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ИЗСЛЕДВАНИЯ**
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1. Introduction

An indisputable statement in the field of modern economic science is that investments (both domestic and foreign) have a decisive impact on the state of socioeconomic and cultural development of the territory (Ababio et al., 2022; Emako et al., 2022). The investing process generally means acquiring assets to generate income in the future (Sawitri, Brennan, 2022). However, innovative investment becomes more important in today's environment because it relies not only on expanding or modernizing production processes but also on investing in human capital (Xu et al., 2020). In other words, innovation should be an integral part of the investment. Nevertheless, the independent development of new technologies and encouragement of investors in some countries are unlikely without government support, particularly in those with economies in transition. This emphasized the problem of investment project management and research on this topic (Mingaleva, Aitkazina, 2013). Given the exceptional role of project management in modern conditions and its small importance in Ukraine, the authors decided to conduct a study with a more detailed description of this phenomenon (Crispin, 2020). Therefore, the purpose of this paper is to describe the essence of an investment project, to evaluate different approaches in the Ukrainian economic literature, and to suggest the most effective method of managing internal processes.

A large number of scholars have studied the topic of investment project management in the world including observation of how effective the development of this particular direction is at various types of enterprises. S. Spalek (2014) particularly examines in detail the effects that occurred after companies have actively invested in this field. Nevertheless, this particular study is limited as it focuses on only three industries: information technology (IT), mechanical engineering and construction. The concept of an investment project has been a subject of study by such well-known scholars as W.A. Valencia et al. (2023) who describe and analyse it from several perspectives, giving it a detailed definition based on the process method. In turn, B.T. Venczel et al. (2021) sought opportunities to improve the efficiency of investment projects. They were able to build a model that helped them to achieve this goal by using regular feedback from project stakeholders. In addition, the researchers provided a list of notable criteria and factors in project management. It should be also noted that the very thorough work by J. Soberaj and D. Metelski (2022), which assesses the determinants of investment project management in the rather specific conditions of the Polish construction sector. They formulate conclusions about local management features in some detail and consider options for using investment management methods. The authors L. Deng and Y. Chang (2022) provided an interesting example of using artificial neural networks to assess the risks of an investment project. At the same time, they do not describe in much detail the future prospects for the use of various technologies and the threats that neural networks may cause.

2. Materials and Methods

The authors should first note that project management has a vague definition in Ukrainian economic thought and it is often confused with business planning. Project management is a

consistent process of planning, execution, analysis and guidance through certain methods and tools to ensure the greatest efficiency in the implementation of a particular investment project. This phenomenon is a set of processes that form the relevant investment project in their synergy and gradual transition to each other, while the formation of a business plan is a much narrower concept of the integral components of project management. The authors used an extensive legal base, introducing new chapters of Ukrainian legislation, including the Law of Ukraine “On Investment Activity” (1991) and “On Protection of Foreign Investments in Ukraine” (1991). The relevant information came from certain international organizations, in particular, the International Organization for Standardization (2017) and the American National Standards Institute (ANSI).

The systematic approach helped to understand the essence of the concept of an investment project by dividing it into an ordered set of small components (processes). The authors used a synergistic approach, which required maximum consideration of all aspects of the investment project management and the identification of the main and essential characteristics at the interaction level of internal processes. The researchers also used a significant number of long-known scientific methods. One of them was an analysis that processed large amounts of information in order to draw appropriate conclusions about the management of investment projects at enterprises. The historical method was widely used to assess the use of this concept in Ukraine. The modelling method was equally important, as it helped to substantiate and describe the process of company project management and show its main features and complexities. The models developed in this study involved the experience of analysing real investment projects and their subsequent implementation. The authors used a graphical method to depict the relevant models aimed at simplifying the process of perceiving information through its visualization. The models built using the abstraction method helped to avoid the influence of some minor factors. The authors applied the method of deduction to identify the main processes that play a major role in investment design. The researchers used both induction and deduction methods to draw conclusions about the general state of the processes of implementing the principles of investment project management in Ukraine.

3. Results

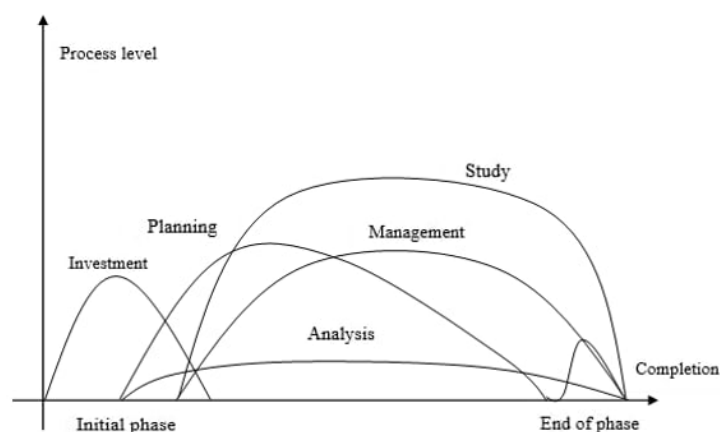
It is impossible to use financial resources effectively in modern conditions without comprehensive investment project management as one of the key areas of modern management. The specialists in this area are in demand and highly paid. Both ANSI and ISO 10006 (Flores-Rios et al., 2009) standards helped to unify and improve the efficiency of modern management systems. The term project itself is actually quite broad. It includes the creation of individual goods or services for further sale, as well as entire enterprises or companies. All of them are temporary, which means that they have a clear life cycle (their beginning and end) and are at the same time unique, i.e., different from all others and have no complete analogues. The management process itself should be subject to a certain logic that would interconnect all components during its implementation within areas of knowledge and have goals that include not only the outcomes but also the way to achieve them. The assessment of profitability and criteria of costs or process duration assist in defining the

achievement of success. A real opportunity to manage internal processes in the course of project implementation (cost, profitability, timing) comes from the effect of specific tools called project levers. They split into main and auxiliary, with resources and technologies classified as main, and contracts used to attract resources classified as auxiliary. The effective management of project levers mostly depends on the quality of the work organization process. It primarily involves communication between project participants and proper coordination of personnel. The information often used in project management is not always completely reliable, which increases the role of risk management (Yepifanov et al., 2008; Zvorych et al., 2019).

A project goes through a certain number of stages during its existence, generally called the life cycle (Haass, Azizi, 2020). The assigned managers can use different approaches to influence the processes at different project stages. Moreover, these internal processes are integrated. Therefore, when a manager influences one of the components, it usually affects all the others, which complicates management, prompting to find a balance within the framework of a large number of tasks and solutions for problems occurred (Beknazarov et al., 2020). Sometimes it is necessary to make tough decisions when improvements in some more important areas of the project's development are achievable at the expense of deterioration in others and this procedure is justified only if the manager is convinced that an overall effect will be positive.

The project implementation consists of separate processes that ensure its outcome in their accumulation and interaction (Verbytska, Melnyk, 2008). They break into two groups: managerial and result-oriented, where the second is generally dependent on the specifics of the project and a particular area of its implementation, which include production, logistics, marketing, etc. The managerial processes fall into six groups: initiation, planning, execution, analysis, management and completion. Each process implements individual project functions (Batenko et al., 2020; Sarychev, 2014), which require more detailed consideration. These processes take place within project development with varying intensity, overlapping each other. You can see exactly how this interaction occurs in Figure 1.

Figure 1. Process schedule in the project management phase



Source: Yepifanov et al. (2008); Zvorych et al. (2019).

As you can see in Figure 1, some processes start at the same time and have the same endpoints. Sometimes, the results of one of these processes lead to the launch of new ones. This interaction can be depicted in another way, as shown in Figure 2.

Figure 2. Process interconnection in the project management system



Source: Yepifanov et al. (2008).

As shown in Figure 2, the entire process has a clear beginning and end (investment and completion), but all four components (planning, management, execution and analysis) are constantly interacting with each other, exchanging information. Sometimes the closure (end) of one process is the initiation of another: for example, the construction process can finish only after the approval of the future building design. Repeating the initiation at the project stages helps to control the relevance of its implementation. If the need for this disappears, the next initiation allows for the reduction of future possible losses. The initialization itself includes only one sub-process, which is an authorization.

The planning process is also of great importance to the project and includes relatively many stages. At the same time, it should never be assumed that project management is just planning. All planning efforts should undergo assessment against the project's goals and the usefulness of the information. The management processes may have multiple repeats during project implementation. Besides, the volatility of the environment can affect some components. Although planning itself may include several options for outcomes and possibilities for resolution, it cannot accurately predict and consider them all. Any plans therefore should be "movable" and susceptible to changes in the event of an unforeseen situation. The planning consists of a number of subparts, including interaction, organization, supply and quality. It is similarly possible to describe the execution process, which usually breaks into such major subcomponents as a selection of suppliers, control of contractors, performance accounting, preparation of offers, quality assurance, development of the project team, etc. The execution follows planning and is essentially completely dependent on it. This

process should take place according to all the parameters formed at the previous stage (unless there are unexpected changes in the micro or macro-environment).

The analytic process builds on both of the previous ones, so it is logical to divide it into planning and execution analysis. In the first case, the analysis should evaluate how well the planning process occurred, how it reflects the real conditions in the environment and how exactly it analysed the capabilities of the team or workers. This component may not stand out as a separate one, since this type of data processing takes place simultaneously with project planning. The whole point of the aforementioned process is to analyse the implementation. Its role is to monitor the compliance and success of the project in accordance with predefined criteria and constraints. If the analysis shows that the implementation is going according to plan, there is no need to make adjustments. Nevertheless, the negative scenario necessitates changes to the implementation processes. The entire analysis can similarly be broken into smaller parts: analysis of cost, execution, resources, timing, quality and confirmation of goals (Birman, Schmidt, 1997).

The last component of this process is project management. Its essence lies in the application of managerial influences for the successful implementation of the project. If everything goes according to plan, the management process reduces only to fulfilling the planned tasks. However, when deviations require the need for corrective actions, it is necessary to find the best solutions and revise the remaining elements of the work plan, agreeing on these revisions with all project participants (Prokopenko et al., 2020). This may result in management changes that directly affect the project implementation process. The management system often includes the following subparts as overall management of changes, contracts, resources, risks, goals, quality and, when implemented, contract closure and administrative completion.

The authors should note that the described processes are generally universal and they can apply to various kinds of projects, namely construction, information, or any other. There may be nevertheless significant differences between different types of projects during their implementation (Birman, Schmidt, 1997). Forecasting and planning may help the specialists to assess all future project tasks and ways to achieve them. Therefore, the formulation and development of project goals assist in the prediction and planning of a series of activities for their completion. The plan for the implementation of the relevant set of aforementioned actions accumulates into a network in the form of a graphic representation, usually called a network graph and the display of the temporal interrelationships of future actions bears the name of the network model. All come into one system of network planning and management (NPM) methods. Their purpose is to manage design and technological processes, create new types of products and undertake the construction and restoration of buildings with the appropriate use of network graphs and models. The newly formed system offers a real opportunity to form a calendar plan for the implementation of a set of works as well as to forecast and accumulate appropriate reserves of time, money and materials. It also helps to allocate labour force or all other resources, to manage work on the principle of "leading link" and to increase the efficiency of management with a clear division of responsibilities (Law of Ukraine..., 1991; Zvarych et al., 2019).

The possibilities for using NPM are very large. They are capable to resolve issues related to projects involving several to thousands of people. The use of this model actually becomes

the basis for project application. Network planning consists of events or activities. In this case, “work” is used to refer to processes and connections between events. This concept breaks down into actual work (requiring the use of a large number of resources), expectations (not involving costs) and dependencies (the interaction between two activities when the result of one activity depends on one or more others). The event is the moment of completion of an individual process, which reflects a certain stage of project implementation. Most often, it is the result of the completion of one or more works (Issayeva et al., 2016). A special place in the network model belongs to the initial (referring to previous work) and final (referring to subsequent events that depend on it) events. The network is a graph shape that consists of points and lines connecting them. The points in this figure are called the vertices of the graph and the lines connecting them are called the edges (arcs). The NPM model is therefore a special kind of graph: its defining vertices have a direct connection to each other using appropriate arcs. It is finite and each of its vertices makes a connection in a certain order. These arcs are marked with arrows indicating the process of transition from one vertex to another.

It is possible to describe briefly the process of creating a network model. The entire process first breaks down into separate tasks stipulating the order of their implementation. The duration of their implementation undergoes further assessment. The network schedule helps to organize, optimize and calculate individual work parameters. When creating a schedule, the operators need to follow some rules. For example, they have to disregard the events that have only an outcome without any activity involved. In a similar manner, the events not preceded by at least one work step should be ignored. The operators should also avoid loops, i.e., paths that connect events to themselves, requiring only one starting and ending event. Following these simple rules helps to increase the effectiveness of the composite network model by avoiding its inefficiency or malfunctions.

4. Discussion

This study has repeatedly raised the issue of defining the concept of an investment project. The authors W. A. Valencia et al. (2023) tried to formulate it both from the perspective of the object of intervention and the processes, noting that determination of the investment projects from this point of view offers a different way of understanding the changes that occur in the processes of organizations. This approach, which manages to show the phenomenon in global and interdisciplinary terms, therefore brings more quality. In other words, it helps to describe the concept of investment management more broadly and vividly. This work of the researchers helps to justify the essence of an investment project as a certain number of smaller components (processes). It simplifies the perception of this concept in its essence.

The authors J. Soberaj and D. Metelski (2022) conducted a systematic study related to the management of investment projects in Poland in the housing construction sector, which has been developing very rapidly in recent years. They conducted an in-depth survey of the heads or key project managers on the ongoing projects. Using the collected data, the researchers come to several conclusions. Firstly, effective and efficient management of investment projects is the result of complex measures related to various activities: effective management

of internal processes and distribution of relevant responsibilities as well as the creation of intellectual capital, and preparation of flexible plans and schedules for project implementation. Secondly, investment project management is associated with changes in the macro environment, depending on economic, political, legal and social factors. It is also worth noting that the researchers mention the investment project management methodologies as Projects in Controlled Environments (PRINCE2) and Project Management Body of Knowledge (PMBOK). They describe their defining strengths and weaknesses, noting that PRINCE2 is the most effective system in the role of planning, management and risk control in meeting the widest expectations of end users, suppliers and other stakeholders. However, the scholars do not refer to the method described in this paper as NPM. In the opinion of the authors of this study, it is quite effective and useful in modern conditions. It is therefore relevant to conduct a future comparative study of this and other existing systems used for project management.

The author S. Spalek (2014) suggests assessing the effectiveness of investment in enterprise project management. The above-mentioned authors argued that improving the company project efficiency is currently one of the most important features. They logically bind company management to many factors, notably modern approaches to business development, technological progress and consumer preferences. The researcher also comes to similar conclusions. The scholar believes that company development and the large number of projects conducted simultaneously require competent project management. The author writes that an enterprise must regularly review the shortcomings in its operations and look for opportunities to improve its efficiency to succeed in the future. This is exactly the process that involves investing. The scientists are also conducting research on how the impact of the continuous development of project management produces a global effect on certain industries including construction, engineering and IT (Berdykulova et al., 2021). They eventually came to several conclusions: first, increasing the level of maturity in all three industries does not lead to lower costs in future projects. However, this statement is not always true. For example, if a company is just starting to develop project management, raising its awareness will have a positive impact on its future costs. If it is no more a newcomer in the relevant field, its further development will likely be not so effective. Second, the impact of project management development demonstrated its major strength in the IT sector, while the machine building and construction sectors showed less progress. It would seem logical to conclude that this kind of management is less effective in the real economy. Thus, its use would be more efficient in the service sector.

The choices of achieving success using project management were the subject of study by the authors B.T. Venczel et al. (2021) who stated that it is impossible to identify universal factors that will affect the success of investment projects. They primarily substantiate it by the fact that each project is unique, i.e., it has a certain number of variables so it cannot be identical to any other. Nevertheless, they offer their own model, which should ensure the most successful implementation. In their opinion, the process of creating a project consists of two major parts: implementation and results. As part of the implementation, the team should discuss the strategy and relationships with stakeholders, various resources and contracting opportunities, etc. In other words, they collect certain information, organize the main processes, assess risks, formulate the appropriate budget, etc. Once the project is implemented, the core team expects feedback on how acceptable were the price and quality

and whether all main processes were completed on time. This model is therefore cyclical: the team can make changes to the project using feedback until a decision of completion after having obtained the expected result. It may seem that this approach differs significantly from the one presented by the aforementioned authors in their work, where the main difference is the possibility of receiving feedback and the benefits it provides. However, this is not entirely true. The model they propose describes the assessment process, which includes analysis of the fulfilment and confirmation of goals, cost, resources, timing and quality. Moreover, feedback on the effectiveness of this project can occur notably within this framework.

The study by L. Deng and Y. Chang (2022) is of particular interest because it describes not only the importance of investment project management but also considers the possibility of using artificial intelligence technologies (artificial neural networks) for this purpose. They pay special attention to the assessment of project risks, conducting a study of one of them and showing that the results obtained by artificial intelligence are quite realistic. In general, the specialists believe in the high probability of further development of this technology and its implementation by scientists and experts in various fields, including those related to investment or management. Thus, investment project management remains an important component of enterprise management activities, which significantly helps to improve the company's performance. However, unfortunately, this field is largely unexplored in Ukraine today, so it requires further implementation and development, particularly using the latest technologies. The definition of an investment project and the corresponding management model proposed in this study can engage important steps toward the evolution of these concepts and their subsequent following among Ukrainian entrepreneurs.

5. Conclusions

This paper assesses the possibilities of managing investment projects in Ukraine and shows that efficient use of financial resources is impossible without a proper project management system. Nevertheless, this practice is still not widespread, which creates misunderstandings by confusing this concept with business planning. The proposed study demonstrates that project management is a unique type of management characterized by special approaches to planning, organization, coordination and motivation. The management processes break into six main groups: initiation, planning, execution, analysis, management and completion. It is worth noting that they are quite complex and consist of smaller processes requiring only individual analysis when working on a project.

The planning management methods serve primarily to determine the possible and desirable (target) characteristics of the managed object's state in the future. However, several specific measures are required to implement the optimal plan for the appropriate allocation of production resources most successfully. At the same time, different models of network planning and management involve drawing up a specific plan for the implementation of the relevant set of short-term interdependent works (operations). This kind of complex usually serves as a certain network, including the graphical representation, called a network graph. A clear demonstration of all time-related interactions of future works without exception is a significantly distinctive feature of network models. This paper has shown and proved that the

general proposed system of network planning and management method can have a significant positive impact on the management processes in Ukraine, if implemented on a mass scale among enterprises. It is relevant to consider other approaches to investment project management for further research. In addition, it is important to look for real opportunities to develop Ukraine's investment potential and attractiveness, as well as to spread the culture of investment among the local population.

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GREEN ACCOUNTING, CSR DISCLOSURE, FIRM VALUE, AND PROFITABILITY MEDIATION⁶

The study aimed to analyze the profitability in mediating the influence of green accounting and corporate social responsibility disclosure on the firm value. The samples consisted of 220 manufacturing companies, while the moderating variable regression was used in data analysis. The effect of mediating variables was determined using the Sobel test. The study results showed that green accounting did not affect firm value; while CSR disclosure and profitability influenced firm value, but profitability was not able to mediate the effect of green accounting and CSR disclosure on the firm value. The unintegrated system and the company's inability to internalize green accounting and CSR disclosure hindered its non-financial goals to gain an advantage in a competitive market.

Keyword: firm value; green accounting; CSRD; profitability

JEL: G32; Q56; M14; L25

1. Introduction

Firm value is a salient concept for investors and is used as a parameter in assessing a company as a whole. Any information related to the company's condition tends to be sensitive to market reactions. Firm value provides a good signal to the investors to invest in the company. Meanwhile, for creditors, the firm value is related to the level of liquidity, which is an aspect

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that provides insight of the extent to which the company is able to repay loans that will be given by creditors. Companies that have a fundamentally high corporate value tend to have better potential in settling their obligations than those with low values.

Firm value is a perception of a company's condition that is usually associated with stock prices. The higher the stock price, the higher the firm value.

During 2019, the manufacturing sector experienced a decline in value, which was marked by a decrease in share prices. As of the beginning of 2019, various industrial sectors experienced a decline by 7.03% due to a decrease in automotive demand (cnbcindonesia.com, 2020). In addition to stock prices, decreases in revenue and/or profits are also frequently commonplace in manufacturing companies, thus affecting a decrease in profitability and it will ultimately impact the firm value. This decline in performance is caused by various factors. For instance, a manufacturing company, namely PT Fajar Surya Wisesa (FASW), recorded a decrease in net profit from 2018 to 2019 by 16.8%, partly due to the increase in staple materials and production costs. The increase included several costs such as transportation, maintenance, fuel, and oil, as well as equipment rental (bisnis.com, 2020).

The above phenomenon shows the value of the company from a financial point of view. However, currently, in the era of fast-growing industries, companies must not only be oriented and concerned with profit but also pay attention to humans (people) and environmental (planet) matters, by compliance with the principle of the triple bottom line, i.e., profit, people and planet. Therefore, the companies are not only required to provide maximum profit to shareholders, but also have to bear responsibility and concern for other aspects in society, community and environment, which are manifested in green accounting and CSR disclosure. Environmental issues are also the most important part for investors in evaluating the companies. Meanwhile, investor evaluation is important for determining firm value, thereby influencing the assessment of company reputation which is built by increasing awareness and commitment to environmental issues, such as social and environmental responsibility (Kurnia et al., 2020; Somjai et al., 2020).

As the obligation of environmental protection, the existence of 'green accounting' is a concrete manifestation of the company's concern that takes into account the organization's environmental impact (Cho, Patten, 2013). It is unavoidable that the increasing business activities due to the industrial revolution can damage the environment, which will cause environmental and ecological problems, such as air & water pollution, increasing greenhouse gas emissions that can lead to climate change and global warming, all of which must receive good attention from the government as well as the society. Therefore, it requires green accounting that can be regarded as the best solution to overcoming the environmental damage, at the same time it can also improve its performance to create corporate value (Astuti et al., 2022). The PROPER has transformed from a simple criterion, namely the assessment of water pollution control, then developed into a criterion that promotes sustainable improvement, and now includes disaster responsiveness criteria. In 2021, 47 companies attained the 'gold' rating, 186 achieved 'green', 1,670 achieved 'blue', 645 achieved 'red', 0 achieved 'black' rating, and 45 companies were not ranked because they were not operating under the law enforcement/suspended. The percentage of PROPER compliance reached 75% and succeeded in coming up with 697 innovations, most of which are related to energy efficiency (KLHK, 2021).

For certain companies, the environmental issues are no longer new topic; so social or the adverse impact of their activities on the environment have been incorporated (Okpala, Iredele, 2019; Olayinka, Oluwamayowa, 2014). A survey results by KPMG's (abbreviation) international survey of Corporate Social Responsibility (CSR) suggest that currently, countries start to have better at reporting trends, environmental and social risks that affect their business. Even developing countries such as India, Indonesia, Malaysia, and South Africa have the highest level of Corporate Responsibility reporting in the world (KPMG, 2015). CSR also involves the relationship between all stakeholders (namely: customers, employees, communities, owners/investors, government, suppliers, and competitors) so that they are not only faced with responsibilities on a single bottom line but companies must be based on a triple bottom line, comprising financial, social, and environmental aspects because financial performance does not guarantee sustainable growth in firm value; instead, it is better performance when three principles of finance, social and environment are put into company's consideration (Felmania dkk., 2014).

This study aims to examine the effect of green accounting and CSR disclosure on firm value by using mediation profitability. Given that non-financial information reporting, such as CSR has not been implemented by all companies, binding rules are needed to encourage the enforcement (Ronald et al., 2019). Besides, some experts are still debating whether non-financial information, such as green accounting and CSR can make an economic contribution and whether the social activities enhance the firm value. If viewed from the neo-classical logic, assuming that CSR activities are not in line with the company's economic goals, therefore it should be avoided (Mackey et al., 2007). Even Friedman (1970) assumed that CSR could not enhance the firm value. In his opinion, CSR exists because of agency problems within the company (Ronald et al., 2019).

2. Literatur Review

Agency theory is related to corporate value due to conflicts between agents (company management) and company shareholders known as principals. Managers are granted authority over company activities because they act as company managers, so they will know more about internal information and developments and company prospects compared to the company owners (Felmania et al., 2014). Another theory used is stakeholder theory. This theory explains that companies cannot be separated from the surrounding environment, which is one of the stakeholders' interests (Astuti et al., 2022) and sees that corporate organizations are elements of a social system, followed by concentrating on the diversity of stakeholder groups in society (Egbunike, Okoro, 2018). So that the company is not only responsible to the owner, but also has a social responsibility that requires them to consider the interests of all parties affected by their activities. What makes it important for the management is that in the decision-making process, other parties must be considered (besides shareholders) that will be affected by the business decision. Likewise, the disclosure of information about corporate responsibility for environmental needs must also be considered (Cho, Patten, 2013). From the perspective of legitimacy theory, companies must provide information on activities they carry out voluntarily if the community expects these reports (Budiono, Dura, 2021). Legitimacy theory explains that entities carrying out their business

are sustainable and ensure that they comply with the norms that apply in society and ensure that their activities can be accepted by outsiders (legitimized). To maintain legitimacy in society, companies voluntarily disclose their social behaviour and environmental information to legitimize their business operations and provide a good perception of social responsibility (Budiono, Dura, 2021).

2.1. The Effect of Green Accounting on the Firm Value

The implementation of green accounting serves as the initial step that companies can take to minimize environmental problems they might face (Hamidi, 2019). Green accounting provides information related to the environment to external parties and external stakeholders. Broadly speaking, environmental accounting involves identifying, measuring, and allocating environmental costs, integrating these costs into the business, identifying environmental obligations, if any, and finally communicating this information to corporate stakeholders as the component of general-purpose financial reports (Riyadh et al., 2020). Its application can improve the company's image in the public perception because it has paid attention to social, economic, and environmental aspects to increase investor confidence and its implementation provides information that will be a good signal/good news to investors (Laskar, Gopal Maji, 2018). Green accounting is expected to stimulate investors' interest in buying shares and can have an impact on rising stock prices, directly impacting the company's value enhancement. Therefore, the application of green accounting can have a positive effect on firm value (Lestari, Restuningdiah, 2021).

H1: The application of green accounting has a positive effect on firm value.

2.2. The Effect of CSR Disclosure on the Firm Value

CSR is a form of corporate responsibility in correcting social inequality and environmental damage caused by the company's operational activities (Felmania et al., 2014). Implementation of CSR disclosure will also be a signal to all stakeholders as part of the its program to provide added value to all stakeholders and increase their trust in the company (Machmuddah dkk., 2020). Companies that focus on sustainable development of their economic and environmental activities will tend to require to disclose corporate social responsibility activities, especially in developing countries (Chen et al., 2018). Chen dan Lee (2017) also explained that the wider the disclosure of social responsibility, the greater the value of the firm. In Olayinka & Oluwamayoma (2014), it was found that corporate environmental disclosure affected market value as a proxy for firm value. Likewise, (2019) and Lusiana et al. (2021) showed that CSR had a positive effect on firm value, meaning that the higher the corporate social responsibility (CSR), the higher the firm value.

H2: CSR disclosure has a positive effect on the firm value.

2.3. The Effect of Profitability on the Firm Value

Profitability represents the management's performance in managing the company. Various profitability measures, such as operating profit, net profit, and others. The company's ability to generate profits is very decisive in attracting investors to invest their funds. These funds can be used by the company to expand its business. On the other hand, a low level of profitability can cause investors to withdraw their funds because they do not want any risk from the investment they have invested. The profitability of the company itself can be used as an evaluation of the effectiveness of its management and has an important meaning in efforts to survive in the long term because profitability can provide an overview of the company's prospects in the future. Meanwhile, the stock price is a reflection of increased prosperity for owners and shareholders; thus, a broad range of policies is taken by management to continue to increase the value of the company. From this standpoint, investors will have an interest in analyzing the company's value because it can provide useful information regarding its future prospects in terms of profit generation (Kontesa, 2015). The research conducted by Chen et al. (2011) showed that profitability had a positive effect on firm value.

H3: Profitability has a positive effect on firm value.

2.4. The Effect of Green Accounting on the Profitability

Environmental costs originating from the financial and non-financial side are a company's responsibility as a result of its activities that have an impact on the environment. Green accounting describes a company's efforts to incorporate environmental benefits and costs into economic decision-making. Companies that have strong financial conditions will usually be subjected to more requests from external parties to disclose their social and environmental responsibilities more broadly. So the higher the level of company profitability, the greater the demand for the disclosure of environmental and social information (Rajak, 2022). Therefore, the concept of environmental management is essential because it is proven to also assist companies in developing competitive advantage and strengthening relationships with external parties which will directly impact their profitability (Budiono, Dura, 2021). When a company applies green accounting and can demonstrate good environmental performance, the impact will also be on good financial performance (Endiana et al., 2020). It was concluded that green accounting is beneficial for better environmental management. The costs incurred are used for business strategies that pay attention to the environment, more accurate production cost calculations, and find opportunities to reduce environmental costs, as well as increase profitability. The better the environmental performance, the higher the PROPER rating, and the higher the company's profitability (Budiono, Dura, 2021).

H4: Green accounting has a positive effect on profitability.

2.5. The Effect of CSR Disclosure on the Profitability

Angelia and Suryaningsih (2015) and Wibowo (2012) attested, that companies that develop and disclose corporate social responsibility in their financial reports will get a better response

and improve the company's image from the public. With increasing public trust, the level of sales and company income will increase. Thus, it has a positive impact on the company's financial performance. Ajide & Aderemi (2014) also said that CSR can increase respect for their company in the market, which can result in higher sales, increase employee loyalty and attract better personnel to the company. CSR activities also focus on sustainability issues, which can reduce costs and increase efficiency. According to Syamni et al. (2018), companies that actively carry out CSR programs can improve their financial performance. CSR is a form of company's communication by allocating its resources that have nothing relevant to its profits but give donations or contribute to the environment so that the economic perspective is incorporated with social balance and the long-term ecology of its operations (Reverte et al., 2016; Rhou et al., 2016). Research by Mohamad et al. (2014) that CSR disclosure has a positive effect on increasing company profitability.

H5: CSR disclosure has a positive effect on profitability.

2.6. The Effect of Green Accounting on Firm Value through Profitability

The competitive advantage offered by the company through environmental and social responsibility will result in a good reputation for the company. This reputation adds to consumer confidence about the company's quality because internal profit is not the only priority for the company but also environmental costs and then analyzes the impact of the costs incurred for these social interests with the aim of corporate sustainability. Astuti et al. (2022) stated that there was a relationship between green accounting and firm value through profitability. Companies that disclose environmental accounting information in their annual reports to shareholders, investors, and the public will give a positive signal for investors to invest their funds in the company, where the funds received from investors will be managed until they provide profits and add value to the company.

H6: Profitability can mediate the effect of implementing green accounting on firm value.

2.7. The Effect of CSR Disclosure on Firm Values Through Profitability

In line with stakeholder theory, stating that companies that have good relations with stakeholders, in the future they will not face problems with the community. If the company's activities are disrupted, it will have an impact on decreasing the level of prosperity of shareholders and threatening its survival. Thus, companies must prioritize stakeholders in every management decision-making because their existence greatly affects the company. Regarding the firm value, a high level of company profitability and optimal CSR disclosure will encourage companies to give positive signals to external parties to show that they have more value than others (Machmuddah dkk., 2020). The misalignment between the value system and the firm value system will have a negative effect on the company and impair its legitimacy and in the end, it will threaten its survival. Each type of company has its own characteristics that influence the level of CSR disclosure. Reverte et al. (2016) said that corporate reputation can be understood as a fundamental intangible resource that can be created or eliminated as a consequence of decisions to engage or not in social responsibility.

The good image that arises because of the company's ability to disclose CSR can bring higher profits. Thus, the company can provide higher corporate value in a position on the stock market and encourage investors to invest their capital. A high level of CSR disclosure also helps companies achieve optimal performance by increasing competitiveness, enhancing the company's public image, and creating new opportunities in the market (Faizah & Ediraras, 2021). Research conducted by Wiranudirja et al. (2022) revealed that the indirect effect of CSR through profitability would be able to increase firm value. Hence, the higher disclosure of CSR through profitability will affect the value of the company.

H7: Profitability can mediate the effect of CSR disclosure on firm value.

3. Methodology

The research population was manufacturing companies listed on the Indonesia Stock Exchange until 2021, comprising 195 companies with 975 firm-year observations. The research period was five years (2017-2021). The samples were selected using purposive sampling, with exclusion criteria as follows:

- companies listed on the IDX above 2017 (55 firm-year observations)
- companies that did not publish successive annual reports during the study period (55 firm-year observations)
- companies that did not consistently make profits during the research period (280 firm-year observations)
- companies that did not participate in the PROPER program (365 firm-year observations).

Thus, our final sample consisted of 220 firm-year observations.

The research model used is as follows:

Hypothesis 1, 2 and 3 using Model 1

$$FV = \alpha + \beta_1 GA + \beta_2 CSR D + \beta_3 PROF + \varepsilon \quad (1)$$

Hypothesis 4 and 5 using Model 2

$$PROF = \alpha + \beta_1 GA + \beta_2 CSR D + \varepsilon \quad (2)$$

Where:

FV : Firm value, measured by Price to Book Value (PBV);

GA : Green accounting, measured by PROPER level;

CSR D : Corporate Social Responsibility, measured by CSRDI (Corporate Social Responsibility Disclosure Index), proxy based on GRI (Global Reporting Initiative);

PROF : Profitability, measured by the ratio of ROE (Return on Equity);

ε : Error

A summary of the variable operational definitions are as follows:

Table 1. Variable Operational Definition

No	Variable	Variable Concept	Indicator	Sources
1	GA	Public disclosure program for environmental compliance provides assessment and evaluation of corporate image in environmental management based on PROPER rating (gold, green, blue, red, and black).	PROPER is categorized into five colours, namely: 1. Gold = score 5 2. Green = score 4 3. Blue = score 3 4. Red = score 2 5. Black = score 1	Budiono & Dura (2021)
2	CSR	Corporate responsibility activities towards stakeholders by incorporating economic, social and environmental aspects	CSRDI (<i>Corporate Social Responsibility Disclosure Index</i>) based on GRI (<i>Global Reporting Initiative</i>) indicators: economic, environmental and social	Faizah & Ediraras (2021); Felmania et al. (2014)
3	FV	Investor perception of the level of success of the company	Share price divided by the book value of the shares	Astuti et al. (2022)
4	PROF	The ratio used to assess the company's ability to make a profit	Profit after tax divided by total equity	Syamni et al. (2018)

Source: Previous research.

4. Results and Discussions

The results of the descriptive statistical test from Green Accounting (GA), Corporate Social Responsibility Disclosure (CSR), Profitability (PROF), and Firm Value (FP) for manufacturing companies on the IDX in 2017-2021 are presented in the following table.

Table 2. Descriptive Analysis Results

Variable	Minimum	Maximum	Means	Std. deviation
GA	1.00	5.00	3.2045	.9211
CSR	.28	.61	.4348	.0715
PROF	.00	2.24	.1642	.2836
FV	.00	56.79	2.6436	6.2908
N	220			

Source: Authors Calculation, 2022

Based on Table 2, GA mean value is 3.20 and the standard deviation is 0.921, which means the standard deviation is smaller than the mean value, so the level of data deviation is relatively small. Likewise, CSR has a mean value of 0.43 and the standard deviation is 0.071, which means the standard deviation, is smaller than the mean value, so the level of data deviation is relatively small. Profitability has a mean value of 0.16 and a standard deviation of 0.283, which means that the standard deviation is greater than the mean value, so the level of data deviation is relatively large. Firm value has a mean value of 2.64 and a standard deviation of 6.290, which means the standard deviation, is greater than the mean value, so the level of data deviation is relatively large.

Before testing the hypothesis, initially, the classical assumption test is performed where all tests meet the requirements of the normality test, heteroscedasticity test, multicollinearity test and correlational test. The results of regression testing of model 1 and model 2 are presented in the following table.

Table 3. Hypothesis Testing Results

Variable	Model 1			Model 2		
	B	Q	Sig.	B	Q	Sig.
(Constant)	-3.248	-1.665	.097	-207	-1.577	.116
GA	-.177	-.586	.559	.014	.671	.503
CSR	8.699*	2.190	.030	.753	2.849 *	.005
PROF	16.305*	16.278	.000			
<i>Adj. Square</i>	0.030			0.571		

* Significant at α 5%

Source: Authors Calculation, 2022

$$FV = -3.278 - 0.177GA + 8.699 CSR + 16.305 PROF + \epsilon \quad (3)$$

$$PROF = -0.207 + 0.014GA + 0.753 CSR + \epsilon \quad (4)$$

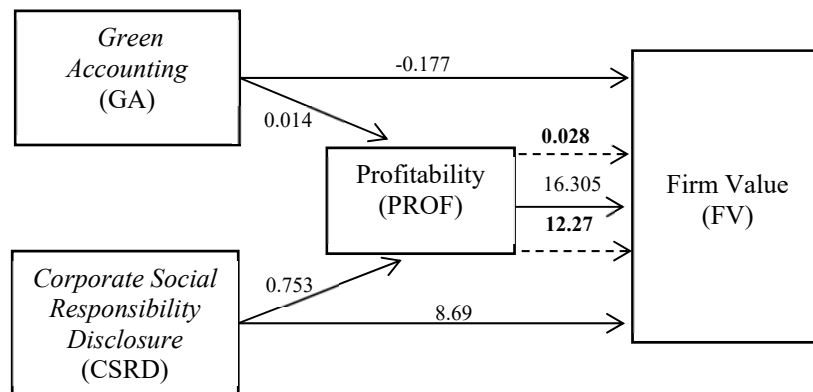
Based on the results of testing Models 1 and 2 in Table 3, it is found that GA did not affect the firm value. It proves that the imposition and disclosure of environmental costs by companies cannot convince investors or consumers in evaluating a company, so it does not affect the firm value. In addition, in general, Investors trust can indeed improve the image/reputation of society and increase the firm value, but in the Proper index assessment carried out by the Ministry of Environment, not all companies are included in the assessment category. So green accounting is not the only component in increasing firm value based on market value. The CSR positively affects the value of the company, proving that the CSR applied by the company has a good impact on increasing the firm value. This finding is in line with those of Ronald et al. (2019) and Lusiana et al. (2021). Meanwhile, PROF has a positive effect on firm value, proving that a high level of profitability will be followed by an increase in the firm value. The research results are in line with those of Chen et al. (2011).

GA did not affect profitability because companies that incorporate a cost for environmental components, i.e., operational, waste recycling, and research and development in their business processes are not the benchmarks for the consumers and investors. Environmental costs will also reduce the company's capital because the reports related to green accounting are still voluntary. The expenditure must be financed by the companies so that they prioritize their production processes to increase profits. It can be concluded that the implementation of green accounting has not been able to provide a good signal for consumers and investors even though all parties have played a role in all business processes. Next, CSR positively affects profitability, proving that the CSR carried out by the company has become part of its social responsibility activities and also costs for the company's CSR. Thus, it will eventually affect its profitability. This finding is in line with the results of a study by Reverte et al. (2016).

Path Analysis

The path analysis model is used to show the direction of the relationship between research variables that are influenced by the existence of a mediating variable. Figure 1 represents a flowchart of the path of the influence of the research variables and the magnitude of the regression coefficient resulting from the previous equation.

Figure 1. Path Analysis



Source: Authors Calculation, 2022.

Sobel Test

The effect of the mediating variable (profitability) was determined using the *Sobel test*. Based on Table 4, it is found that the indirect effect of GA on the firm value through profitability is $0.693 < 1.96$ with a significance level (α) of $0.244 > 0.05$. It means that profitability is not able to mediate the effect of green accounting on the firm value. It shows that there will be an impact on profitability towards green accounting and also the value of the company, indicating that the green accounting provided by the company has not gone well.

Table 4. Sobel Test Results

Indirect effect	Z Sobel	Information	
GA => PROF => FV	0.028	0.693	Z Sobel; < 1.96: indirect effect – not significant
CSR => PROF => FV	12.277	0.514	Z Sobel; < 1.96: indirect effect – not significant

Source: Authors Calculation, 2022.

The indirect effect of CSR on the firm value through profitability is $0.514 < 1.96$, with a significance level (α) of $0.303 > 0.05$, which means that profitability is not able to mediate the effect of CSR disclosure on the firm value. It shows that there will be an impact on the profitability of CSR disclosure and also the company’s value, indicating that the CSR disclosure carried out by the company has not gone well.

5. Conclusion

Based on the results and previous discussions, it can be concluded that green accounting does not affect the firm value or profitability. Even though green accounting is part of non-financial information that allows it to help improve the company's reputation, it has not been evenly used by all companies; thus, its impact on financial performance and the firm value is not obvious. Instead, it is still not the case if the priority of the program is to increase the company's profits and firm value. CSR disclosure has a positive effect on firm value and profitability. The stakeholders require information not only related to how much the direct benefits of business activities, but also on how much the company contributes to society. By exhibiting social concern through social disclosure, a company will obtain positive feedback because of the level of public trust, in this case from the consumers. The higher the value of trust, the more income a company will earn, especially profits, and ultimately increase its value.

Profitability has a positive effect on the firm value. Increased profits from company capital can be directly used for business development. Information on company profits is good news so that when financial performance improves from time to time, investors will not hesitate to reinvest capital in the company. Furthermore, profitability is unable to mediate the effect of green accounting or CSR disclosure on the firm value. This is likely to occur because the goals and systems of the company are not in line with the social programs they carry out. The company still considers spending on social activities to be high and not directly related to economic goals, so it does not put it too much priority. Therefore, the focus is only on carrying out the demands from stakeholders. Yet, it is not incorporated with the company's objectives from operational activities. Thus, it does not provide value through the company's financial performance.

The limitation of this study is that it only analyzes the effect of social activities on manufacturing companies, not seen as a whole from all sectors so the results cannot be generalized for all types of industries. The proxy used for profitability also only uses return on equity (ROE) even though other researchers measure profit more from total assets. Therefore, future studies are expected to use different methods to provide different results.

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FACTOR AFFECTING WORKPLACE SPIRITUALITY, JOB SATISFACTION, AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR: EVIDENCE FROM INDONESIA⁵

This study aims to investigate the process of building organizational citizenship behavior among employees in the marine transportation business in Indonesia. This study also uses workplace spirituality and job satisfaction as mediators to understand the process of the influence of organizational justice on organizational citizenship behavior. This research uses a causal research type using a quantitative approach. The study's sample and population are workers in the marine transportation sector. The study's sample size was adapted to the structural equation modelling (SEM) that was applied. Data gathering procedures employed interviews and confidentially lists in questionnaires to evaluate the seven hypotheses proposed in this study, while data analysis techniques used Partial Least Square (SmartPLS). According to the study's findings, job satisfaction, workplace spirituality, and organizational justice favour organizational citizenship behavior. Organizational justice influences organizational citizenship behavior by mediating job satisfaction, workplace spirituality, and both. The implications of this study's findings, which also reveal the mediating roles of job satisfaction and workplace spirituality, can assist organizations in developing plans to enhance organizational justice and Organizational Citizenship Behavior.

