AAA
Communication Services	**Alphabet Google** $1.6T	$10 billion	Reducing 1 gigatonne of their carbon dioxide	-12.5% p.a.	BBB
	Meta Platforms, Inc. $754B	$10 billion	Prioritizing sustainable design, construction, and sourcing	-11.11% p.a.	B
	The Walt Disney Company $193B	$125 million	Carbon-neutral, plastic-free for parks, and Disney Cruise	-5.25% p.a.	A
Consumer Discretionary	**Amazon.Com, Inc.** $1.4T	$1 billion	Carbon neutrality with renewable energy sources	-5.56% p.a.	BBB
	Tesla, Inc. $715B	$2.25 billion	Sustainable design to limit waste, water use, and energy	NO	A
	The Home Depot, Inc. $338B	$3 billion	Renewable power, eco-friendly grids, and streamlined operations	-0.95% p.a.	AA
Financials	**Berkshire Hathaway Inc.** $774B	$1.1 billion	Trimming GHG emissions	NO	BB
	JPMorgan Chase & Co. $437B	$2.5 trillion	Renewable energy projects and green bonds	1.03% p.a.	A
	Visa Inc. $501B	$500 million	Net-zero emissions	-5.56% p.a.	A
Health Care	**Eli Lilly And Company** $519B	$600 million	Reducing emissions as much as possible internally	-0.15% p.a.	A
	UnitedHealth Group Incorporated $448B	$23 million	60% reduction of carbon	0.94% p.a.	AA
	Johnson & Johnson $469B	$625 million	100% renewable electricity and zero net carbon emission	-3.14% p.a.	A
Consumer Staples	**Walmart Inc.** $429B	$2 billion	Walmart's global operations emission-free	0.29% p.a.	BBB
	The Procter & Gamble $316B	$2 billion	Net zero emissions from raw materials	-5.56% p.a.	A

	The Coca-Cola Company $262B	$500 million	100% recyclable packaging with at least 50% recycled material	0.0% p.a.	AAA
Energy	**Exxon Mobil Corporation** $430B	$10 billion	Electrify, use low-carbon power, and cut methane emissions	0.69% p.a.	BBB
	Chevron Corporation $297B	$10 billion	Lower-carbon energy delivery	0.82% p.a.	A
	ConocoPhillips $142B	$2.7 billion	Near-zero methane, low GHG	0.91% p.a.	AA

Source: Author's processing

Following the table analysis, the subsequent conclusions emerge *IT* - Apple leads green bonds and cuts emissions. Microsoft pledges carbon neutrality. NVIDIA earns the top ESG score.

Communication Services - Alphabet leads green bonds and ESG score. Meta prioritizes sustainable design. Alphabet and Meta cut emissions. *Consumer Discretionary* - Tesla leads green bonds and ESG score. Amazon targets zero net carbon emissions. Home Depot tops emissions reduction. *Financials* - JPMorgan Chase & Co. leads green bonds and emissions reduction. Berkshire Hathaway and Visa aim for carbon neutrality. Visa earns top ESG score. *HealthCare* - Johnson & Johnson leads green bonds. Eli Lilly and Johnson & Johnson committed to carbon neutrality. UnitedHealth Group Incorporated achieves top emissions reduction. Johnson & Johnson earns the top ESG score. *Consumer Staples* - Walmart leads green bonds and emissions reduction. Procter & Gamble aims for zero greenhouse gas emissions. Coca-Cola earns the top ESG score. *Energy* - ConocoPhillips leads with green bonds and ESG score. Chevron focuses on emissions reduction and carbon neutrality. Exxon Mobil and ConocoPhillips achieve top emissions reduction.

Overall, JPMorgan Chase & Co. stands out as a leader in green finance investments in the Financials, Meta in sustainability strategies in the Communication Services, Apple in carbon reduction targets in the Information Technology, ConocoPhillips and Visa in ESG scores in the Energy and Financials.

6. CONCLUSIONS

The core idea, green finance offers vitality for a sustainably developing economy in the fight against climate change, with strong support from geopolitical actors to help achieve sustainable global goals.

In addition, effective and sustainable green finance for a greener future is about integrating global economic policies and strategies. Globally, the environment and the economy form sustainability, which is positively impacted through investments in green projects and initiatives.

Research limitations describe the lack of availability of green finance for some regions or economic sectors, leading to inequalities and slow progress in implementing sustainable solutions. Moreover, transparency and trust in these sustainability projects can be threatened by the lack of assessment and disclosure of the financial and environmental impacts of eco-investments.

Future studies aim to evaluate how GF influences economic resilience and financial stability amid climate risks and environmental shifts, followed by the identification of instruments with the greatest potential to stimulate green investments and maximize their environmental and economic impact. They were also, studying the cause-effect relationship of the `decarbonization' process of financial portfolios, where investors are invited to take a sustainable approach to capital markets.

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