Keywords: Organizational Justice; Organization Citizenship Behavior; Job Satisfaction; Workplace Spirituality

JEL: D23; O15; L91; J28

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1. Introduction

Generally, every company tries to achieve its goals and objectives following what is determined (Islami et al., 2018). This can be done well by the great people at the company. In every company, employees are the most crucial resource in operations, individually and collectively, and the main driver for the smooth running of an organization's activities (Hanaysha, 2016). The organization will be good if employees have an attitude of mutual empathy, cooperation, and mutual help (Yin et al., 2021).

In the new management science, this is called Organizational Citizenship Behavior (OCB) which means volunteering or helping others. OCB is something important, whereas OCB is a voluntary attitude toward the organization and fellow employees who help each other at work. Organizational citizenship behavior is also positive. Positive behavior is demonstrated in the eagerness to work and contribute to the organization. OCB is defined by members' loyalty, love, and sense of belonging (Jufrizen et al., 2020).

One factor that affects OCB is organizational justice, a perspective on how reasonably employees think their employers treat them. If employees believe they are not treated fairly in decision-making and promotions and are subjected to unfair or racially discriminatory treatment, they may be dissatisfied with their occupations. Organizational justice is how employees perceive that they are treated fairly within the organization, influencing their loyalty and satisfaction (Yean & Yusof, 2016). Research by Kim & Chung (2019) proves that there is a form of organizational justice that employees perceive to encourage employees to form OCB.

With this, organizational justice is expected to form OCB. However, there are times when organizational justice will also be easier to create an OCB if there is Job Satisfaction in employees. Job satisfaction is employees' (favourable) attitude toward their employment and results from an evaluation of the workplace. Employees who are content at work will voluntarily go above and beyond the call of duty to complete their assigned tasks. Research by Mujiatun et al. (2019) shows that job satisfaction is an emotional reaction to working conditions, often decided by how well results meet or exceed expectations. Research by Idris et al. (2021) asserts that job satisfaction improves OCB.

Besides job satisfaction, organizational justice can shape OCB if workplace spirituality exists, namely the feeling of comfortable working and inner life. Workplace spirituality is the self-awareness of an employee's inner life, which includes the experience of a sense of meaning and purpose at work, as well as a sense of connection with co-workers and their community, as well as the spiritual health of people in the working environments under investigation (Rathee & Rajain, 2020). Research by Hasibuan & Wahyuni (2022), Ahmadi et al. (2014), Dong & Phuong (2018), and Fanggidae et al. (2016) states that workplace spirituality affects job satisfaction and OCB.

Employees will experience this if they connect successfully, build inner life and mutual awareness, and perform meaningful work for the organization to accomplish organizational goals effectively and efficiently since it is done collaboratively and fosters the development of human resources. Employees will consequently perceive a spiritual culture within the organization.

Thus, the organizational citizenship behavior is influenced by organizational justice, workplace spirituality, and job satisfaction ((Rahman & Karim, 2022; Karupaiah & Idris, 2022; Hasibuan & Wahyuni, 2022). Previous studies have emphasized work engagement (Sridadi et al., 2022), LMX (Runhaar et al., 2013; Fisk & Friesen, 2012), person-job fit (Kaur & Kang, 2021), and organizational commitment (Na-Nan et al., 2020). However, more research is required to determine the effect of organizational justice, workplace spirituality, and job satisfaction on OCB in the marine transportation industry.

2. Literature Review

2.1. Organizational Citizenship Behavior

Organisational Citizenship Behavior (OCB) is defined as employee conduct that goes beyond the minimum standards of formal employment but is not instantly and publicly acknowledged by the official/formal compensation/reward system, hence promoting the organization's smooth operation (Organ, 2009). OCB is an employee action that goes above and beyond the company's rules and benefits the organization but is invisible to co-workers or the firm (Klotz et al., 2018). Many academics are intrigued by the relatively recent management concept of OCB. Most of this research demonstrates that OCB significantly affects the organization's productivity, organizational competency, and effectiveness in attaining objectives and raising employee engagement (Tefera, Hunsaker, 2020).

OCB is frequently interpreted as behavior that goes above and beyond formal commitments (additional roles) unrelated to direct payment (Firmansyah et al., 2022). In other words, a person with a high OCB does not receive a salary or special bonuses. OCB refers to each person's social behavior to do more work than expected, such as assisting colleagues on a volunteer day (Bergeron, 2007).

2.2. Organizational Justice

Organizational justice is the extent to which an individual is regarded relatively or reasonably. Superiors provide employees with the same decision-making, salary, and attitude-behavior opportunities as other employees. Instead, organizational justice refers to individual evaluations of the treatment of organizational employees about reasonable efforts to achieve results, including whether or not the process of achieving those results is done fairly, as well as how they treat people. Its employees (Folger & Greenberg, 2001). Organizational justice can also be viewed as procedural justice, which refers to individuals' perceptions of fairness concerning the rules and procedures governing their work processes (Yean & Yusof, 2016). Organizational justice refers to how fairly the organization treats its employees. Most existing research indicates that three distinct forms of organizational justice drive outcomes and the processes that lead to those outcomes. Organizational justice comes in three different forms: interactional justice, distributive justice, and procedural justice. (Hosmer & Kiewitz, 2005).

Justice in the organizational context is an activity phenomenon that depends on each individual's perception. Judgments made from each individual's perception are then remembered and applied when forming attitudes at work. Employees who feel justice in the organization can be characterized by loyalty and supporting the organization (Jackson, 2019).

Research conducted by Ince & Gul (2011) demonstrates a link between perceptions of organizational justice and OCB. If employees have a strong understanding of justice organizations, they will behave well and pay attention to their jobs. The above can be supported by previous research conducted by Rahman & Karim (2022)(Rahman & Karim, 2022), Jafari & Bidarian (2012), and Wang (2011), which shows that organizational justice affects OCB.

Research by Sadaghiani et al. (2012) stated that Organizational Justice has a substantial and favourable effect on workplace spirituality. This indicates that if employees' perceptions of organizational justice improve, so will their workplace spirituality. From the standpoint of workplace spirituality, the ideals inherent in organizational justice are easily recognized by the public, and organizational justice is easy to build a harmonious relationship, which is favourable to boosting employees' sense of community. Furthermore, personal values are quickly fulfilled and recognized in a fair organizational climate, giving individuals a greater sense of purposeful work (Ke et al., 2021). The above can be supported by previous research conducted by Ke et al. (2021); Sadaghiani et al. (2012); Asdiki & Isyandi (2016); Rajablou et al. (2014) which shows that organizational justice affects Workplace Spirituality.

If the company provides fair wages to its employees or the following imbalance is provided, the employees will be satisfied and feel satisfied with their company. They will also feel satisfied if the company allows them to grow in their workplace. (Akram et al., 2020). Zainalipour et al. (2010) also found a positive effect of organizational justice on job satisfaction. Research shows that organizational justice increases job satisfaction (Jufrizen & Kanditha, 2021; Tran, 2020; Ghnan et al., 2019; Juarsah et al., 2019).

Organizational justice consists of distributive justice, interactional justice, and procedural justice. These components affect employees' perceptions of how fairly the company treats them. These components also influence the attitudes and behavior of employees toward the way they interact with the company (Asdiki & Isyandi, 2016). Previous research by Amelia et al. (2021), Hidayah & Harnoto (2018), and Akram et al. (2020) shows that organizational justice affects OCB through workplace spirituality. Several additional studies were carried out by Ke et al. (2021); Rosid et al. (2020), which show that organizational justice positively affects job satisfaction through workplace spirituality.

Organizational justice can provide job satisfaction, impacting attitudes and behavior toward OCB (Asdiki & Isyandi, 2016). Previous research by (Amelia et al., 2021), Hidayah & Harnoto (2018); Akram et al. (2020); Ke et al. (2021); and Rosid et al. (2020) shows that workplace spirituality and job satisfaction mediate the relationship between organizational justice and OCB. The hypothesis can be formulated as follows:

H1: Organizational Justice Affects Organizational Citizenship Behavior

H2: Organizational Justice Affects Workplace Spirituality

H3: Organizational Justice Affects job satisfaction

H7: Organizational Justice Affects Organizational Citizenship Behavior Through Job Satisfaction

H8: Organizational Justice Affects Organizational Citizenship Behavior Through Workplace Spirituality

H9: Organizational Justice Affects Job Satisfaction Through Workplace Spirituality

H11: Organizational Justice Affects Organizational Citizenship Behavior through Workplace Spirituality and Job Satisfaction

2.3. Job Satisfaction

Job satisfaction is subjective because everyone's contentment varies according to their value system. Job satisfaction assesses a person's joy, annoyance, contentment, or discontent at work. Employee work satisfaction is a phenomenon that managers must keep an eye on. Employee performance and job satisfaction are inextricably linked (Nazah et al., 2021). A satisfied person is motivated, committed to the organization, and works hard, which increases his performance (Davidescu et al., 2020).

Someone satisfied with his work will be willing to undertake more things outside of his regular responsibilities. As a result, OCB is used to describe this propensity. Job satisfaction influences OCB. Thus happier workers will exhibit more civic responsibility (Foote & Tang, 2008). Job Satisfaction has a beneficial and sizable influence on OCB. This shows that Job Satisfaction dramatically determines the level of OCB of employees. The higher the Job Satisfaction, the higher the potential for OCB to be created (Saxena et al., 2019). Previously done studies support the aforementioned by Na-Nan et al. (2020); Zeinabadi (2010); Idris et al. (2021), which show that Job satisfaction has a favorable impact on OCB. These relationships are used to create the following hypothesis:

H5: Job Satisfaction Affects Organizational Citizenship Behavior

2.4. Workplace Spirituality

In the opinion of Ashmos & Duchon (2000), it is stated that Workplace spirituality means seeing the workplace as a place explored by intelligent (mind) and passionate people who believe that developing the soul is as important as developing the mind. Workplace spirituality also involves trying to match beliefs with organizational values.

Spirituality in the workplace is an employee's spiritual experience at work (Lata & Chaudhary, 2022). This will result in contented employees who go above and beyond their responsibilities (job description) at work. Workplace Spirituality can be interpreted as a workplace that is a gathering place for people who have unity of thought and enthusiasm and believe that increased enthusiasm is the essence of increasing a thought (Dubey et al., 2022). Workplace Spirituality is a form of consistency or alignment of an individual (employee) in

following the values and norms that apply to certain beliefs without ignoring other aspects in realizing organizational goals (Ahmed et al., 2022).

According to the findings of the prior investigation conducted by Jalil et al. (2021), workplace spirituality positively influences OCB and performance. The same thing follows the research results (Kazempour et al., 2012). OCB is a person's contribution to exceeding their job requirements and is rewarded through the acquisition of task performance. Meanwhile, the results of previous research conducted by Jufrizen et al. (2019) concluded that Workplace Spirituality positively and significantly affects OCB. The above can be supported by previous research conducted by (Utami et al., 2021) (Jufrizen et al., 2019), and (Belwalkar et al., 2018), which shows that workplace spirituality affects OCB.

Empirical facts show that spirituality in the workplace creates a new company culture that makes employees happy and attractive (Alas & Mousa, 2016). The importance of management in creating spirituality in the workplace is one of the reasons that this will encourage creativity and increase competitiveness (Gull & Doh, 2004). Workplace spirituality can increase job satisfaction. Several important things that must be considered in Workplace Spirituality include meaningful work indicators and alignment with organizational and community values. Thus, companies can increase Job Satisfaction through Workplace Spirituality, meaning that spirituality significantly affects Job Satisfaction (Hasibuan & Wahyuni, 2022). The above can be supported by previous research conducted by Walt & Klerk (2014), Ghnan et al. (2019), and Gupta et al. (2014), which shows that workplace spirituality has a positive effect on job satisfaction.

OCB is closely related to satisfaction but through the perception of a sense of justice (Aziri, 2011). Job satisfaction is the primary determinant of OCB (Tulung et al., 2020). Workplace Spirituality is the organizational culture in the environment where work prioritizes the inner life of its employees and a place for a group of people who have a unity of spirit and thought and have a feeling of belonging (togetherness) in the organization's scope.

According to Asdiki & Isyandi (2016), the test results show that the effect of Job Satisfaction on OCB through work spirituality is significant. This result must be distinct from one's work satisfaction and incorporate spiritual work elements in daily experience. Job satisfaction influences OCB. However, it does not coincide with Workplace Spirituality, where Workplace Spirituality will affect Organizational Citizenship Behavior (OCB) after the organization has a sense of satisfaction and comfort. The above can be supported by previous research conducted by Iram et al. (2021); Dubey et al. (2022); Belwalkar et al. (2018); Hasibuan & Wahyuni (2022), which shows that Organizational justice on OCB through job satisfaction. These relationships are used to create the following hypothesis:

H4: Workplace Spirituality Affects Organizational Citizenship Behavior

H6: Workplace Spirituality Affects Job Satisfaction

H10: Workplace Spirituality Affects Organizational Citizenship Behavior Through Job Satisfaction

Figure 1 depicts the research framework.

Figure 1. Conceptual Framework



3. Methodology

These types of studies are survey types because they sample a single population. This study falls under the category of quantitative causal research. So, the population is the entire object of research in which several objects are used as data sources. Sampling was carried out by purposive sampling (judgmental) and snowball sampling methods. The sample selection criteria in this study were those who had worked at State-Owned Maritime Enterprises in Indonesia for at least one year.

The structural equation modelling (SEM) analytical model determined this study's sample size. SEM employing the Maximum Likelihood estimate (MLE) model requires 100-200 samples (Hair Jr et al., 2016). Therefore, 200 Indonesian Maritime State-Owned Enterprises employees constituted this investigation's sample.

This study utilizes four variables: organizational justice, workplace spirituality, job satisfaction, and organizational citizenship behavior. The independent variable is organizational justice, the mediating variables are workplace spirituality and job satisfaction, and the dependent variable is organizational citizenship behavior. Justice organization is measured using eight questions (Hermanto & Srimulyani, 2022), such as "My income is sufficient based on my expertise." Workplace spirituality was measured using a 9-item questionnaire from (Nöhammer, 2023), such as "I believe there is a connection between work and social good" Employee job satisfaction is measured using a 10-item questionnaire (Luthans, 2011), such as "I feel satisfied with my current job because it is following my last education." Finally, OCB is measured using a 10-item questionnaire adapted from (Yildirim, 2014), such as "I am willing to help colleagues who are busy (work overload)." A five-point Likert scale was used to obtain participant ratings (strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). The measurement of these variables involves a model reflective indicator. We found a correlation or causation between the variables involved in this study using analysis techniques with SEM-PLS (Structural Equation Modeling—Part

Least Square). The SEM is used to cover the weaknesses in the regression model, using theoretical mathematical models that can explain phenomena that can be analyzed. SmartPLS 4 is the software utilized.

4. Data Analysis and Results

The respondents' demographic profile showed that men comprised the majority of respondents (59.06 percent, or n = 106) compared to women (47 percent, or n = 94). The majority of respondents were under the age of 40 (42, or n = 84), while only 33 respondents (16.50 percent) were under 30 years old. Interestingly, we observed many respondents who were still in their productive age, aged 31–50 years. Similarly, 52 percent (n = 104) of employees have a bachelor's degree. Furthermore, most employees have a merit status of 68.50 percent (n=137). (Table 1)

Table 1. Demographic Respondents

No.	Characteristics	Description	Frequency	%
1	Gender	Man	106	53.00
		Woman	94	47.00
		Total	200	100
2	Age	< 30 Years	33	16.50
		30-40 Years	83	41.50
		> 40 Years	84	42.00
		Total	200	100
3	Education	High school	17	8.50
		Diploma	35	17.50
		Bachelor	104	52.00
		Masters	44	22.00
		Total	200	100
4.	Marital status	Not Married	63	31.50
		Married	137	68.50
		Total	200	100

4.1. Outer Model Analysis

Construct validity and reliability is a test that determines a construct's reliability. The construction sites must have an adequate level of dependability. > 0.60 is the composite's reliability criterion (Hair Jr et al., 2016).

Table 2. Measurement of Validity and Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Job Satisfaction	0.944	0.945	0.952	0.666
OCB	0.960	0.961	0.965	0.736
Organizational Justice	0.909	0.922	0.925	0.583
Workplace Spirituality	0.897	0.916	0.911	0.534

Table 2 shows the results of measuring the validity and reliability of the research variables consisting of Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). Average Variance Extracted (AVE) with a value > 0.5. Thus, all the controls in this study have met the value of good validity and reliability.

Further examination for cross-loading reveals that each item loaded more heavily on its particular constructions than on any other constructs. Meanwhile, for the HTMT technique, the value fulfilled the acceptable value of HTMT 0.85 (Kline, 2015) and HTMT 0.90 (Hair Jr et al., 2016). The confidence interval bias for the causal path also showed that 0 did not straddle between a 5% and 95% confidence level and did not exceed the value of 1, suggesting all values were statistically significant. Hence, the results indicated that they had met the discriminant validity. The results of the study's discriminant analysis are shown in Table 3.

Table 3. Item Loading and Cross Loading

	Job Satisfaction	OCB	Organizational Justice	Workplace Spirituality
JS1	0.788	0.632	0.719	0.594
JS10	0.802	0.754	0.717	0.696
JS2	0.822	0.714	0.783	0.655
JS3	0.850	0.648	0.606	0.698
JS4	0.822	0.668	0.617	0.654
JS5	0.854	0.729	0.686	0.682
JS6	0.853	0.652	0.608	0.700
JS7	0.785	0.633	0.598	0.625
JS8	0.795	0.630	0.579	0.643
JS9	0.786	0.734	0.709	0.690
OJ1	0.717	0.608	0.724	0.616
OJ2	0.759	0.650	0.764	0.628
OJ3	0.391	0.436	0.675	0.557
OJ4	0.368	0.424	0.599	0.590
OJ5	0.432	0.462	0.674	0.614
OJ6	0.706	0.825	0.867	0.718
OJ7	0.661	0.818	0.841	0.726
OJ8	0.680	0.805	0.848	0.677
OJ9	0.657	0.814	0.832	0.657
OCB1	0.746	0.865	0.741	0.815
OCB10	0.735	0.869	0.732	0.761
OCB2	0.736	0.856	0.714	0.772
OCB3	0.686	0.826	0.694	0.652
OCB4	0.655	0.833	0.724	0.643
OCB5	0.733	0.867	0.796	0.755
OCB6	0.707	0.870	0.791	0.782
OCB7	0.739	0.874	0.787	0.735
OCB8	0.744	0.852	0.757	0.707
OCB9	0.684	0.868	0.775	0.694
WS1	0.746	0.765	0.741	0.815
WS2	0.731	0.758	0.744	0.819
WS3	0.441	0.326	0.381	0.675
WS4	0.707	0.704	0.727	0.757
WS5	0.683	0.703	0.736	0.766
WS6	0.408	0.317	0.460	0.670
WS7	0.446	0.388	0.507	0.697
WS8	0.444	0.361	0.453	0.654
WS9	0.495	0.419	0.523	0.702

The information in the previous table shows that each indicator of the variable under study has a more considerable cross-loading value for the variables it produces than the others. The findings show that the variables utilized in this study's indicators have high discriminant validity.

Table 4. HTMT Criterion

	Job Satisfaction	OCB	Organizational Justice
Job Satisfaction			
OCB	0.874		
Organizational Justice	0.855	0.912	
Workplace Spirituality	0.831	0.825	0.891

The results in Tables 2, 3, and 4 demonstrate that the measures for all four constructs (job satisfaction, OCB, organizational justice, and workplace spirituality) validity measured their respective constructs based on their parameter estimates and statistical significance. All the results met the criterion of the acceptable value of validity and reliability tests. Next, the researcher proceeded to examine the structural model.

The measurement model results showed that the data fulfilled all the constructs' reliability and validity. The model was initially offered to improve understanding of the proposed model during the confirmatory factor analysis (Hair Jr et al., 2016).

Collinearity Issues

Before evaluating the structural model, the researcher calculated the collinearity because each endogenous latent variable's regressions on the relevant antecedent constructs are generated using ordinary least squares (OLS), a method for estimating path coefficients in structural models (Hair Jr et al., 2016). Additionally, if significant collinearity exists between the predictor constructs during estimation, the path values in multiple regressions may also be skewed (Hair Jr et al., 2016). The Variable Inflation Factor (VIF) is another way to test collinearity. The researcher also looked at the VIF values of each predictor construct in the structural model to assess for collinearity. The collinearity between is free from inheritance if the VIF's value is less than 5 (Hair Jr et al., 2016).

Table 5. Inner VIF Values

	Job Satisfaction	OCB	Workplace Spirituality
Job Satisfaction		3.592	
OCB			
Organizational Justice	3.424	4.135	1.000
Workplace Spirituality	3.424	4.120	

The indicators in Table 5 do not exhibit multicollinearity because their VIF values are less than 5. Therefore, there is no overall multicollinearity between organizational justice variables and OCB as measured by workplace spirituality and job satisfaction.

4.2. Inner Model Analysis

Coefficient of Determination (R^2 value)

The structural model coefficient of determination represents the proportion of endogenous constructs' Variance that can be attributed to the exogenous constructs connected to them (Hair et al., 2017). The researcher measured the R^2 value based on the squared correlation between an actual and predicted value of an endogenous (Hair Jr et al., 2016). The R^2 value ranges from 0 to 1; a higher score represents greater predictive accuracy (Hair Jr et al., 2016). Hence, an endogenous latent variable's R^2 values of 0.75, 0.50, and 0.25 are associated with strong, moderate, and weak, respectively (Hair Jr et al., 2016).

Table 6. Result of Coefficient of Determination (R^2 value)

	R Square	Adjusted R Square	Result
Job Satisfaction	0.722	0.719	Moderate
OCB	0.832	0.830	Strong
Workplace Spirituality	0.708	0.706	Moderate

As shown in Table 6, construct job satisfaction, organizational justice, and workplace spirituality explained 83,2% of the endogenous construct' OCB ($R^2 = 0.832$). So, according to the rule of thumb, the R^2 values for both OCB ($0.832 > 0.75$) can be considered strong. The construct organizational justice and workplace spirituality explained 72.2% of the endogenous construct' OCB ($R^2 = 0.722$). So, according to the rule of thumb, the R^2 values for both job satisfaction (0.722) can be considered moderate, and construct organizational justice explained 70.8% of the endogenous construct' OCB ($R^2 = 0.708$). So, according to the rule of thumb, the R^2 values for both workplace spirituality (0.708) can be considered moderate.

Effect Size (f^2)

Noteworthy is the determination of the path's relevance and the extent to which it can modify the explanatory power of the endogenous construct (Cohen, 1988). The researcher employed Cohen f^2 (Cohen, 1988) to determine the effect size because the route coefficient cannot reveal any details regarding the magnitude of the impact of the exogenous latent variables on the endogenous construct.

$$f^2 = \frac{R^2 \text{ Included} - R^2 \text{ Excluded}}{1 - R^2 \text{ Included}}$$

According to Cohen (1988), the value f^2 represents the level of effectiveness of the exogenous on the endogenous constructs; minor effects (0.02), medium effects (0.15), and significant effects (0.35). Meanwhile, values of less than 0.02 denote no effect size. Table 7 shows the ratings for each relationship's effect magnitude and value.

Table 7. Result of Effect Size f^2

	OCB	Result	Job Satisfaction	Result	Workplace Spirituality	Result
Job Satisfaction	0.104	Small effect				
Organizational justice	0.263	Large effect	0.208	Large effect	2.424	Large effect
workplace spirituality	0.123	Small effect	0.203	Large effect		

The results indicated that organizational justice had a significant effect size (f^2) on workplace spirituality, with a value of 2.424. while organization justice, with a value of 0.208, and workplace spirituality, with a value of 0.203, also had a medium effect size (f^2) on job satisfaction. Meanwhile, the rest of the variables had a small effect size (job satisfaction=0.104; workplace spirituality=0.123) also had a small effect size (f^2) on OCB, so organization justice with the value of 0.263 had a medium effect size (f^2) on OCB.

Predictive Relevance (Q^2)

The researchers measured the model's predictive relevance (Q^2) after determining the effect size (f^2) values to compute the model's predictive power. Hair Jr et al. (2016) claim that Q^2 evaluates the model's parameter estimates and built-around values. The researcher computed Q^2 by using the blindfolding procedures of PLS, in which it attained the estimated results from variable scores. Additionally, the researcher obtained the variable scores from the cross-validated redundancy scores. The extracted cross-validation results reveal the endogenous constructs' prediction and the model's quality. According to Hair Jr et al. (2016), $Q^2 > 0$ in a reflective endogenous variable signifies the model's predictive significance, whereas $Q^2 < 0$ denotes the model's lack of predictive ability.

Table 8. Constructs' Cross-Validated Redundancy Values

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Job Satisfaction	2000.000	1059.654	0.470
OCB	2000.000	791.176	0.604
Organizational Justice	1800.000	1800.000	
Workplace Spirituality	1800.000	1169.017	0.351

As indicated in Table 5, it can be seen that the model had a predictive relevance of 0.470 for job satisfaction, 0.604 for OCB, and 0.351 for workplace spirituality. According to the results, the Q^2 values of both endogenous constructs were significantly greater than zero. Consequently, the model had outstanding predictive validity.

Effect Size Q^2

The size of the effect Q^2 is the relative influence of predictive relevance, and it is defined as follows: $q^2 = (1 - Q^2 \text{ included}) / (1 - Q^2 \text{ omitted})$. Values of 0.02, 0.1, and 0.35 indicate that

the construct has small, moderate, or large predictive relevance for the endogenous construct. Because the SmartPLS program does not provide the Q^2 value, it must be calculated manually. As a result, the Q^2 value of OCB will be erased, and the model will be re-estimated. After Organizational Justice was deleted and the model was re-estimated, the Q^2 of OCB from 0.604 to 0.576 is shown in Table 6. Those two values were the input for computing the q^2 effect size of Organizational Justice to OCB.

Table 9. Constructs' Cross validated Redundancy Values

Constructs	SSO	SSE	q^2	Decisions	q^2 Job Satisfaction	Decisions
Job Satisfaction	200	1060	0.02525	Small effect size		
Organizational Justice	1800	1800	0.06313	Small effect size	0.05849	Small effect size
Workplace Spirituality	1800	1169	0.02273	Small effect size	0.06038	Small effect size

As indicated in Table 9, all effect sizes had minor predictive relevance.

4.3. Direct and Indirect Effects

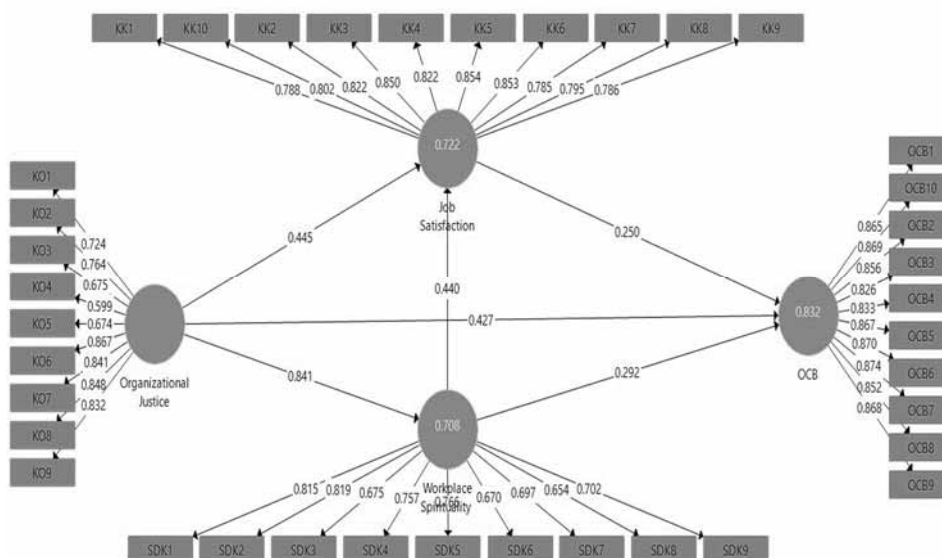
Direct effect analysis aims to assess the direct effect hypothesis of an exogenous variable on an endogenous variable (Juliandi, 2018).

Table 10. Direct Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T/Statistics (O/STDEV)	P Values
Direct Effect					
Job Satisfaction -> OCB	0.250	0.240	0.078	3.197	0.001
Organizational Justice -> Job Satisfaction	0.445	0.450	0.076	5.868	0.000
Organizational justice -> OCB	0.427	0.430	0.077	5.553	0.000
Organizational Justice -> Workplace Spirituality	0.841	0.842	0.025	33.478	0.000
Workplace Spirituality -> Job Satisfaction	0.440	0.435	0.080	5.495	0.000
Workplace Spirituality -> OCB	0.292	0.299	0.066	4.398	0.000

Based on Tables 10 and 11, the calculation of the results of the hypothesis research, directly and indirectly, obtained the structural research model as shown in Figure 2.

Figure 2. Research Structural Model



The objective of testing the indirect effect hypothesis is to demonstrate that a variable may have an indirect (through an intermediary) effect on other variables.

Table 11. Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T/Statistics (O/STDEV)	P Values
Indirect Effect					
Organizational Justice -> Workplace Spirituality -> Job Satisfaction	0.370	0.365	0.064	5.775	0.000
Organizational justice -> Job Satisfaction -> OCB	0.111	0.108	0.039	2.858	0.004
Workplace Spirituality -> Job Satisfaction -> OCB	0.110	0.105	0.041	2.660	0.008
Organizational Justice -> Workplace Spirituality -> Job Satisfaction -> OCB	0.093	0.088	0.034	2.707	0.007
Organizational Justice -> Workplace Spirituality -> OCB	0.245	0.251	0.053	4.657	0.000

5. Discussions

The hypothesis test yielded a p-value of $0.000 < 0.05$ and a t-value greater than 1.96. According to the path coefficient value of 0.427, organizational justice substantially affects OCB. This shows that organizational justice is proportional to OCB. When employees are

treated fairly in decision-making and have a fair supervisor's attitude towards employees based on their religion and race, they will feel they are treated fairly in the organization and will reflect good OCB. This is consistent with the research (Nwibere, 2014) proving that organizational justice has a substantial and favourable impact on OCB. Research (Sani, 2013) also states that organizational justice affects OCB. Research conducted by Ince & Gul (2011) demonstrates an exact relationship between organizational justice and OCB. Employees with a positive sense of organizational justice act favourably to support organizational development and focus on their jobs. Sportsmanship and helpfulness are OCB characteristics with the most negligible impact on excellent judgments of justice, the most determined justice. The acronym OCB stands for distributive justice. The above can be supported by previous research conducted by Rahman & Karim (2022), Rahman & Karim (2022), Jafari & Bidarian (2012), and Wang (2011), which shows that organizational justice affects OCB.

The results of hypothesis testing revealed a p-value of $0.000 < 0.05$ and a t-value of $33.478 > 1.96$; this indicates that organizational justice significantly impacts workplace religiosity, as indicated by a path coefficient value of 0.841. This indicates that workplace spirituality improves as organizational justice improves. When employees are treated reasonably in decision-making, and the attitude of superiors is fair towards subordinates who do not discriminate based on religion or race, employees believe they are treated fairly in the organization, thereby fostering a sense of belonging (Ke et al., 2021). The aforementioned is substantiated by research conducted by Ke et al. (2021); Sadaghiani et al. (2012); Asdiki & Isyandi (2016); Rajablou et al. (2014), which shows that organizational justice affects Workplace Spirituality.

The hypothesis testing results obtained a p-value of $0.000 < 0.05$, and the t-value was $5.868 > 1.96$. This indicates that Organizational Justice significantly affects job satisfaction, as indicated by the path coefficient of 0.44. This indicates that employee job satisfaction will increase as organizational justice improves. Suppose employees are treated fairly in decision-making, and superiors behave reasonably towards subordinates who do not discriminate against one another's religion and race. In that case, employees believe they are treated fairly and are satisfied with their superiors and the organization. This also affects co-workers, who will feel equal and contribute to a sense of satisfaction with a performance, which will increase the output of employees with a loyal attitude. This is consistent with studies conducted by Kim & Chung (2019) concluded that organizational justice impacts Job Satisfaction. This research confirms previous findings that organizational justice has a positive and significant impact on job satisfaction (Jufrizen & Kanditha, 2021; Tran, 2020; Ghnan et al., 2019; Juarsah et al., 2019).

The hypothesis testing results obtained a p-value of $0.000 < 0.05$, and the t-value was $4.398 > 1.96$. Workplace spirituality significantly affects Organization Citizenship Behavior, indicated by a path coefficient value of 0.292. This shows that the better the workplace spirituality, the better the employee's OCB behavior. The higher the spirituality in the workplace, the higher the level of OCB Spirituality in the workplace can be interpreted as a gathering place for people who have unity of thought and enthusiasm and believe that increased enthusiasm is the essence of increasing a thought. The better employees can be enthusiastic in their work, the better individual ideas or thoughts will be and can encourage the achievement of company goals. Workplace spirituality is the understanding that

employees must maintain an inner existence to accomplish meaningful work for the firm. This investigation yielded findings consistent with previous research by Jufrizen et al. (2019) concluded that workplace spirituality significantly and favourably impacts OCB. The above can be supported by previous research conducted by Utami et al. (2021); Belwalkar et al. (2018), which shows that workplace spirituality affects OCB.

The hypothesis testing results obtained a p-value of $0.001 < 0.05$, and the t-value was $3.197 > 1.96$. This means job satisfaction significantly affects OCB, as the path coefficient value of 0.250 indicates. This demonstrates that an employee's OCB improves with job satisfaction. With high job satisfaction, OCB will be higher where employees are satisfied with what they receive, and the leadership responds well to work results; employees will be more aware of collaborating with their co-workers to get the job done. This investigation's findings are consistent with those of prior studies by Dewi & Sudibya (2016) and Rahman (2014), which discovered that job satisfaction influences OCB positively. The above can be supported by previous research conducted by Na-Nan et al. (2020); Zeinabadi (2010); Idris et al. (2021), which shows that job satisfaction affects OCB.

The hypothesis testing results obtained a p-value of $0.000 < 0.05$, and the t-value was $5.495 > 1.96$. A path coefficient value of 0.440 shows that workplace spirituality strongly affects job satisfaction. This shows that the degree of job satisfaction among employees increases with the level of spirituality in the workplace. The stronger the employee's ability to discover genuine purpose at work, the more likely it is that they will be content with their feelings. The above can be supported by previous research conducted by Walt & Klerk (2014), Ghnan et al. (2019), and Gupta et al. (2014), which shows that workplace spirituality has a positive effect on job satisfaction.

The hypothesis testing results obtained a p-value of $0.004 < 0.05$, and the t-value was $2.858 > 1.96$. This means that Organizational Justice significantly affects OCB through Job satisfaction, indicated by a path coefficient value of 0.111. This shows that the better the organizational justice, the better employee job satisfaction will be, and thus the better employee OCB will be. When employees are treated fairly in decision-making, and the attitude of superiors behaves reasonably towards subordinates who do not discriminate between religions and races with one another, then employees feel that they are treated fairly in the organization. Employees feel satisfied with their superiors and the organization. This also impacts fellow employees, who will feel equal and create a sense of satisfaction. Thus, employees will work more voluntarily and cooperate with fellow employees. The aforementioned is supported by research conducted by Sunaris et al. (2022); Dearsi & Ratnawati (2021), which shows that organizational justice affects OCB through job satisfaction.

The hypothesis testing results obtained a p-value of $0.000 < 0.05$ and a t-value of $4.657 > 1.96$. This suggests that, as evidenced by a route coefficient value of 0.245, Organizational Justice considerably affects OCB through workplace spirituality. This demonstrates that the higher the organizational justice, the higher the employee's workplace spirituality and, as a result, the higher the employee's OCB conduct. When employees are treated fairly in decision-making, and the attitude of superiors behaves reasonably towards subordinates who do not discriminate between religions and races with each other, then employees feel they

are treated fairly in the organization, so employees will feel they own the company. Thus employees will work more efficiently. Volunteer and cooperate with fellow employees. The aforementioned is substantiated by research conducted by Amelia et al. (2021), Hidayah & Harnoto (2018), and Akram et al. (2020), which shows that organizational justice affects OCB through workplace spirituality.

The hypothesis testing results obtained a p-value of $0.000 < 0.05$, and the t-value was $5.775 > 1.96$. This means that Organizational Justice significantly affects job satisfaction through workplace spirituality, as indicated by a path coefficient value of 0.370. This shows that the better the organizational justice, the better the spiritual work of the employees, and thus the better the employee's job satisfaction. When employees are treated fairly in decision-making, and the attitude of superiors behaves reasonably towards subordinates who do not discriminate between religions and races with each other, then employees feel they are treated fairly in the organization so that employees will feel they belong to the company. Thus employees will feel satisfied with what they receive and feel in the company environment. The above can be supported by previous research conducted by Ke et al. (2021); Rosid et al. (2020), which shows that Organizational justice positively affects job satisfaction through workplace spirituality.

The hypothesis testing results obtained a p-value of $0.008 < 0.05$, and the t-value was $2.858 > 1.96$. Workplace spirituality significantly affects OCB through job satisfaction, indicated by a path coefficient value of 0.111. This shows that the better the spiritual workplace of the employees, the better the employee's job satisfaction. Thus it will be easier for employees to establish work relationships. The better the spiritual at work, the better the employee will find true meaning at work so that employees will feel satisfied with what is felt by the employee; thus, the employee will cooperate and work voluntarily for the company. The above can be supported by previous research conducted by Iram et al. (2021); Dubey et al. (2022); Belwalkar et al. (2018), and (Hasibuan & Wahyuni, 2022), which shows that organizational justice on OCB through job satisfaction.

The hypothesis testing results obtained a p-value of $0.007 < 0.05$ and a t-value of $2.707 > 1.96$. This means that Organizational Justice significantly affects OCB through workplace spirituality and job satisfaction, as indicated by a path coefficient value of 0.093. This shows that the better the organizational justice, the better the spiritual work of the employees so that the employee's job satisfaction will be better. Thus it will be easier for employees to establish work relationships. When employees are treated fairly in decision-making, and the attitude of superiors behave reasonably towards subordinates who do not discriminate between religions and races with each other, then employees feel they are treated fairly in the organization so that employees will feel they belong to the company where the better the spiritual at work, then the more significant the employee will find true meaning in the workplace so that the employee will feel satisfied with what is felt by the employee thus the employee will cooperate and work voluntarily for the company. The above can be supported by previous research conducted by Amelia et al. (2021); Hidayah & Harnoto (2018); Akram et al. (2020); (Ke et al., 2021); (Rosid et al., 2020) demonstrated that workplace spirituality and job satisfaction mediate the influence of organizational justice on OCB.

6. Conclusion

Activities to improve the quality of human resources in the marine transportation industry sector require companies to build a competitive advantage by using strategies and behavioral approaches from employees, namely job satisfaction, organizational justice, and spiritual work. Therefore, the results of this study have proven that job satisfaction, organizational justice, and Work spirituality significantly impact OCB. Organizational Justice and Workplace Spirituality can increase Job Satisfaction; then Organizational Justice can impact Workplace Spirituality. The contribution of organizational justice has a considerable influence on the formation of employee work spirituality, among other variables; this proves that company management must provide balanced organizational justice among employees. Then, organizational justice can also be the most significant contribution to shaping employee job satisfaction.

While the indirect effect shows that Organizational Justice affects job satisfaction mediated by Workplace Spirituality, Organizational Justice affects OCB through Job Satisfaction, Workplace Spirituality affects OCB mediated by Job Satisfaction, Organizational Justice affects OCB mediated by Workplace Spirituality, and Job Satisfaction then Organizational Justice affects OCB mediated by Workplace Spirituality. Indirectly, the most significant contribution is made by organizational justice on job satisfaction mediated by work spirituality; job satisfaction will be formed if employees have workplace spirituality. Then workplace spirituality and job satisfaction are influential mediating variables for increasing employee OCB.

The implications that can be implemented are that OCB can facilitate the achievement of organizational effectiveness and efficiency because some OCB behaviors can increase employee productivity and allow managers to be proactive and strive to increase employee potential.

Therefore, further research is needed in other industries, including land and air transportation, manufacturing, consumer goods, and other relevant industries. This aims to expand knowledge of human resource management in companies and evaluate findings from this research related to OCB in various sectors worldwide. Therefore, further research can also discuss the relationship between individual employee performance and company performance, considering that employees are one of the valuable assets owned by companies to achieve profits and survive in an increasingly global competitive era.

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ANALYSIS OF THE INFLUENCE OF ASSETS STRUCTURE, EARNING VOLATILITY, AND FINANCIAL FLEXIBILITY ON CAPITAL STRUCTURE AND CORPORATE PERFORMANCE IN MANUFACTURING SECTOR COMPANIES ON THE IDX²

Companies play a crucial role in improving a country's economy by providing jobs for many people. To enhance their performance in a competitive market, it is important for companies, particularly manufacturing firms, to pay attention to their capital structure and corporate performance. This has prompted the researcher to analyze the effect of asset structure, earning volatility, and financial flexibility on capital structure and corporate performance in manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). The objective of the study was to examine the impact of asset structure, earning volatility, and financial flexibility on capital structure and corporate performance in manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). The research method employed in the study was descriptive quantitative. The data for the study were collected from financial reports of 58 companies using purposive sampling. The collected data were then analyzed using SPSS. The results of the analysis indicated that asset structure, financial flexibility, and earning volatility had a positive and significant influence on both capital structure and corporate performance. The influence value for capital structure was found to be 96.9%, while the influence value for corporate performance was 94.8%. This study suggests that optimizing asset structure, managing income volatility, and enhancing financial flexibility are crucial for manufacturing companies to improve capital structure and corporate performance.

Keywords: Asset Structure; Earning Volatility; Financial Flexibility; Capital Structure; Corporate Performance

JEL: G00; G17; G32; G34

1. Introduction

The levels of economic activities across nations are impacted in some way by companies as active industries (Lu et al., 2020). Therefore, it should not come as a surprise that every entrepreneur tries to continue improving the standard of the company. The preceding way

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has an effect on raising the amount of money the business brings in (Anderson and McKenzie, 2022). One of the companies listed on the Indonesia Stock Exchange has manufacturing as its main focus of operations (Rosmianingrum et al., 2023). This company purchases raw materials from its suppliers to manufacture finished goods that are then sold to customers (Ariadi et al., 2021). However, several factors in the management of a company have the potential to affect significant aspects of a company's management, such as the capital structure and the corporation's performance (Laporšek et al., 2021).

According to Orlova et al. (2020), The arrangement of a company's financing, known as its capital structure, is a crucial element in ascertaining the proportion of debt and equity within it. More specifically, capital structure is used to compare long-term debt with equity in the company's capital (Dakua, 2019). Meanwhile, because this aspect or element is used to determine the level or measure of success of the company's performance in implementing various strategies to achieve the desired goals (Stubbs, 2019), corporate performance is also an important element for the company. This is because this aspect or element is used to determine the level or measure of success of the company's performance (Al-Gamrh et al., 2020).

There are several factors, such as the structure of the assets, the volatility of earnings, and flexible financing, that are suspected of affecting the capital structure and the performance of the corporation. The asset structure is the number of assets that can be used as collateral, and it is determined by comparing the total assets to the fixed assets (Delikanlı and Kılıç, 2021). Earnings volatility, also known as fluctuations in a company's profits, is a measure that can be used to get an overall picture of the risks associated with a company's day-to-day operations (Chen et al., 2021). The ability of a company to carry out various actions effectively and related to the amount and time of cash flow is what is referred to as financial flexibility (Chang and Ma, 2019). This gives the managed company the ability to respond to a variety of unexpected challenges (Schleper et al., 2021).

Consequently, the investigator holds a keen interest in further investigating the examination of the impact of asset composition, earnings instability, and adaptable financing on the capital structure and business performance of manufacturing sector firms listed on the IDX. This investigation's objective is to ascertain whether or not the composition of a company's assets, the volatility of its earnings, and the availability of flexible financing have any bearing on the performance of a company's capital structure.

2. Literature Review

2.1. Asset Structure

Asset structure is an important concept in finance that refers to the composition of a company's assets. The asset structure of a company can influence its financial performance, risk, and valuation. One of the key concepts related to asset structure is the composition of assets. A company's assets can be categorized into two distinct types: current and non-current. Current assets could be converted into cash within a one-year timeframe, whereas non-current assets are anticipated to generate revenue for the enterprise over an extended period.

Studies have shown that the asset structure of a company can affect its financial performance, with companies that have a higher proportion of non-current assets generally performing better than those with a higher proportion of current assets (Nguyen and Duong, 2021).

Another important concept related to asset structure is the balance between debt and equity. Companies can use debt or equity financing to acquire assets, and the asset structure of a company can be affected by the financing mix it uses. The ideal blend of financing for a corporation is contingent on multiple factors, such as the expenses associated with debt and equity, the tax rate, as well as the enterprise's risk profile. According to research, organizations with a larger share of debt financing have more financial leverage and risk, while those with a higher proportion of equity financing have a lower risk profile (Anagnostopoulou and Tsekrekos, 2017).

The capital structure theory is one of the most commonly researched asset structure theories. According to capital structure theory, a company's financing mix influences its cost of capital and hence its value. A company's ideal capital structure optimizes its value by balancing the costs of debt and equity. Numerous research endeavours have been executed to scrutinize the correlation between asset composition and worth, with some indicating that enterprises possessing a greater proportion of non-current assets are assigned a greater valuation (Hu et al., 2015; Koiranen, 2014; Yao et al., 2015).

Contemporary investigations have also delved into the influence of asset composition on enterprise performance. A study by Carbó-Valverde et al. (2022) found that companies with a higher proportion of non-current assets tend to have higher financial performance. Meanwhile, those with a greater percentage of current assets tend to exhibit weaker financial performance. The authors suggest that this may be due to the fact that companies with a higher proportion of non-current assets tend to have higher capital expenditure, which can lead to higher revenue growth and profitability.

The concept of asset structure is an important one in finance, with implications for a company's financial performance, risk, and valuation. The optimal asset structure for a company depends on various factors, including the composition of assets and the financing mix it uses. Recent research has highlighted the importance of asset structure for firm performance and valuation, and further studies in this area are likely to yield important insights into the optimal management of asset structure in companies.

2.2. *Earning Volatility*

Earning volatility is an important concept in finance and accounting as it measures the variability of a company's earnings over a certain period of time (Eiler et al., 2022). Current research endeavours to analyze the impact of earnings instability on stock returns. The researchers found that investors are willing to pay a higher price for enterprises that possess more stable earnings and that this correlation persists even after regulating for other variables, such as earnings expansion and the scope of the firm (Asness et al., 2019). The examination additionally illustrates that companies with more erratic earnings undergo more pronounced drops in stock prices when the market is under pressure. A separate investigation observes that the adverse influence of liquidity on stock returns is more substantial for firms that

exhibit higher earnings volatility (Vatavu, 2015). This suggests that investors in emerging markets are more sensitive to earnings risk when assessing liquidity risk. In contrast, a study by Harjoto and Jo (2015) revealed that firms with more fluctuating profits are more likely to participate in CSR efforts to mitigate the negative effect of earnings volatility on their reputation and stakeholder relations. The research discovers a positive association between earnings volatility and CSR performance, implying that companies utilize CSR to offset the detrimental effects of earnings volatility. The above studies suggest that earning volatility has significant implications for firms' financial and non-financial performance, as well as for investors' valuation and risk assessment. However, the findings are mixed and highlight the need for further research to better understand the complex relationship between earning volatility, firm characteristics, and market dynamics.

Another current research endeavour examines the effect of earnings instability on business investments. The study concludes that companies with more erratic earnings often adopt more cautious investment strategies, as they encounter heightened ambiguity and risk when making investment decisions (Tran, 2019). The author suggests that this relationship may reflect firms' desire to avoid costly financial distress, as well as their limited ability to access external financing when earnings are volatile. In a similar vein, a study by Hanlon et al. (2017) revealed that firms with more volatile earnings are more likely to reduce their dividend payouts, as they face greater financial uncertainty and need to conserve cash for future investments or operational needs. The study finds a negative relationship between earnings volatility and dividend payout ratios, suggesting that investors should pay attention to earnings risk when assessing the sustainability of firms' dividend policies. Also, a study by Tallman et al. (2018) demonstrated that firms with more volatile earnings may face greater pressure to innovate and adapt to changing market conditions, as they need to diversify their revenue streams and maintain their competitive advantage. The investigation determines a direct correlation between earnings instability and innovation efficacy, suggesting that firms use innovation as a means of mitigating the negative consequences of earnings risk.

Taken together, the aforesaid studies highlight the diverse implications of earnings volatility for firms' financial and non-financial outcomes, as well as for investors' valuation and risk assessment. The findings suggest that earning volatility should be considered as an important factor when evaluating firms' performance, investment, dividend, and innovation decisions. However, the mixed evidence also suggests the need for further research to better understand the mechanisms underlying these relationships and their implications for different stakeholders.

2.3. Financial Flexibility

Financial flexibility is an important concept in finance that refers to a firm's ability to adjust its financing and investment decisions in response to changing market conditions and opportunities. One study by Ferrando et al. (2017) exhibited that firms with greater financial flexibility are better able to invest in growth opportunities, as they have more options to raise capital and manage their financial risk. The research discovers a positive association between financial flexibility and business investment levels, implying that financial flexibility is a key

predictor of corporate development potential. Another study by La Rocca et al. (2019) informed that enterprises possessing greater financial adaptability are more capable of mitigating the repercussions of economic downturns, as they have more resources to adjust their operations and financing decisions. The authors suggest that financial flexibility can help firms maintain their competitive advantage and resilience in the face of market turbulence.

In contrast, Teece et al. (2016) argued that firms with greater financial flexibility are more likely to invest in innovation, as they have more resources and options to manage the risk and uncertainty associated with innovation. According to the findings, there is a positive association between financial flexibility and innovation performance, implying that financial flexibility is an essential factor of organizations' long-term development and competitiveness. Overall, these studies suggest that financial flexibility is an important concept in finance that has significant implications for firms' performance, value creation, and resilience. The results, however, emphasize the need for more study to better understand the processes behind the link between financial flexibility and company actions, as well as the situations under which financial flexibility is most advantageous.

Another study by Zhang et al. (2021) explores the effect of financial flexibility on corporate social responsibility (CSR) performance in businesses. The authors contend that organizations with higher financial flexibility are more inclined to participate in CSR activities because they have more resources and alternatives for managing CSR costs and risks. The investigation uncovers a positive correlation between financial adaptability and CSR efficacy, suggesting that financial adaptability can aid enterprises in harmonizing their financial and societal objectives, while simultaneously generating sustained value for stakeholders. Subsequently, Islam et al. (2022) argue that firms with greater financial flexibility are more likely to pay dividends, as they have more resources and options to manage their financial risk and maintain their financial flexibility. They discovered a positive association between financial flexibility and dividend payment, implying that financial flexibility might assist enterprises in maintaining financial soundness and signalling their worth to investors. However, it is important to note that financial flexibility is not without its potential drawbacks. A study by Hoberg et al. (2014) indicated that firms with greater financial flexibility may be more prone to take on risky investments, as they have more resources and options to manage the risks and costs associated with such investments. The research discovers a positive association between financial flexibility and risk-taking behaviour in organizations, implying that financial flexibility might enhance firms' exposure to risk and uncertainty.

Overall, the above studies suggest that financial flexibility is a complex and multifaceted concept that can have both positive and negative implications for firms' performance, value creation, and risk exposure. Further research is needed to better understand the conditions under which financial flexibility is most valuable and to identify the mechanisms that can help firms effectively manage their financial flexibility in a changing market environment.

2.4. Capital Structure

The configuration of debt and equity financing employed by a company to sustain its operations and investments is commonly known as its capital structure (Amosh et al., 2022). As a fundamental principle in corporate finance, the capital structure holds significant consequences for a company's cost of capital, financial risk, and overall efficacy. The pecking order theory, which posits that enterprises prefer to finance their investments with internal funds, such as retained earnings, followed by debt, and finally equity, is a crucial concept in the study of capital structure. A study conducted by Das et al. (2019) examines the pecking order theory in the context of Indian firms. The authors offer backing for the pecking order theory, asserting that Indian firms mainly rely on internal funds as a funding source, followed by debt and then equity. Another crucial concept in capital structure is the trade-off hypothesis, which suggests that firms weigh the benefits and costs of debt and equity financing to determine their optimal capital structure. A study conducted by Akbar et al. (2020) explores the trade-off theory in the context of Pakistani firms. According to the authors, Pakistani enterprises have an ideal debt-to-equity ratio that combines the tax advantages of debt financing with the costs of the financial crisis.

In addition, a study by Ogunmuyiwa et al. (2020) examines the influence of capital structure on the performance of companies in Nigeria. The authors discover a link between debt financing and business performance, implying that debt financing may boost firm growth and profitability. They do, however, discover a negative link between debt financing and business financial risk, implying that excessive debt might raise enterprises' vulnerability to financial trouble.

Furthermore, a study by Hashim and Amrah (2016) explores the influence of ownership structure on the capital structure of firms in Oman. The authors discovered that family-owned enterprises had lower levels of debt financing than non-family-owned firms, implying that family ownership may influence capital structure choices. Overall, the aforementioned studies highlight the importance of capital structure in corporate finance and offer valuable insights into the concepts, theories, and findings related to this topic. However, further research is needed to better understand the factors that influence firms' capital structure decisions and to identify the optimal mix of debt and equity financing for different types of firms in different market environments.

The other concept related to capital structure is the signalling theory, which suggests that firms' financing choices can convey information to the market about the firm's future prospects. A study by Xu et al. (2021) found that Firms with larger levels of debt tend to have better stock returns, implying that debt financing might communicate to the market strong future prospects. Another important concept is the agency theory, which suggests that conflicts of interest can arise between the firm's owners (shareholders) and its managers, leading to suboptimal decisions about capital structure. A study by Lemma (2015) found that companies with higher degrees of institutional ownership tend to have lower levels of debt financing. This suggests that institutional investors may play a role in addressing agency problems related to capital structure decisions. Furthermore, a study carried out by Tang and Moro (2020) found that Firms that are financially restricted tend to depend more on short-

term debt and equity financing, indicating that financial restrictions may have a major influence on business financing decisions.

Overall, the above studies provide valuable insights into the concepts, theories, and findings related to capital structure in different market environments. However, further research is needed to better understand the complex relationships between firms' financing choices, market conditions, and firm performance. Additionally, future research can explore the impact of new financing options, such as crowdfunding and digital finance, on firms' capital structure decisions.

2.5. *Corporate Performance*

Corporate performance is a multi-dimensional concept that refers to how well a company performs in achieving its objectives, creating value for stakeholders, and generating profits (Wang et al., 2017). Financial performance is a commonly used metric for evaluating the success of a corporation, with several financial ratios, including return on assets (ROA), return on equity (ROE), and earnings per share (EPS), being utilized to assess it. A study by Kim et al. (2020) finds a positive relationship between ESG performance and financial performance, suggesting that firms that prioritize ESG factors tend to perform better financially.

Another concept related to corporate performance is corporate social responsibility (CSR), which refers to the extent to which companies contribute to social and environmental causes beyond their financial obligations. A study by Galant and Cadez (2017) finds there is a favourable correlation between financial performance and corporate social responsibility (CSR), suggesting that CSR could enhance the reputation, patronage and ultimately economic benefits of organizations. Moreover, a study executed by Abdelwhab et al. (2019) finds a link between knowledge management techniques and business performance, implying that good knowledge management may lead to improved decision-making, innovation, and competitive advantage. Furthermore, Shahwan (2015) finds a positive correlation between the quality of corporate governance and financial performance, suggesting that sound corporate governance practices can improve financial reporting accuracy, alleviate agency problems, and ultimately enhance shareholder wealth. Overall, the aforesaid studies provide valuable insights into the complex relationships between different factors and corporate performance. However, further research is needed to better understand the causal mechanisms underlying these relationships and to explore the impact of different contextual factors such as industry, market conditions, and firm size on corporate performance.

Another important concept related to corporate performance is innovation, which refers to the ability of companies to develop and implement new products, services, and processes. A study by Gök and Peker (2017) finds a positive association between innovation and financial success, implying that innovative organizations outperform in terms of financial performance owing to their capacity to adapt to changing market circumstances and satisfy client requirements. Subsequently, a study by Yin et al. (2020) examines the impact of environmental innovation on the financial performance of Chinese firms. The authors discover a positive relationship between environmental innovation and financial

performance, implying that companies that invest in sustainable practices perform better financially due to their ability to attract environmentally conscious customers, reduce costs, and improve their reputation. Moreover, a study by Chaudhry et al. (2019) find a positive relationship between customer orientation and financial performance, suggesting that firms that prioritize customer needs tend to perform better financially due to their ability to create loyal customers and increase sales. Continuously, a study by Wang et al. (2017) finds a positive association between ethical leadership and financial performance, implying that organizations with ethical leaders outperform their competitors financially owing to their capacity to establish a culture of trust, accountability, and social responsibility.

In short, the literature on corporate performance highlights the complex and multifaceted nature of this concept, which can be influenced by various factors such as financial, social, environmental, and ethical factors. The findings of these studies suggest that firms that prioritize innovation, sustainability, customer orientation, and ethical leadership tend to perform better financially and create value for their stakeholders. However, further research is needed to explore the underlying mechanisms and contextual factors that influence these relationships.

2.6. Theoretical Interplay among Assets Structure, Earning Volatility, Financial Flexibility, and Capital Structure

The interplay among asset structure, earning volatility, financial flexibility, and capital structure has been a topic of interest among researchers in finance and accounting in recent years. The relationship between these four factors is complex and multidimensional, and several studies have attempted to shed light on the mechanisms that drive this interplay.

One significant discovery in the academic literature is the strong correlation between asset structure and capital structure. Multiple research studies have indicated that companies with a greater percentage of fixed assets tend to exhibit greater leverage ratios (e.g., Dakua, 2019; Rahayu and Saifi, 2020). The interrelation between asset structure and capital structure is a significant finding in the existing literature. Several studies have concluded that firms with a higher proportion of fixed assets are more likely to have greater leverage ratios. This connection is explained by the ability of fixed assets to act as collateral for debt financing, which can lower borrowing costs and enhance the firm's debt capacity. However, the connection between asset structure and financial flexibility remains less distinct. Certain studies have identified a negative correlation between asset structure and financial flexibility (e.g., Agrawal, 2020; Islam et al., 2022), while others have found a positive relationship (e.g., Panda et al., 2021). This inconsistency in the findings may be due to differences in the measurement of financial flexibility, as well as the heterogeneity of the firms and industries under study.

Earning volatility is another important factor that can affect the interplay among asset structure, financial flexibility, and capital structure. Increased earnings volatility may heighten the likelihood of default and restrict the firm's capacity to acquire external financing (e.g., Dierker et al., 2019; McCann et al., 2019). Therefore, firms with high earning volatility may choose to maintain lower leverage ratios and higher levels of liquidity to mitigate this

risk (e.g., Begeau, 2020; Khan et al., 2020). Financial flexibility is also an important factor that can affect the interplay among these four factors. Several studies have found that firms with higher financial flexibility tend to have lower leverage ratios and higher levels of liquidity (e.g., Islam et al., 2022; Panda et al., 2021). This is due to the fact that having financial flexibility can act as a buffer against unforeseen disturbances and enhance the firm's capacity to obtain external financing in times of need.

Overall, the interplay among asset structure, earning volatility, financial flexibility, and capital structure is a complex and multifaceted phenomenon that is influenced by various internal and external factors. The findings in the literature suggest that firms should carefully manage their asset structure, earning volatility, financial flexibility, and capital structure to ensure that they are well-positioned to achieve their financial goals and create value for their stakeholders.

2.7. Theoretical Interplay among Assets Structure, Earning Volatility, Financial Flexibility, and Corporate Performance

Several studies have explored the theoretical interplay among asset structure, earning volatility, financial flexibility, and corporate performance. According to a study carried out by Liu et al. (2022), financially constrained firms have a stronger link between higher asset tangibility and lower debt ratios. This relationship suggests that firms with more tangible assets may face lower debt ratios, implying that such assets may serve as collateral and reduce borrowing costs. Additionally, a higher proportion of tangible assets is positively associated with better financial performance, as found by their study. Another study by Habib and Hasan (2019) investigated the relationship between asset structure and financial performance in the context of emerging economies. The results of their research indicate a favourable correlation between asset tangibility and financial performance within emerging economies. This observation aligns with the fundamental principles of the pecking order theory of capital structure. The study additionally emphasizes the significance of acknowledging the influence of institutional variables in molding the connection between asset configuration and financial performance.

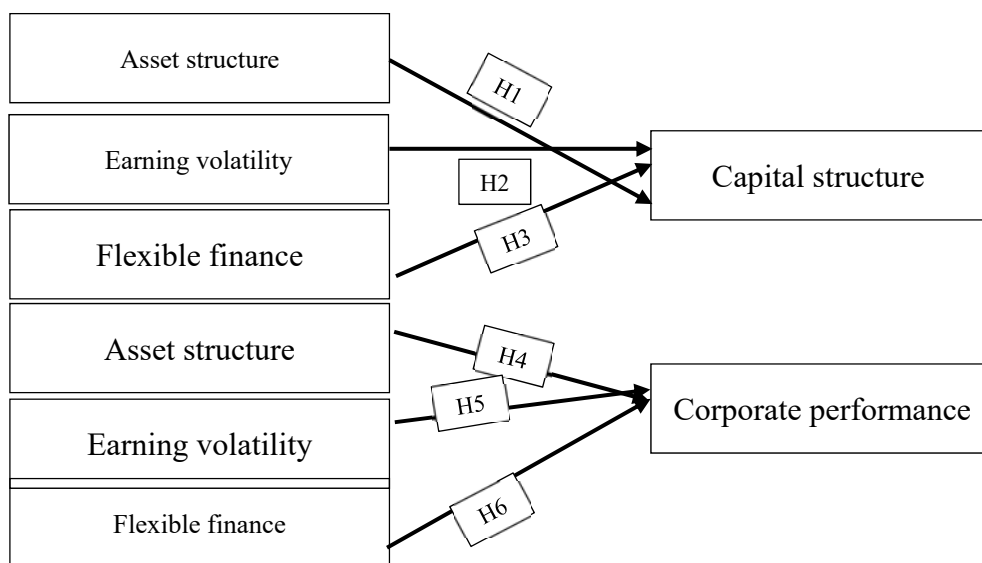
In terms of earning volatility, a study by Hudson and Muradoglu (2020) examined the relationship between earning volatility and financial performance in the Turkish context. Their discoveries indicate that enterprises with reduced earning instability exhibit enhanced financial performance, consistent with the principles of the signalling theory of capital structure. Additionally, their research revealed that financial adaptability regulates the association between earning volatility and financial performance, implying that organizations with elevated financial flexibility are better equipped to navigate the adverse repercussions of earning instability on financial performance. Subsequently, a study undertaken by Chao and Huang (2022) found that financial flexibility positively affects corporate performance, and this relationship is more pronounced in firms with higher asset tangibility. The study accentuates the significance of acknowledging the function of asset configuration in the connection between financial adaptability and corporate performance.

Overall, the studies mentioned earlier suggest that the theoretical interplay among asset structure, earning volatility, financial flexibility, and corporate performance is complex and multidimensional. While there is no universal model that can explain this interplay, the findings from these studies suggest that there are significant implications for firms' financial decision-making processes.

3. Method

This study was conducted using a descriptive quantitative method, which means that the findings, which are presented in the form of numbers, are communicated using descriptions or sentences that are simple to grasp (Bloomfield and Fisher, 2019). Documenting the financial reports of manufacturing companies from 2019 to 2022 was the method that was used to collect the necessary data for the study. This study was carried out on 58 manufacturing companies that were chosen for participation through the process of purposive sampling. After that, the data that were collected were analyzed using SPSS's regression analysis tool. The following constitutes the theoretical framework for this study:

Figure 1. Theoretical Framework



3.1. Hypotheses

- H1: Assets structure has an influence on capital structure.
- H2: earning volatility has an influence on capital structure.
- H3: flexible finances have an impact on capital structure.
- H4: Assets structure has an influence on corporate performance.

H5: Earning volatility has an influence on corporate performance.

H6: Flexible finance has an impact on corporate performance.

4. Results and Discussion

After the analysis is carried out, the data is obtained as follows:

4.1. Normality Test

The normality test was performed in order to gain insight into whether or not the data followed a normal distribution. The findings of the research indicate that:

Table 1. Normality Test Data with Capital Structure Dependent Variables

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		58
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.51060016
Most Extreme Differences	Absolute	.148
	Positive	.136
	Negative	-.148
Test Statistic		.148
Asymp. Sig. (2-tailed)		.006 ^c
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

The data were considered to be normally distributed because the sig. the Kolmogorov Smirnov value was greater than 0.05, which could be deduced from the information presented above.

Based on the aforementioned data, the Kolmogorov-Smirnov test yielded a significance value exceeding 0.05, signifying that the data adheres to a normal distribution.

Table 2. Normality Test Data with Corporate Performance Bound Variables

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		58
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.02268009
Most Extreme Differences	Absolute	.142
	Positive	.131
	Negative	-.142
Test Statistic		.142
Asymp. Sig. (2-tailed)		.007 ^c
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

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4.2. Multicollinearity Test

The purpose of conducting this test was to establish whether or not the data distribution exhibited multicollinearity. The following is a list of the outcomes of the test for multicollinearity:

Table 3. Multicollinearity Test Data with Capital Structure Dependent Variables

Model		Coefficients ^a				t	Sig.	Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	Beta			Tolerance	VIF
		B	Std. Error						
1	(Constant)	-10.249	3.189		-3.214	.002			
	Asset structure	-.126	.052	-.082	-2.402	.020	.496	2.014	
	Earning volatility	.385	.078	.264	4.956	.000	.205	4.886	
	Flexible finance	.917	.061	.799	14.986	.000	.204	4.892	

a. Dependent Variable: capital structure

It can be inferred from the above-presented data that the VIF value was under 10 and the tolerance value was over 10, thereby indicating an absence of multicollinearity in the data.

Table 4. Multicollinearity Test Data with Corporate Performance Dependent Variables

Model		Coefficients ^a				t	Sig.	Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	Beta			Tolerance	VIF
		B	Std. Error						
1	(Constant)	-.033	4.270		-.008	.994			
	Asset structure	.052	.070	.033	.739	.463	.496	2.014	
	Earning volatility	-.126	.104	-.083	-1.212	.231	.205	4.886	
	Flexible finance	1.216	.082	1.024	14.851	.000	.204	4.892	

a. Dependent Variable: corporate performance

According to the information provided by the data above. The VIF value was less than 10, and the tolerance value was greater than 10. Hence, it could be concluded that the data did not exhibit multicollinearity.

4.3. Regression Test

A regression test was carried out in order to ascertain whether or not the research hypotheses should be accepted. The following is a list of the findings from the regression test:

Table 5. Test Data H1, H2, and H3

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-10.249	3.189		-3.214	.002
	Asset structure	.126	.052	.082	2.402	.001
	Earning volatility	.385	.078	.264	4.956	.000
	Flexible finance	.917	.061	.799	14.986	.000

a. Dependent Variable: capital structure

The data presented above demonstrates that the structure of assets, the volatility of earnings, and the flexibility of financial resources all had positive and significant impacts on capital structure. Accordingly, H1, H2, and H3 were accepted. The findings of the current study can be explained through the pecking order theory of capital structure. According to this theory, companies prefer internal financing over external financing, and debt financing is favoured over equity financing (Guizani, 2020). This preference for internal financing is due to the lower cost and reduced risk associated with it. In contrast, external financing requires companies to pay a premium for funds and is associated with higher risk. In light of the pecking order theory, the positive impact of asset structure, earnings volatility, and financial flexibility on capital structure can be attributed to the fact that they enhance a company's ability to generate internal funds. By having a more tangible asset structure, a company can access lower-cost debt financing, reducing the overall risk of external financing. Similarly, a company with lower earnings volatility is less risky and can access more favourable financing terms. Finally, a company with high financial flexibility can better navigate financial distress and access lower-cost financing.

The results of the present study were consistent with the findings revealed by Chen et al. (2019). They found that the asset structure was one factor that influenced the capital. Therefore, managers of companies ought to pay significant attention to the management of their companies, particularly aspects of asset structure, earning volatility, and flexible finances. This was due to the fact that these factors had an impact on the capital structure, which would later be used in the operation of the company. In recent years, scholars have extensively researched the impact of asset structure, earnings volatility, and financial flexibility on capital structure. For instance, (Kyissima et al., 2020) investigated the relationship between asset tangibility and capital structure among Chinese firms and found a significant positive correlation. Similarly, (Chang and Ma, 2019) examined the effect of financial flexibility on capital structure in Chinese listed companies and concluded that financial flexibility had a positive impact on capital structure. Therefore, the findings of the current study add to the growing body of literature on the importance of managing asset structure, earnings volatility, and financial flexibility to optimize capital structure. Managers should pay close attention to these factors as they impact the capital structure of the company, which in turn affects its overall performance and success.

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Table 6. Model Summary of H1, H2, dan H3

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.984 ^a	.969	.967	1.55199
a. Predictors: (Constant), flexible finance, Assets structure, earning volatility				
b. Dependent Variable: capital structure				

Based on the information presented above, it was clear that factors such as financial flexibility, asset structure, and earnings volatility had a 96.9% impact on capital structure. In light of the fact that the composition of the company's capital played a significant part in the development of the business, it was essential that careful consideration be given to the aforementioned aspects within each indicator (Galati et al., 2019).

Table 7. Hypothesis Test Data H4, H5, and H6

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.033	4.270		-.008	.994
	Asset structure	.052	.070	.033	.039	.003
	Earning volatility	1.016	.104	.083	1.212	.031
	Flexible finance	1.216	.082	1.024	14.851	.000
a. Dependent Variable: corporate performance						

Due to the fact that the sig value was less than 0.05, the data presented above suggested that the Asset structure, Earnings volatility, and Flexible Finances all had a positive and significant impact on the overall performance of the corporation. The H5, H6, and H7 heuristics were all validated as a result of this. The findings of this study were consistent with the findings of a study that was carried out by Harris and Roark (2019). According to their findings, one of the ways to evaluate the performance of a corporation is to look at the value of the corporation, and the value of the corporation can be influenced in a number of different ways. One of these ways is by the asset structure of the corporation (Dang et al., 2019).

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973 ^a	.948	.945	2.07811
a. Predictors: (Constant), financial flexible, Assets structure, earning volatility				
b. Dependent Variable: corporate performance				

According to the data presented above, the asset structure, the volatility of earnings, and the flexibility of financial resources each had a 94.8% impact on the performance of the corporation. Therefore, the management of the company needed to have the ability to properly manage each of these aspects in order for the company to be able to increase its income and provide benefits to those who are together.

5. Conclusion

Manufacturing companies have an important part to play in the process of transforming raw materials into finished products that are ready for use. Additionally, because of its sizable population, Indonesia undoubtedly has a very high level of overall consumption of finished goods. In spite of this, every manufacturing company needs to have a clear strategy for managing the company in order to ensure that both the capital structure and corporate performance are either remaining the same or improving. This is necessary because of the intense level of competition in the industry. According to the findings of the research, the structure of a company's assets, as well as its financial flexibility and earning volatility, have a positive and significant impact on both the corporate performance and the capital structure, respectively, with the influential values of 96.9% and 94.8%.

The author suggests that the outcomes of this study could potentially serve as a valuable source of inspiration for entrepreneurs to continually enhance their operational efficacy and take into account corporate performance and capital structure as the important aspects that play pivotal roles in an organization. The author aspires that the findings of this investigation could contribute to the scholarly discourse and serve as a platform for future research initiatives. Moreover, the author hopes that the findings could offer readers and researchers an added perspective that could broaden their understanding and insight into the subject matter.

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EXPLORING THE IMPACT OF TECHNOLOGY ACCEPTANCE MODEL CONSTRUCTS ON CONSUMER BEHAVIOR IN SMEs: WITH A FOCUS ON E-MARKETING STRATEGIES³

In today's competitive digital landscape, where the Internet has become an integral part of people's daily lives, it is crucial to prioritize user experience and satisfaction, particularly when it comes to web pages. This study seeks to elucidate the importance of specific elements of the TAM model concerning user behaviour in the realm of web design. Using an exploratory approach, the study employed an anonymous questionnaire (utilizing a Likert scale) to gather data from website users. The research sample's adequacy was assessed using Cronbach's alpha and Kaiser-Meyer-Olkin (with 148 respondents), by identifying factors impacting user behaviour, such as website content quality (including the quality and availability of information), and design quality (including appearance, website findability, navigation, and access/usability). Additionally, the study investigated perceived usefulness, ease of use, and attitude toward website use. Pearson correlation coefficients were used to calculate values, and the lower triangle method was utilized to determine the resulting coefficient values. Analysis revealed that website usability and page orientation did not have a significant impact on actual website usage. The study outcome has produced a model that can determine the influence of specific factors on user behaviour concerning their overall user experience.

Keywords: TAM; Marketing; SME; Consumer behavior

JEL: D90; M15; M31; L86

1. Introduction

The Internet has drastically transformed human communication, with people relying heavily on it for various purposes. This paper discusses the competition between websites, where the more accessible and attractive it is, the more visitors it will have. Therefore, it is essential to consider various factors in creating or updating a website to make it as intuitive as possible for users. The advent of web technologies has revolutionized the way we use online tools in both the private and public sectors (Ying et al., 2021). This shift towards online tools has

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enabled businesses and organizations to operate more efficiently and reach a wider audience. With the increasing popularity of the internet, more and more people are using online tools for communication, shopping, education, and entertainment. In the private sector, businesses use online tools for marketing, sales, and customer support. In the government sector, online tools are used for citizen services, information dissemination, and e-governance initiatives.

With the continuous expansion of Internet usage, the importance of incorporating technology into various aspects of our lives has experienced a substantial surge. This exponential growth in Internet usage has ushered in a new era, in which the integration and utilization of technology has become paramount. As society has become increasingly interconnected and reliant on digital platforms, the significance of embracing and harnessing technological advancements has witnessed a remarkable upswing. The pervasive influence of technology has become irrefutable in almost every facet of our lives, from communication and commerce to education and entertainment. The rise of the Internet has opened up vast opportunities and possibilities, making it imperative for individuals, businesses, and organizations to adapt and leverage technology to remain relevant and competitive (Taherdoost, 2022). The transformative power of technology is evident in its ability to enhance efficiency and streamline processes and facilitate seamless connectivity across global networks. It has revolutionized the way we access information, interact with one another, and conduct day-to-day activities. Furthermore, the increased significance of technology is not limited to personal convenience or efficiency gains. It has also emerged as a catalyst for societal development and economic growth. Governments and institutions worldwide recognize the potential of technology to drive innovation, foster entrepreneurship, and create new avenues for employment. The digital economy has emerged as a dynamic and rapidly expanding sector, providing opportunities for start-ups, job seekers, and established businesses to thrive in a digitally interconnected world (Bazzoun, 2019; Narmanov, 2021).

The profound impact of technology is evident in sectors such as healthcare, transportation, finance, and entertainment, where advancements in fields such as artificial intelligence, data analytics, cloud computing, and the Internet of Things (IoT) have revolutionized traditional practices and unlocked novel possibilities. From telemedicine enabling remote healthcare access to smart cities optimizing urban infrastructure, technology has become an indispensable tool in solving complex challenges and shaping the future (Ramson et al., 2020). As the world becomes increasingly interconnected through the Internet, the significance of technology usage continues to increase. Embracing emerging technologies, fostering digital literacy, and encouraging innovation are crucial for individuals, businesses, and societies to thrive in this fast-evolving digital landscape. By harnessing the potential of technology, we can unlock new frontiers, drive sustainable development, and shape a brighter future for future generations (Sepashvili, 2020; Syamsuar et al., 2022).

While several models explain consumer behaviour, little research exists on the objectives of websites for acceptance and utilization. This study expands on Davis' work, incorporating additional variables like website content quality, design, usefulness, simplicity, attitude, and actual usage. Findings show that 3D websites are perceived as more complex and less engaging than conventional ones. This study explores how the Technology Acceptance Model constructs impact user behaviour in SMEs' e-marketing strategies. Understanding website objectives is crucial for shaping strategy, user behaviour, and platform success. It

sheds light on factors like usability, accessibility, relevance, interactivity, and user satisfaction. These goals help attract and retain visitors, drive outcomes, and align with audience expectations. Bridging the research gap aids in developing frameworks and guidelines for consumer behaviour and technology advancements (Al-Qeisi et al 2014; Alsokkar et al., 2023; Morales-Vargas et al., 2023). This endeavour enhances theoretical understanding and informs website design, content strategy, and digital marketing.

Expanding upon Davis's (1989) foundational research, the primary objective of this study is to enhance the comprehension of user behaviour through the integration of supplementary external factors. By incorporating variables such as the calibre of website content, website design, perceived utility, perceived simplicity, attitude towards website utilization, and tangible website usage, this research endeavours to establish a comprehensive framework for the analysis and prediction of favourable user perception. Through this holistic approach, a deeper understanding of user behaviour can be gained, leading to more accurate assessments and projections in the future. At the core of Davis's seminal Technology Acceptance Model (TAM) lie the fundamental aspects of perceived utility and perceived simplicity, serving as pivotal factors influencing users' embrace and integration of technology. However, this study recognizes the importance of considering additional factors that can influence user manners in the web context. By incorporating the quality of website content, this study acknowledges that the information and resources provided by a website play a crucial role in shaping users' perceptions. The relevance, accuracy, and comprehensiveness of content are considered important factors that contribute to users' perceived usefulness and overall satisfaction. Website design is another vital variable included in this study. It recognizes that the visual appeal, layout, and navigational structure of a website can significantly affect user behaviour. An aesthetically pleasing and user-friendly design can enhance user engagement, ease of use, and overall satisfaction (Kuo et al., 2023).

Perceived simplicity refers to users' perception of how easily they can navigate and interact with a website. By considering this variable, this study acknowledges that a website's user interface and interaction design can influence users' perception of simplicity, which in turn affects their attitudes and perceptions. Attitudes toward website use reflect users' overall evaluations and emotional responses to the website. This encompasses factors such as perceived enjoyment, trust, and satisfaction, which can shape users' attitudes and subsequently influence their buying manners (Lee et al., 2013; Kuo et al., 2023). Finally, the actual use of a website serves as an important variable in understanding user decision process and manner. By examining users' actual engagement and interactions with the website, this study aimed to capture their real-world conduct and assess the alignment between their intentions and actions. By integrating these additional variables into the research framework, this study endeavours to provide a more comprehensive understanding of user behaviour in the web context. It aims to explore the complex interplay between various external factors and their impact on user attitudes, intentions, and actual behaviour (Kuo et al., 2023). The findings from this study can contribute to the development of effective strategies for website design, content creation, and user engagement, ultimately promoting positive user habits and enhancing overall user experience.

Limitations: This study focuses on SMEs, limiting generalizability to larger corporations or different industries. Self-reported survey data may be subject to biases and inaccuracies.

Longitudinal studies and mixed-methods approaches would provide a more comprehensive understanding. External factors like market trends, technological advancements, and cultural differences may influence the findings. Caution should be exercised when applying these findings in other business settings.

Consumer behaviour can vary across cultural contexts, and SMEs operating in diverse regions or industries may face unique challenges and opportunities. Researchers should consider these contextual factors and explore their potential moderating effects to ensure the applicability of the findings across various contexts. By acknowledging these limitations, researchers can provide a more nuanced interpretation of the study's findings and guide future research in addressing these gaps. According to several authors, these limitations may include the following.

- **Sample Size and Representativeness:** Due to practical constraints, the study may rely on a limited sample size, which may restrict the generalizability of the results to a broader SME population. Efforts will be made to ensure diverse industry representations within the selected sample; however, caution should be exercised when extrapolating the findings to all SMEs (Adam, 2020).
- **Contextual Factors:** The study will be conducted within a specific geographical region or industry sector, which may introduce contextual biases. Findings may differ in different regions or industries; therefore, generalizability across diverse contexts should be approached with caution (Carli et al., 2019).
- **Self-Reported Measures:** Data collection for constructs such as perceived usefulness, perceived ease of use, and consumer behaviour relies on self-reported measures, which may be subject to response biases. The study will employ appropriate measures and statistical techniques to mitigate potential biases, but the inherent limitations of self-reported data should be acknowledged (Barata et al., 2023).
- **External Factors:** This study will primarily focus on the impact of TAM constructs on consumer behaviour within the context of e-marketing strategies. External factors such as market conditions, competitive landscape, and macroeconomic trends may influence consumer behaviour, but this may not be extensively explored in this study (Ross, Bibler-Zaidi, 2019).

Despite these limitations, this study endeavours to provide valuable insights into the relationship between technology acceptance and consumer behaviour within SMEs with a specific emphasis on e-marketing strategies. The findings are expected to contribute to the existing literature and provide practical implications for SMEs to enhance their digital marketing efforts to meet evolving consumer expectations in a technologically driven marketplace.

2. Literature Review and Hypothesis Development

In the contemporary realm of business, comprehending user behaviour is imperative for attaining triumph. User behaviour encompasses the myriad of actions undertaken by website

visitors, including clicking, scrolling, stumbling, and ultimately departing the page. The meticulous analysis of user behaviour empowers businesses to hone their products and secure a competitive edge. According to Arenas-Gaitán et al. (2019), a profound understanding of user behaviour serves as the cornerstone for developing an exceptional product and serves as a testament to effective company organization. It furnishes invaluable insights into the efficacy of a product or service and ensures that a business effectively caters to the diverse needs of its customers (Mival, Benyon, 2015).

User experience (UX) encapsulates every facet of the ultimate user engagement with an organization. A prime prerequisite for a commendable UX is fulfilling the customer's requirements and fostering a sense of ease and satisfaction. Additionally, a product and website should be simple and elegant, giving users a feeling of joy and satisfaction. User experience encompasses conventional usability benchmarks, such as effectiveness and manageability, along with non-goal-oriented or hedonic quality benchmarks, including inspiration, enjoyable interaction, novelty, emotional engagement, and aesthetics. This allows for a more detailed analysis of user experience (Bisset-Delgado, 2022).

UX is the field dedicated to orchestrating specific elements of the user interface, facilitating seamless user interactions. It entails the perception of user engagement with a business as a cohesive entity. UX revolves around crafting immersive experiences that transcend physical limitations. Emphasizing the refinement of visual aspects and optimizing the quality of customer interactions on websites is imperative for companies seeking to elevate the user experience (Bisset-Delgado, 2022). The relationship between various variables in web design, such as modern web technologies, is also a key area of focus for businesses and consumers (Mival, Benyon, 2015).

In recent years, the internet has become a powerful tool for organizations to connect with customers through various web applications that provide unique services and products. However, there is no consistent data on the attributes that influence user perceptions of website design. While some studies report conflicting results on website content, others emphasize the importance of creating a positive online atmosphere to facilitate transactions (Stolterman et al., 2008). Evaluating the effectiveness of websites necessitates encouraging users to spend extended periods of time on the platform, presenting a formidable task for website operators (Rabby et al., 2021). To address these challenges, researchers in the field of Human-Computer Interaction (HCI) have been studying user-centric interactive computer systems since the early '80s. This field focuses on building functions that have long-term effects on users, taking into account the various cognitive styles, learning preferences, and cultural differences of different users (Stolterman, Fors, 2008). HCI research also needs to keep up with rapidly changing user interface technology to continually gain new insights into user preferences. One major challenge for professionals in this field is designing interactive systems that work for millions of users while meeting the individual needs of each user. Technological acceptance is also an important factor in determining the success of any technology. While some individuals readily adopt new technology, others require specific factors to accept it. As such, various studies have been conducted to maximize the potential for technology adoption (Ahmeti, Zeqiri, 2022).

The Internet has empowered organizations with web applications to connect with customers and offer diverse services. Understanding factors that impact website success is crucial, but research provides inconsistent data. User engagement is vital for success metrics, and human-centric interactive computer systems prioritize tailored functionalities. New research is needed to understand evolving user preferences. Technological acceptance varies across sectors, and exploring basic factors can maximize adoption potential (Ahmeti, 2022). Due to technological changes, the internet has transformed, leading to the creation of web applications that provide customized services and enhance customer satisfaction (Bačik et al., 2021; Simionescu, 2021; Ahmeti, Prenaj, 2022). Understanding factors for website success is crucial, but consensus on impactful factors remains elusive. Optimizing performance metrics requires engaging users for extended periods (Belk et al., 2021; Ilyas et al., 2023). Designing captivating websites is essential, even if not all visits result in conversions (Shaouf, Lu, 2022).

Different types of traffic refer to the various sources or channels through which visitors arrive at a website. The success and effectiveness of a website are heavily influenced by the quality and quantity of traffic it receives. Understanding the different types of traffic and their impact is essential for optimizing website performance and achieving desired outcomes (Jason et al., 2017; Aversa et al., 2021)

- **Organic Traffic:** Organic traffic refers to visitors who arrive at a website through search engine results without any paid promotion. This is a valuable type of traffic because it indicates that the website's content, keywords, and SEO strategies are effective. Organic traffic is important for long-term sustainability, as it can generate consistent and relevant visitors who are actively searching for information or solutions related to the website's offerings.
- **Referral Traffic:** Referral traffic represents visitors who arrive at a website by clicking on a link from another website, social media platform, or online directory. Referrals can come from various sources such as blogs, news articles, social media posts, and online communities. This type of traffic helps expand the website's reach, increase brand awareness, and build credibility through third-party endorsements. Effective referral traffic can result in targeted visitors, who are more likely to engage and convert.
- **Direct Traffic:** Direct traffic refers to visitors who navigate directly to a website by typing its URL into the browser or using bookmarks. These individuals are familiar with the website, and its brand, or have previously visited and are returning. Direct traffic is often associated with loyal customers, repeat visitors, and those who have received offline recommendations. Building a strong brand, providing an exceptional user experience, and maintaining customer loyalty are essential for attracting and retaining direct traffic.
- **Paid Traffic:** Paid traffic involves visitors who land on a website through paid advertising campaigns such as search engine ads, display ads, social media ads, or influencer marketing. Paid traffic can provide immediate visibility and drive targeted visitors to the websites. It offers precise targeting options, allowing businesses to reach specific demographics or audiences interested in their products and services. However, the success of paid traffic depends on careful planning, effective ad targeting, compelling ad copies, and optimized landing pages to ensure a positive return on investment (ROI).

- **Social Traffic:** Social traffic represents visitors who arrive at a website through social media platforms, such as Facebook, Twitter, Instagram, LinkedIn, or YouTube. This type of traffic is influenced by a website's social media presence, content, and engagement with the target audience. Social traffic is valuable for increasing brand exposure, promoting content, fostering community engagement, and driving conversion. To leverage social traffic effectively, websites should create engaging and shareable content, actively participate in social media discussions, and build strong social media platforms.
- **Campaign-specific Traffic:** Campaign-specific traffic refers to visitors who arrive at a website through specific marketing campaigns, promotions, or events. These campaigns include email marketing, affiliate marketing, influencer collaboration, contests, giveaways, and offline advertising. Campaign-specific traffic allows websites to track and measure the effectiveness of their marketing efforts, enabling them to optimize campaigns, improve targeting, and achieve specific goals, such as lead generation, sales, or brand awareness.

By understanding and leveraging different types of traffic, website owners and marketers can tailor their strategies to attract visitors, enhance the user experience, increase conversions, and ultimately achieve their business objectives.

Making its emergence in the early 1980s, Human-Computer Interaction (HCI) explores the domain of interactive computer systems centered around user experience (Booth, 1989). Its primary focus lies in constructing specific functionalities that yield enduring impacts on individuals (Dix, 2017). Initially rooted in computer science, encompassing cognitive science and ergonomics, HCI has evolved into a multidisciplinary field. A pivotal aspect within HCI pertains to the realization that diverse users harbour distinct conceptions, notions, and mental models regarding their interactions, as well as varying approaches to learning and retaining knowledge and skills (commonly referred to as "cognitive styles"). Moreover, cultural and national disparities also exert a momentous influence (Dua, Uddin, 2022).

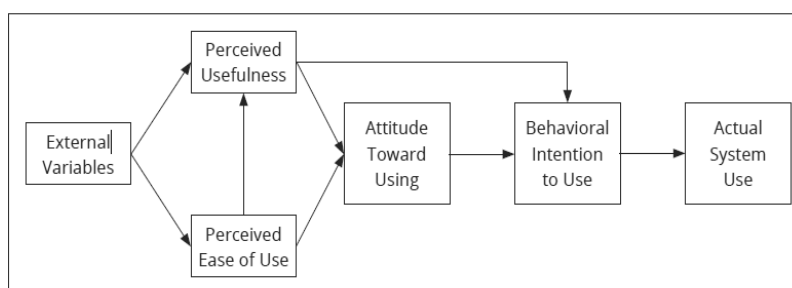
Within the realm of HCI design, an ever-evolving facet revolves around the swift advancement of user interface technology, unveiling novel interaction prospects that may elude previous research applications. Consequently, a perpetual pursuit of new investigations becomes imperative in order to glean valuable insights, particularly concerning user preferences (Nestor et al., 2020; Bocean-Vărzaru, 2022). Moreover, crafting interactive system designs poses a formidable challenge for professionals as they endeavour to create software that caters to the needs of millions of users (at the time of design), with a strong emphasis on ensuring the system effectively accommodates each individual user (Fischer et al., 2022).

The concept of technological acceptance pertains to the inclination to employ technology for task execution. Pantano and Di Pietro (2012) and Ebrahimi et al. (2022) propose that technology acceptance is a progressive process, with its degree fluctuating across different domains and sectors of human endeavours. Broadly speaking, it is acknowledged to evolve through five distinct stages: rudimentary, animal-driven, early motorization, full-fledged motorization, and automation. Nevertheless, not all individuals use technology daily. Therefore, researchers explore the fundamental factors that lead to technology acceptance. In other words, the reasons that affect users in the so-called approval process are significant.

Consequently, numerous investigations have been carried out to optimize the prospects of embracing technology (Balcerzak, Pietrzak, 2017; Nagy, Hajdú, 2022).

Davis introduced the Technology Acceptance Model (TAM) in 1989, which has since emerged as the predominant model for predicting the uptake of new technologies. Renowned for its cost-effectiveness, predictive capabilities, and robustness when compared to alternative models (Venkatesh, Davis, 2000; Nguyen, 2021), the TAM model holds immense value. In line with the TAM, two crucial factors exert substantial influence over an individual's adoption of novel technology: perceived utility and perceived user-friendliness. The former pertains to the user's belief in the technology's capability to facilitate goal attainment or improve effectiveness (Madininos et al., 2013). The latter pertains to the degree of ease with which the user thinks they can utilize and comprehend the technology.

Figure 1. Technology Acceptance Model-TAM



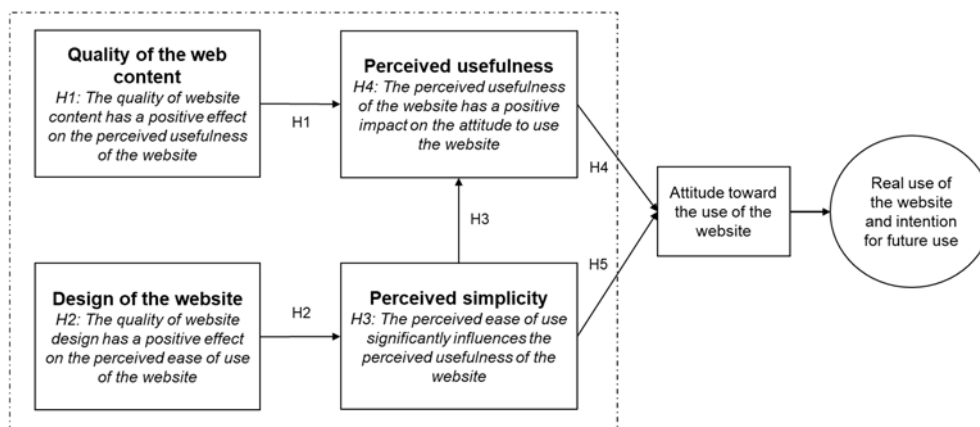
Source: adapted from Davis, 1989.

Within the TAM model, it is posited that these two factors exhibit a strong interconnectedness, culminating in their combined influence on the user's attitude and intention towards the technology at hand (Kapiton et al., 2022). The model has been widely used in research on technology acceptance and has been found to be effective in predicting user behaviour and adoption of new technology. One of the advantages of the TAM model is its simplicity and ease of use, which makes it a popular tool for researchers and practitioners. It is also flexible enough to be adapted to different contexts and technologies, allowing it to be applied in a wide range of settings. However, some critics argue that the TAM model does not take into account other important factors that can influence technology acceptance, such as social and cultural factors (Anantharaman, 2022). Despite this, the TAM model remains a widely used and influential framework for understanding user acceptance of new technology. Figure 1 demonstrates the aptness of this model in scrutinizing economic trends pertaining to the adoption of specific technologies.

Numerous scholars have devoted considerable effort to studying the acceptance and utilization of IT systems. Contemporary models in this domain showcase a shared structure featuring a dependent variable (e.g., usage intention or actual adoption) alongside a range of variables elucidating acceptance (Im et al., 2011). Significant contributions to this domain encompass the Theory of Reasoned Action (TRA), established by Fishbein and Ajzen in 1975, alongside the Theory of Planned Behaviour (TPB), formulated by Davis in 1989. Another noteworthy model widely acknowledged in research is the Technology Acceptance

Model (TAM), also introduced by Davis in 1989, also introduced by Davis in 1989, garners substantial recognition and frequent citation within the research community. This study aims to develop a model that identifies the impact of individual factors on user perception and the following hypotheses are developed (Figure 2).

Figure 2. Hypothesis development based on the TAM model



Source: prepared by authors.

Customer behaviour is a multifaceted field that examines the actions, preferences, and decision-making processes of individuals as they engage with products, services, and brands. It encompasses a wide range of factors, including psychological, social, cultural, and economic influences that shape how customers perceive, evaluate, and ultimately choose to interact with businesses. In the digital age, customer buying manners have evolved significantly with the rise of online shopping and increasing reliance on the Internet for various activities. Online customer behaviour refers specifically to the actions, attitudes, and preferences of consumers in the digital space. It encompasses online browsing, searching, purchasing, reviewing, and engaging with brands through various online channels and platforms.

Customer actions on websites are influenced by factors like design, functionality, content, usability, and user experience. Understanding customer behaviour is crucial for attracting, engaging, and retaining customers. Analysing website behaviour provides insights to enhance design and functionality. Metrics like click-through rates, bounce rates, conversion rates, and user paths help identify engaging elements, pain points, and drop-off points. This knowledge enables businesses to personalize marketing strategies and deliver targeted content and recommendations, enhancing customer satisfaction and increasing conversion rates. Customer behaviour on websites is tied to user experience (UX), which encompasses users' overall perception and satisfaction (Bisset Delgado, 2022). To improve behaviour, businesses must optimize their online presence through user testing, feedback collection, and analytics. Analysing customer habits helps businesses engage effectively, optimize user experience, and drive conversions. Understanding these interconnected aspects is crucial for delivering exceptional online experiences that exceed customer expectations.

3. Data and Methods

The research methodology employed in this study ensures a comprehensive examination of factors influencing website user behaviour and perception. An exploratory survey captured insights from diverse participants, including website users, visitors, and Internet users. The questionnaire was divided into demographic details and website perceptions, allowing for a nuanced understanding of user engagement. By validating various factors, this study uncovers underlying drivers of user behaviour and preferences. The comprehensive nature of the survey ensures that a wide range of variables is considered, providing a holistic view of the website's effectiveness and user satisfaction. The gathered data will be subjected to thorough statistical analysis, enabling researchers to identify correlations, trends, and patterns that shed light on the factors influencing users' perceptions and inclination to engage with the website. The research methodology employed in this study combines an exploratory survey, an anonymous electronic questionnaire, and a two-part structure to gather comprehensive insights into website user behaviour and perception. By considering demographic variables and validating various factors through statements, this study aims to provide a nuanced understanding of how users perceive and interact with a website, ultimately contributing to the enhancement of user experience and the optimization of website design and functionality.

To ensure the adequacy and reliability of the research sample, various statistical measures were employed to assess the collected data and its suitability for analysis. Essential evaluations, such as Cronbach's alpha and Kaiser-Meyer-Olkin, were used to gauge the internal consistency and reliability of the questionnaire items. These measures provide valuable insights into the quality and robustness of the data, enhancing the overall validity of the study, were employed to gauge the internal consistency and reliability of the questionnaire items (Hagger, 2019; Costales, 2022). These measures help determine the extent to which the items in the questionnaire measure the same underlying construct and provide an indication of the overall quality of the collected data. Additionally, the questionnaire design played a crucial role in capturing participants' opinions and perceptions regarding various aspects of the website. It consists of closed-ended questions that allow for standardized responses and employs a Likert scale that enables respondents to indicate their agreement levels on a five-point scale. This approach facilitates the measurement of subjective evaluations and provides a structured framework for participants to express their views on different elements of the website, such as usability, design, functionality, and the overall user experience. By incorporating closed questions and a Likert scale, the questionnaire provided a comprehensive and nuanced understanding of users' opinions and perceptions. It allows participants to provide detailed feedback on specific aspects of the website, enabling researchers to gain insights into the strengths and weaknesses of the website from users' perspectives. This information is crucial for identifying areas of improvement and optimizing a website's design, content, and functionality to enhance user satisfaction and engagement. Furthermore, the Likert scale used in the questionnaire offered a broader range of response options, enabling participants to express their opinions with varying degrees of agreement or disagreement. This approach captures the complexity of users' perceptions, allowing for a more nuanced analysis of their attitudes toward the website.

The scale also provides researchers with the ability to identify trends and patterns in user responses, facilitating the identification of key factors that influence user behaviour and

inclination to engage with the website. Overall, by incorporating statistical measures like Cronbach's alpha and Kaiser-Meyer-Olkin, as well as employing closed-ended questions and a Likert scale in the questionnaire construction, the research sample's sufficiency and reliability were ensured. This comprehensive approach facilitated a thorough comprehension of users' viewpoints and assessments regarding the website. These measures contribute to the robustness of the study's findings and provide valuable insights for improving a website's design and functionality to meet users' needs and preferences effectively.

The hypotheses were subjected to thorough and rigorous testing using a combination of mathematical and statistical evaluation methods within the "R Studio" program. This powerful software tool equips researchers with the capability to calculate Pearson correlation coefficients by generating an extensive correlation matrix. This invaluable tool enables the exploration and analysis of the relationships and associations between variables, providing valuable insights into the interdependencies within the dataset. By leveraging this software, researchers can uncover meaningful patterns and trends, further enhancing their understanding of the data and facilitating informed decision-making. By analysing the correlations among the variables of interest, researchers can gain valuable insights into the relationships and associations between different factors related to website perception and user behaviour. This statistical analysis helps uncover patterns, trends, and potential causal relationships, providing a robust foundation for drawing meaningful conclusions and making evidence-based interpretations of the study findings. The research sample consisted of 195 respondents representing a diverse range of individuals who interacted with the specific website under investigation. From this larger sample, a final survey sample of 148 participants was selected to ensure an appropriate representation of the target population. Proportionally stratified sampling techniques were employed within the geographical region of Kosovo. This approach ensures that the sample includes individuals from various demographic groups and geographical areas, thus enhancing the generalizability and external validity of the study findings. The process of data collection relies on the collection of personal information from participants, which serves as the primary source of data for the survey.

It is important to note that the collection of personal data is conducted in a manner that guarantees the confidentiality and anonymity of the respondents. Strict privacy measures and ethical considerations were implemented to protect the participants' sensitive information and ensure their willingness to provide accurate and honest responses. By employing personal data collection, this study aims to capture the rich and diverse perspectives of participants, enabling researchers to gain a comprehensive understanding of their perceptions and preferences related to a specific website. This approach allows for a deeper exploration of the factors influencing user behaviour and inclination to engage with the website while also ensuring that the findings are grounded in the real experiences and insights of the participants. Furthermore, the study employed rigorous mathematical and statistical evaluation techniques to test the research hypotheses, utilized proportionally stratified sampling to ensure a representative sample and employed personal data collection to gather valuable insights from the participants. These methodological approaches contribute to the validity, reliability, and robustness of the study findings, enabling researchers to draw meaningful conclusions, provide evidence-based recommendations for website optimization, and enhance user experience.

The structured questionnaire employed in the survey assessed various aspects of website quality, including website design, findability, navigation, accessibility, and usefulness. Each aspect is evaluated using a set of specific items. For instance, website design was measured using five items: findability with four items, navigation with three items, accessibility with four items, and usefulness with one item. In addition, the user's perceived ease of utilizing the website was evaluated using three statements. The quality of the information provided on the website and the user's perceived accessibility of information were assessed through five and three statements, respectively, contributing to the overall evaluation of the website's content quality. The study takes a comprehensive approach, allowing for a detailed assessment of the factors that impact the user's experience while browsing the website. By gathering data through a structured questionnaire and employing statistical analyses, this study aimed to provide valuable insights into users' perceptions, preferences, and experiences concerning website design and usability. The findings of this research will contribute to a better understanding of the factors that influence user behaviour and can guide website developers and designers in enhancing user experience and optimizing their websites.

The measurement of consistency and reliability plays a crucial role in research, and in this study, it is assessed using values ranging from 0 to 1. When the obtained value exceeded 0.7, it indicated a high level of reliability and consistency in the data. This threshold is important for ensuring that the findings and conclusions drawn from the analysis are robust and dependable. To further explore the relationships between variables, Pearson correlation analysis was conducted, utilizing the coefficient "r" to quantify the strength and direction of the associations. The "r" coefficient encompasses a range from -1 to 1, where negative values indicate a reverse relationship, positive values denote a direct relationship, and values closer to 0 represent a feeble or insignificant relationship. Employing the lower-triangle technique, the resultant correlation coefficient matrix was derived, presenting a comprehensive panorama of the interdependencies among the examined variables.

The utilization of the Pearson correlation analysis and lower triangle method allows for a thorough examination of the associations between variables, offering insights into the patterns and dynamics within the dataset. By examining the magnitude and direction of the correlation coefficients, researchers can identify significant relationships and uncover valuable information regarding the interdependencies of variables. This statistical approach provides a quantitative basis for understanding the strength of associations and their potential implications for the research objectives. Furthermore, the Pearson correlation analysis enables researchers to explore the extent to which variables are related, helping to uncover hidden patterns and potential causal relationships. By examining the entire correlation coefficient matrix, the interplay between different variables can be comprehensively and systematically examined, providing a more nuanced understanding of the underlying dynamics within the dataset. The values obtained from assessing consistency and reliability served as a foundation for the validity and robustness of the research. The subsequent Pearson correlation analysis, utilizing the coefficient "r" and the lower triangle method, added depth and richness to the findings by quantifying the strength and direction of the relationships between the variables. This statistical approach enhances the comprehensiveness of the research and enables researchers to uncover meaningful insights and draw reliable conclusions based on the data.

4. Results

The initial aspect examined in the research was the value of the website's content. The quality of information (QI) was evaluated using a set of five items, while the accessibility of information (AI) was assessed using a group of three items. The following statements were utilized to gauge the standard of information presented on the website:

- QoI1: The expected information was found on the website.
- QoI2: The website provides relevant business/institution-related information.
- QoI3: The information on the website is updated regularly.
- QoI4: The information on the website is reliable.
- QoI5: All necessary information and documents are available on the website.

Respondents had a positive perception of website content quality, with most responses indicating agreement with the statements. QoI2 had the highest positive response rate among all factors surveyed, with 66.74% of respondents indicating satisfaction. Figure 3 displays the responses for the quality of information factor.

The following items were used to assess the availability of information on the website (Figure 4):

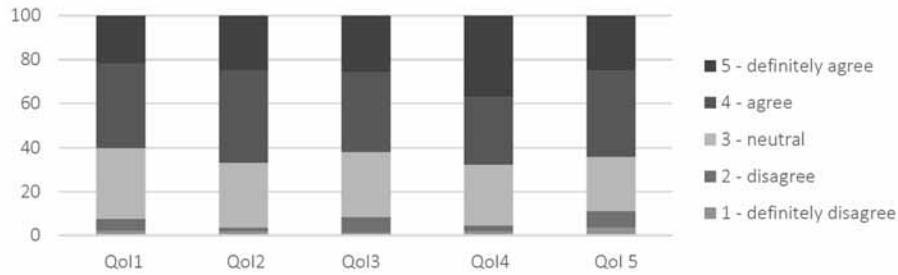
- AoI1: Finding the required information on the website is easy.
- AoI2: The website features useful links and connects to other relevant websites.
- AoI3: The website provides quick and convenient access to information.

According to the study, respondents had positive attitudes towards the availability of information on the website in these specific areas of interest, with the highest response rates recorded for answers 3 and 4. The most positive response rate (55.75%) was recorded for AI3, indicating that respondents perceived the website to offer quick and easy access to information.

The perceived appearance of the website was assessed using the following statements:

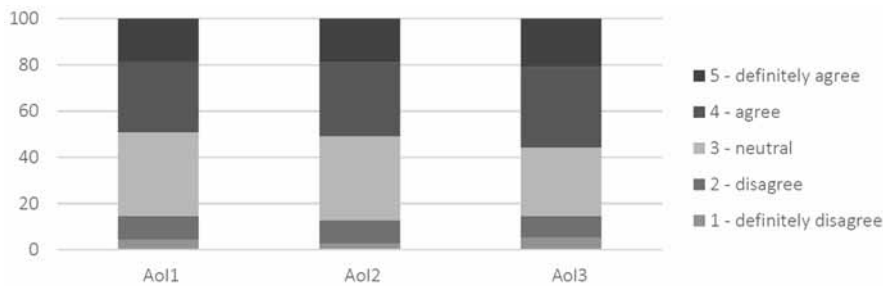
- WAP1: The website has an attractive appearance.
- WAP2: Appropriate colours and fonts are used on the website.
- WAP3: Appropriate multimedia elements are used on the website.
- WAP4: The website is clear and easy to understand.
- WAP5: The website is accessible and visible on mobile devices.

Figure 3. Factor related to the quality of information



Source: prepared by authors.

Figure 4. The factor of Information Accessibility



Source: prepared by authors.

The findings of the website design are quite promising. Users find the website attractive, with suitable colour schemes, font types, and multimedia elements. WAP2 received the most positive feedback with 66.10% of users finding the design appealing. However, WAP4 received the most negative feedback (17.03 %) due to the website's lack of transparency and comprehensibility. The study also showed that users found the website easy to locate on the internet (WF1) with 44.92% of respondents fully agreeing. The users' perception of the website's navigation was predominantly positive, with the highest level of positive responses (63.85%) observed for N2. Conversely, when it came to the location of the search window, the majority of negative responses (24.21%) were reported for WN3.

Table 1. Website Discoverability Factor

Findability of the website (WF)	Definitely disagree (%)	Rather disagree (%)	Neutral attitude (%)	Rather agree (%)	Definitely agree (%)
WF1	0.68%	1.35%	24.32%	29.05%	44.59%
	1	2	36	43	66
WF2	1.35%	3.38%	25.68%	38.51%	31.08%
	2	5	38	57	46
WF3	3.38%	10.81%	39.19%	36.49%	10.14%
	5	16	58	54	15
WF4	4.05%	6.76%	33.11%	31.76%	24.32%
	6	10	49	47	36

Source: prepared by authors.

Table 2. Website Navigation Factor

Navigation of the website (WN)	Definitely disagree (%)	Rather disagree (%)	Neutral attitude (%)	Rather agree (%)	Definitely agree (%)
WN1	2.03%	9.46%	29.05%	34.46%	25.00%
	3	14	43	51	37
WN2	3.38%	8.78%	24.32%	35.81%	27.70%
	5	13	36	53	41
WN3	13.51%	10.81%	25.68%	27.70%	22.30%
	20	16	38	41	33

Source: prepared by authors.

Table 3. Website Accessibility and Usability Factors

Accessibility and usability of the website (WAU)	Definitely disagree (%)	Rather disagree (%)	Neutral attitude (%)	Rather agree (%)	Definitely agree (%)
WAU1	12.16%	14.86%	25.68%	29.05%	18.24%
	18	22	38	43	27
WAU2	11.49%	19.59%	25.68%	25.00%	18.24%
	17	29	38	37	27
WAU3	10.14%	14.86%	16.89%	19.59%	38.51%
	15	22	25	29	57
WAU4	1.35%	3.38%	20.95%	37.16%	37.16%
	2	5	31	55	55

Source: prepared by authors.

Regarding the accessibility and usability of the website, users were generally positive. WAU4 received the most agreement, indicating that there were no unnecessary reports or warnings. However, WAU2 received the most negative feedback (31.10 %), indicating that users found unnecessary and non-functioning links on the page (Table 4). In general, users express high satisfaction with the website's navigation, as it allows for easy exploration, efficient retrieval of vital information, and quick access to the necessary content. This positive feedback highlights the website's simplicity and convenience.

Table 4. Perceived Utility Factor Table

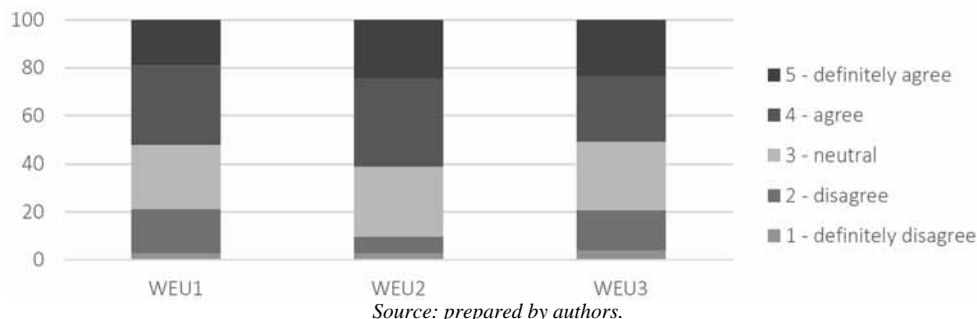
The usefulness of the website (USE)	Definitely disagree (%)	Rather disagree (%)	Neutral attitude (%)	Rather agree (%)	Definitely agree (%)
USE1	2.03%	16.89%	18.92%	28.38%	33.78%
	3	25	28	42	50

Source: prepared by authors

The primary objective of the study was to assess how users perceive a specific website concerning their inclination to use it, perceived utility, and perceived ease of use. Based on the findings, it can be concluded that website designers and developers should pay close attention to user feedback and continue to improve their websites to meet the evolving needs and expectations of users. Additionally, it is crucial to consider the perspectives of users with diverse backgrounds and demographics to ensure that the website is accessible and user-friendly for a broad range of individuals. Incorporating user-centered design principles, such

as conducting user research and usability testing, can also aid in creating a positive user experience and fostering user engagement. Ultimately, a user-centric approach to website design and development can lead to increased user satisfaction, engagement, and loyalty. Regarding the aspect of the perception of ease of use (PEU), users expressed a strong appreciation for the website's user-friendly nature, as demonstrated by the substantial number of positive responses received for the PEU2 statement. A significant proportion of approximately 60.96% of users confirmed the website's seamless navigation, highlighting its intuitive design and high level of usability (refer to Figure 5). This positive feedback underscores the website's effectiveness in providing a hassle-free and intuitive user experience.

Figure 5. The factor of perceived simplicity



To further evaluate the hypotheses, the study used statistical methods such as Cronbach's alpha and Pearson correlation analysis. The reliability of the sample was monitored using Cronbach's alpha, which measures the dependence between items and indicates high consistency and reliability when the coefficient is 0.7 or higher. The study employed Pearson correlation analysis to calculate the correlation coefficient among the variables, yielding valuable insights into their relationships and dependencies.

Overall, the study provides valuable insights into how users perceive the website and their attitudes toward its use. By understanding these factors, website designers and developers can improve the website's usability and user experience, ultimately leading to increased user engagement and satisfaction.

Table 5. The Factor of the Attitude towards the Utilization of the Selected Website

Attitude to use the website (WATT)	Almost never (%)	Rarely (%)	Neutral attitude (%)	Often (%)	Very often (%)
WATT1	6.08%	19.59%	30.41%	18.24%	25.68%
	9	29	45	27	38

Source: prepared by authors

Table 6. Quality Factor of Website Content

	QoI1	QoI2	QoI3	QoI4	QoI5	AoI1	AoI2	AoI3
QoI1	1							
QoI2	0.4209	1						
QoI3	0.3430	0.3290	1					
QoI4	0.3984	0.4261	0.3972	1				
QoI5	0.4460	0.3439	0.3699	0.3230	1			
AoI1	0.4101	0.3269	0.3899	0.2899	0.4991	1		
AoI2	0.4329	0.2729	0.3921	0.2761	0.3750	0.4821	1	
AoI3	0.4151	0.3701	0.3841	0.2570	0.4301	0.5760	0.5491	1

Source: prepared by authors

To ensure the trustworthiness and accessibility of information on the website, the study initially examined the reliability and consistency of the content quality factor by utilizing Cronbach's alpha. The resulting value of 0.84001 indicates a commendable level of internal consistency and reliability in the responses pertaining to this particular factor. Additionally, a comprehensive Pearson correlation analysis was performed using the lower triangle method to establish the correlation coefficient between the content quality factor and the availability of information factor. Table 6 provides an overview of the correlation observed between the content quality questions (QoI 1 to 5) and the information availability questions (AoI 1 to 3).

5. Discussion

One of the hypotheses tested in the study was the connection between the quality of website content and users' perceived usefulness of the website. The findings of the study revealed a robust correlation between the excellence of website content and users' perception of its utility, suggesting that augmenting content quality can significantly influence users' overall experience and satisfaction. This underscores the importance of prioritizing content development and ensuring its relevance and value to users. By focusing on improving the quality of website content, organizations can effectively enhance user engagement and promote positive user behaviours. However, for AoI2, there was a minimal correlation between the provision of valuable information and users' perception of the website's usefulness. This finding highlights the need for further investigation into the factors that influence users' perceptions in different areas of interest on a website. Moreover, the investigation encompassed an exploration of the design quality factor, encompassing aspects such as the website's arrangement, discoverability, navigation, and accessibility. Although the correlation coefficients generally displayed a range of low to moderate values, signifying a certain degree of interdependence among the variables under scrutiny, a noteworthy finding emerged regarding the strong association between website orientation and the perception of simplicity.

The results of the study also showed that the perceived simplicity of use (WEU) is a critical factor affecting user attitude to use (WATT). Users who expressed a positive perception of the website's ease of use and navigation exhibited a more favourable inclination towards engaging with the website. Furthermore, the study revealed that users' perception of website

accessibility and findability significantly affects the quality of their experience. Websites that offer swift and convenient information access, and are easy to navigate, are likely to enhance user satisfaction and provide a positive experience. In general, this study provides valuable information regarding the factors that affect user experience with websites and emphasizes the significance of focusing on website design, content, and navigation to ensure a positive user experience. These insights can be utilized to enhance website design and optimize the user experience to boost user satisfaction and engagement.

Table 7. Evaluation of statistical analysis

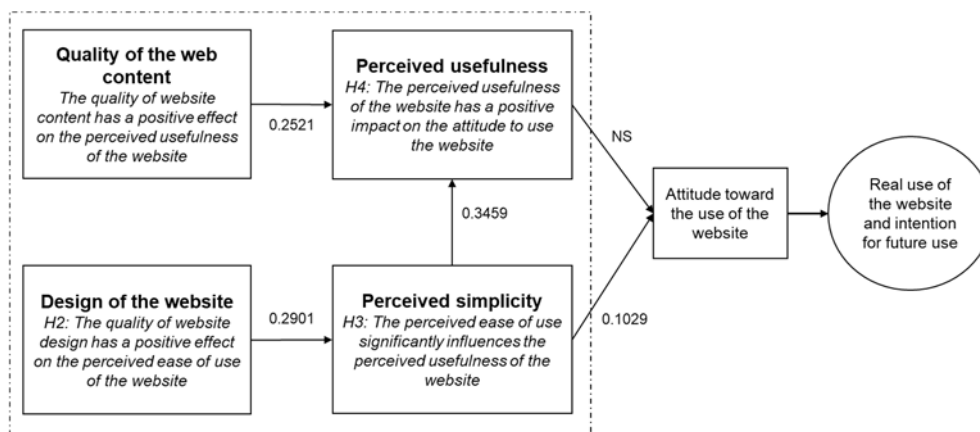
Hypothesis	Examined factors	Coefficient value	Result
H1	QoI, AoI > USE	0.2521	Accepting H1
H2	WAP, WF, WN, WAU > WEU	0.2901	Accepting H2
H3	USE > WEU	0.3459	Accepting H3
H4	USE > WATT	Not significant	Rejecting H4
H5	WEU > WATT	0.1029	Accepting H5

Source: prepared by authors

H5 compared the factors of perceived simplicity and attitude to use by measuring website frequency of use. The research discovered that there was no correlation between the WEU1 and WEU2 variables and the user's inclination to use the website. Consequently, the study proposes that user-friendliness and page alignment do not have a substantial impact on the website's actual usage. These conclusions are displayed in Table 7.

The study explores the various factors that impact a user's experience while browsing websites. The identified individual factors have been formulated based on a customized model of user experience, which is an evolved rendition of Davis' TAM model. The proposed factors encompass page content quality, comprising two distinct variables: information quality and information availability on the website. The website design factor has been further divided into variables such as appearance, findability, accessibility, usability, and navigation on the website.

Figure 6. Results of Hypothesis Based on the research model



Source: prepared by authors.

The study's outcomes led to the proposal of a user experience model that considers various factors contributing to a favourable user experience. Expanding on Davis's (1989) technology acceptance model, the proposed model incorporates crucial factors like perceived utility, ease of use, user attitude, website layout, content quality, navigation, accessibility, and findability. By considering these factors, the model provides a comprehensive evaluation of the elements that influence user experience on a website. This proposed model can aid developers and designers in understanding the significance of these factors and how they influence user perception and behaviour. It can also serve as a framework for future research on website design and user experience. By assimilating the knowledge acquired from this study and other pertinent research endeavours, the proposed model possesses the potential to enrich the development of supplementary websites that are both efficacious and user-centric.

6. Conclusion

This study sought to delve into the influence of diverse factors on user experience within the web domain. In an increasingly competitive market, even minute details of a product can have a substantial impact on user interaction. By exploring the interplay between user behaviour and their perception of web pages' utility and user-friendliness, this research aimed to augment the existing comprehension of the Technology Acceptance Model (TAM) and contribute to its advancement. TAM is a widely recognized model that is commonly used to predict the adoption of new technologies. It is known for its cost-effectiveness, predictability, and resilience when compared to other models (Venkatesh & Davis, 2000; Nguyen, 2021). The findings shed light on the factors that influence the user experience when browsing websites, highlighting the significance of paying close attention to website design, content, and navigation to create a positive user experience. Moreover, the study suggested that improving website usability could lead to an increase in the frequency of website usage, indicating the potential benefits of optimizing the user experience. The outcomes of this investigation yield significant insights that can be utilized to optimize website design and enhance user engagement and satisfaction. The objective of this study was to build upon prior research in the domain and contribute to a broader understanding of user behaviour and experience. The consistent outcomes substantiated the influence of perceived simplicity, emphasizing the significance of prioritizing website aesthetics, navigation, accessibility, and usability to enrich the overall user experience. The study also revealed that a majority of users positively rated the website content quality and accessibility, with more than half of the respondents expressing a positive attitude towards the ease of finding relevant information. Moreover, the research indicated that enhancing website navigability might result in a rise in the frequency of website utilization.

The website was considered to have appropriate colours and fonts by 66.10% of the respondents, indicating a positive response. A considerable percentage of 44.59% of the participants agreed that they could easily locate the website on the Internet. Therefore, implementing the given suggestions can lead to an increase in the website's traffic. While the influence of content quality on perceived usefulness was not confirmed, it is still recommended to focus on enhancing website quality as it plays a vital role in an online search.

Nonetheless, there are certain constraints that must be recognized in this study. As with other cross-sectional studies based on questionnaires, the results cannot prove causality. Additionally, the study was conducted on a selected website, which may limit the generalization of the findings to other industries, technologies, or countries. Despite these limitations, the research yields significant contributions to identifying the variables that may affect user experience in web design, and these results can be used to enhance website development and design. In spite of the significance of the constraints mentioned earlier, it is vital to stress that the investigation centered on a specific group of respondents, implying that the findings may not be applicable to other circumstances or demographics. Additionally, it is reasonable to assume that different clusters of users may have varying preferences and expectations regarding website layout and information.

Furthermore, it is worth noting that this study had certain limitations, including a relatively small sample size and a specific website being used as the subject of the investigation. Therefore, the generalizability of the findings to other websites or populations may be limited, and further research is required to establish the external validity of the study. In addition, although this study primarily centered on perceived usefulness and perceived simplicity, there exist other pivotal factors that wield influence over user behaviour, including trust, satisfaction, and emotional reactions towards the website. Future research endeavours should take these factors into account to attain a more comprehensive grasp of user experience within the web domain.

Despite these limitations, the study provides valuable insights into the factors that can influence user experience with websites. By paying close attention to website design and usability, businesses and organizations can enhance user satisfaction and increase the likelihood of repeat visits and continued use. Future research in this area could explore the impact of additional factors on user experience, such as the influence of social media and online communities, as well as the impact of cultural and demographic differences on user preferences and expectations. Additionally, longitudinal studies could provide a more comprehensive understanding of how user experience evolves over time and how it is influenced by changes in technology and user behaviour.

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COMPLIANCE WITH ACCOUNTING STANDARDS BY JORDANIAN SMEs⁷

SMEs are renowned all over the world for being informal, therefore, following accounting standards, is something unique for SMEs. Jordan being the heaven for SMEs is becoming more and more formal for SMEs, yet the government has not imposed any restrictions on SMEs to follow accounting standards. However, several SMEs in Jordan are following accounting standards because of the advantages that SMEs can avail by adopting accounting standards. Hence, it is vital to understand the factors which influence the adoption of accounting standards, as well as it is equally important to understand the advantages which SMEs can gain by adopting accounting standards. Thus, this study has two core aims, initially to identify the factors which influence the implementation of accounting standards and secondly the identification of the significant advantages which SMEs can achieve by the implementation of the same. For conducting the analysis the data has been collected from 100 SMEs operating in Jordan. Purposefully those SMEs were chosen with the help of a filter question that were adopting accounting standards. For evaluating the hypothesis, structural equation modelling has been applied. The results revealed that the adoption of accounting standards have benefits for the SMEs, whereas only demand for quality

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reporting and financial information external users have shown insignificant impact over usage of accounting standards, perhaps since it is not mandatory by the government. The study also opened horizons for future research, because there is yet a lot that need to be explored that why SMEs are reluctant in adopting accounting standards or what are the major hurdles in the adoption of financial accounting standards.

*Keywords: Sustainability; Financial reporting; SMEs; Accounting standards; Taxation
JEL: G10; G19*

1. Introduction

Small and Medium Enterprises (SMEs) are considered as vehicles of economic development and growth in developing countries (Khan, Asad, Khan, Asif, & Aftab, 2021). The share of SMEs in overall businesses varies from 60% to 90% depending upon the country and level of economic development of the country (Asad & Kashif, 2021). SMEs contribute significantly to the exports and GDP of the developing countries (Asad, Shabbir, Salman, Haider, & Ahmad, 2018) and Jordan has no exception to it (Al-Afeef, 2020). At the same time, the share of SMEs in the provision of employment cannot be ignored in Jordan (Al-Hyari, 2020). In several countries, and especially in Jordan SMEs constitute more than 90% of the businesses (Global Entrepreneurship Monitor, 2019).

Despite the critical role of SMEs in the growth and development of developing economies, the implementation of accounting practices (Barker, Lennard, Nobesc, Trombetta, & Walton, 2014; Abdul, 2018; Ahmad & Al-Shbiel, 2019) has ever remained a controversial concern (Alrabba & Ahmad, 2017) especially for the SMEs especially in the developing economies (Dang-Duc, 2011; Bongomin, Ntayi, Munene, & Malinga, 2017). The major issue behind the lack of implementation of accounting standards is the lack of regulatory compulsions over SMEs in developing countries (Suwaidan, Qaqish, Bataineh, & Hammad, 2018; Ahmad & Al-Shbiel, 2019; Chege & Wang, 2020). Similarly, SMEs also consider it as a burden, as it is not imposed by law to follow the accounting and reporting standards.

In developing countries where SMEs follow accounting and reporting practices are those where the governments have imposed the implementation of accounting and reporting standards (Dang-Duc, 2011; Hřebíček, Soukopová, Štencl, & Trenz, 2014; Kılıç & Uyar, 2017). SMEs operating in Jordan need to adopt IFRS, and the government has allowed them to follow the standards, unlike listed and unlisted companies that are registered with the Jordanian Securities Commission are bound to follow the accounting and reporting standards (Masoud & Ntim, 2017), yet it is not mandatory and due to several reasons SMEs are reluctant in adopting IFRS (Al-Htaybat, 2018). Because of very few countries where SMEs are bound to follow accounting and reporting practices (Hřebíček, Soukopová, Štencl, & Trenz, 2014; Ahmad & Al-Shbiel, 2019), researchers have hardly addressed the issues or benefits of implementing accounting and reporting standards, regarding SMEs in the developing countries.

Hence, the purpose of the current research is to identify the critical factors that influence the mindset of entrepreneurs in developing countries for implementing accounting and reporting standards. For the said purpose, researchers have chosen Jordan for several reasons. Initially

Jordanian economy was highly dependent on SMEs (Global Entrepreneurship Monitor, 2019; Al-Weshah, Kakeesh, & Alhammad, 2022), as the proportion of SMEs in overall business activities in the country is more than 90%, likewise, the share of SMEs in the employment and GDP is also significant (China Banking News, 2018; Al-Afeef, 2020). Moreover, SMEs in Jordan hardly follow accounting and reporting standards (Smirat, 2013). Therefore, the study has two folds, initially the researchers have tried to identify the critical factors that influence the implementation of accounting and reporting standards and later on, identifying the advantages of implementing accounting standards for SMEs in Jordan.

The rest of the paper is organized as follows. The next section proceeds with a literature review and development of the framework. The next section deals with data collection and analysis. Afterwards, results have been discussed with respect to prior literature. The final section deals with conclusions, limitations and recommendations of the study.

2. Review of Literature and Framework

Text Adoption of accounting standards by any business is based on the restrictions imposed by the regulator of the country. Likewise, another important reason is the usefulness of the adoption of accounting and reporting standards for decision-making (Ahmad & Al-Shbiel, 2019; Hellmann & Patel, 2021). It must be noted that accounting is a procedure of providing relevant and accurate information, thus, accounting and auditing help the decision makers in taking the right decisions (Khan S. N., Asad, Fatima, Anjum, & Akhtar, 2020; Damer, Al-Znaimat, Asad, & Almansour, 2021). The theory has become important for information disclosure because of significant theoretical and practical advantages in financial accounting history.

Despite the significant proportion of SMEs in economic development, very little has been known about compliance with accounting and reporting standards with respect to SMEs (Alrabba & Haija, 2018; Beliaeva, Tatiana, Wales, & Gafforova, 2020). The motives that necessitate SMEs to adopt accounting and reporting standards are different from those of the registered companies (Al-Htaybat, 2018; Ahmad & Al-Shbiel, 2019; Barker, Lennard, Nobesc, Trombetta, & Walton, 2014). The decision-usefulness theory has become less important for SMEs. The only users of the financial statement of SMEs are banks or the tax authorities, thus limiting the users of financial reporting. The main users of financial statements are shareholders and investors (Almansour, Asad, & Shahzad, 2016; Alkhuzaie & Asad, 2018; Ritonga & Suyanto, 2022) who have nothing to do with SMEs.

Accountants were perceived to have a greater influence on the adoption of accounting and reporting standards (Dang-Duc, 2011; Al-Htaybat, 2018). Because of a lack of knowledge, accountants in SMEs, especially in developing countries, are hardly capable of applying accounting and reporting standards. Similarly, lack of regulatory requirements entrepreneurs are least interested in hiring professional accountants. Thus, entrepreneurs consider the implementation of accounting and reporting standards as cost only (Uyar & Güngörmüş, 2013; Guerreiro, Rodrigues, & Craig, 2015; Weerathunga, Chen, & Sameera, 2020). The entrepreneurs believe that the benefits of adopting accounting practices are far lesser as compared to the cost of hiring professional accountants and following other governance

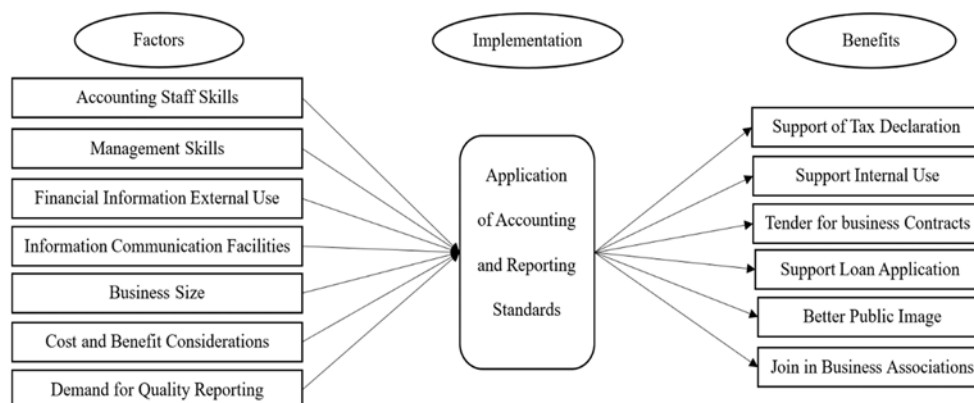
principles (Litjens, Bissessur, Langendijk, & Vergoossen, 2012; Quinn, Hiebl, Moores, & Craig, 2018; Sklaveniti & Steyaert, 2020).

Researchers have focused mainly on the implementation of accounting and reporting standards for large companies (Alkhuzaie & Asad, 2018; Zeng, 2019; Chychyla, Leone, & Minutti-Meza, 2019; Tiwari & Khan, 2020), hence the concern for adoption of accounting and reporting standards for SMEs has always remained controversial (Albu, Albu, & Fekete, 2010; Perera, Chand, & Mala, 2020) because of its cost and benefit comparison. Compared with developed countries, developing economies experience a high level of volatility in reporting regulations (Jermakowicz & Epstein, 2010; Banga, 2019; Santeramo & Lamonaca, 2022). For setting standards accounting infrastructure is critical and it needs to be less volatile. Thus, the changes are likely to overburden SMEs with complexity (Damer, Al-Znaimat, Asad, & Almansour, 2021) and hence, SMEs have disproportionate cost burdens imposed by the regulatory bodies. Likewise, SMEs are reluctant in following the accounting standards which are not meant for them but for the large companies (Dang-Duc, 2011; Sastararaji, Hoonsopon, Pitchayadol, & Chiwamit, 2022; Kuttner, Mayr, Mitter, & Duller., 2022).

Undoubtedly, the advantages of implementation of financial reporting and accounting standards cannot be denied (Kılıç & Uyar, 2017; Alrabba & Ahmad, 2017), as accounting standards are an integral part of the national accounting system. Thus, researchers should address the implementation of accounting standards regardless of the size of the business (Christie, Brozovsky, & Hicks, 2010; Waterhouse, Ward, & Hopkins., 2020; Huu Anh, Soa, & Hanh, 2020), to ensure the regulators and the owners of SMEs about the significant cost and benefits of implementation of accounting and reporting standards for SMEs. However, in case if the costs of implementation of accounting and reporting standards supersede their benefits, SMEs may not need to follow them, but without empirical evidence, it would be difficult to claim that the benefits of implementing accounting and reporting standards beat the costs. Yet researchers have not paid much attention to the important issue which needs empirical evidence, especially for developing countries (Appiah, Osei, Selassie, & Osabutey, 2019; Chege & Wang, 2020; Khayer, Hossain, & Hossain, 2020), regarding the factors that influence the implementation of accounting and reporting standards in SMEs and the benefits that SMEs can gain from this implementation (Barker, Lennard, Nobesc, Trombetta, & Walton, 2014; Alrabba & Ahmad, 2017). Therefore, based on the above discussion it is critical to identify and impact of those factors that significantly influence the implementation of accounting and reporting standards for the SMEs and also the benefits that SMEs can gain by implementing accounting and reporting standards (Chychyla, Leone, & Minutti-Meza, 2019). Based on the above discussion the following framework has been developed.

SMEs that have the skills within their human resource hardly consider financial reporting as cost, because their accountants are capable of following the standards, at the same time, the skilled management can best use the financial report for future forecasting and overall decision making (Barker, Lennard, Nobesc, Trombetta, & Walton, 2014).

Figure 1. Research Framework



Businesses that prepare financial accounts as per the IFRS easily access finance and at the same time their market repute is also enhanced for taking credit from the suppliers (Al-Htaybat, 2018; Agyei-Boapeah, Machokoto, Amankwah-Amoah, Tunyi, & Fosu, 2020). Thus, one of the factors that influence SMEs for adopting financial accounting and reporting standards is creditworthiness and tax benefits, especially for going for self-assessment for tax calculations (Barker, Lennard, Nobesc, Trombetta, & Walton, 2014; Thottoli, 2020). Another important factor is the size of the business.

Enterprises with large sales volume and high turnover usually prefer to follow accounting and reporting standards to avoid fraud and errors (Stubbs & Higgins, 2018; Tiwari & Khan, 2020). Entrepreneurs who are knowledgeable and capable of forecasting prefer standardized reporting as it is helpful for decision-making (Krasniqi, Berisha, & Pula, 2019; Camuffo, Cordova, Gambardella, & Spina., 2020). Likewise, it is the demand for the investors if the business is interested in seeking investment from angle investors.

Likewise, the implementation of accounting and reporting standards has several benefits not only for large firms but also for SMEs (Barker, Lennard, Nobesc, Trombetta, & Walton, 2014; Perera, Chand, & Mala, 2020). The topmost benefit is that SMEs face issues with tax departments, so they can easily handle those issues if they follow standardized financial reporting (Perera, Chand, & Mala, 2020). Management of the SMEs can make better decisions based on the financial report, which helps them in forecasting the revenues and expenses based on previous experiences, likewise, they can target those areas where they can save cost, thus, benefits outperform the costs.

Whenever the business wants to apply for tenders standardized accounting helps them in winning the tenders because of accurate forecasting and also for gaining benefits from the same (Laela, Rossieta, Wijanto, & Ismal, 2018; Asatiani, Apte, Penttinen, Rönkkö, & Saarinen, 2019). In case SMEs need loans from any financial accounts, implementation of financial reporting standards increases the creditworthiness of the SMEs. Creditworthiness is not only beneficial for taking loans from financial institutions, but also useful for attracting

angle investors, thus enhancing the image of the SME. Enterprises that follow accounting and reporting standards become a benchmark for several SMEs, this capability helps them become members of several business associations (Guerreiro, Rodrigues, & Craig, 2015; Alrabba & Ahmad, 2017).

Overall it would be right to claim that the implementation of accounting and reporting standards are beneficial (Baskerville & Grossi, 2019; La Torre, Sabelfeld, Blomkvist, & Dumay, 2020). However, the factors that influence the implementation of accounting and reporting standards need to be carefully addressed by entrepreneurs. Based on the above discussion regarding factors influencing the implementation of accounting and reporting standards and the benefits that SMEs can gain by implementing accounting and reporting standards following hypothesis are proposed for testing empirically.

2.1. Accounting Staff Skills and Application of Accounting and Reporting Standards

Accounting encompasses a diverse range of abilities that revolve around maintaining records, directing focus, managing financial performance, and reporting. These skills are designed to facilitate informed decision-making, assess a company's performance, and communicate the status of a business enterprise (Uyar & Güngörmüş, 2013). Proficiency in financial accounting is crucial for achieving financial success. Small and medium-sized enterprises (SMEs) can greatly benefit from incorporating these essential skills, as they can lead to improved financial performance (Perera & Chand, 2015). Neglecting to acquire and apply these skills can result in financial difficulties, potentially leading to the failure of an SME. Hence considering the importance of accounting skills for the application of accounting and reporting standards following hypothesis is proposed;

H₁: Accounting staff skills significantly influence the implementation of accounting and reporting standards.

2.2. Management Skills and Application of Accounting and Reporting Standards

Effective management skills empower SMEs to make critical decisions regarding the development and distribution of products and services, as well as managing the production process. On the other hand, reporting plays a significant role in communicating the appropriate level of detail and quality of information (Thottoli, 2021). Employing effective techniques to accurately report business information to stakeholders can prove highly beneficial for SMEs (Sellami & Gafsi, 2018). Management skills and processes are essential components of any successful entrepreneurial endeavour and are instrumental in the successful implementation of financial reporting and accounting standards. Therefore the following hypothesis is proposed;

H₂: Management skills significantly influence the implementation of accounting and reporting standards.

2.3. Financial Information External Use and Application of Accounting and Reporting Standards

An SME is characterized as an entity that is not typically accountable to the general public, does not publicly disclose its financial statements, and has equity and debt instruments that are not traded publicly, either on over-the-counter markets or foreign stock exchanges. Nonetheless, implementing financial reporting standards can have a highly beneficial impact on obtaining credit and attracting high-quality clients within the industry when dealing with creditors (Perera, Chand, & Mala, 2019). Therefore, the importance of the application of accounting standards and reporting standards cannot be ignored. Thus, the following hypothesis is proposed;

H₃: Financial information external users significantly influence the implementation of accounting and reporting standards.

2.4. Information Communication Facilities and Application of Accounting and Reporting Standards

Information communication facilities enable managers within a firm to effectively communicate the organization's strategies both upwards and downwards within the company. This ensures that all individuals within the firm, regardless of their level, have a comprehensive understanding of the organization's long-term strategy (Perera & Chand, 2015). Effective communication facilities aid in the process of business planning by enabling firms to seamlessly integrate their business plans with their financial reporting. Therefore, the following hypothesis is proposed;

H₄: Information communication facilities significantly influence the implementation of accounting and reporting standards.

2.5. Business Size and Application of Accounting and Reporting Standards

Business size is commonly measured by the number of employees and has been shown to have a positive impact on returns on assets at a significant level. However, the influence of firm size on the application of accounting and reporting standards has been infrequently addressed in academic research (Perera, Chand, & Mala, 2022). Organizational size can contribute to improved financial performance. Large organizations may have a competitive advantage over smaller competitors due to their ability to develop and implement robust accounting standards (Sellami & Gafsi, 2018). Indeed, large organizations may have an advantage in terms of resources that can facilitate the implementation of accounting and reporting standards. This can result in greater accuracy and consistency in financial reporting, which can ultimately benefit the organization's financial performance. Thus considering the significance of business size the following hypothesis is proposed;

H₅: Size of the business significantly influence implementation of accounting and reporting standards.

2.6. Cost and Benefits Considerations and Application of Accounting and Reporting Standards

Conducting a cost-benefit analysis is essential, particularly for SMEs, when considering the adoption of financial reporting standards. Nonetheless, implementing such standards may provide a competitive advantage to a firm (Scagnelli, Corazza, & Cisi, 2013). Implementing financial reporting and accounting standards can enhance a firm's capabilities, competencies, organizational processes, and information, thereby enabling the firm to implement strategies that enhance its effectiveness and efficiency (Perera, Chand, & Mala, 2022). Hence, the following statement is hypothesized;

H₆: Cost and benefit considerations significantly influence the implementation of accounting and reporting standards.

2.7. Demand for Quality Reporting and Application of Accounting and Reporting Standards

Financial reports are essential tools for any business, as they primarily inform stakeholders, particularly external providers of capital, about the company's operations and performance (Yalkin, Demir, & Demir, 2008). High-quality financial reports are defined by the adoption and utilization of high standards of financial reporting, which enable proper financial performance within SMEs. Such organizations can effectively utilize financial reports to inform both internal and external stakeholders about their business position (Thabit & Alnasrawi, 2016). Because of the increasing demand for quality reporting the following hypothesis is proposed;

H₇: Demand for quality reporting significantly influences the implementation of accounting and reporting standards.

2.8. Application of Accounting and Reporting Standards and Support of Tax Declaration

Financial statement preparation and auditing are legal requirements for many businesses in most jurisdictions (Sellami & Gafsi, 2018). Normally in Jordan, most SMEs comply with accounting and reporting standards by maintaining proper books of accounts, and they submit tax returns based on these financial statements to the tax authority. Considering the significance and importance of the application of accounting and financial reporting for the tax declaration the following hypothesis is proposed;

H₈: Implementation of accounting and reporting standards benefit SMEs in Tax declaration.

2.9. Application of Accounting and Reporting Standards Support Internal Use

Financial reporting will not only be limited to external users but also to internal users like managers who have to make decisions (Perera, Chand, & Mala, 2022). The quality of information available for the information users is reliable and depicts the true picture thus, it supports the decision-making for the achievement of organizational objectives (Evans, et al.,

2005). Due to the importance of the application of accounting and financial reporting the following hypothesis is proposed;

H₉: Implementation of accounting and reporting standards to support internal users in decision-making.

2.10. Application of Accounting and Reporting Standards Tender for Business Contracts

Recruiting skilled personnel can be a challenge for SMEs, as there is often a shortage of qualified accountants, and hiring them can be expensive. This can cause problems for SMEs when dealing with vendors who require the expertise of such personnel (Singh & Newberry, 2008). Entities with international operations, foreign partners, or export activities often find it advantageous to adopt international financial reporting standards (IFRS) in order to facilitate access to finance and ensure consistency in financial reporting across different countries. IFRS is a globally recognized set of accounting standards that are widely used by companies operating in multiple jurisdictions, as it provides a common financial reporting language that is easily understood by investors and other stakeholders around the world. Hence, the following hypothesis is proposed;

H₁₀: Implementation of accounting and reporting standards benefits SMEs in tenders for business contracts.

2.11. Application of Accounting and Reporting Standards Support Loan Application

Regulators, standard setters, and accounting companies suggest that the adoption of International Financial Reporting Standards (IFRS) is effective in providing high-quality information that reduces information asymmetry between capital lenders and borrowers. IFRS mandates more detailed disclosures, improves the comparability of firms, facilitates better measurement and recognition of additional liabilities, and reduces the extent of earnings management (Balsmeier & Vanhaverbeke, 2018). The use of fair value accounting can lead to faster recognition of positive and negative news in a company's financial statements. Providing high-quality financial information can increase the likelihood of a company obtaining a loan and influence the terms and conditions of debt contracts in their favour. This is because lenders and investors rely on accurate and transparent financial information to make informed decisions about the creditworthiness of a company. Therefore, the following hypothesis is proposed;

H₁₁: Implementation of accounting and reporting standards benefit their loan applications.

2.12. Application of Accounting and Reporting Standards Better Public Image

SMEs often feel external pressure to adopt certain practices due to the demands of governments, banks, or the expectations of the larger society. This is because SMEs are highly concerned about their public image and want to maintain a positive reputation. As a result, they may adopt practices such as corporate social responsibility initiatives or

environmental sustainability practices to meet these demands and expectations (Thien & Hung, 2021). The professionalization of small businesses is also demonstrated through these practices. However, there may be instances where a gap or disconnect exists between formal and informal practices, resulting in a discrepancy between the image presented and the actual reality of the business (Scagnelli, Corazza, & Cisi, 2013). Thus, for improving the public image of the enterprises through the application of accounting and financial reporting the following hypothesis is proposed;

H₁₂: Implementation of accounting and reporting standards benefit public image.

2.13. Application of Accounting and Reporting Standards Join in Business Associations

Large multinational companies often use benchmarking to compare their performance against their peers and identify areas for improvement. On the other hand, smaller companies typically benchmark against industry leaders. The adoption of certain practices by a country is also influenced by the demands and expectations of foreign commercial partners (Wijekoon, Samkin, & Sharma, 2022). Developing countries tend to mimic the practices of their trade partners or countries within their geographical region. This is because they often lack the resources and expertise to develop their own best practices, and they may face pressure to conform to the practices of their more developed counterparts. In addition, developing countries may see adopting similar practices as a way to attract foreign investment and improve their international competitiveness (Carneiro, Rodrigues, & Craig, 2017). It is reasonable to believe that SMEs may mimic the accounting practices of successful organizations in the same industry. This is because SMEs often face resource constraints and lack the expertise to develop their own accounting systems. By mimicking the practices of successful organizations, SMEs may be able to adopt best practices and improve their own financial reporting processes. Additionally, benchmarking against industry leaders is a common practice for SMEs, which can also influence their decision to mimic certain accounting practices. Considering the significance of the application of accounting and financial reporting for joining business associations the following hypothesis is proposed;

H₁₃: Implementation of accounting and reporting standards benefit in joining business associations.

In the next step, the authors have discussed the methodology that they will follow to collect the data from the entrepreneurs who adopt accounting and reporting standards.

3. Data Collection and Analysis

The instrument was developed with the help of reviewed literature, though there are few studies that have identified the factors that influence the implementation of accounting and reporting standards, yet, as identified in the framework sufficient variables were observed based on the literature. From the prior studies, a questionnaire was developed by the researchers which was sent to academic and professional experts for face validity (Quinlan, Zikmund, Babin, Carr, & Griffin, 2018). Based on the suggestions of the experts the

instrument was modified and upgraded and a few more questions were added to the instrument. While choosing the responses the authors had two options to choose a 5-point Likert scale of seven-point Likert scale. For measuring the responses, the researchers used a seven-point Likert scale which is highly sensitive but gives more precise results for the perceptual measures (Cooper & Schindler, 2006).

Furthermore, the instrument was sent to the accountants working in SMEs because they were the best-targeted respondents. Purposefully those SMEs were chosen that were adopting accounting standards. For identification of those SMEs a filter question was entered in the instrument. In this regard, a total of 800 questionnaires were sent and the researchers received 129 questionnaires that chose yes to the filter question. Thus, the participants were only the owners or the managers of those SMEs that were adopting accounting and financial reporting standards. After analysing and removing the incomplete questionnaires, the researchers found only 100 questionnaires that were usable. Hence, the response rate was only 12.5% which is not very good, but for structural equation modelling as it is a non-parametric technique and is considered as good for theory building (Hair, Hult, Ringle, & Sarstedt, 2017) a sample of 100 is supposed to be enough (Lei & Lomax, 2005).

4. Results and Discussions

As per the reviewed literature, seven variables were observed to be the most critical constructs that influence the implementation of accounting and reporting standards by SMEs in developing countries. The literature further revealed six variables that can be considered as potential benefits for implementing accounting and reporting standards by SMEs. Thus, in the current research, the researchers considered seven constructs as exogenous variables and one endogenous variable, however, extending the framework to six constructs that appears to be the potential benefits for implementing accounting and reporting standards by the SMEs. The respondents were asked about their perception of the items that were developed based on the reviewed literature. Thus, ensuring the reliability and validity of the instrument was a major concern. Thus, initially, item loadings have been measured. The items are valid and need to be kept in the model if their loading values exceed the threshold level of 0.7 (Hair, Ringle, & Sarstedt, 2013). The findings of the item loadings for the collected data are mentioned in Table 1.

After ensuring that all the items that have been kept in the model are having loadings value above the threshold and none of the items has been removed, the next step is to ensure that each construct holds sufficient reliability and validity and the items used in each construct are different from the items in the other construct. To ensure the reliability and validity of the data, Cronbach's alpha, composite reliability, and Average variance extracted are measured with a threshold value of 0.7 (Henseler, Ringle, & Sarstedt, 2015), 0.6 (Henseler & Fassott, 2009), and 0.5 (Hair, Ringle, & Sarstedt, 2013) respectively. The results of validity and reliability are mentioned in Table 2.

Table 1. Item Loadings

Variables	Items	Loadings
Information Communication Facilities	ICF1	0.890
	ICF2	0.871
	ICF3	0.885
	IARS1	0.757
Implementation of Accounting and Reporting Standards	IARS2	0.824
	IARS3	0.907
	IARS4	0.879
	IARS5	0.823
	IARS6	0.726
	IARS7	0.724
	Better Public Image	BPI1
BPI2		0.958
BPI3		0.943
Join in Business Associations	JBA1	0.889
	JBA2	0.919
	JBA3	0.951
Management Skills	MS1	0.941
	MS2	0.908
	MS3	0.967
Business Size	BS1	0.832
	BS2	0.85
	BS3	0.835
	BS4	0.805
Cost and Benefit Considerations	CBC1	0.936
	CBC2	0.871
Financial Information External Use	FIEU1	0.915
	FIEU2	0.844
	FIEU3	0.78
	FIEU4	0.906
	FIEU5	0.906
	FIEU6	0.913
Demand for Quality Reporting	DQR1	0.81
	DQR2	0.909
Accounting Staff Skills	AS1	0.94
	AS2	0.726
	AS3	0.936
	AS4	0.946
Support of Tax Declaration	STD1	0.878
	STD2	0.865
	STD3	0.902
Support Internal Use	SIU1	0.905
	SIU2	0.935
	SIU3	0.832
Tender for Business Contracts	TBC1	0.956
	TBC2	0.935
	TBC3	0.923
Support Loan Application	SLA1	0.928
	SLA2	0.947
	SLA3	0.934

Table 2. Construct Reliability and Validity

Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Accounting Staff Skills	0.845	0.906	0.766
Better Public Image	0.922	0.95	0.865
Business Size	0.851	0.899	0.69
Cost and Benefit Considerations	0.893	0.933	0.824
Demand for Quality Reporting	0.865	0.918	0.789
Financial Information Excel Use	0.92	0.94	0.759
Implementation of Accounting and Reporting Standards	0.898	0.923	0.667
Information Communication Facilities	0.874	0.914	0.727
Join in Business Associations	0.91	0.943	0.846
Management Skills	0.933	0.957	0.882
Support Internal Use	0.87	0.921	0.795
Support Loan Application	0.93	0.955	0.877
Support of Tax Declaration	0.857	0.913	0.777
Tender for Business Contracts	0.932	0.957	0.88

After ensuring that the instrument used for collecting the data is reliable and valid in all respects structural equation modelling has been conducted. For ensuring the significance of the variables bootstrapping has been conducted using 5000 as a bootstrapping sample and an original number of cases i.e. 100 (Henseler & Fassott, 2009; Hair, Ringle, & Sarstedt, 2013; Hair, Hult, Ringle, & Sarstedt, 2017). The results of the path coefficients and the significance level are mentioned in Table 3.

The results of the path coefficients revealed that Accounting Staff Skills, Business Size, Cost and Benefit Considerations, Information Communication Facilities, and Management Skills have a significant impact on the Implementation of Accounting and Reporting Standards. However, the Demand for Quality Reporting and Financial Information External Use has shown an insignificant impact on the Implementation of Accounting and Reporting Standards. The major reason why these two exogenous variables have shown an insignificant impact is that in the case of SMEs, there is no mandatory requirement for financial reporting, and likewise as there are no shareholders, thus, external use of financial information is minimal, so these have least impact over Implementation of Accounting and Reporting Standards. On the other hand, when it comes to the benefits of implementing the Implementation of Accounting and Reporting Standards, all the variables have shown a significant influence because of the Implementation of Accounting and Reporting Standards. SMEs that implement the Implementation of Accounting and Reporting Standards becomes benchmark and their public image is improved, thus, it becomes easy for them to Join in Business Associations. Management of the SMEs can get benefits because of the standardized information provided by standardized reporting. Similarly, when SMEs apply for loans Implementation of Accounting and Reporting Standards Support Loan Application and likewise, Support of Tax Declaration. Because of the trust in the reporting of the SMEs, it's easy for the SMEs to compete in the tenders as they give tenders based on proper forecasting and hence the chances of success are maximum.

Table 3. Path Coefficients

Paths	Original Sample	Sample Mean	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Accounting Staff Skills -> Implementation of Accounting and Reporting Standards	0.441	0.262	0.189	2.341	0.003
Business Size-> Implementation of Accounting and Reporting Standards	0.417	0.092	0.161	2.583	0.002
Cost and Benefit Considerations-> Implementation of Accounting and Reporting Standards	0.427	0.063	0.134	3.188	0.001
Demand for Quality Reporting -> Implementation of Accounting and Reporting Standards	-0.18	-0.166	0.205	0.876	0.381
Financial Information External Use-> Implementation of Accounting and Reporting Standards	0.16	0.109	0.329	0.485	0.628
Information Communication Facilities -> Implementation of Accounting and Reporting Standards	0.448	0.42	0.148	3.036	0.003
Management Skills -> Implementation of Accounting and Reporting Standards	0.305	0.28	0.136	2.237	0.026
Implementation of Accounting and Reporting Standards -> Better Public Image	0.535	0.536	0.152	3.528	0.000
Implementation of Accounting and Reporting Standards -> Join in Business Associations	0.514	0.519	0.134	3.844	0.000
Implementation of Accounting and Reporting Standards -> Support Internal Use	0.621	0.624	0.111	5.617	0.000
Implementation of Accounting and Reporting Standards -> Support Loan Application	0.568	0.556	0.139	4.091	0.000
Implementation of Accounting and Reporting Standards -> Support of Tax Declaration	0.466	0.473	0.144	3.240	0.001
Implementation of Accounting and Reporting Standards -> Tender for Business Contracts	0.586	0.575	0.142	4.122	0.000

The above-mentioned table revealed the significant factors that influence the implementation of accounting and reporting standards by the SMEs. Furthermore, it is also important to confirm the significance and predictive relevance of the framework. Therefore, cross-validated redundancy has been applied using blindfolding technique. If the calculated value of Q2 falls below zero it shows that the model lacks predictive relevance, if the value is above zero the model holds significant predictive relevance (Henseler & Fassott, 2009). The findings are mentioned in Table 4.

Table 3. Construct Cross validated Redundancy

Construct Cross validated Redundancy	SSO	SSE	Q ² (=1-SSE/SSO)
Implementation of Accounting and Reporting Standards	594	373.749	0.371

The results of Q2 revealed that the model holds significant predictive relevance as the calculated value is 0.371. hence the findings of the study confirm that the model is significant and if the same factors are catered in any other developing country, the chances of implementation of accounting and reporting standards are high.

5. Conclusion, Limitations, and Recommendations

This study attempts to identify the impact of significant factors that influence the implementation of accounting and reporting standards by SMEs along with understanding the positive outcomes for implementing accounting and reporting standards. In order to meet the purpose of the research, the authors developed thirteen relationships based on the reviewed literature. To test the framework the data was collected with the help of surveys and only those SMEs were included in the study, that were implementing accounting and reporting standards. Thus out of 800 distributed questionnaires, only 100 questionnaires were found to be usable. The respondents were the accountants working in those SMEs who were implementing accounting and reporting standards. The results of the empirical study indicated that eleven relationships out of thirteen were accepted, thus, the study adds significantly to the literature by providing the significant factors that the entrepreneurs and the policymakers should implement for gaining the benefits of Implementation of Accounting and Reporting Standards.

The results of the study are very significant for the entrepreneurs who are running their ventures in developing countries. Because most entrepreneurs in developing countries consider the implementation of accounting and reporting standards as a burden. While underestimating the benefits that they can gain through the implementation of accounting and reporting standards, as identified in the study.

Likewise, the findings are very significant for the regulators, this is so because regulators need to create awareness and should make it mandatory for the SMEs to maintain their accounts as per the prescribed regulations, however, forcing SMEs to follow IFRS which are meant for a large corporation would be injustice, however, a proper mechanism should be developed considering the small and medium nature of operations of SMEs. Thus, there is a need to develop a proper framework for SMEs to maintain the accounts and reporting standards should be established considering their size. The study focused on a developing country where law enforcement does not make it mandatory for SMEs to follow the accounting and reporting standards, hence generalizing the findings would not be appropriate, however, there is a need to replicate the similar study in similar cultural and economic contexts.

Despite the theoretical and especially practical significance of the study, the researchers observed certain limitations, which need to be mentioned. First, the study is the first of its

kind in the context of the MENA region, secondly, the study has been conducted during the COVID-19 period hence there might be certain issues related to those factors which have not been catered, like during the pandemic period many SMEs fired several employees like accountants as they were a major burden on the SMEs because of high salaries, thus, several SMEs that might be following accounting and reporting standards might have been excluded from the survey. Likewise, the results are based on only a sample of 100 SMEs, hence a detailed study covering different cultural and economic scenarios needs to be included in future studies on the topic. Finally, the researchers used a questionnaire which might have the issue of self-serving bias, hence in the future secondary data is recommended to the researchers.

Since the study focuses on accounting practitioners in a transitional economy, the generalizability of the research findings is restricted. These limitations provide a basis for further research to be conducted in other contexts or with another sample, such as the directors of smaller firms, to verify the findings of this study.

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FINANCIAL LITERACY, FINANCIAL INCLUSION, AND FINANCIAL STATEMENTS ON MSMEs' PERFORMANCE AND SUSTAINABILITY WITH BUSINESS LENGTH AS A MODERATING VARIABLE⁵

Previous studies have shown a connection between financial literacy, financial inclusion, financial statements, MSME performance, and MSME sustainability. The results of the relationship between these variables varied, according to several studies. Therefore, the aim of this study was to investigate, the impact of financial literacy, financial inclusion, and financial statements on the performance and sustainability of MSME, moderated by the variable of business length. Bandar Lampung, Indonesia is situated in a very advantageous location with regard to the geopolitical constellations at the global, governmental, and regional levels. As a result, 100 MSME actors in Bandar Lampung, Indonesia, were asked to fill out a questionnaire, and the data was then analysed using PLS-SEM. The study found that each of these elements influenced MSME performance and sustainability in a positive way. Moreover, the sustainability of MSMEs is also positively impacted by MSME performance. Furthermore, the length of the business also improves the correlation between these factors. These results imply that business actors are more cognizant of the significance of the accounting process in their operations the longer a business has been in operation. The other findings indicate that the longer a business has been in operation, the more its business development will be influenced by that fact, as a well-established business will typically have more experience and grow more rapidly.

Keywords: Financial literacy; financial inclusion; financial statements; MSME's performance; MSME's sustainability

JEL: G53; G5; L2; M1

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1. Introduction

The largest contributor to Indonesia's GDP, according to the 2019 BPS report, is Micro, Small, and Medium Enterprise (MSMEs). MSMEs thus play a crucial part in Indonesia's economy. MSMEs are also known to significantly contribute to the economies of nations like Turkey, India, and Pakistan, according to prior research (Erdin, Ozkaya, 2020; Zafar, Mustafa, 2017). According to data from the National Development Planning Agency, the Bureau of Public Statistics, and the United Nations Population Fund, there are 58.97 million MSME's actors in Indonesia, which has a population of 265 million people as of 2018 (Kelara, Suwarni, 2020). Given the large contribution of MSMEs to the country's economy, the Indonesian government pays special attention to the better and more organized development of MSMEs. However, MSMEs in Indonesia continue to run into several issues. Limited capital is a common issue that frequently affects MSMEs. In addition, another issue that often occurs in MSMEs in Indonesia is the difficulty in evaluating the success and performance they have achieved. Since many MSMEs do not record and report accounting, MSMEs actors are not aware of the specifics of their business, which makes the situation extremely difficult. The development of SMEs in developing economies is significantly and favourably impacted by financial literacy and access to finance (Okello et al., 2016). Additionally, a major barrier to the performance growth of sustainable small and medium-sized enterprises (SMEs) in the developing world is a lack of knowledge, abilities, attitudes, and awareness to manage and manage their organization's finances in a tough, transparent, and professional way (Eniola, Entebang, 2015).

Furthermore, understanding and knowledge of financial literacy and inclusion is also very important for MSME players, because financial inclusion and financial literacy affect financial management which will have an impact on the performance and sustainability of MSMEs (Desiyanti, 2016). Additionally, financial literacy enables managers to make strategic investment decisions and choices that will allow their companies to grow and prosper (Okello et al., 2016). Furthermore, understanding financial literacy is critical for business actors because it can be used to prepare financial statements that can be used to obtain funds (Susan, 2020). In the context of MSMEs, owners or managers must have financial knowledge related to financial access and business growth. However, in practice, there are still MSMEs that have not been able to manage their business properly because of a lack of knowledge about financial literacy, so it is common for MSMEs to fail in their business. The management of financial knowledge in business requires attention. MSMEs have a problem with financial management because their owners downplay its significance (Pinem, Mardiatmi, 2021). In addition, another study conducted in the UK suggested that improved financial literacy has a positive effect on SMEs' growth. It also suggests reducing monitoring costs and capital structure optimisation. The primary tool used by owners of SMEs to make wise decisions is recognised to be their understanding of financial management (Hussain et al., 2018).

Previous research found that financial literacy and financial inclusion have an influence on the performance and sustainability of MSMEs (Hilmawati, Kusumaningtiyas, 2021). However, another study showed that there are differing opinions on the importance of financial inclusion and literacy as a factor in promoting business sustainability through financial performance (Rosyadah et al., 2022). Additionally, financial statements have an influence on the performance of MSMEs (Ayem, Wahidah, 2021). Previous studies reported that financial statements are important in describing business conditions, so that management has a basis for

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making strategic decisions. The ability of businesses to maintain their business and compete with businesses or other MSME actors will increase the perceptions of business actors about the importance of financial reports (Sunanto, Annisa Nurjannah, 2021). The results of the other study indicated that MSME's performance was influenced by the accuracy of financial statements (Ayem, Wahidah, 2021). Furthermore, previous research discovered that the length of time in business influenced the quality of financial statements. In addition, previous research found that the longer a business has been established, the higher the level of awareness of business actors about the importance of the accounting process in their business (Rahmayuni, 2017).

The market is frequently where MSME actors can be found, and small vendors are an example of micro-business actors. The focus of this study, which focuses on MSME participants, is on the three most well-known traditional markets in Bandar Lampung, the provincial capital of Lampung, Indonesia. The authors have noticed that this subject has not received much attention. Additionally, in both global, national, and regional constellations, Bandar Lampung City holds a very strategic geographic position. Its stance towards Singapore and Jakarta offers the possibility for it to participate in the regional economic cooperation under IMS-AFTA. Bandar Lampung is one of the options for relocating and a location for an overflow of economic activity from the region because of its proximity to major cities like Jakarta and the economic growth areas of Jabotabek and West Java (perkim.id, 2020). Therefore, the research that was done was influenced by this background. Thus, the aim of this study is to find out whether the relationship between financial literacy, financial inclusion and financial statements on the performance and sustainability of MSMEs in Bandar Lampung is moderated by the length of the business. The length of business variable is included in this study as a moderating variable, which, to the author's knowledge, distinguishes it from earlier research.

2. Literature Review

2.1. Financial Literacy and Financial Inclusion

Financial literacy, as we all know, refers to the knowledge, wisdom, and abilities necessary for effective money management in order to prevent future financial issues. On the other hand, financial inclusion describes a situation in which every person has access to high-quality, secure, timely, and comfortable services from financial institutions at affordable prices in accordance with the needs of the community. According to the results of the SNLIK (National Survey of Financial Literacy and Inclusion) survey conducted by the OJK (Financial Services Authority) in 2019, the index of financial literacy and financial inclusion in Indonesia was 38.03 percent and 76.19 percent, respectively (OJK, 2021). This demonstrates that, even though financial literacy is an important skill in the context of community empowerment, individual welfare, consumer protection, and increasing financial inclusion, most Indonesians do not understand the characteristics of the various financial products and services offered by formal financial service institutions.

Previous research has found that MSMEs continue to face a variety of financial management issues as a result of a lack of managerial and financial knowledge. Many MSMEs face cash flow problems as a result of their lack of financial management knowledge and understanding. This indicates that MSMEs' owners or managers must be financially literate. Understanding financial literacy is critical for business actors because it can be used to prepare financial statements that can be used to obtain funds, for example. Owners or managers of MSMEs must have financial knowledge in order to gain access to capital and grow their businesses (Susan, 2020). Financial management itself is an activity carried out by MSMEs actors to raise funds (capital) and use them for productive activities, to produce optimal output.

Other studies have found that there is an effect of financial literacy on the sustainability of MSMEs businesses, where with a good understanding of financial literacy it is hoped that MSMEs actors will be able to make the right financial and management decisions to improve performance and business sustainability (Idawati & Pratama, 2020). Therefore, with good financial literacy, entrepreneurs will be able to manage their finances well, and be able to improve their business performance properly, such as good financial planning, sales growth, and being able to anticipate production when there is increased demand and able to make the right decisions for their business and business continuity. Previous research found that financial literacy has an influence on the performance of MSMEs and the sustainability of MSMEs (Aribawa, 2016; Hilmawati, Kusumaningtias, 2021; Septiani, Wuryani, 2020; Yanti, 2019).

Next, financial inclusion is a comprehensive activity that aims to eliminate all forms of barriers both in the form of prices and non-prices to public access in using or utilizing financial services (Yanti, 2019). Financial inclusion is needed by MSMEs to get convenience in every business process. One of the supporting factors for a business is capital (Hilmawati & Kusumaningtias, 2021). Previous research found that financial inclusion has an influence on the performance and sustainability of MSMEs (Hilmawati, Kusumaningtias, 2021; Septiani, Wuryani, 2020; Yanti, 2019).

In sum, with good financial literacy and high financial inclusion, MSMEs can improve the management of their business performance properly which can be seen from the structure of their work plans, the lack of work errors, the presence of sales growth, and the ability to anticipate production when demand increases.

2.2. Financial Statements

Knowledge of financial statements is very useful for assessing business performance and can help in dealing with problems in running a business, especially MSMEs. Additionally, financial statements use knowledge of financial statements, knowledge of the benefits and functions of financial reports, and abilities and skills regarding financial reports (Harahap, 2014). Previous research found that MSMEs are more effective when there are financial statements and to make it easier to record transactions it is better to use an application where the application is very helpful in financial reporting (Hilmawati, Kusumaningtias, 2021). The other study found that financial statement information has an important role in achieving

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business success, including for small businesses. Accounting information can be a reliable basis for making economic decisions in the management of small businesses, including decisions on market development, pricing and others (Rahmawati, Puspasari, 2017; Rahmayuni, 2017). Other studies have found that knowledge of financial statements has an effect on performance (Hernawati et al., 2019).

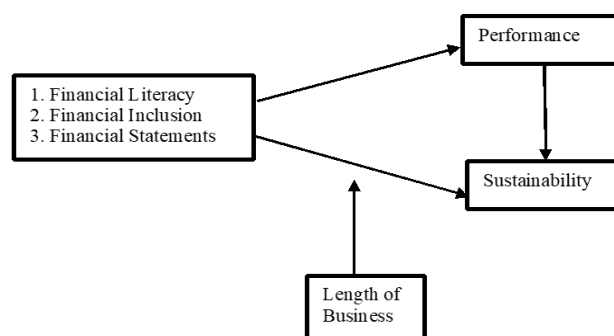
2.3. Performance and Sustainability of MSMEs

In general, performance is the ability of a business to meet predetermined targets (Rahmayuni, 2017). Meanwhile, the performance of MSMEs can be seen from operating income and profits, business capital, sales, as well as the addition of labour, and market expansion (Rokhayati, 2015) and (Kaplan & Norton, 2005). Business sustainability can be identified by looking at the level of success of a business in carrying out innovations, realizing the welfare of employees and customers, and returns on capital (Hilmawati, Kusumaningtias, 2021) and (Idawati, Pratama, 2020). While the indicators used to measure the success of MSMEs include financial growth, strategic growth, structural growth, and organizational growth (Kumalasari, Asandimitra, 2019; Kusuma et al., 2022). However, according to the findings, there are conflicting results regarding the relevance of financial literacy and financial inclusion as a driver of business sustainability through financial performance (Rosyadah et al., 2022).

2.4. Length of Business

In general, the longer a company or business has been in operation, the more it will influence its business development, where a long-established business will have a lot of experience and tend to develop more. Previous studies found that length of business influenced the quality of financial statements (Rahmawati, Puspasari, 2017). However, the other study found that length of business did not influence on the understanding of MSMEs in preparing financial reports (Sunanto, Annisa Nurjannah, 2021).

Figure 1. Framework



Source: Prepared by the authors.

According to Figure 1, the higher the level of financial literacy of MSME actors, the better the performance and sustainability of MSMEs. Similarly, increasing financial inclusion will improve MSMEs' performance and sustainability. MSMEs with good financial literacy can improve their business performance management, as evidenced by the structure of their work plans, the absence of work errors, the presence of sales growth, and the ability to anticipate production when demand increases. In addition, with good financial knowledge, business owners can use their ability to create financial statements that will help them make the right decisions for their company. MSME actors who have good financial literacy will be able to improve the sustainability of their business, as evidenced by the growth of business finance, which includes changes in assets, capital, and turnover. Furthermore, MSMEs' success will have an impact on their long-term viability. The length of business is a moderating variable that can strengthen or weaken the relationship between financial literacy, financial inclusion, and financial statements on the performance and sustainability of MSMEs.

Financial literacy and inclusion are critical for MSMEs actors to understand and know because they have an impact on their financial management, which affects their performance and sustainability. Financial statements are important because they describe the current state of the company and serve as a foundation for management to make strategic decisions. MSMEs actors' perceptions of the importance of financial reporting grow in tandem with business continuity, and they can compete with other business actors and MSMEs. According to previous surveys, the longer a business has been in operation, the more business actors are aware of the importance of the accounting process in their MSMEs. As a result, financial literacy, financial inclusion, and financial statements are expected to have an impact on the performance and sustainability of MSMEs. As well as with good financial knowledge, business owners can use their ability to make financial statements that will be used in making the right decisions for their business. With good financial literacy, MSME actors will be able to improve the sustainability of their business properly which can be seen from the growth of business finance which includes changes in assets, capital, and turnover. Furthermore, the good performance of MSMEs will affect the sustainability of MSMEs. Length of business will be a moderating variable. Consequently, based on the explanation before it can be hypothesized:

H1: There is an influence of financial literacy, financial inclusion, and financial statements on the performance of MSMEs and the sustainability of MSMEs.

H2: There is an influence on the performance of MSMEs on the sustainability of MSMEs.

H3: Length of Business has an influence on the relationship between financial literacy, financial inclusion, and financial statements on the performance of MSMEs and the sustainability of MSMEs.

3. Methods

Descriptive and analytical methods were both used in this study. Field data on financial literacy, financial inclusion, financial statements, MSMEs performance, and the sustainability of MSMEs in Bandar Lampung's three main markets are described using

descriptive methods. While the analysis method is being used to clarify the findings in the relationship between variables, a fresh finding in the form of a fresh model will be made. Data were collected by handing out offline questionnaires to 100 MSMEs actors in the three markets in Bandar Lampung. The Likert scale of five is used in the questionnaire to assess the respondent's preference.

The main constructs of this research framework are Financial Literacy, Financial Inclusion, Financial Statements, MSMEs Performance, MSMEs Sustainability and Business Length. Descriptive analysis was carried out for the purpose of this study to clarify Financial Literacy, Financial Inclusion, Financial Statements, MSMEs Performance, MSMEs Sustainability and Business Length in Bandar Lampung, Lampung Province, Indonesia. This study tested the hypothesis to confirm a causal relationship between variables. Therefore, descriptive, and causal analyzes are used in this study.

Financial Literacy is measured using financial planning, bookkeeping, understanding sources of income, business terminology, information, and financial skills, using technology, and risk management (OJK, 2013), (Hermawan et al., 2022), and (Pinem, Mardiatmi, 2021). While financial inclusion uses access, provision, use, and quality (OJK, 2021), (Pinem & Mardiatmi, 2021), and (Rosyadah et al., 2022). Next, financial statements using knowledge of financial statements, knowledge of the benefits and functions of financial reports, and abilities and skills regarding financial reports (Harahap, 2014), and (Hernawati et al., 2019). MSME performance used revenue, operating profit, additional workforce, and market expansion (Kusuma et al., 2022), (Idawati, Pratama, 2020), (Ayuk, Marta, 2019), and (Rokhayati, 2015). The sustainability of MSMEs uses financial growth, strategic growth, structural growth, and organizational growth (Jiwa et al., 2022), (Hilmawati, Kusumaningtias, 2021), (Idawati & Pratama, 2020), (Ayuk, Marta, 2019). Business length using 1 to 5 years, 6 to 10 years and more than 10 years (Hilmawati, Kusumaningtias, 2021) and (Alansori, Listyaningsih, 2022).

Primary data collection was carried out through direct surveys by distributing questionnaires to MSME owners or managers in three iconic markets in Bandar Lampung, Indonesia. Purposive sampling was used in this study to determine the sample. Respondents are owners or managers of MSMEs in the culinary, fashion, handicraft, service, and trade sectors.

To make sure the questionnaire was valid and reliable, it was first tested. The validity test consists of two components: convergent (considering the loading indicator value and the Average Variance Extracted (AVE) value and discriminant. When the factor loading value is equal to or greater than 0.6, convergent validity can happen (Bagozzi, Yi, 1988). In addition, when the AVE value is greater than 0.5 and the loading factor value is equal to or greater than 0.6, convergent validity can happen (Hermawan et al., 2022). Additionally, the composite reliability results meet the necessary value of greater than 0.60 (Bagozzi, Yi, 1988).

Furthermore, Structural Equation Modeling (SEM) is used to determine the causal relationship between Financial Literacy, Financial Inclusion, Financial Statements, MSMEs Performance, MSMEs Sustainability, and Business Length. The relationship between variables was then analyzed using the Partial Least Square (PLS)-SEM method and a 95

percent confidence level after validity and reliability levels were known. PLS is a very adaptable data analytical method that can be made even more useful and adaptable through a variety of extension modifications driven by unique types of data (Wold et al., 2001). When estimating even very complicated mediation models, composite-based SEM techniques overcome the limitations of both regression and factor-based SEM analyses. Partial least squares (PLS-SEM), a composite-based SEM method, is the preferred and superior approach when estimating mediation and conditional process models, and the process approach is not required when examining mediation with PLS-SEM (Sarstedt et al., 2020).

4. Results and Discussion

4.1. Demographic Characteristics

This study focused on the Tamin Market, Central Market, and Bambu Kuning Market, three significant markets in Bandar Lampung. In each of these markets, the respondents were MSMEs. Direct survey submissions were made. The respondents were MSMEs players in each of these markets. Direct submissions of surveys were made. The MSMEs actors who are the sample were given a questionnaire containing a series of questions about about the respondent's profile, including age, education level, number of workers, assets, turnover, and health insurance. Table 1 describes the description of the characteristics of the respondents consisting of gender, age, level of education, total employee, asset, turnover, and health insurance. According to the study's findings, 59% of respondents were male and 41% were female. Additionally, the results showed that 21% of respondents were under the age of 30, 36% were between the ages of 31 and 40, 41% were between the ages of 41 and 50, and 2% were over the age of 51. In addition, according to the study's findings, 20% of respondents had completed their basic education, 43% had completed their middle education, and 37% had completed their upper education. The findings also revealed that 55% of entrepreneurs have employees between the ages of 5 and 10, while 45% have fewer than five. Furthermore, most entrepreneurs in the three markets have assets greater than 50 million rupiahs to 500 million rupiahs, namely 71% while those who have assets greater than 500 million rupiahs to 10 billion rupiahs are as much as 20% while the remaining 9% have assets less than the same as 50 million rupiahs. While the turnover obtained by entrepreneurs is mostly less than 300 million rupiahs, 62% and the remaining 38% get a turnover greater than 300 million rupiahs up to 2 billion five hundred million rupiahs. Additionally, almost all business owners already have health insurance, with only 4% lacking coverage. Furthermore, a large percentage of respondents have been in business for longer than 10 years (76%).

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Table 1. Characteristics of Respondents

Number.	Gender	Frequency	Percentage (%)
1.	Male	59	59
2.	Female	41	41
No.	Age	Frequency	Percentage (%)
1.	< 30	21	21
2.	31 – 40	36	36
3.	41 – 50	41	41
4.	> 51	2	2
No.	Level of Education	Frequency	Percentage (%)
1.	Basic Education	20	20
2.	Middle Education	43	43
3.	Upper Education	37	37
4.	Etc.	0	0
No	Total employee	Frequency	Percentage (%)
1.	< 5 employees	45	45
2.	5-10 employees	55	55
3.	> 10	0	0
4.	None employee	0	0
No	Asset	Frequency	Percentage (%)
1.	≤ Rp 50.000.000,00	9	9
2.	> Rp 50.000.000,00 up to Rp 500.000.000,00	71	71
3.	> Rp 500.000.000,00 up to Rp 10.000.0000.000,00	20	20
No	Turnover	Frequency	Percentage (%)
1	≤ Rp 300.000.000,00	62	62
2	> Rp 300.000.000,00 up to Rp 2.500.000.000,00	38	38
3	> Rp 2.500.000.000,00 up to Rp 50.000.000.000,00	0	0
No.	Health Insurance	Frequency	Percentage (%)
1.	BPJS Health	69	69
2.	Health Insurance	27	27
3.	Etc.	4	4
No.	Length of Business	Frequency	Percentage (%)
1	1 – 5 years	9	9
2	6 – 10 years	15	15
3	> 10 years	76	76

Source: Processed Data, 2022.

4.2. Data Analysis

4.2.1. Outer Model (Measurement Model)

If an indicator's loading factor value is greater than 0.5, it is recognized as valid; otherwise, if it is less than 0.5, the indicator is eliminated from the model and rerun. The load factor is the correlation between the indicator and the construct. The higher the correlation, the better the level of validity. The Smart PLS output for the loading factor gives the following results:

1. The value of the first question indicator is LK1 of 0.787, LK2 of 0.880, LK3 of 0.900, LK4 of 0.821, LK5 of 0.849, LK6 of 0.834, LK7 of 0.842, LK8 of 0.928, LK9 of 0.844, LK10 of 0.791, LK11 of 0.832 LK12 is 0.763, LK13 is 0.917, LK14 is 0.816, which means that the loading factor value is above 0.5, so the Financial Literacy question indicator is declared valid.
2. The value of the indicators for the second question, namely IK1 of 0.801, IK2 of 0.973, IK3 of 0.951, IK4 of 0.801, IK5 of 0.815, IK6 of 0.732, IK7 of 0.956, IK8 of 0.786, IK9 of 0.808 and IK10 of 0.789, which means the loading value a factor above 0.5 means that the Financial Inclusion question indicator is declared valid.
3. The indicator value for the third question is LaK1 of 0.961, LaK2 of 0.852, LaK3 of 0.893, LaK4 of 0.847, LaK5 of 0.732, LaK6 of 0.854, LaK7 of 0.753, LaK8 of 0.774 and LaK9 of 0.878 which means the loading factor value is above 0.5, so Financial Report question indicators declared valid.
4. The value of the fourth question indicator is KU1 of 0.817, KU2 of 0.721, KU3 of 0.921, KU4 of 0.933, KU5 of 0.862, KU6 of 0.767, KU7 of 0.831, KU8 of 0.702, KU9 of 0.753 and KU10 of 0.751 which means the value of the load factor is above 0.5, the indicator for MSME performance questions is declared valid.
5. The value of the fifth question indicator is K1 of 0.734, K2 of 0.817, K3 of 0.892, K4 of 0.756, K5 of 0.829, K6 of 0.751, K7 of 0.715, K8 of 0.912, K9 of 0.775 and K10 of 0.851 which means the loading factor value is above 0.5, the indicator for the question of MSME sustainability is declared valid.
6. The value of the sixth question indicator is LU1 of 0.912, LU2 of 0.931, LU3 of 0.841, LU4 of 0.817 and LU5 of 0.789 which means the value of the load factor is above 0.5, so the question indicator for the length of business is declared valid.

All loading factors demonstrate that none of the output results from all indicators show loading factors below 0.5, making all indicators valid.

4.2.1.1. Value of Average Variance Extracted (AVE)

Convergent validity is calculated by looking at the output construct reliability and validity that have an AVE value. If the criterion for the convergent validity value has an AVE value greater than 0.5, it is said to be good. Based on the AVE value, the results are as follows: financial literacy (0.763); financial inclusion (0.736); financial statements (0.793); MSMEs performance (0.912); MSMEs sustainability (0.863); length of business (0.937), all AVE values in this research variable have shown to be a fit measure, with an AVE value greater than 0.5. This means that all the question items used to assess each variable are reliable.

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4.2.1.2. Reliability

Examination of construct reliability by looking at the composite reliability output and Cronbach's alpha of more than 0.7. Table 2 shows the construct reliability, as seen from the composite reliability and Cronbach alpha values.

Table 2. Quality Criteria (Composite Reliability, Cronbachs Alpha)

Variables	Composite Reliability	Cronbach Alpha
Financial Literacy	0.872	0.812
Financial Inclusion	0.825	0.809
Financial Statements	0.865	0.830
MSME Performance	0.939	0.912
MSME Sustainability	0.964	0.916
Long Business	0.971	0.921

Source: Processed Data, 2022.

The Cronbach Alpha and Composite Reliability values produced by the constructs Financial Literacy, Financial Inclusion, Financial Statements, MSMEs Performance, MSMEs Sustainability, and Business Length are very good, exceeding 0.7, as shown in Table 3. All latent variables in this study have reliability scores of greater than 0.7 for Composite Reliability and greater than 0.6 for Cronbach's Alpha, indicating that they are all reliable. In essence, the validity and reliability tests' findings demonstrate that all latent variables are valid and reliable.

4.2.1.3. Discriminant Validity

Discriminant validity is used to test the validity of a model. Discriminant validity is seen through the cross-loading value which shows the magnitude of the correlation between constructs and their indicators and indicators from other constructs. The standard value used for cross-loading must be greater than 0.7 or by comparing the square root of the average variance extracted (AVE) value for each construct with the correlation between constructs and other constructs in the model. If the AVE root value of each construct is greater than the correlation value between the construct and the other constructs in the model, then it is said to have good discriminant validity. According to Table 3, the cross-loading value for each item is greater than 0.70, and for each item, the value is greater when it is associated with its latent variable than when it is associated with other latent variables. This shows that each manifest variable in this study correctly explains the latent variable and demonstrates that all items' discriminant validity is valid.

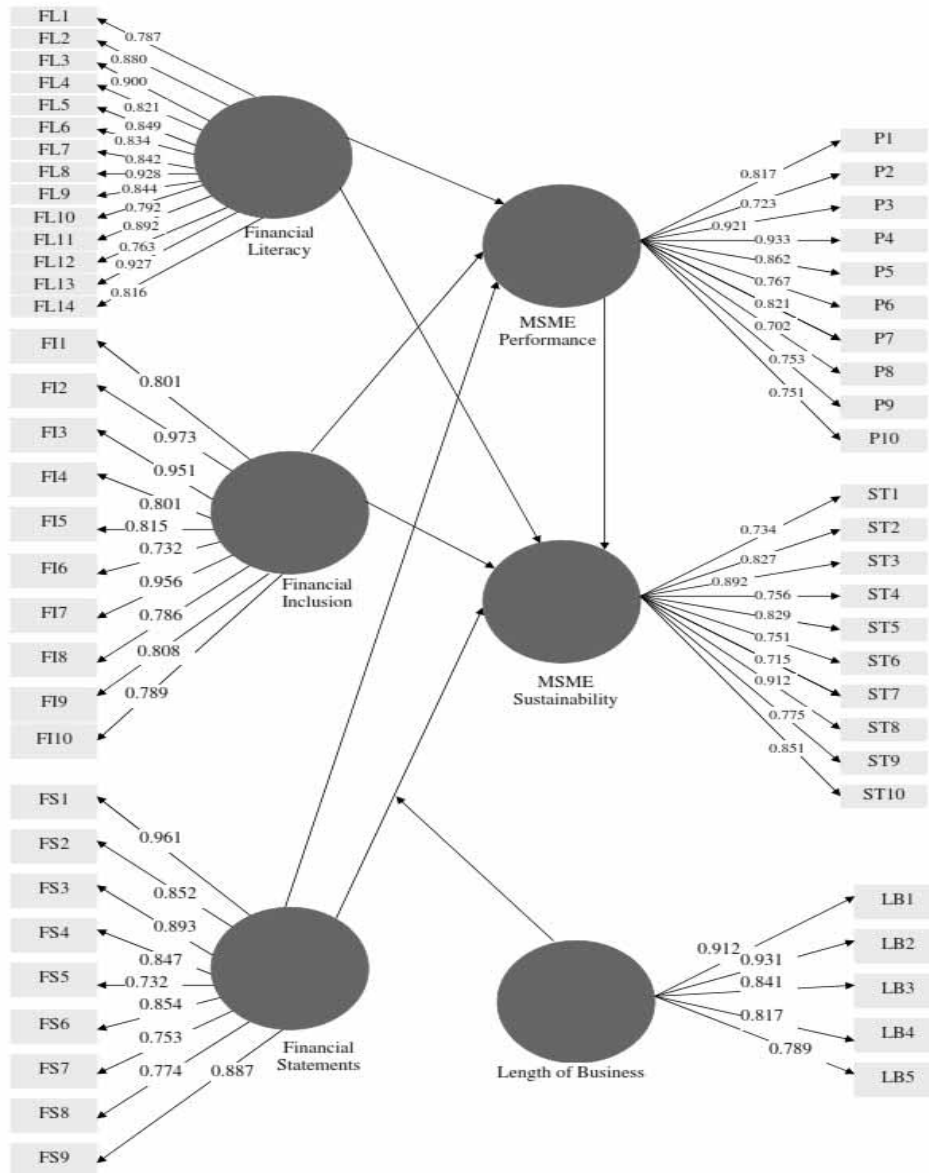
Table 3. Discriminant validity

	Financial Literacy	Financial Inclusion	Financial Statements	MSMEs Performance	MSMEs Sustainability	Length of Business
LK1	0,787	-0.279	-0.111	0.531	0.358	0.281
LK2	0,880	0.322	0.139	0.382	0.263	0.275
LK3	0,900	0.134	-0.022	0.413	0.234	0.093
LK4	0,821	0.267	0.061	0.370	0.285	0.297
LK5	0,849	-0.212	-0.012	0.430	0.328	0.212
LK6	0,834	0.270	-0.025	0.497	0.322	0.085
LK7	0,842	0.440	-0.111	0.360	0.404	0.262
LK8	0,928	0.345	0.084	0.489	0.456	0.195
LK9	0,844	0.374	-0.030	0.306	0.448	0.280
LK10	0,791	0.245	0.125	0.499	0.403	0.317
LK11	0,832	0.387	-0.180	0.341	0.432	0.334
LK12	0,763	0.275	-0.002	0.007	0.260	0.195
LK13	0,917	0.128	-0.121	-0.106	0.282	-0.182
LK14	0,816	-0.279	0.135	0.014	0.248	-0.119
IK 1	-0.291	0,801	0.014	0.064	0.159	-0.214
IK 2	0.235	0,973	-0.040	0.072	0.345	-0.217
IK 3	0.363	0,951	-0.109	0.060	0.436	-0.144
IK 4	-0.397	0,801	0.164	0.008	0.433	-0.149
IK 5	0.416	0,815	-0.167	0.317	0.406	-0.037
IK 6	0.480	0,732	-0.040	0.334	0.286	-0.127
IK 7	0.600	0,956	-0.106	0.195	0.308	0.027
IK 8	0.421	0,786	0.014	0.275	0.388	0.070
IK 9	0.449	0,808	0.064	0.093	0.255	0.012
IK 10	0.334	0,789	0.072	0.159	0.287	-0.038
LaK 1	0.542	-0.281	0,961	0.280	0.412	0.114
LaK 2	0.328	-0.085	0,852	0.199	0.352	0.062
LaK 3	0.344	-0.262	0,893	0.124	0.347	0.007
LaK 4	0.475	-0.195	0,847	0.166	0.396	-0.106
LaK 5	0.597	0.280	0,732	0.096	0.349	0.014
LaK 6	0.297	0.212	0,854	0.237	0.464	0.064
LaK 7	0.599	0.268	0,753	-0.037	0.242	0.072
LaK 8	0.612	0.238	0,774	-0.127	0.353	0.060
LaK 9	-0.100	0.249	0,878	0.027	0.473	0.008
KU 1	0.575	0.285	0.480	0,817	0.491	-0.002
KU 2	0.347	0.299	0.600	0,721	0.360	0.531
KU 3	0.576	0.193	0.421	0,921	0.489	0.499
KU 4	0.519	0.086	0.449	0,933	0.306	0.341
KU 5	0.300	0.282	0.334	0,862	0.295	0.465
KU 6	0.373	0.248	0.542	0,767	0.355	0.497
KU 7	0.615	0.159	0.328	0,831	0.223	0.382
KU 8	0.556	0.345	-0.291	0,702	0.166	0.413
KU 9	0.428	0.436	0.235	0,753	0.427	0.370
KU 10	0.452	0.433	0.363	0,751	0.421	0.430
K 1	0.107	0.406	-0.397	0.234	0,734	-0.159
K 2	0.320	0.286	0.416	0.285	0,817	-0.280
K 3	-0.280	0.285	0.480	0.328	0,892	-0.199
K 4	-0.394	0.531	0.358	0.322	0,756	-0.124
K 5	0.142	0.382	0.322	0.404	0,829	-0.166
K 6	0.263	0.413	0.404	0.456	0,751	-0.096
K 7	0.301	0.370	0.456	0.448	0,715	-0.237
K 8	0.411	0.430	0.448	0.403	0,912	-0.127
K 9	-0.180	0.497	0.328	0.432	0,775	0.358
K 10	-0.294	0.360	0.403	0.260	0,851	0.263
LU 1	0.242	0.489	0.432	0.268	0.193	0,912
LU 2	0.363	0.306	0.260	0.238	0.086	0,931
LU 3	0.201	0.499	0.263	0.249	0.171	0,841
LU 4	0.312	0.341	0.234	0.285	0.007	0,817
LU 5	-0.280	0.007	0.112	0.299	-0.106	0,789

Source: Processed Data, 2022

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Figure 2. Structural Model



Source: Processed Data, 2022.

Furthermore, Figure 2 displays the outcomes of data processing using PLS-SEM. Overall, the model meets the outer model criteria (measurement model) and inner model criteria, and the full model diagram can be concluded to contain valid and well-converged data (structural models). The authors of the present study enhanced the prior model by including the moderator variable for business length in order to distinguish it from earlier studies and make it more accurate. Whereas the outcomes also demonstrate that the relationship between the variables is influenced by the length of business. These results imply that the length of a business's existence will have a greater impact on how that company or business develops; for instance, a long-established business will have a wealth of experience and will typically develop more.

4.2.2. Measurement Structural Model

Following the completion of the model measurement analysis, the model structure is measured. The path coefficient technique was used in this study.

4.2.2.1. Path Coefficients

Path coefficient testing is used to ensure that the relationship between constructs is strong. The more the standardized path coefficient increases, the more impact it has on the variable being measured. Table 4 shows that the MSMEs performance construct and the financial literacy construct have a positive relationship ($O = 0.304$). The t-statistic value for this construct relationship is $3.016 > 1.96$, and the p-value is $0.002 < 0.05$. Financial inclusion has a positive influence ($O = 0.235$) on the MSME Performance construct. The t-statistic value for this construct relationship is $2.175 > 1.96$, and the p-value is $0.001 < 0.05$. The financial statements construct has a positive influence ($O = 0.353$) on the MSMEs Performance construct. The t-statistic value for this construct relationship is $2.134 > 1.96$, and the p-value is $0.000 < 0.05$. Additionally, based on Table 4, the financial literacy construct has a positive influence ($O = 0.245$) on the MSMEs Sustainability construct. The t-statistic value for this construct relationship is $2.831 > 1.96$, and the p-value is $0.025 < 0.05$. Financial inclusion has a positive influence ($O = 0.289$) on the MSMEs Sustainability construct. The t-statistic value for this construct relationship is $3.112 > 1.96$, and the p-value is $0.017 < 0.05$. The financial statements construct has a positive influence ($O = 0.310$) on the MSMEs Sustainability construct. The t-statistic value for this construct relationship is $2.178 > 1.96$, and the p-value is $0.007 < 0.05$. Therefore, the first hypothesis which states that there is an influence of financial literacy, financial inclusion, and financial statements on the performance of MSMEs and the sustainability of MSMEs is proven.

In addition, in Table 4, the MSMEs Performance Construct has a positive influence ($O = 0.458$) on the MSMEs Sustainability construct. The t-statistic value for this construct relationship is $2.083 > 1.96$, and the p-value is $0.037 < 0.05$. Therefore, the second hypothesis which states that the performance of MSMEs has an influence on the sustainability of MSMEs is proven.

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Table 4. The results of the PLS structural model; path coefficient, t-statistics

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
Financial Literacy-> MSMEs Performance	0.304	0.302	0.114	3.016	***0.002
Financial Inclusion-> MSMEs Performance	0.235	0.217	0.085	2.175	***0.001
Financial Statements-> MSME Performance	0.353	0.315	0.101	2.134	***0.000
Financial Literacy-> MSMEs Sustainability	0.245	0.302	0.104	2.831	**0.025
Financial Inclusion-> MSMEs Sustainability	0.289	0.217	0.241	3.112	**0.017
Financial Statements-> MSMEs Sustainability	0.310	0.315	0.121	2.178	***0.007
MSME Performance -> MSMEs Sustainability	0.458	0.401	0.203	2.083	**0.037
Length of Business -> Financial Literacy	0.338	0.349	0.073	2.071	**0.034
Length of Business -> Financial Inclusion	0.335	0.323	0.095	2.117	**0.027
Length of Business-> Financial Statements	0.353	0.317	0.082	2.108	**0.031
Length of Business-> MSMEs Performance	0.343	0.340	0.084	2.075	**0.028
Length of Business -> MSMEs Sustainability	0.335	0.233	0.103	2.245	**0.025

*** Significant at 1 % and ** significant at 5%

Furthermore, the Table 4, the length of business construct has a positive influence (O = 0.338) on the Financial Literacy construct, the t-statistic value for this construct relationship is 2.071 > 1.96, and the p-value is 0.034 < 0.05. Length of business has a positive influence (O = 0.335) on the Financial Inclusion construct. The t-statistic value for this construct relationship is 2.117 > 1.96, and the p-value is 0.027 < 0.05. Length of business has a positive influence (O = 0.353) on the Financial Report construct, the t-statistic value for this construct relationship is 2.108 > 1.96, and the p-value is 0.031 < 0.05. Length of business has a positive influence (O = 0.343) on the MSME Performance construct. The t-statistic value for this construct relationship is 2.075 > 1.96, and the p-value is 0.028 < 0.05. Length of business has a positive influence (O = 0.335) on the MSME sustainability construct. The t-statistic value for this construct relationship is 2.245 > 1.96, and the p-value is 0.025 < 0.05. Therefore, the third hypothesis which states that length of business has an influence on the relationship between financial literacy, financial inclusion, and financial reports on the performance of MSMEs and the sustainability of MSMEs is proven.

4.2.3. Hypothesis Testing

From the results of testing the data using Smart PLS, the results of hypothesis testing are in the form of the original sample value (β) which is the path coefficient value and the t statistical value to see its significance by looking at the parameter coefficient values and the t statistical significance value, the magnitude of the parameter coefficient of the original sample can mean that the variable has a negative or positive effect.

Hypothesis 1

Using Smart PLS, Hypothesis 1 examined the effects of financial inclusion, financial literacy, and financial statements on the performance and sustainability of MSMEs. Financial literacy has a positive influence ($O = 0.304$) on the performance of the MSMEs construct, the t-statistic value for this construct relationship is 3.016, and the p-value is 0.002. Financial inclusion has a positive influence ($O = 0.235$) on the performance of MSMEs construct. The t-statistic value for this construct relationship is 2.175, and the p-value is 0.001. Financial statements have a positive influence ($O = 0.353$) with the MSMEs performance construct, the t-statistic value for this construct relationship is 2.134, and the p-value is 0.000. Financial literacy has a positive influence ($O = 0.245$) on the MSME sustainability construct. The t-statistic value for this construct relationship is 2.831, and the p-value is 0.025. Financial inclusion has a positive influence ($O = 0.289$) on the MSME sustainability construct. The t-statistic value for this construct relationship is 3.112, and the p-value is 0.017. Financial statements have a positive influence ($O = 0.310$) on the MSME sustainability construct. The t-statistic value for this construct relationship is 2.178, and the p-value is 0.007. Thus, the first hypothesis that financial literacy, financial inclusion, and financial statements have an impact on MSMEs' performance and sustainability is supported.

The test results of the parameter coefficients between financial literacy, financial inclusion, and financial statements on the performance of MSMEs and the sustainability of MSMEs show a significant value, so that H1: There is an influence of financial literacy, financial inclusion, and financial statements on the performance of MSMEs and the sustainability of MSMEs is accepted.

Hypothesis 2

The following hypothesis, Hypothesis 2, was tested using Smart PLS to determine whether MSME performance had an impact on MSMEs' sustainability. MSMEs performance has a positive influence ($O = 0.458$) on the MSMEs Sustainability construct. The t-statistic value for this construct relationship is 2.083, and the p-value is 0.037. Thus, the second hypothesis that MSMEs' performance has an impact on their sustainability is supported.

The test results on the parameter coefficients between MSME performance and MSMEs sustainability show a significant value, so that H2: There is an influence of MSMEs performance on MSMEs sustainability is accepted.

Hypothesis 3

Hypothesis 3, which was processed using Smart PLS, tested the length of business to have an influence on the relationship between financial literacy, financial inclusion, and financial reports on the performance of MSMEs and the sustainability of MSMEs. Length of business has a positive influence ($O = 0.338$) with the Financial Literacy construct, the t-statistic value for this construct relationship is 2.071, and the p-value is 0.034. Length of business has a positive influence ($O = 0.335$) with the Financial Inclusion construct. The t-statistic value for this construct relationship is 2.117, and the p-value is 0.027. Length of business has a positive influence ($O = 0.353$) on the financial statements construct, the t-statistic value for this construct relationship is 2.108, and the p-value is 0.031. Length of business has a positive influence ($O = 0.343$) on the MSME Performance construct. The t-statistic value for this construct relationship is 2.075, and the p-value is 0.028. Length of business has a positive influence ($O = 0.335$) on the MSME sustainability construct. The t-statistic value for this construct relationship is 2.245, and the p-value is 0.025. As a result, the third hypothesis according to which the length of a business has an impact on the relationship between financial literacy, financial inclusion, and financial reports on MSMEs' performance and sustainability is supported.

The test results on the parameter coefficient between length of business and financial literacy, financial inclusion, and financial reports on the performance of MSMEs and the sustainability of MSMEs show a significant value, so that H3: Length of business has an influence on the relationship between financial literacy, financial inclusion, and financial reports on MSMEs performance and sustainability of MSMEs is accepted.

The results of statistical tests demonstrate, in summary, that financial literacy, financial inclusion, and financial statements affect the performance and sustainability of MSMEs. This finding of this study is consistent with previous studies which found that financial literacy has an impact on MSMEs' performance and sustainability (Idawati & Pratama, 2020), and (Hilmawati & Kusumaningtias, 2021). Additionally, financial literacy and the performance of SMEs have a positive relationship (Eniola & Entebang, 2015). In addition, this finding of this study is consistent with previous studies which found that financial inclusion has an impact on MSMEs' performance and sustainability (Kusuma et al., 2022). Furthermore, these findings showed that financial literacy, financial inclusion, and financial reports all improve MSMEs' performance and sustainability. Other findings from this study indicated that the sustainability of MSMEs is positively impacted by their performance. However, these results also contradict the results of previous studies where financial inclusion and financial literacy have no effect on the sustainability of MSMEs (Rosyadah et al., 2022), (Kusuma et al., 2022).

Additionally, these findings also indicate that to be successful in running a business, MSME actors must have a working knowledge of financial literacy. This will allow them to make informed decisions that will ultimately boost MSMEs' performance. The findings of this study also suggest that MSME actors will be better able to make sound financial and management decisions to increase business performance and sustainability.

Furthermore, the length of the business has an impact on the relationship between financial literacy, financial inclusion, and financial reports on the performance and sustainability of

MSMEs. Since the effect is positive, it is likely that MSME actors who are informed about financial inclusion, financial literacy, and accurate financial reporting will produce successful business outcomes.

In general, the longer a company or business has been in operation, the more it will influence its business development, as a well-established business will have a wealth of experience and will tend to grow more. According to the findings of this study, the longer a company or MSMEs has been in operation, the better entrepreneurs will be at managing their finances and improving their business performance, such as good financial planning, sales growth, and being able to anticipate production when there is increased demand, as well as making the right decisions for their business and business continuity. In addition, MSMEs can improve their business performance management, as evidenced by the structure of their work plans, the absence of work errors, the presence of sales growth, and the ability to anticipate production when demand increases. Furthermore, having good financial knowledge, business owners can use it to create financial reports that will help them make the best decisions for their company.

5. Conclusion

The results of statistical tests show that there is a positive influence between financial literacy, financial inclusion, and financial statements on the performance and sustainability of MSMEs. The results of this study corroborate earlier studies' findings that the performance and sustainability of MSMEs are impacted by financial literacy, financial inclusion, and financial reports. However, this study discovered that all these factors had a positive impact on the performance and sustainability of MSMEs. Additionally, the performance of MSMEs also has a positive effect on the sustainability of MSMEs. Furthermore, the length of business strengthens the relationship between these variables. These findings suggest that the longer a business has been in operation, the more aware business actors are of the importance of the accounting process in their operations. The longer a company or business has been in operation, the more it will influence its business development; for example, a long-established business will have a lot of experience and will tend to develop more.

In sum, the relationship between financial literacy, financial inclusion, financial statements, MSMEs performance, and MSMEs sustainability is strengthened by the length of business, which suggests that business actors who have been operating their business for a long time will experience better MSMEs performance and business sustainability.

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FARMERS' ATTITUDES TO IMPLEMENTATION OF CAP GREENING PRACTICES IN BOTH THE BLAGOEVGRAD AND KYUSTENDIL REGIONS IN BULGARIA⁴

The Common agricultural policy (CAP) is the most integrated policy that offers an opportunity for the agricultural sector to respond to society's demands in terms of food security, safety, quality and sustainability as well as environmental care. New agriculture challenges in the framework of EU political priorities and greening of the sector are related to the implementation of three key objectives based on encouragement of a smart and sustainable agricultural sector; improving environmental care and climate change action; improving socio-economic role of rural areas. The study aims to research the farmers' attitudes implementation of ecological practices on farms using conjoint analysis, correlation analysis, SWOT analysis and descriptive analysis. The conjoint analysis answers a fundamental research question – would farmers carry out ecological practices without CAP support? In addition, we analyzed farmers' attitudes toward implementing mandatory and voluntary ecological practices in farms with or without CAP financial support. The study results confirm the research hypothesis that CAP greening is carried out at the cost of CAP payments. It was found that farmers would not carry out ecological practices without the CAP financial support during the 2023-2027 programming period in both the Blagoevgrad and Kyustendil regions in Bulgaria.

Keywords: CAP greening payments; farmers' motivation; conjoint analysis

JEL: Q10; Q12; Q15

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1. Introduction

Agriculture in the European Union (EU) is an important sector producing primary agricultural products in the World. The sector guarantees the food security of over 500 million European citizens and is important for providing agricultural and food products to the population of every EU Member State as well as other countries like the USA, Japan, China, Saudi Arabia etc.

Common agricultural policy (CAP) greening and its impact on the environment have become increasingly important in recent years. In the literature authors research and assess the impact of CAP agri-environmental and environmental measures in different EU Member States (Lapka et al., 2011; Mészáros et al., 2015; Gocht et al., 2017; Bertoni et al., 2018; Díaz-Poblete et al., 2021; Quero et al., 2022; Sauquet, 2022). Some authors consider a social contribution (Czyzewski et al., 2018), which is important for rural development and socio-economic processes (Dudek, Wrzochalska, 2019).

Having in mind all of the above we find it of significant importance to understand and the farmers' attitudes to the implementation of CAP greening practices. This study aims to find if sustainable environmental practices would be continued if there is a lack of funding, or if the main reason for them to have any ground in Bulgaria is because of the monetary support.

Climate change and environmental decline are an existential threat to Europe and the world that has the potential to have a long-lasting effect on the food chain and sustainability of the production environment. To overcome these challenges, the European Green Deal aims to improve the well-being and health of citizens and future generations by providing:

- fresh air, clean water, healthy soil and biodiversity;
- renovated, energy-efficient buildings;
- healthy and affordable food;
- more public transport;
- cleaner energy and cutting-edge clean technological innovation;
- longer lasting products that can be repaired, recycled and re-used;
- future-proof jobs and skills training for the transition;
- globally competitive and resilient industry and is in line with the Sustainable Development Goals (SDGs).

In relation to addressing the challenges, many authors have researched the CAP environmental challenges (Yovchevska, 2021; Ziętara, Mirkowska, 2021) and “green” transformation (Pawłowska, Grochowska, 2021). Other authors (Chiripuci, et al., 2022) research opportunities under the EU Green Deal through strategies to raise consumer awareness of the socio-economic and environmental benefits of consuming organic food.

In this regard, national regulations were harmonized with the EU legislation before Bulgaria entered membership. The 2008 introduction of environmental principles includes

recommendations for keeping traditional breeds and varieties, biodiversity, and animal protection (Bashev, 2008). Nutrient losses in the soil, biodiversity loss, negative impacts on the landscape features, and soil surface conditions were found, including in Bulgaria.

Growing criticism of intensive agricultural activities that damage natural resources and threaten biodiversity gradually increased environmental restrictions on farming activities with the introduction of CAP greening. The purpose was to save environmentally vulnerable areas, enhance groundwater, establish and sustain organic farming, and minimize the use of chemicals (Lamine, 2011).

Bulgaria implemented green direct payments on January 1st, 2015. The payment mechanism is made more ecologically friendly through CAP greening. Via the CAP greening payments, farmers use their land sustainably and protect natural resources daily to have the chance to profit financially. The CAP greening scheme seeks to guarantee that all EU farmers receiving income assistance engage in farming activities that positively impact the environment and the climate.

The CAP greening was intended to motivate farmers to save habitats and biodiversity on farms. Farmers' decisions and the ethical management approaches they use on their farms are key to biodiversity conservation. These choices are also related to growing specialization and intensification of production in some regions, which causes farmland to be abandoned. It severely negatively influences biodiversity, hurting soil, climate, and water.

In order to achieve the CAP objective of CAP greening payments, three agricultural activities are climate- and environment-friendly:

- crop diversification,
- maintaining permanent grassland, including traditional orchards where fruit trees are cultivated in low densities on grassland,
- maintaining at least 5% of lands as ecological focus areas.

In detail, the requirement for crop diversification applies to farms with between 10 and 30 hectares of arable area. These farms must grow at least two different crops, and the primary crop can occupy up to 75% of arable area. A farm with more than 30 ha of arable area must grow at least three different types of crops, and the primary crop can occupy up to 75% of the arable area, and the combined area of the two main crops can be up to 95% of arable area.

The requirement for diversification does not apply when more than 75% of arable land was used to grow grass or other grass feeds, is fallow land, or was combined with other uses, but only if the remaining arable land (i.e., the land that was not used for these reasons) does not exceed 30 ha. When more than 75% of the agricultural area is permanent grassland, is used to grow crops underwater, or is subject to a mix of these uses, the requirement for diversification does not apply as long as the amount of arable land not used for these reasons does not exceed 30 ha (Regulation 1307/2013).

Following some significant restrictions that farmers must comply with, the requirement to keep permanent grassland follows. According to the Agricultural Producers Support Act in Bulgaria, permanent grassland included in the "permanent grassland" layer and is

ecologically vulnerable must not be ploughed or otherwise altered. The ecological focus areas aim to protect and enhance agricultural biodiversity. They are a component of the applied CAP targeted at sustainable management of natural resources, including biodiversity, and the requirements of CAP greening. Farmers who adopt activities that enhance biodiversity are rewarded with incentive payments (APSA 102/2022).

A common problem, among farmers, has been identified in Bulgaria which is the application of ecological practices in farms without financial incentives. Until 2022 CAP greening encourages farmers to implement ecological practices in their farms that contribute to the protection of the environment but with CAP support.

In the literature regarding this problem, three interrelated factors were defined that influence motivation: internal forces, directing behaviour towards specific goals and maintaining motivation through the interaction of internal and external forces. Internal forces are influenced by traditional practices and lifestyles, implementation of conservation practices to protect the environment (Greiner et al., 2009; Mills et al., 2018) and biodiversity conservation (Farmar-Bowers et al., 2008). External forces are influenced by economic and financial incentives, such as subsidies, incomes and investments (Greiner et al., 2009).

Some authors (Mills et al., 2018) found that farmers' motivation to do agricultural and environmental activities was determined by economic, social and environmental factors. Economic benefits link to financial encouragement, income satisfaction, good profit and subsidization. Social benefits include prestige, creative outdoor work, preservation of valuable traditions, preservation of rural communities and rural development, as well as personal health and quality of life. Environmental benefits include environmental conservation practices such as preserving soil fertility and minimizing environmental impact, as well as the inclusion of intercropping, green cover, green manuring to protect soil from erosion and water management in irrigation systems, buffer strips between individual parcels and reservoirs. Another very important benefit is obtaining clean, quality and nutritious food which results from a responsible ecological attitude towards the environment. The preservation of biodiversity in farms, as well as its preservation, which is primarily a personal motive, and not a business motive, can also be referred to this group.

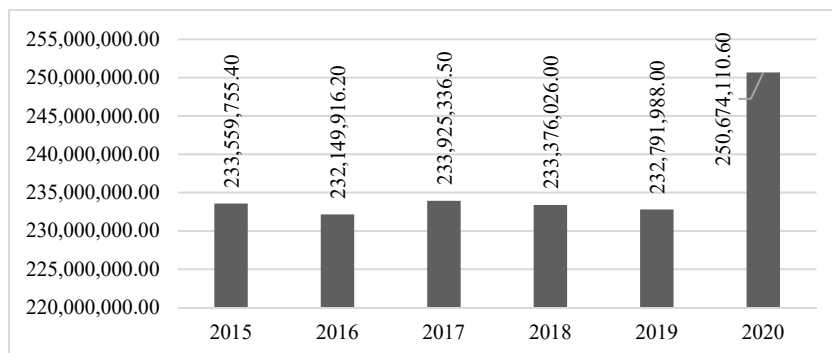
In the context of the Common Agricultural Policy (CAP) and agricultural practices, green practices generally refer to environmentally friendly and sustainable approaches that aim to minimize negative impacts on the environment and promote ecological balance.

In the former Pillar 2 of the CAP, there were indeed supported agroecological measures. Agroecology is an approach to farming that emphasizes the integration of ecological principles into agricultural systems. It seeks to promote biodiversity, soil health, water conservation, and the reduction of chemical inputs. Agroecological measures under the CAP often included support for organic farming, conservation agriculture, agroforestry, and the adoption of sustainable farming techniques. The budget for CAP Pillar 2 Greening measures has increased but as relative share from 2015 till 2020 it varies no more than 4%, around 30-33% of CAP budgeting is allocated for greening (Figure 1).

Applying the new CAP 2023-2027 aims to be greener, fairer, and more competitive through meeting much stronger requirements arising from the European Green Deal (EC, 2023).

Regarding CAP greening activities are directed towards higher green ambitions, contributing to the Green Deal targets, enhanced conditionality, eco-schemes, rural development, operational programmes, climate and biodiversity.

Figure 1. Expenditure greening budget Pillar II



Source: Eurostat.

However, it's worth noting that the CAP has undergone some changes and reforms over time, and the specific measures and definitions may vary. The latest CAP reform, which took effect in 2021, introduced a new architecture with three main objectives: environmental care, climate action, and balanced territorial development. Under these objectives, member states have more flexibility in designing their programs and selecting measures to meet their specific needs and challenges, including those related to green practices.

Eco-schemes, in their essence, are supported by various voluntary acts that go beyond conditionality and other pertinent responsibilities, such as behaviours connected to better nutrient management, agroecology, agroforestry, carbon farming, or animal welfare. Similar to how certain payment types under the CAP's second pillar are supported.

In terms of applying direct payments to ensure a minimum level of protection and basic obligations directly related to climate issues, farmers must comply with mandatory cross-compliance requirements. The cross-compliance aims for farmers to comply with high EU standards for public, plant, and animal health and welfare, and the environment (Regulation 2021/2116), as an improving sustainable European farming. Farmers must comply following rules:

- statutory management requirements (SMR), these apply to all farmers whether or not they receive support under the CAP;
- good agricultural and environmental conditions (GAEC), these apply only to farmers receiving support under the CAP.

Both standards should better consider the environmental and climate challenges and the new CAP environmental architecture, thus delivering a higher level of environmental and climate ambition as set out in the Commission communication on the "Future of Food and Farming" (Regulation 2021/2116).

Mainly SMR and GAEC standards are distributed as follows (Regulation 2021/2116):

- Climate change:
 - GAEC 1: Maintenance of permanent grassland – the aim is a general safeguard against conversion to other agricultural uses to preserve carbon stock,
 - GAEC 2: Protection of wetland and peatland – the aim is the protection of carbon-rich soils,
 - GAEC 3: Ban on burning arable stubble, except for plant health reasons – the aim is the maintenance of soil organic matter.
- Water:
 - SMR 1: Establishing a framework for Community action in the field of water policy – the aim is to control diffuse sources of pollution through phosphates,
 - SMR 2: Protection of waters against pollution caused by nitrates from agricultural sources – the aim is the protection of water,
 - GAEC 4: Establishment of buffer strips along water courses – the aim is the protection of river courses against pollution and run-off.
- Soil:
 - GAEC 5: Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient – the aim is minimum land management reflecting site-specific conditions to limit erosion,
 - GAEC 6: Minimum soil cover to avoid bare soil in periods that are most sensitive – the aim is the protection of soils in periods that are most sensitive,
 - GAEC 7: Crop rotation in arable land, except for crops growing underwater – the aim is preserving the soil potential,
- Biodiversity and landscape:
 - SMR 3: Conservation of wild birds – the aim is to protect biodiversity,
 - SMR 4: Conservation of natural habitats and of wild flora and fauna – the aim is to protect biodiversity,
 - GAEC 8: Protection of agricultural areas devoted to non-productive areas or features – the aim is maintenance of non-productive features and areas to improve on-farm biodiversity,
 - GAEC 9: Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites – the aim is the protection of habitats and species,
- Food safety

- SMR 5: Laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety – the aim is food safety and people protection,
- SMR 6: Prohibition on the use in stock-farming of certain substances having a hormonal or thyrostatic action and beta-agonists – the aim is food safety, people and animal protection,
- Plant protection products:
 - SMR 7: Placing of plant protection products on the market – the aim is people's health and saving the environment,
 - SMR 8: Establishing a framework for Community action to achieve the sustainable use of pesticides – the aim is restrictions on the use of pesticides in protected areas,
- Animal welfare:
 - SMR 9: Laying down minimum standards for the protection of calves – the aim is food safety, people and animal protection,
 - SMR 10: Laying down minimum standards for the protection of pigs – the aim is food safety, people and animal protection,
 - SMR 11: Protection of animals kept for farming purposes – the aim is food safety, people and animal protection.

In the context of CAP greening, we show in detail “Schemes for the climate, the environment and animal welfare” (eco-schemes) including the following practices in Bulgaria (Ministry of Agriculture, 2023):

- Eco-scheme by organic production;
- Eco-scheme by maintenance and improvement of biodiversity and environmental architecture;
- Eco-scheme by preservation and restoration of soil potential – encourage green manure and organic fertilization;
- Eco-scheme by reducing pesticide use;
- Eco-scheme by ecological maintenance of perennial crops:
 - ecological interrow maintenance with nitrogen-fixing or grass crops;
 - ecological maintenance of strips with natural vegetation on the edge-of-fields;
- Eco-scheme by extensive permanent maintenance;
- Eco-scheme by biodiversity maintaining and improving in forest ecosystems;
- Eco-scheme by grown cultures diversification has some requirements as follows:
 - farms with arable land up to 10 ha have to grow at least 2 different crops – the main crop not exceeding 90% of these areas;

- farms with arable land between 10-30 ha have to grow 3 different crops – the main crop not exceeding 75% of these areas, and the 2 main crops together covering not more than 90% of them;
- farms with arable land over 30 ha have to grow at least 4 different crops – the main crop not exceeding 75% of these areas, and the 3 main crops together covering not more than 90% of them.

A key tool in reaching the ambitions of the European Green Deal is the Farm to Fork strategy aimed at achieving a greener and more sustainable Common Agricultural Policy (CAP) in the European Union (EU). The strategy was launched as part of the European Green Deal, which is a comprehensive plan to make the EU's economy sustainable and address climate change and environmental challenges.

The Farm to Fork Strategy aims to transform the EU's food systems by promoting sustainable agricultural practices, reducing the use of pesticides and antimicrobials, increasing organic farming, improving animal welfare, and promoting healthy and sustainable diets. It recognizes the need to align agricultural policies with environmental objectives and support the transition to more sustainable farming systems.

By implementing the Farm to Fork Strategy, the EU aims to reduce the environmental footprint of the agricultural sector, mitigate climate change, protect biodiversity, and improve the overall sustainability of food production and consumption. It recognizes the interconnectedness between agriculture, environment and human health and emphasizes the importance of sustainable practices throughout the food supply chain.

The Farm to Fork Strategy can contribute to a greener CAP policy by setting ambitious targets and guidelines for member states to follow. It provides a framework for aligning agricultural policies with sustainability objectives and encourages the adoption of green practices at various stages of food production, processing, and distribution.

By promoting sustainable farming techniques, reducing the use of chemicals, supporting organic farming, and encouraging more sustainable diets, the Farm to Fork Strategy can help steer the CAP towards a greener and more environmentally friendly approach. It also emphasizes the importance of research, innovation, and knowledge sharing to support the transition to sustainable food systems.

Also, an important part of the CAP Strategic plan is the financial annexe (EC, 2020) which includes some directions as the following:

- Direct payments € 4 118 959 730, like all of them, are from the EU budget;
- Sectoral support € 124 825 769, like € 109 346 634 are from EU budget;
- Rural development € 3 481 928 072, like € 1 411 630 215 are from the EU budget.

Regarding environmental and climate objectives under rural development are reserved € 547 115 007, and for Eco-schemes under direct payments are reserved € 1 026 589 665 from the EU funding budget.

2. Methodology and Data

For the purpose of this study, we will be using "Conjoint analysis". The term "conjoint" was introduced as "conjoint measurement" in the 1970s. According to some authors (Green et al., 1971), it is decisive for the development of mathematical psychology. It can be used to measure the combined effects of a set of independent variables on the ordering of a dependent variable. They were applied to illustrative problems in marketing. In addition, many applications to marketing research were discussed, as well as some of the limitations of the methodology.

Conjoint analysis is used as a decision-making tool by evaluating different decision-making options (Van Soest et al., 2015) and determining the most acceptable one through a theory of discrete choice (Louviere, 1988; Seghieri et al., 2014). The analysis is the most used in consumer choice research (Szűcs et al., 2015) as well as in consumer attitudes (Lucas et al., 2019). The conjoint analysis and related choice modelling methods have been used for many years in marketing research to assess consumer behaviour and preferences for different product attributes. Conjoint analysis is trending towards its application in environmental science and management (Alriksson et al., 2008). The Conjoint analysis has been used in marketing (Green et al., 1981; Gustafsson et al., 2007; Rao, 2013; Zhelev, 2011), healthcare (Ryan et al., 2000; Spaich et al., 2018), agricultural economics (Menapace et al., 2011); environmental economics (Opaluch et al., 1993; Alriksson et al., 2008), (Campbell et al., 2009), climate change (Alberini et al., 2006); quality management (Steenkamp, 1987), tourism (Anastasova, 2003; Karadzova et al., 2013), as well as transport studies (Sheldon et al., 1982).

At the heart of the Conjoint analysis is the idea that each decision is composed of separate attributes and each of them from different levels. By comparing different decisions with combinations of different levels of utilities, it can be determined which of them satisfies the largest number of farmers to the greatest extent. The method is applied to classify decisions by preference degree and determining optimal levels of their attributes. The main advantage of the method is the possibility to compare their set of diverse decisions (Pelzer, 2019). In this way, conditions are simulated to imitate a real situation in which farmers are placed when they have to make a choice between different alternatives and make a management decision.

We have chosen the Conjoint analysis by IBM SPSS Statistics 19.0 software to research farmers' attitudes towards implementing ecological practices on farms. The method is suitable for the study because new CAP greening requirements can be divided into groups, as well as the level of subsidy. The conjoint analysis provides an answer to a very important question „Would farmers carry out ecological activities without the CAP support?“.

Entering the data into SPSS and outputting the Conjoint analysis led to determining the number of levels and characteristics that applied in the set from which farmers had a choice of preference, i.e. three levels of eco-schemes and five levels of subsidy per hectare.

The attributes and levels at which farmers should indicate the most preferred option are presented (Table 1). The attributes represent main factor groups including eco-schemes and subsidy per hectare and levels represent a section of each attribute.

Table 1. Determination of attributes and levels by the Conjoint analysis

Levels	Attributes – Eco-scheme
Level.1	Preserving carbon-rich soils through the protection of wetlands and peatlands
Level.2	Implementation of a nutrient regulation tool to improve water quality and reduce ammonia and nitrous oxide levels
Level.3	Crop rotation
Levels	Attributes – Subsidy/ha
Level.1	BGN 0
Level.2	BGN 100
Level.3	BGN 150
Level.4	BGN 200
Level.5	BGN 250

Source: Authors' own elaboration.

"Eco-schemes" attribute belongs to levels: preserving carbon-rich soils through the protection of wetlands and peatlands; implementation of a nutrient regulation tool to improve water quality and reduce ammonia and nitrous oxide levels; crop-rotation. The "Subsidy per hectare" attribute includes the following levels: BGN 0, BGN 100, BGN 150, BGN 200, BGN 250. The possible selection combinations are formed by conjoint analysis conditions. In this regard, we defined 15 question cards which farmers have to evaluate according to ranking method where 1 is the most preferred option and 15 is the least preferred option.

In addition, correlation analysis aims to supplement the conjoint analysis. The correlation analysis provides a solution to the relationship between two or more phenomena and is non-coincidental in how strong and close the relationship is between the studied phenomena (Luo et al., 2019). In statistics, there is a correlation coefficient that measures the relationship between two random variables and correlation analysis tests the hypothesis of a non-random relationship between the variables. It gives an answer to the question of whether two or more variables are associated or connected. Often, the analysis examines how two or more variables relate to each other or how one or more variables predict another variable. Studying the relationship between two or more variables is a fundamental approach for researchers in economics, psychology, medicine, cognitive science, sociology, etc. The correlation analysis was used in addition to the conjoint analysis to establish the degree of correspondence between causes and effects.

In addition to both analyses, we did a SWOT analysis which assesses future threats and identifies potential solutions (Stoyanova, Harizanova, 2016). In the literature, the SWOT analysis is indicated as a tool that supports strategic decisions (Shadbolt, 2008). It is used to analyze synergies between policy and land management (Mihailova, Yovchevska, 2021) and the situation of managing farms to explore the possibilities of implementing the objectives. Also, the SWOT analysis identifies the internal and external farm environment. The internal environment involves identifying the strengths and weaknesses of the farm, and the external environment, on the other hand, involves identifying the opportunities and threats facing the farm.

In addition, the advantages and disadvantages of using SWOT analysis are as follows (Sarsby, 2016):

- the first advantage is that the analysis uses a drawn scheme that does not use mathematical methods;
- the second advantage is that the analysis applies at many organizational levels;
- the third advantage is that the analysis is very well presented visually, which makes it easy to present to the audience.

The disadvantages are presented through two examples:

- the first disadvantage is that the analysis uses a body of data that is assumed to be the preferences, perceptions or beliefs of the research participants;
- the second shortcoming is that the analysis elements are not separated from the data collection, evaluation and subsequent decision-making stage.

In addition, we did a descriptive analysis to show in detail the studied farms. Descriptive analysis characterizes the main parameters of the study. It applies in addition to conjoint and correlation analysis and uses extracted data from the survey.

In connection with the application of the above methods, we decided to test the following research hypotheses:

H1: Farmers are weakly dependent on receiving CAP support from agriculture.

H2: In the new programming period 2023-2027, farmers choose to implement well-known practices in past experience.

H3: Farmers are motivated to implement ecological practices without the CAP financial support.

H4: Farmers' attitudes aimed more so than at applying ecological practices that CAP payments.

H5: Farmers' decisions weren't influenced by family.

H6: Agriculture services influence the farmers' decision-making process.

3. Results

For the research aims, a survey was conducted among 1079 farmers from Blagoevgrad and Kyustendil regions in Bulgaria in the period 2019-2021. Also, 51% of farmers are from the Blagoevgrad region, and 49% of them are from the Kyustendil region.

Managers and owners of farms from both regions that participated in the study are divided as follows:

- 56% of farmers were men;
- 44% of farmers were women.

The age groups are divided as follows:

- 17 % – 20-30 years;
- 35 % – 30-40 years;
- 27 % – 40-50 years;
- 20 % – 50-60 years;
- 1 % – over 60 years.

The education groups are divided as follows:

- 5 % – Primary school;
- 53 % – Secondary school;
- 42 % – High school.

The research data has been processed and additionally, farms have been divided into four groups by CAP greening requirements (Table 2).

Table 2. Farm groups in accordance with the CAP greening requirements in Bulgaria

Farm groups	Diversification with 2 crops	Diversification with 3 crops	Maintenance 5% ecological focus areas
0-10 ha	<i>Green by definition</i>		
10-15 ha	+	-	-
15-30 ha	+	-	+
over 30 ha	-	+	+

Source: Authors' own elaboration.

The first group includes farms with arable land up to 10 ha – the requirements for CAP greening do not apply to them. These farms are considered "green by definition", including both organic and perennial farms, also they receive CAP greening payments by default. The second group includes farms with arable land from 10 ha to 15 ha which should meet the requirement for diversification of at least two crops. The third group includes farms with arable land from 15 ha to 30 ha, which should meet the requirement for diversification of at least two crops and the inclusion minimum of 5% as an ecological focus area. The fourth group includes farms with arable land over 30 ha, which should meet the requirement for diversification of at least three crops the inclusion minimum of 5% as an ecological focus area.

We note that all farm groups participated in the study. Also, the largest group includes farms with arable land between 10 and 15 ha, and the smallest group includes farms with arable land up to 10 ha. We researched the share of annual CAP payments that farmers receive, which showed farmers' dependence on CAP subsidies. In this regard, 56% of farmers are dependent on receiving CAP support from agriculture, and 17% are low-depend.

In the survey participated farmers from both regions. They are classified as follows in Table 3.

Table 3. Farm groups participated from both regions in Bulgaria

Farm groups	Share of farms in the survey
0-10 ha	3%
10-15 ha	37%
15-30 ha	31%
over 30 ha	29%

Source: Authors' own elaboration.

In addition, we researched indicative rates and the number of farmers applying under the Green Direct Payments Scheme for seven years (Table 4). The payments under this scheme have been applied since 2015. The total amount paid out yearly under the scheme is about BGN 450 million, and the total number of farmers is about 50-60 thousand.

Table 4. Indicative rates under the Green Direct Payments Scheme in Bulgaria for seven years

Year	Indicative rate (BGN/ha)	Farmers (number)
2015	127,21	52 450
2016	126,17	54 827
2017	124,01	56 972
2018	122,84	58 072
2019	122,67	56 490
2020	133,82	54 650
2021	121,63	56 425

Source: State fund Agriculture and Ministry of Agriculture.

In the research, we use the Conjoint analysis as a decision-making tool. Based on the survey, the analysis can show the extent of implementation of ecological practices on farms, the most satisfied practices, and payments level for farmers to carry out ecological practices on farms, and the extent of interest in environmental goals during the new programming period 2023-2027. We determine the levels and characteristics (Conjoint analysis) and a survey with farmers. After that, we summarize and present the results of applying the Conjoint analysis (Table 5). The analysis shows us that the higher the utility coefficient, the more preferred the respective ecological practice.

Table 5. Results from Conjoint analysis in both regions

Attributes	Levels	Utility Estimate	Std. Error
Eco-scheme. 1	Preserving carbon-rich soils through the protection of wetlands and peatlands	0.251	0.002
Eco-scheme. 2	Implementation of a nutrient regulation tool to improve water quality and reduce ammonia and nitrous oxide levels	0.566	0.004
Eco-scheme. 3	Crop rotation	1.259	0.003
Subsidy/ha. 1	BGN 0	1.354	0.002
Subsidy/ha. 2	BGN 100	4.731	0.003
Subsidy/ha. 3	BGN 150	9.653	0.005
Subsidy/ha. 4	BGN 200	15.354	0.007
Subsidy/ha. 5	BGN 250	18.093	0.010

p<0.05

Source: Authors' own elaboration.

Farmers' attitudes toward choosing eco-schemes during the new programming period 2023-2027 on crop rotation were focused, with this being the most preferred ecological activity and the least preferred being preserving carbon-rich soils through the protection of wetlands and peatlands. This preference is, to some extent, due to knowledge of "crop rotation" practice and its application in experience (by other RDP measures) from a financial point of view. While some other practices still need to be discovered by farmers, this is a reason that they do not prefer to implement them on their farms.

Regarding farmers' attitudes about CAP payments received for these ecological practices, it is clear that a considerable part of them choose to implement the practices against receiving higher CAP payments, and a tiny part of them would choose not to receive CAP payments for the ecological practices they perform. Also, we found that farmers rated CAP payment as a much more important factor than ecological practices. Despite that, 79% of farmers believe that the decisions to implement ecological practices on farms have a positive impact on improving the environmental status of both regions. We highlight the difference between importance coefficients that determine the farmers' attitudes (Table 6), and the correlation between hypothetical and predicted preferences is very strong.

Table 6. Factors determining farmers' attitudes in both regions

Attributes	Importance Values
Ecological practices	13.215
CAP greening payments	86.785

Source: Authors' own elaboration.

The Correlation analysis is an undivided part of Conjoint analysis which examines the relationships between two variables by establishing the extent of correspondence between causes and effects. We have made connections between different questions from the questionnaire, which establish the reasons motivating farmers to apply ecological practices on farms.

The first connection (Table 7) is to what extent family influence on farmers' decision-making and decisions have an impact on improving ecological practices for the two regions. From the analysis, we found that there is a weak relationship. It is important to note that family did not influence, but agricultural services influenced the farmers' decisions to a large extent.

Table 7. Correlation between family influence and impact on improving ecological practices in both regions

		Family influence on the decision-making process	Improving the ecological condition of the regions
Family influence on the decision-making process	Pearson Correlation	1.000	0.056
	Sig. (2-tailed)		0.108
	N	1002	1002
Improving the ecological condition of the regions	Pearson Correlation	0.056	1.000
	Sig. (2-tailed)	0.108	
	N	1002	1035
p<0.01			

Source: Authors' own elaboration.

The second connection (Table 8) is whether has a relationship between the share of annual CAP payments and the implementation of CAP greening practices. From the analysis, we found no connection between the two variables.

Table 8. Correlation between annual CAP payments and implementation of CAP greening in both regions

		Annual CAP payments	Implementation of CAP greening
Annual CAP payments	Pearson Correlation	1.000	-0.243
	Sig. (2-tailed)		0.003
	N	1073	1065
Implementation of CAP greening	Pearson Correlation	-0.243	1.000
	Sig. (2-tailed)	0.003	
	N	1065	1073
p<0.01			

Source: Authors' own elaboration.

Also, we found that each of the mentioned sources has an influence to a greater or lesser extent on the decisions of agricultural producers. To a greater extent, experts from the Municipal agriculture office, National agricultural advisory services and private consultants influence the farmers' decision-making process, and to a lesser extent – the Regional agriculture directorate, other agricultural producers, and agro sites.

In the second part of the research, we have determined the questions related to the new programming period 2023-2027, which aims to show farmers' attitudes towards the upcoming eco-scheme practices. We need to study their attitudes regarding the implementation of mandatory and voluntary ecological practices.

We found that 97% of the farmers are interested in new ecological practices (eco-scheme) set during the programming period 2023-2027. We also found that 53% of them expect to continue with the CAP greening payment for the implementation of ecological practices and will not be lowered the rates per hectare. Another 35% of the farmers expect increased rates per hectare and increased eco-scheme payments. Another 17% of them expect a greater choice of ecological practices and increased control over their implementation, i.e. to achieve screening of actual farmers who engaged in agriculture. Only 5% of them shared that they expect the environmental state of regions to improve.

Also, we found that 65% of farmers are concerned that the bureaucracy will be maintained, and 23% are worried about the control applied during the meeting requirements of the new eco-scheme. According to 44% of farmers, the requirements under the eco-scheme payments will be increased, and for 61% of them – the eco-scheme payments will be reduced, which will negatively impact farm activities.

We present farmers' attitudes: 95% of them indicated that they would implement the eco-scheme in the programming period 2023-2027 but with CAP financial support. Also, 76% of farmers indicate that the CAP greening payments motivate and support them in implementing ecological practices on farms.

In farmers' attitudes analysis, we determined that most of them would implement ecological practices on farms but with CAP financial support providing additional income through meeting eco-scheme requirements.

In addition, in the farmers' attitudes analysis regarding the introduction of mandatory ecological practices on farms, we found that farmers at greater extent prefer the introduction of the practice of "Preserving carbon-rich soils through protection of wetlands and peatlands" to practices "Implementation of a nutrient regulation tool to improve water quality and reduce ammonia and nitrous oxide levels" and "Crop rotation" from an ecological point of view (Table 9).

Table 9. Farmers` attitudes regarding the introduction of mandatory ecological practices on farms during the new programming period 2023-2027 in both regions

Mandatory ecological practices	N	Minimum	Maximum	Mean
Preserving carbon-rich soils through the protection of wetlands and peatlands	1075	1.00	5.00	3.68
Implementation of a nutrient regulation tool to improve water quality and reduce ammonia and nitrous oxide levels	1075	1.00	5.00	3.21
Crop rotation	1075	1.00	5.00	2.95
Valid N (listwise) 1075				

Source: Authors' own elaboration.

Also, in the farmers' attitudes analysis regarding the introduction of voluntary ecological practices on farms, we found that farmers agree with the introduction of all four practices: "Enhanced management of permanent pastures", "Enhanced management of landscape elements and features", "Enhanced biodiversity management", "Making more ambitious commitments" (Table 10).

Table 10. Farmers` attitudes regarding the introduction of voluntary ecological practices on farms during the new programming period 2023-2027 in both regions

Voluntary ecological practices	N	Minimum	Maximum	Mean
Enhanced management of permanent pastures	1071	1.00	4.00	2.19
Enhanced management of landscape elements and features	1071	1.00	4.00	1.97
Enhanced biodiversity management	1071	1.00	5.00	1.74
Making more ambitious commitments	1071	1.00	5.00	1.97
Valid N (listwise) 1071				

Source: Authors' own elaboration.

In addition, SWOT analysis reveals the four main elements necessary for the future functioning of farms in CAP greening conditions (Table 11). Strengths and opportunities are the factors that support future farm development, and weaknesses and threats are the factors that limit favourable farm development in perspective. The analysis was based on data from the regulations, the ordinances related to CAP greening, some authors and the data derived from the surveys.

Strengths linked to the conservation and improvement of biodiversity, environment, and climate are essential to the CAP greening (eco-scheme) requirements. Through the application of practices such as diversification of monoculture production, preservation of

permanently grassed areas, and maintenance of 5% ecologically focus areas, valuable habitats are preserved, through which the loss of biological diversity in farms is reduced. By growing nitrogen-fixing crops, the soil is enriched with nitrogen, which has a favourable effect on the following crops sown after them. By leaving the land fallow for a year, the soil is given a chance to rest and restore its nutrients. Also, buffer strips protect water from chemical pollution, soil improvement, climate change, compliance with irrigation water use procedures, and protection from a direct and indirect discharge of dangerous substances into groundwater (Council Directive 91/676/EEC; Directive 2000/60/EC).

Table 11. Application of SWOT analysis to identify the future development of farms concerning the performance eco-scheme requirements

Strengths	Weaknesses
Maintaining ecosystem services; Climate protection; Environmental protection; Biodiversity conservation; Improving soil biodiversity; Habitats conservation; Fallow land care; Diversification of monoculture production; Preservation of permanent grassland; Maintenance of ecological focus areas including: hedgerows, trees in lines, single trees, trees in groups, anti-erosion shelterbelt of trees, field margin strips, wetlands, green-space around watercourses, terraces, woodland edge, buffer strips; Existing traditional farming practices in Bulgaria, that are in line with crop rotation, soil preservation etc; Bulgarian farmers have access to knowledge and technical expertise through agricultural extension services, research institutions, and farmer networks.	Degradation of ecosystem services; Negative effects of climate change; Environmental pollution and degradation; Loss of biodiversity; Degradation of soil biodiversity; Habitat loss; Land degradation; Monoculture production; Conversion-ploughing of permanent grassland; Lack of technical knowledge and training; Outdated infrastructure and equipment; Fragmented land holdings; Limited access to technology and innovation; Resistance to change; Administrative burdens and compliance.
Opportunities	Threats
Implementation of cross-compliance; Participation in the Climate, Environment and Animal Welfare Schemes (Eco Schemes); Funding from the EU and opportunity for change in production and diversification of crops.; Enhancing income support; More of the consumers part of the EU market demand for sustainable products Farmers can explore collaboration opportunities with other stakeholders, such as agricultural cooperatives, processors, retailers, and certification bodies which are underdeveloped in Bulgaria; Sustainable farming practices adaptation; Collaboration between farmers and researchers can lead to innovative solutions.	Exclusion from direct payment support; Non-fulfillment of the requirements under the Climate, Environment and Animal Welfare Schemes (Eco Schemes); Decreasing income support. Agriculture in Bulgaria faces economic challenges, including fluctuating market prices, high production costs, limited financial resources, high inflation rates; The constant shift of requirements or inconsistent enforcement of eco-scheme regulations can pose challenges for farmers in adapting their practices and meeting the required standards; Climate change impacts.

Source: Authors' elaboration, developed with the survey data and regulatory framework: Regulation 2021/2115, Ordinance 3/2023, Ministry of Agriculture (2023), as well Guyomard et al. (2023), Marick et al. (2023)

Weaknesses are related to adverse effects on soils, water, climate, biodiversity, and habitats in case of incorrect application or non-compliance with the eco-scheme requirements. Failure

to meet the requirements for greening (eco-schemes) leads to all these consequences described as weaknesses in the SWOT analysis. Activities like including buffer strips to CAP greening it is already strong side compared to the previous period. This leads to the conclusion that the new requirements improved in parallel with applied practices.

The opportunities facing farmers are tied to receiving payments for implementing environmental activities on farms. It is a financial motivation that rewards the efforts and motivation to carry out good practices that protect the environment and continue these practices in the future. Another opportunity for farmers is the green payments tool to calculate the consumption for a minimum of 5% ecologically focused areas. The tool facilitates the farmers before submitting the request for payment in Municipal agricultural offices.

Threats to farmers stem from meeting the requirements under the CAP greening scheme. Farmers face the risk of sanctions for compliance with the conditions set by the scheme. The sanction may be total or partial, depending on the type and frequency of the error. One of the mistakes that can be made is an incorrect area delineation and landscape elements.

As a result of the SWOT analysis, farmers must comply with the conditions of mandatory and voluntary requirements for respecting biological diversity, the environment and climate. Also, in addition to the conditions of the CAP greening scheme, farmers must comply with applying additional ecological activities on farms during the new programming period 2023-2027.

4. Discussion and Conclusion

Based on aims implementation we show results of testing research hypotheses.

In the first step, we reject the following hypotheses:

- H1: Farmers are weakly dependent on receiving CAP support from agriculture.
- H3: Farmers are motivated to implement ecological practices without the CAP financial support.
- H4: Farmers' attitudes aimed more so than at applying ecological practices that CAP payments.

The reason for rejecting the hypothesis is that we found only 5% of farmers weakly depend on receiving CAP support from agriculture. In addition, we established that a significantly large part of farmers choose to implement ecological practices against receiving higher CAP payments. The research showed that farmers rated CAP payment as a much more important factor than ecological practices.

In the second step, we assume the following hypotheses:

- H2: In the new programming period 2023-2027, farmers choose to implement well-known practices in past experience.
- H5: Farmers' decisions weren't influenced by family.

- H6: Agriculture services influence the farmers' decision-making process.

The reason for assuming this hypothesis is that we found the most preferred to implement is crop rotation practice and the least preferred is preserving carbon-rich soils practice through the protection of wetlands and peatlands during the new programming period 2023-2027. The correlation analysis also points to a weak relationship between farmers' decisions and family influence. The research shows that agriculture services like Municipal agriculture offices, National agricultural advisory services and private consultants influence the farmers' decision-making process to a greater extent.

The farmers' attitudes analysis leads us to think that the farmers have mainly external motivation – the CAP greening payments, rather than external motivation – the environmental protection and work satisfaction performed. In addition, we found that farmers' willingness to implement mandatory practices was supplemented by farmers' willingness to implement voluntary practices.

In conclusion, the Conjoint analysis, the Correlation analysis, the SWOT analysis and the Descriptive analysis were used in the research to get to the following conclusions regarding the state of implementation of CAP greening in Bulgaria and its further use in the new CAP period. Through analyzed survey data farmers' attitudes were studied toward mandatory and voluntary ecological practices on farms with or without CAP financial support for the programming period 2023-2027 in the regions of Blagoevgrad and Kyustendil in Bulgaria.

In the study, we found that most farmers choose to implement ecological practices against receiving higher CAP greening payments. In addition, we found that farmers rated the CAP greening payments as a more important factor than ecological practices on farms. As a result, we conclude that farmers' attitudes to implementing ecological practices on farms depend on the possibility of receiving CAP support to a greater extent and not as a consequence of internal factors such as concern for personal health and environmental care.

As a result of the research, we also found that CAP greening in both regions is possible through the environmental and climate protection practices applied by Bulgarian farmers. The CAP greening payments are not intended to provide a basic income to farmers. We found that farmers would only carry out ecological practices with the CAP financial support during the new programming period 2023-2027.

We summarized in three groups the reasons that make farmers apply ecological practices in the new programming period 2023-2027 from the analyzed survey data: CAP financial support, environmental care protection, and work satisfaction performed.

Based on the analysis and the authors' opinions, we summarize that CAP greening is carried out not at the cost of awareness of the protection of the environment and public health but at the cost of CAP greening payments, which mainly motivates farmers in both regions in Bulgaria.

The agricultural sector should be stimulated to continue with environmental care through farmers, and agroecological measures aimed at developing rural areas should make farmers achieve efficient and sustainable results in their agricultural activity.

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THE EFFECT OF TOURISM REVENUES AND INFLATION ON ECONOMIC GROWTH IN BALKAN COUNTRIES²

Earnings from the tourism industry not only contribute to the expansion of an area's or nation's economy, but also result in the development of new jobs across a variety of industries, the accumulation of foreign currency, and the upgrading of economic infrastructure over the longer term. The purpose of this research is to investigate how income from tourism and inflation rates affect the pace of economic expansion in nations located in the Balkan region (Albania, Bosnia and Herzegovina, Bulgaria, Montenegro, North Macedonia, Greece, Serbia, Croatia, Slovenia, Romania). The Balkans, the region of dynamic developments, diversity of lifestyles, rich historical heritage and authentic culture from ancient civilizations to the present, has various tourism potentials such as sea tourism, mountain tourism, cultural tourism, rural tourism, health tourism and ecotourism. The research covers the years 2005-2020 and includes data on the variables that impact economic development in the nations that make up the Balkan region. Since there were significant gaps in Kosovo's data, the country was excluded from the research. Panel data analysis was used in the research to investigate macroeconomic variables such as foreign tourism revenues and inflation rates in these nations. Both of these factors are related to tourism. In the research that was conducted using a panel analysis method, the conclusive analysis wasn't begun until after the appropriate assumption tests had been carried out. It has been determined, via the use of the Driscoll-Kraay technique of estimating, whether or not these factors have an effect on economic growth. Based on the data that was collected as a result of the investigation, it was determined that the expansion of the tourism sector in the nations that were chosen from the Balkan region does not have a substantial impact on the overall growth of the economies of these countries. In a similar vein, inflation rates were completely unrelated to growth.

Keywords: Tourism; Economic Growth; Tourism Revenues; Driscoll-Kraay; Balkan Countries

JEL: Z32; H27; O47; O52

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1. Introduction

Since it is integrated with a great number of service businesses, the success of the tourism industry influences the success of other industries that are tied to it (Ecer, Günay, 2014). The tourism business provides a wide variety of services in several sectors, such as accommodation, food and drink, and travel agencies, in addition to providing numerous employment opportunities. This broad range of services is offered by the tourism industry. The tourism sector is the primary growth driver for the global economy. Globalization's tendency to grow visitor numbers year after year in recent years has greatly impacted both the tourist business and the quality of service, except for the period during which the COVID-19 epidemic was active.

Tourism is a social, cultural, and economic phenomenon that may be described as the migration of individuals to nations or locations outside of their typical surroundings for the sake of recreation, commerce, or other professional or personal endeavours. It is well acknowledged that the tourism sector is one of the most lucrative, productive, and rapidly expanding subsectors of the global economy. A significant number of nations recognize the significance of tourism as an essential component of their plans for economic growth (Huseynli, 2022a, 2022b).

It is possible that tourism might help people's sociocultural development by putting more power in the hands of women and communities of people with disabilities, as well as by creating chances for long-term employment. Because of this, countries that are already established as well as nations that are still in the process of growing give a high emphasis on the education of skilled personnel in the tourism and lodging industries to increase the contribution of these industries to overall national development (Aynalem, Birhanu, Tesefay, 2016). The tourism business is one that has a great deal of untapped potential because of the expansion of economic dynamics and its capacity to take in workforce applicants.

Many people believe that tourism is a regional development agency that has the potential to advance economic growth on both a national and international scale (Jackson, Murphy, 2006). In addition, studies published in academic journals have investigated the link between increasing tourism, relative prices, and overall economic expansion (Risso, Barquet, Brida, 2010). According to the conventional wisdom, there is at least one causal link between tourism and economic development. However, Katircioglu (2009) concludes that there is no link between the two, particularly over the long term because it is not likely that they are cointegrated. This contrasts with the conventional wisdom, which holds that there is at least one causal link between tourism and economic development. The pooled OLS estimator was used by Modeste (1995) in her research on the effects of tourism on the economic growth of three Caribbean countries (Barbados, Antigua & Barbuda, and Anguilla).

The research that has previously been conducted on the subject sheds light on the unidirectional connection that exists between the influx of tourists, the resulting increase in earnings, and improvements in quality of life (Sarpong, Bein, Gyamfi, Sarkodie, 2020). The profits generated by the tourism sector have a significant impact on the economic growth of a country or area. These earnings also lead to the production of employment in a variety of industries, the accumulation of foreign currency, and improvements to the long-term

infrastructure of the economy (Ribeiro, Lopes, Montenegro, Andrade, 2018). One theory asserts that revenues from tourism first contribute to a financial deficit, but that these deficits eventually have a significant positive influence on economic growth (Sanchez Carrera, Brida, Risso, 2008).

Knowing about inflation or visitor pricing is necessary for demand forecasting in the tourism industry. According to studies, an increase in inflation has a negative but significant effect over the long term on tourism demand, while a decline in inflation has a positive but insignificant influence over the long term on tourism demand (Parvin, 2022). The increased demand for goods and services that results from an increase in the amount of money that is spent there by tourists could give birth to inflation (Gee, Makens, Choy, 1997). Inflation refers to a situation in which the price of an item keeps going up over a considerable amount of time. The devaluation of currency is a possibility whenever there is persistent inflationary pressure on prices of goods. It is possible that people's capacity to buy items will decrease as a direct consequence of the value of money going down (Wirdayanti, Reniati, Saputra, 2022). It is believed that there is a connection between inflation and the purchasing power of consumers. This is because when inflation rises, consumers' purchasing power falls, and as a result, tourists stop travelling. If the rate of inflation falls, then more people may go there to take advantage of the lower cost of living as well as lower travel costs.

The Balkans have been an area of rapid advancements, a variety of lifestyles, a rich historical legacy, genuine culture, and a well-preserved nature from the time of ancient civilizations all the way up to the current day (Tomka, 2014). The region known as Southeast Europe includes the Balkan Peninsula. The term "Balkan", which literally translates to "forest mountain", is where the name "Balkan Peninsula" derives from. The name is said to have originated in Turkey (Griffiths, Krystufek, Reed 2004). According to Akova and Demirkıran (2013), the Balkan Peninsula is bordered on its northern side by the Danube, the Sava, and the Kupa rivers. It is encircled by the Mediterranean Sea, the Adriatic Sea, the Black Sea, and the Aegean Sea. Mountain tourism established by the nations of the Balkan Peninsula, the most significant of which are the Dinar Mountains, Shar Planina, Pindos, and Stara, and the countries of the Balkan Peninsula, which have a great deal of mountainous terrain, have also developed mountain tourism. Activities such as swimming, sunbathing, and participating in various water sports are all part of marine tourism. Greece has the longest coastline in the Balkans with 15,000 kilometres, followed by Croatia with 5,790 kilometres of shoreline. Each of the Balkan countries has its own unique length of coastline. Bosnia has around 20 kilometres (km) of shoreline, whereas Slovenia has 32 kilometres (km). The sheer number of islands off the shores of Greece and Croatia contribute significantly to their length (Bramwell 2004). Nonetheless, the Balkans are an area filled with a long and rich history, magnificent tourism sites, and welcoming people; yet, political unrest and instability, poor economic growth, and religious issues are having an influence on the development of tourism across the whole region (Cvetkoska, Barisic, 2017).

According to Methodijeski and Temelkov (2014), the following is a list of the national policies that the nations of the Balkan region have implemented to boost tourism and the tourist goods that they place a particular emphasis on:

- Mountain tourism is ideal for winter sports, energetic vacations, cycling, and other types of active travel; marine tourism, which includes activities like as swimming, sunbathing, and water sports, is also popular.
- Tourism that focuses on culture and history, such as going to museums, events, and festivals, or participating in activities of that kind.
- Tourism for business purposes and tourism for conferences, both of which comprise travel resulting from the performance of activities linked to doing business.
- Tourism in rural areas may include visits to restaurants serving regional specialities, traditional arts and crafts, warm hospitality, and unique building styles.
- Tourism for health and wellness, also known as health and spa tourism, involves participating in a variety of health-related activities, such as receiving health-enhancing treatments, staying at spas, receiving massages, and doing other similar activities.

Many research projects on the topic of tourism in the Balkans have been carried out. Đukic et al. (2014) created a concept for responsible, community-based ecotourism that may be implemented in protected rural regions near major cities and towns in the Balkan Danube basin. Kiss (2015) conducted research that investigated the difficulties associated with establishing health tourism in the Balkan area. According to Sziva et al. (2017), content analysis was used to investigate the positioning of companies in the health tourism industry via the online communications of nations in the Balkan region. The number of visitors, international tourism revenue, percentage of GDP, and chosen variables of hotel and restaurant pricing index in Balkan nations for the period 2017-2020 were analysed in research that was conducted by Beraha and Đurićin (2022).

Considering these perspectives, the aim of this research was to investigate the possible causal connection between income from foreign tourism and rates of inflation. The variables of the research were used on the nations of the Balkan region in consideration of the data collected between 2005 and 2020.

2. Literature Review

2.1. The Role of Tourism in Economic Development

Oh (2005) discovered that economic development in South Korea is Granger-caused rather than tourism-inverse. In a 2007 research, Khalil, Kakar, and Malik used the ECM to analyse the contribution of tourism revenues to Pakistan's short-term economic growth between 1960 and 2005. For OECD and non-OECD nations (including 23 countries), Lee and Chang (2008) used fully modified ordinary least squares (FMOLS) and ECM heterogeneous panel cointegration methods to investigate the causal link between tourism development and economic growth.

The connection between tourism and economic development in Nepal was looked at in research by Gautam (2011). The link between economic development and foreign commerce in India was examined in research by Suresh, Gautam, and Kumar (2011). Samimi, Sadeghi,

and Sadeghi (2011) used the P-VAR method to examine the relationship between economic growth and tourism development in developing nations between 1995 and 2009.

For Germany, Italy, Spain, Greece, Austria, England, Cyprus, the Netherlands, Portugal, and Sweden, Antonakakis et al. (2013) used a vector autoregressive model (VAR) to analyse the link between tourism and economic growth. Tang and Tan (2013) found evidence to support the validity and stability of the tourism-induced growth theory in Malaysia from 1995 to 2009. The long- and short-term relationships between tourism and economic development in Sri Lanka were examined using yearly data spanning the years 1978 to 2011 in research by Mustafa and Santhirasegaram (2014).

Using the VECM and Johansen Maximum Likelihood cointegration techniques, Pavlic, Svilokos, and Tolic (2015) investigated the causal link between Croatian tourism and economic development. In the research carried out by Huseynli (2022c) between 1998 and 2019, the relationship between revenue from international tourism and the growth of the economies of Kazakhstan and Kyrgyzstan was investigated. A positive linear association exists between the variables in both nations, as shown by the findings of the regression analysis that was carried out as part of the scope of the research. The paradoxical distribution of domestic and international pricing in the impacts of relative prices on tourist arrivals was discovered by Karimi, Khezi, and Razzaghi's (2022) research on the effects of regional conflicts on tourism in Middle Eastern and African nations. Although increasing costs in other nations drew more domestic travellers, it also became clear that higher prices domestically are a sign of better tourism infrastructure and more travellers.

As can be seen, research has been done in the literature on the relationship between tourism growth and economic growth in light of data from different countries. However, there are not many studies that analyse the effect of tourism on economic growth in all Balkan countries. Therefore, the research was designed to cover the Balkans.

2.2. The Importance of Tourism Revenues in the Tourism Sector

Several nations are attempting to capitalize on its natural assets and draws, which promote economic development and support this industry, such as cultural history, exotic scenery, and handy locations for shopping and entertainment (Sheng, 2011). Calculating tourism income per foreign visitor involves dividing tourism earnings by the total number of foreign visitors.

It is vital to appropriately make use of the tourism potential to raise the amount of money that can be made off tourism. Under this framework, the nations of the Balkans have a significant potential for tourism. In research that was carried out by Metodijeski and Temelkov (2014), the tourism policies of the nations that are located in the Balkan Peninsula were investigated using the lens of national plans for the growth of tourism and the goods that are associated with tourism.

Real GDP and tourism income have a long-term association, whereas tourism and economic growth have a short-term relationship, according to Balaguer and Cantavella Jorda's 2002 research. Using panel data from 42 African nations, research by Fayissa, Nsiah, and Tadasse

(2008) found that the profits from the tourism sector considerably contributed to the economic development of African countries.

According to research by Kreishan (2011), Jordan's long-term economic development from 1970 to 2009 was positively correlated with tourism expenditures. The link between tourism-driven development in Malaysia was examined using Granger causality tests in research by Tang (2011). The Granger and Hsiao causality tests were used in research by Assadzadeh and Nasab (2012) to examine the causative link between tourism-related revenue and GDP in Iran from 1968 to 2007.

Aleemi (2015) conducted research on the effects of tourism income on Pakistan's economic growth between 1981 and 2013. In research published in 2020 by Hesami, Rustamov, Rjoub, and Wong, the effect of oil prices on tourism income in nations that significantly depended on crude oil exports from 2000 to 2017 was investigated.

The tourism sector is related to the amount of money tourists spend in different areas and on different items and has an important place in the economies of countries. Tourism earnings play a major role in the economy, especially in countries where tourism is developing. As can be seen, although the relationship between tourism revenues and economic growth in different countries and regions has been analysed in the literature, such comprehensive studies have not been found in the Balkan region. For this reason, the income from the tourism sector has been included in the hypotheses of the research.

2.3. The Relationship between Tourism and Inflation

Demand-side inflation and cost-side inflation are the two main causes of inflation. Demand-side inflation is an inflation brought on by increases in overall demand. Any element that boosts overall demand, such as a decrease in interest rates, an increase in available funds, an increase in government expenditure, a reduction in taxes, an increase in exports, or an increase in investment motivated by the anticipated rise. Demand-side inflation might be brought on by future earnings. On the other hand, cost-oriented inflation is defined as inflation that begins with a rise in expenses, such as an increase in the pay rate and an increase in the price of raw resources like oil (Kırca, Özer, 2020).

In emerging nations, inflation has a significant role in determining the demand for tourism. Pricing and global economic trends are the main internal and external factors affecting international travel (Parvin, 2022). The price elasticity of demand indicates how adversely rising travel costs are always correlated with travel demand. Hanafiah and Harun (2010) assert that there is an inverse relationship between visitor numbers and inflation.

Arbel and Strebel's research from 1980 may be considered as the first to use regression analysis to explore the links between inflation and tourism demand as well as the correlations between inflation and hotel prices, occupancy rates, and profitability. According to research by Coltman (1989), the growth of the tourism sector would result in higher living expenses for certain cities' citizens. According to Gee et al. (1997), it was underlined that as the tourism industry grew, land costs would rise and would significantly contribute to the rise in inflation.

Tribe (2011) asserts that the rise in touristic and recreational activities raises the cost of both products and services as well as real estate. Using yearly data from 1970 to 2008, Tang (2011) looked studied the correlations between Malaysia's desire for tourism, inflation, unemployment, and crime rates. Moreover, research by Yong (2014) that looked at the relationships between tourism demand, innovations, and inflation for 14 European nations found that there were favourable relationships between innovations and tourism demand. In research done by Atay Kayış and Aygün (2016), it was discovered via the use of VAR analysis for the yearly data of Turkey for the years 2003-2011 that there is a long-term association between tourism revenue and inflation.

Kırca and Özer (2020) used yearly panel data from the years 2004 to 2013 to analyse the impacts of both local and foreign tourism demand (measured by overnight stays) on regional inflation and Turkey's overall tourism demand. The impacts of oil prices, inflation, currency rates, institutional quality, and trade balance on tourists to Bangladesh between 1995 and 2019 were examined in research by Parvin (2022). On the other hand, the pricing of products and services is subject to shifts in either direction over time. An increase in the price of a specific commodity or service is not the same thing as inflation; rather, inflation refers to an ongoing rise in the average price level across all goods and services (Huseynli, 2022a). The impact of leverage, firm size, inflation rate, and cash holding on firm value in the hotel, restaurant, and tourism sub-sector businesses listed on the Indonesian Stock Exchange for the period of 2017-2020 was investigated in research undertaken by Wirdayanti, Reniati, and Saputra (2022).

While the research model was being designed, inflation was also included in the model. That is to say, inflation is one of the important factors in determining tourism demand. Although there are studies in the literature linking tourism and inflation in different countries, no studies were found in the Balkans that tested these two variables empirically. For this reason, the inflation variable was also included in the study.

3. Research Methodology

3.1. Purpose and Data Set

Following the relaxation of travel restrictions imposed as a result of the COVID-19 pandemic, the tourism industry in the Balkans is quickly making a comeback and is on track to reach new highs in 2019 (Roushkova, 2022). As was mentioned, every single candidate country and potential candidate country for membership in the European Union, with the exception of Montenegro, reported a higher bed capacity in 2018 than they did in 2008 (Eurostat, 2020). In addition to all of this, there are also studies that highlight the optimistic trend in the growth of tourism in the Balkans over the past few years (Ndou, Hysa, Maruccia, 2023). The selection of the sample country group in the model has been defined as the Balkan countries that have managed to attract the attention of tourism recently. The Balkan countries included in the analysis are Albania, Bosnia and Herzegovina, Bulgaria, Montenegro, North Macedonia, Greece, Serbia, Croatia, Slovenia and Romania. Among the Balkan countries, Kosovo was not included in the analysis. The reason was that there were serious deficiencies in the data set of this country. Annual data for the period of 2005-2020 were used in the

model estimates and the data related to the determined variables were included in the study. The estimators and codes of the estimators used in the study were tested with the help of panel analysis using the versions of Stata econometrics and statistics programs. In order to obtain more robust results from the annual data, the logarithmic values of GDP and tourism revenues, which are among the variables included in the analysis, were analysed.

3.2. Analysis Method

Panel data analysis combines cross-section data with time series. Accordingly, it provides more illuminating data, more variability, less linear connection between variables, more degrees of freedom, and more efficiency (Gujarati, 2016). The method of estimating economic relations with the help of panel data models created using cross-sectional data with time dimension, in other words, panel data is called “panel data analysis”.

In panel data analysis, it is generally encountered that the number of cross-section units is more than the number of periods.

$$Y_{it} = \alpha + \sum_{k=1}^k \beta_k X_{kit} + \mu_{it} \quad (1)$$

$$i=1, \dots, N; t=1, \dots, T; k=1, 2, \dots, q$$

Variables such as dependent variable (tourism revenues, inflation), independent variable (economic growth), constant parameter, slope parameters and error terms in the equation represent sub-index units (such as individual, firm, city, country) and sub-index units of time (such as day, month, year). It is assumed that the mean of the error term is zero and has a constant variance. In this model, the constant and slope parameters take values according to both units and time (Yerdelen Tatoğlu, 2013). According to the panel data model above; predicts that all independent variables affect all cross-section units equally. Otherwise, the stated equation is insufficient. An important issue that arises at this point is how to define it. The starting point can be kept constant for all units, or different starting points can be allowed for different units. In this case, two methods emerge as fixed and random effect models. The fixed effect model predicts that the starting point will take a constant value for all cross-section units.

The random effects model defines the starting point as a random variable. Accordingly, the starting points consist of the sum of the constant value and the zero-mean random variable. The Pooled Least Squares Method makes estimations under the assumptions of constant and slope parameters in the absence of unit or time effects (Yerdelen Tatoğlu, 2013).

In this study, panel data models were created for selected variables affecting growth in terms of selected Balkan countries and hypotheses based on the study were tested. The hypotheses put forward are:

- H₁: Tourism revenues affect economic growth in Balkan countries.
- H₂: Inflation rates affect economic growth in Balkan countries.

The growth will be estimated by fixed and random effect models and panel data analysis methods. On the other hand, the most suitable panel data models for the scientific research problem will be determined. Accordingly, the analysis will be made on the significant factors affecting growth.

4. Analyses and Results

The summary table of the data set used in the study before the analysis is given in Table 1. After examining the summary table of statistics, the necessary model for analysis will be established.

Table 1. Special Statistics of Variables After Logarithmic Transformation

Variable	Obs	Mean	Std.Dev	Min	Max.
Tourism revenues	160	9.346537	0.5504212	8.064458	10.36178
Inflation	160	2.826868	2.675128	0.0548568	16.11998
Economic growth (GDP)	160	10.52776	0.519822	9.353565	11.55134

After examining the summary table of statistics, the original model was established for the study.

$$Lgdp = \beta_0 + \beta_1 L\text{tourism revenue} + \beta_2 \text{inflation rate} + \mu \quad (2)$$

The values of economic growth and tourism revenues, which are among the variables included in the analysis, are considered logarithmically. There are some tests developed to decide which of the classical fixed-effect and random-effect models to use. The important ones among these tests are the Random Effects Test (Lagrange Multiplier Test), the Likelihood Ratio (LR) Test and the Hausman Test (Yerdelen Tatoğlu, 2005). One way to determine whether unit or time effects should be included in one- and two-way random effects models is to test the hypotheses $\sigma_{\mu}^2 = 0$ or $\sigma_{\gamma}^2 = 0$. The LM test investigates whether these hypotheses are valid. The LM test developed by Breusch and Pagan (1980) is based on the error terms of the ordinary LCC estimator and compares the combined LCM (classical model) and random effects models (Greene, 2000). If it is decided that the random-effects model is not valid as a result of the LM test, the LR test is used to determine whether it is appropriate to use the fixed-effects model or the classical model. The H_0 hypothesis is established as the classical model is true.

While calculating the test statistic, the log-likelihood values obtained from the fixed-effect and classical models are used. From this point of view, the test statistic is explained as in Equation 1.

$$LR = -2\log[L(\text{limited})/L(\text{unlimited})] \quad (3)$$

In this equation, 1 (constrained) shows the likelihood function of the classical model, and 1 (unconstrained) shows the likelihood function of the fixed-effect model. The LR test statistic q (number of constraints) conforms to the 2 distributions with degrees of freedom. If the H_0 hypothesis is rejected, it is decided that the fixed-effects model is valid (Baltagi, 2008). The Likelihood Ratio (LR) Test results specific to the study are given in Table 2.

Table 2. Likelihood Ratio (LR) Test Results

Test Name	LR Statistics	Probability Value
Unit and Time Impact	463.77	0.0000
Unit Impact	400.91	0.0000
Time Effect	0.00	1.0000

According to the LR test results, the model includes unit and/or time effects. This result means that the Pooled Least Squares (POLS) method cannot be used for the model.

It is understood that the model used in the analysis is not a classical model under the assumption of fixed and random effects. The main hypothesis is that there is no correlation between the explanatory variables and error terms in order to determine in which model the model, which is consistent according to both effects, is effective; In other words, the fixed effects model is effective, Hausman and the Resistive Hausman (Rhausman) test, which is used in case of deviations from the diagnostic test assumptions, were performed.

Table 3. Hausman and Rhausman Test Results

Test Name	Test Statistic	Probability Value
Hausman	8.62	0.0134
Rhausman	12.98	0.0015

In the study, the autocorrelation assumption was examined with the Durbin-Watson tests of Baltagi and Li (1991) and Bhargava, Franzini and Narendranathan (1982). The autocorrelation test statistics based on the fixed effects model are shown in Table 4.

Table 4. Durbin Watson and Baltagi-Wu's LBI Test Results

Test Name	Test Statistic
Durbin Watson	2.4987
Baltagi-Wu`nun LBI	2.8454

If there is a cross-section dependency between the series, analyzing this situation affects the accuracy and reliability of the findings (Breusch- Pagan, 1980; Pesaran, 2004). Analysis results that do not take into account the cross-sectional dependence may become biased and inconsistent. In this direction, it is necessary to test whether there is a cross-section dependence in the series before the panel data analysis. The presence of cross-sectional dependence between series can be detected with the Breusch-Pagan (1980) LM test, the Pesaran (2004) CD and CDlm tests, or the Pesaran, Ullah, and Yagamata (2008) LMadj test. Breusch-Pagan (1980) LM test, when the time dimension is much larger than the cross-section dimension ($T > N$), Pesaran (2004) CDlm test, when the time dimension is greater than the cross-section dimension ($T > N$) but the difference between the two dimensions is not much is used. While the Pesaran (2004) CD test is used in cases where the cross-sectional dimension is greater than the time dimension ($N > T$), the Pesaran, Ullah, and Yagamata (2008) LMadj test eliminates the deviations in the LM test and the possibility of the correlation sum being 0 in the Pesaran CD test, and the T dimension is It is used when it is larger than N . In Table 5, the results of the panel-wide cross-section dependence analysis for the model are given.

Table 5. Test Results of Pesaran and Friedman

Test Name	Test Statistic	Probability Value
Pesaran CD	15.885	0.0000
Friedman	84.697	0.0000

Excessive binary correlation or high variance inflation factors (VIF) between two independent variables, according to Mansfield and Helms (1982), indicate the level of multicollinearity. The variance inflation factor (VIF), which measures how much the variance of an estimated regression coefficient rises when the estimators are correlated, is one method for estimating multicollinearity. All VIFs will be 1 if there are no connected factors. There is no multicollinearity between the regressors if the variance inflation factor (VIF) is equal to 1, but if the VIF is more than 1, the regressors may be moderately correlated. A significant correlation is indicated by a VIF of 5 to 10, which might be troublesome. And if VIF exceeds 10, it is likely that the regression coefficients are incorrectly estimated as a result of multicollinearity, which must be addressed (Akinwande, Dikko, & Samson, 2015; Büyükuysal & Öz, 2016). Recking (2010) tested the permissible ranges for the prediction model using a discrepancy range of 0.1 to 10. VIF test results are shown in Table 6.

Table 6. VIF Criteria Results

Variable	VIF	1/VIF
Tourism revenue	1.01	0.990861
Inflation	1.01	0.990861
Mean VIF	1.01	

After applying the assumption tests required for panel analysis, the analysis of the final model was made. The final estimation model was made using the Drisc/Kraay Resistive estimation method. The final analysis result of the model is given in Table 7.

Table 7. Drisc/Kraay Resistive Estimation Test Result

R ²	Number of Observations	Wald Test	rho	Prob
0.6786	160	6.71	0.95289784	0.0349
Lgdp	Coefficient Values	Drisc/Kraay Resistive Standard Errors	T statistics	P> t
Ltourism revenue	.2913762	.1676669	1.74	0.103
Inflation	-.0009733	.0050844	-0.19	0.851
Fixed Coefficient	7.807151	1.788143	4.37	0.001

It has been tried to examine the effects of inflation and tourism revenues on economic growth with the Driscoll-Kraay estimation method. Although the model gives a general significance result, it is seen that the variables do not have a significant effect on economic growth. With the data obtained as a result of the analysis, it was concluded that the development of the tourism sector in Balkan countries did not have a significant effect on the economic growth of these countries. Likewise, the inflation rates experienced did not have any effect on growth.

5. Discussion and Conclusion

According to the results of the study that was carried out by Khalil, Kakar, and Malik (2007), the development of Pakistan's economy is essential for the growth of the country's tourism sector. According to the findings of the study that was carried out by Lee and Chang (2008), it was discovered that tourism had a bigger influence on the GDP in non-OECD nations over the period of 1990-2002 than it did in OECD countries. As a result of the research that was carried out by Gautam (2011), it was found that the cointegration test for the determination of the long-run relationship and the error correction method for the short-run dynamics were both performed and as a result, it was found that it was determined that tourism (represented by foreign exchange income) causes economic growth in both the short run and the long run. The findings of the study that was carried out by Samimi, Sadeghi, and Sadeghi (2011) indicate that there is a positive long-term association, as well as bidirectional causation, between economic growth and the development of tourism.

According to the results of the investigation that was carried out by Assadzadeh and Nasab (2012), there is a long-term positive correlation between these parameters and income from tourism. This was determined by looking at the data over a period of ten years. The research that they did led to the discovery of this fact as a result of their work. According to the conclusions of the investigation that was carried out by Aleemi (2015), the revenue that is created by tourism does, in fact, contribute considerably and positively to the growth of the national economy. As a result of the research that was carried out by Pavlic, Svilokos, and Tolic (2015), it was discovered that there is a causal relationship between the openness of the economy and GDP in the short run, as well as between the real effective exchange rate and GDP. In addition, the researchers found that there is a relationship between the real effective exchange rate and GDP. The test, on the other hand, shows that there is no causal relationship between the number of tourists who visit and the GDP in the short term.

According to the results of the study that was carried out by Kırca and Özer (2020), it was determined that there are significant differences in the influence that different types of overnight stays have on the rates of inflation in a number of different geographic areas. In addition, the findings suggest that the contribution that domestic overnight stays make to general and regional inflation is greater than that which is made by overnight stays in other countries. This is the conclusion that can be drawn from the fact that domestic overnight stays are ranked higher. According to the findings of the study that was carried out by Hesami, Rustamov, Rjoub, and Wong (2020), oil prices and tourism revenues are cointegrated; there is a long-term equilibrium relationship between the two; and there is a unidirectional Granger causality from oil prices to tourism revenues. All of these propositions are supported by the fact that there is a long-term equilibrium relationship between oil prices and tourism revenues. The results of this investigation came to light as a direct consequence of the research that was carried out.

The countries in the Balkan area that have been successful in attracting the attention of tourism in more recent times have been selected to take part in the research as members of the sample country group. This will ensure that the results of the study are accurate. Among the Balkan countries, Kosovo was the only country not included in the analysis because its dataset had serious deficiencies. The study contained data pertinent to the elements that were

believed to be crucial, and the estimates that were generated by the model were run using yearly data for the period of time spanning 2005-2020. In this study, a method known as panel data analysis was used in order to evaluate the impacts of a number of different macroeconomic variables. These factors included the amounts of money made by tourism on a global scale as well as the rates of inflation in each country. According to the findings of research conducted by Kiss (2015), political mismanagement and corruption, as well as a lack of economic growth and proper finance, are to blame for the fact that many nations in the Balkan region are falling behind their equivalents in the EU member states.

In the study, which was in the form of a panel analysis, the definitive analysis did not get underway until after the testing of the required assumptions had been completed. It was determined, via the use of the Driscoll-Kraay estimation method, whether or not these aspects had an impact on the expansion of the economy. It was determined, on the basis of the data that was collected as a consequence of the investigation, that the expansion of the tourism industry in a number of the Balkan countries that were under consideration did not have a significant impact on the rate of economic growth that was experienced in these nations. This conclusion was reached as a direct result of the findings of the investigation. In a manner parallel to this, the rates of inflation that were seen did not in any way have an effect on the rate of growth overall.

As a result of the econometric analyses applied in line with the purpose of the research, both hypotheses put forward were not accepted. Namely, the hypotheses “H₁: Tourism revenues affect economic growth in Balkan countries” and “H₂: Inflation affects economic growth in Balkan countries” hypotheses put forward in the first hypothesis were not supported. In a study conducted by Pavlic, Svilokos and Tolic (2015), it was found that there is no causal relationship between the number of visiting tourists and GDP.

Although there is a causal relationship between tourism revenues and economic growth in most of the studies in the literature, a causal relationship was not concluded in this study. We can consider the reason for this as the fact that the studies in the literature are tested with a panel data set within the scope of one or more countries, and this study is within the scope of the data of a region's countries.

However, there are some limitations to the research. First, the countries of the Balkan region were analyzed together in the study. This does not allow the development of separate proposals for some countries. Second, economic growth, tourism revenues, and inflation variables were included in the study, and other factors that had a positive or negative effect on tourism and economic growth were not taken into account. From this point of view, we suggest that in future studies, the countries in the Balkan region should be classified and examined, other important factors affecting economic growth and tourism should be included in the studies, and the relationship between the tourism potential of each country and its economic growth should be evaluated separately.

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ANALYSIS OF RETURN ON ASSET FOR BUKU IV: JAKARTA INTERBANK SPOT DOLLAR RATE, CAPITAL ADEQUACY RATIO AND LOAN-TO-DEPOSIT RATIO³

The research aim is to study factors that can affect the Return on Assets for BUKU IV Banks in Indonesia. The paper uses monthly data from annual reports. The independent variables are Jakarta Interbank Spot Dollar Rate, Capital Adequacy Ratio, and Loan to Deposit Ratio. Data analysis is done by using multiple linear regression. There is partial effect between the Capital Adequacy Ratio towards Return on Asset, significantly. Furthermore, all of the independent variables have a simultaneous effect on the Return on Asset, significantly. Regarding the research limitations, future research can use the research object not limited to banking companies in order to generate a better research model. Future research may use longer periods for better prediction ability.

Keywords: Capital Adequacy Ratio; Jakarta Interbank Spot Dollar Rate; Loan to Deposit Ratio; Return on Asset

JEL: G10; G11; G14; G18

Introduction

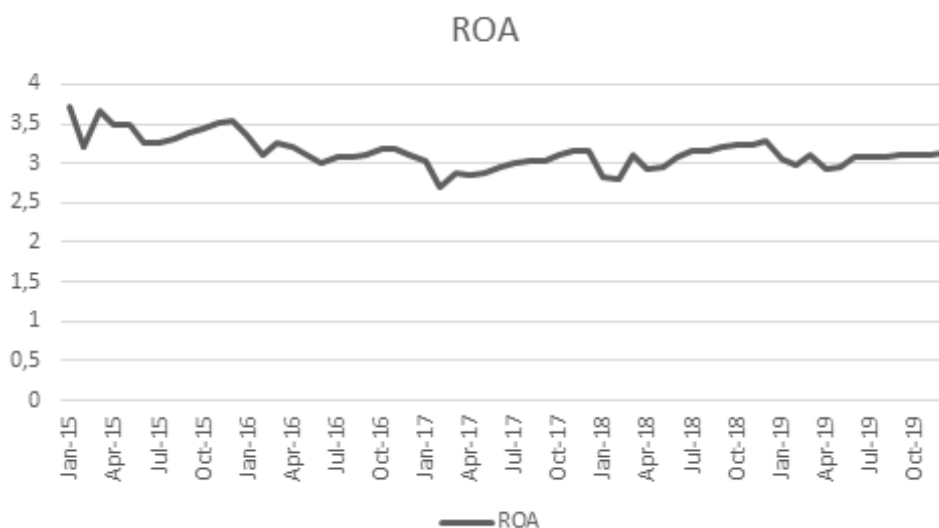
A good financial system is very helpful to support the growth of the economy in a country. Managing the financial system is dealing with banking companies is a key success to achieve sustainable economic growth. Profitable banks will ensure the financial system's stability. As a financial intermediary, banking companies have an important task in channelling funds and increasing economic activity as a financial resource. These are the reasons why banking company is one of the institutions that are able to support the economy in Indonesia. The continuity of banks and the ability to compete with each other is related to profitability. Most banking companies generate profit because it's the major objective in business organizations (Adeusi, Kolapo & Aluko, 2014).

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Figure 1. Return on Asset (ROA) based on Bank BUKU IV in Indonesia from January 2015 to December 2019 (in %)



In most cases, the banking industry defines the development aspect of an economy. In dealing with the competition, banks are surviving by enhancing their performance, especially for profitability. There is some early literature dealing with factors that have an effect towards bank profitability (Short, 1979; Bourke, 1989). The bank's profitability depends on some internal and external factors. The effect between the growth of the economy and banking profitability is fundamental to be considered in every decision-making in the company (Rajan & Zingales, 1998; Levine, 1998).

Developing countries are depicted through low gross domestic product, growth rate, technology and skills, proper market, capital formation, and weak economy and regulation (Goldberg, 2014). The value of this paper is to explore bank profitability determinants for developing countries, especially in Indonesia. There are several studies that have examined bank performance, especially in terms of profitability. Profitability determinants for banking companies are classified into internal factors and external factors.

Koroleva, et.al. (2021) studied the bank profitability determinants by using regression models of commercial banks in China from 2007 until 2019. Their study provides recent changes in the Chinese banks related to the profitability of state-owned commercial banks. Internal determinants have a significant positive effect towards banks' profitability. Banks that have larger size, better credit quality and higher liquidity have higher profitability than others. Meanwhile, Gross Domestic Product has a negative effect on bank profitability. The lower the Gross Domestic Product, the higher commercial banks' profitability in China.

Internal factors of profitability from banking companies are described as factors that are affected by internal decisions, hence external factors are dealing with factors which are not affected by internal decisions. For internal factors, there is much literature examining the effect between capitalization and profitability of banking companies in every country. However, until now there are still differences from academic to research results on the effect of capitalization to profitability. Many academics have obtained research results that have negative and positive impacts between equity to profitability.

As two reasons from the results of the positive effect of capitalization on profitability, Berger (1995) proposed the signalling and bankruptcy cost hypothesis. Higher bank equity describes positive signals to market about the future profitability. In contrast, the bankruptcy costs hypothesis confirms that banks with good capitalization are less dependent on debt. Furthermore, well-capitalized banks also have lower financing costs. This will lead to lower bankruptcy costs and increased profitability.

Goddard et al. (2004a) utilized Capital Asset Ratio as a measurement of capitalization from 665 banks in Europe. By using regression analysis, they found a significant effect between the Capital Asset Ratio on bank profitability positively. Pasiouras and Kosmidou (2007) also discovered that the equity-to-assets ratio has a positive effect on profitability from 284 banks in Europe by using applied static regression. Furthermore, Athanasoglou et al. (2008) found a larger capitalization from Greek banks. Larger capital allows banks to face unexpected losses and be able to pursue business opportunities wider.

According to Regulation from Bank Indonesia no. 14/26/PBI/2012, bank grouping is based on activities of Commercial Bank Group, it's BUKU. BUKU I is defined as banks with total capital less than IDR 1 trillion. BUKU II is defined as banks with total capital between IDR 1 trillion and IDR 5 trillion. BUKU III is defined as banks with total capital between IDR 5 trillion and IDR 30 trillion. BUKU IV is defined as banks with a total core capital of more than IDR 30 trillion.

This research is aimed to examine bank profitability determinants for BUKU 4 in Indonesia. There is so much literature that already examined these bank categories (Setiawan and Hermanto, 2017).

Literature Review

Signaling theory

The role of signalling theory is to mitigate information asymmetries (Spence, 2002). The signalling theory comes from information asymmetries between management and shareholders of the firm. It is associated with a signal derived from the policy of management. The policy is intended to give a signal to outsiders such as investors about the prospects of the company and provide usefulness as a consideration in making investment decisions. Accurate information is fundamental for the investment decisions of individuals, businesses and governments (Connelly et al., 2011).

Signalling theory originally suggested by Spence (1973). This theory helps in explaining the two parties' behaviour when they have different information. This theory has spread widely in accounting and financing studies which suggest management may inform investors about the firm through financial information. The signaler, signal, and receiver are key factors of this theory. The signalers are insiders who get any information from an individual (Spence, 1973), organization (Ross, 1977), or product (Kirmani & Rao, 2000), which are not recognized by outsiders.

Financial economists like Ross (1973) and Bhattacharya (1979) have developed several findings to describe these relationships. Firm debt (Ross, 1973) and dividends (Bhattacharya, 1979) exhibit signals for the quality of the company. For the long term, only high-quality firms have the capability to make interest and dividend payments. Otherwise, low-quality firms can't have that kind of capability. Hence, such signals affect outsiders like investors' perceptions of the quality of the company. Because of this interest, much literature in the field of economics grew by applying the signalling theory (Riley, 2001).

Kirmani and Rao (2000) examined a study that used signalling theory that distinguish between high and low-quality firms. Even though firms know exactly the valuable information about quality, outsiders like investors and customers do not know about that valuable information, hence information asymmetry exists. Therefore, the firm has an opportunity to give positive/negative signals about the quality to outsiders. They'll obtain different payoffs when high-quality firms want to give a signal or not.

Bank Profitability

Return on assets is a common ratio to measure performance in terms of profitability and evaluate the banks' ability to generate returns from their sources of funds. Return on asset is described as the efficiency of using total assets in a company. Return on asset is described as the profit earned per dollar of assets (Al-Harbi, 2019). In the literature, this ratio is more often used as the ratio to evaluate bank performance in terms of profitability.

Bank Profitability Determinants

Internal factors can be described as factors that are affected by internal decisions. Management objectives in banking companies are different from one to another which will lead to differences in performance, especially in profitability. External factors are related to those factors which are affected by events outside the bank, not from internal of the company.

There is much literature that already examined bank profitability based on BUKU. Setiawan and Hermanto (2017); Ardiansyaha (2018); Imani and Pracoyo (2018); Utomo and Anggono (2020); Rahmi (2021) and Yesyurun (2021). Setiawan and Hermanto (2017) examined the effect of internal factors on the profitability of BUKU III and BUKU IV banks in Indonesia from 2006 until 2015. They found that all internal factors have a significant effect on profitability simultaneously.

Ardiansyaha (2018) studied the profitability and stock return determinants for BUKU II from January 2014 until December 2018. They found that total assets, non-performing loans, capital adequacy ratio, net interest margin, and the number of employees have significant effects towards profitability. Good corporate governance and the number of electronic banking variations that are owned have significant effects on stock returns.

Imani and Pracoyo (2018) analyzed the influence of internal factors on bank profitability for BUKU III from 2011-2015. They found that capital and liquidity risk had insignificant effects on bank profitability. Meanwhile, credit risk has a significant effect on bank profitability.

Utomo and Anggono (2020) examined the effect of bank-specific variables on the profitability of bank BUKU IV period 2008 until 2019. Liquid Assets to Total Assets has significant effect to profitability, Non-performing Loans to Total Loans has a significant effect to profitability, Operating Cost to Operating Income has a significant effect to profitability, Third-party funds to Total Assets has a significant effect to profitability, and Core Capital Tier 1 to Total Assets has significant effect to profitability. In getting more profit, banks should maintain low operating expenses and get a source of funds with low cost.

Rahmi (2021) examined the financial performance of banking companies during COVID-19 of banks in Indonesia based on BUKU. This paper is a quantitative and qualitative research. The result of this paper indicates an effect for most asset and liability variables, significantly.

Furthermore, Yesyurun (2021) examined the effect of financial profitability, risk, collectability and liquidity on dividend policy during the BUKU IV period from 2010 until 2019. The research found a positive effect of the profitability and risk factors on dividend policy but not significant results.

Table 1. Bank Profitability Determinants

Explanatory Variables	Positive Effect with	Negative Effect with	No Effect with
Internal Determinants			
Capital Adequacy Ratio (CAR)	Capraru (2014); Anwar and Murwaningsari (2017); Wahyudi, et. al. (2019); Swandewi and Purnawati (2021)	Saona (2016)	Yuhasril (2019); Sari and Septiano (2020); Jati (2021)
Loan to Deposit Ratio (LDR)	Hapsari (2018); Supriyono and Herdhayinta (2019)	Gerinata (2020); Sunaryo (2020); Hertina, Rahmat and Furqon (2022)	Sari and Murni (2016); Yuhasril (2019); Sari and Septiano (2020); Rajindra, et. al. (2021)
External Determinant			
Exchange Rate-Jakarta Interbank Spot Dollar Rate (JIBOR)	Wulansari (2018)	Akims, Omagwa and Mungai (2020); Ratih and Candradewi (2020); Sausan, Korawijayanti and Ciptaningtias (2020); Wijaya and Sedana (2020)	Kriswanto (2019)

Internal Determinants

Internal factors can be divided into financial and non-financial factors, which fall under the bank management control (Haron, 2004). Curak, Poposki and Pepur (2012) did research on internal factors of banks' performance by using a dynamic panel analysis of 16 banks period 2005 until 2010. According to the results, the most important variable is operating expense management.

Based on this study, the first internal determinant in this study is the Capital Adequacy Ratio, one of the most current issues in banking companies which evaluate efficiency, stability and capital strength. The higher the ratio, the lower the external funding and the higher the profitability. Sufficient capital will offer protection against bankruptcy that emerges from banking business risk (Adeyinka & Olalekan, 2013). Equity to total assets is expected to have a positive effect on banks' performance because banks with good capital will lead to a lower chance of bankruptcy (Berger, 1995).

Capital Adequacy Ratio can be used to measure adequate capital. In the empirical literature, many studies have focused more on how capital adequacy improves the banks' profit (Athanasoglou, Brissimis and Delis, 2008; Chaudhry, Chatrath and Kamath, 1995; Demirguc-Kunt and Huizinga, 1999; Murthy and Rama, 2008). A lot of research shows that capital adequacy of banking companies has an effect on banking performance, significantly. The variable that has an important role in maintaining bank profitability in Vietnam is measured by Return on Assets (Batten and Vo, 2019a, Do and Vu, 2019).

Capraru and Ilnatov (2014) studied the profitability determinants of 143 commercial banks from 2004 to 2011. Management efficiency and capital adequacy growth have significant effects towards bank profitability. The higher capital adequacy, the higher profitability.

Nguyen (2020) investigated the factors that could affect the profitability of 22 Vietnamese banks from 2010-2018. Bank capital adequacy, NIM, and non-interest income have a positive effect on bank performance as measured by profitability. Conversely, non-performing loans and state ownership have a negative effect on profitability. Furthermore, Vong and Chan (2009) examined determinants of banking profitability period 1993-2007 in Macau. Capital Adequacy Ratio also has an effect on profitability.

Haris, et. al. (2020) examined the effect of internal determinants on profitability by using the Generalized Method of Moments for Pakistani banks from 2007 until 2018. They found that the strong capital of financial institutions is important in maintaining solvency. Banks must maintain optimum capital to ensure smooth earnings. Banks operating in Pakistan are obliged to have the required amount of capital. Kodana (2020) examined the determinants of Return on Assets for banks BUKU 4 from 2015 until 2019 by using panel data and panel regression. They found that CAR and OEOI ratios have a negative effect on profitability and NIM has a positive effect on ROA significantly. In generating profit, banks in BUKU IV need to maintain NIM, CAR and OEOI.

The next internal determinant is the Loan to Deposit Ratio (LDR). The greater the number of loans, the higher the bank income. Based on that, it's expected to have a positive effect of LDR to profitability. Sufian (2012) and Menicucci and Paolucci (2016) found that loans

contribute to the profitability of banking companies. However, the increase in loans could escalate the costs of funds leading to a negative effect between profitability and loans.

Supriyono and Herdhayinta (2019) examined the factors that could affect the profitability of 27 BPD banks in Indonesia period 2011-2015. The profitability of BPD Bank was determined by the internal and external factors, they're the total assets, LDR, OE/OI, NIM, BI Rate and Inflation. All of those factors have a positive effect on profitability except for core capital, CAR, OE/OI and inflation, which have a negative effect on profitability. Furthermore, Setiawan and Hermanto (2017) analyzed the effect of Non-Performing Loans (NPL), Loan Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), Net Interest Margin (NIM), and Operating Expense to Operating Income Ratio (OE/OI) toward profitability for BUKU 4 and BUKU 3 banks in Indonesia from 2006-2015. All of the independent variables have an effect on profitability, significantly.

Al-Harbi (2019) investigated 686 conventional banks over the period 1989-2008. He found that banking sector development and loans will increase profitability in the long run. In addition, equity, foreign ownership, off-balance sheet activities, real gross domestic product growth, real interest rate and concentration foster bank profitability.

Kusumawardhani and Yuninda (2021) examined stock price determinants in the banking sector. This study studied internal factors on stock prices in Indonesia from 2010-2018. The research is descriptive quantitative research. They used purposive sampling in order to set the samples. Asset Growth has an effect on the price of stock, significantly. Capital (CAR) has a negative effect on stock price, significantly. Asset Growth has an effect on the price of stock, significantly. LDR and DER have a negative effect on stock price, significantly.

External Determinant

External variables are beyond the management's control but reflect factors from the economy, financial structure and legal environment (from external). Jakarta Interbank Spot Dollar Rate (JIBOR) is an external determinant in this study. In Shenzhen, Khan (2019) examined the factors that could affect the returns of stocks period January 2008 until December 2018. The exchange rate has a significant effect on return. Inflation and interest rates have a significant effect on stock of return. The central bank needs to make a policy to stabilize the exchange rate. Rates of foreign exchange have become the major financial and economic variables that affect the value of stock and cash flow.

Lu, Lu and Lv (2021) examined the effect between the exchange rate and the performance of banking companies. This study was conducted using two samples, the first was banks in the United Kingdom and the second was the whole country's bank performance. During the period of Brexit, they found a correlation between the performance of banking companies and the exchange rate.

Taiwo and Adesola (2013) studied the determinants of performance for banking companies in Nigeria. They found that the exchange rate has a significant effect on banking performance. The fluctuations in the exchange rate have an effect on loan management, which generates

an increase in non-performing loans. Additionally, changes in exchange rates have a significant effect on profitability.

Babazadeh, & Farrokhnejad (2012) studied the effect between foreign exchange rates and profitability. The exchange rate increases in the short term, meanwhile profit is higher than equilibrium in the long term. The exchange rate has a significant effect on foreign exchange profits in banking companies.

Bello (2013) investigated the effect of the exchange rate on the U.S. stock market from 2000 until 2012. The most volatile currency is the Chinese Yuan and the euro is the least volatile. Euro appreciated the most during the research period. On average, the Japanese yen has a negative effect on the U.S. stock market. Meanwhile, the euro and the pound have a positive effect on U.S. stocks. U.S. stocks have a positive effect on the yuan even if it's not significant. As the exporters, the foreign exchange market can provide a competitive advantage in the export market.

Supriyono (2019) studied bank profitability in Indonesia from 2011 until 2015. He found a positive effect between the BI Rate and the profitability of the BPD Bank. Besides that, bank profitability is significantly affected by total assets, LDR, OE/OI, and NIM and externally by inflation.

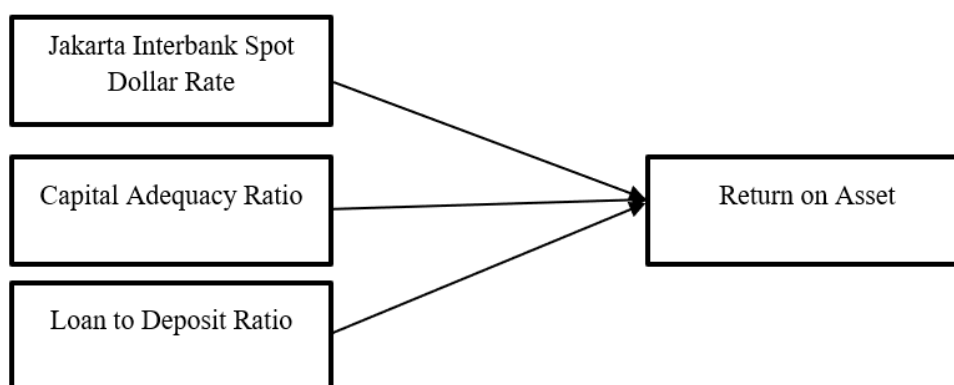
Based on the findings from previous studies and following the research objectives, this study tries to test the following hypothesis:

H₁: Jakarta Interbank Spot Dollar Rate has a significant effect on Return on Asset for Banks BUKU IV in Indonesia period 2015-2019

H₂: Capital Adequacy Ratio has a significant effect on Return on Asset for Banks BUKU IV in Indonesia period 2015-2019

H₃: Loan to Deposit Ratio has a significant effect on Return on Asset for Banks BUKU IV in Indonesia period 2015-2019

Figure 1. Theoretical Framework



Research Method

The type of this research is quantitative research. This study uses annual reports from BUKU IV Banks. This study does not focus on bank entry or exit bank in BUKU 4 category, because the focus is on financial report data in BUKU 4 category. The analysis depends on secondary data. Monthly data was obtained from January 2015 to December 2019 because the available data that was successfully collected was in that period. The following statistical tools are applied in this research to test and analyse the effect between independent to dependent variables.

- Descriptive Statistics
- Multiple Correlation and
- Multiple Regression Analysis

Eventually, this paper will test the hypothesis by using this model:

$$ROA_t = \alpha_t + \beta_1 JISDOR_t + \beta_2 CAR_t + \beta_3 LDR_t + \varepsilon_t$$

where:

α_{it} = intercept period t

ε_{it} = error period t

ROA_{it} = Return on Asset period t

$JISDOR_{it}$ = Jakarta Interbank Spot Dollar Rate period t

CAR_{it} = Capital Adequacy Ratio period t

LDR_{it} = Loan to Deposit Ratio period t

Results

Descriptive Statistics

Descriptive statistics of the sample are presented in Table 2. The analysis of descriptive statistics can be used to describe the general overview of the data from banking companies BUKU 4 period of 2015-2019. The analysis includes mean and standard deviation using SPSS which can be seen in Table 2.

The average value of Return on Assets that were sampled in this study was 3.14. The standard deviation showed a number of 0.20214 which is smaller than the mean. The average value of the Jakarta Interbank Spot Dollar Rate that was sampled in this research was 13,694.5667. The standard deviation showed a number of 554.35650 which is larger than the mean. The average value of the Capital Adequacy Ratio that was sampled in this research was 20.8768. The standard deviation showed a number of 1.00627 which is smaller than the mean. The average value of the Loan to Deposit Ratio that was sampled in this research was 87.3507. The standard deviation showed a number of 2.8549 which is smaller than the mean.

Table 2. Descriptive Statistics

	Mean	Std. Deviation	N
ROA	3.1427	.20214	60
JISDOR	13694.5667	554.35650	60
CAR	20.8768	1.00627	60
LDR	87.3507	2.85492	60

Multiple Correlation

Correlation analysis can be used to measure the linear relationship strength between 2 variables. Table 3 exhibits a correlation among independent variables of Return on Assets of BUKU IV banks.

Table 3. Correlations between JISDOR, CAR and LDR to ROA

		ROA	JISDOR	CAR	LDR
ROA	Pearson Correlation	1	-.096	-.647**	-.474**
	Sig. (2-tailed)		.467	.000	.000
	N	60	60	60	60
JISDOR	Pearson Correlation	-.096	1	.244	.668**
	Sig. (2-tailed)	.467		.060	.000
	N	60	60	60	60
CAR	Pearson Correlation	-.647**	.244	1	.656**
	Sig. (2-tailed)	.000	.060		.000
	N	60	60	60	60
LDR	Pearson Correlation	-.474**	.668**	.656**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	60	60	60	60

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

If the significance value is less than 0.05 then there is a correlation between the variables, if the significance level is bigger than 0.05 then there is no effect between the variables. Based on the results, JISDOR has no significant correlation ($0.467 > 0.05$). CAR has a significant correlation ($0.000 < 0.05$). LDR has a significant correlation ($0.000 < 0.05$).

Coefficient Determination

The purpose of this coefficient or R^2 in this study is to find out how well independent variables explain Return on Assets.

Table 4. R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668 ^a	.447	.417	15.43134

a. Predictors: (Constant), LDR, CAR, JISDOR

b. Dependent Variable: ROA

Based on the data presented in Table 4, the result of Adjusted R^2 was 0.447. JISDOR, CAR and LDR can explain 44.7% of Return on Assets. The remaining 55.3% was explained by other variables outside the research model.

Regression Analysis

Regression analysis of regression models is aimed at defining the effect of two or more variables. Besides showing the direction of these variables, it also shows the effect between independent and dependent variables. This study uses multiple linear regression and the results are shown on Table 5.

Table 5. t-test

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.958	.629		9.476	.000
	JISDOR	7.970E-5	.000	.219	1.537	.130
	CAR	-.104	.028	-.516	-3.677	.001
	LDR	-.020	.013	-.282	-1.543	.128

a. Dependent Variable: ROA

$$Y = 5.958 + 0.0000797JISDOR - 0.104CAR - 0.020LDR + e_t$$

The constant (α) of 5.958 means that if all the independent variables are constant or equal to zero (0), then the value of Return on Assets is 5.958. JISDOR variable, a 0.0000797 coefficient is obtained with a positive sign means, that if the JISDOR variable increases by 1 unit, the Return on Asset will increase by 0.0000797 units by assuming that the other independent conditions were constant. CAR variable, a -0.104 coefficient is obtained with a negative sign means, that if CAR increases by 1 unit, the Return on Assets will decrease by

-0.104 units by assuming that the other independent conditions were constant. LDR variable, a -0.020 coefficient is obtained with a negative sign means, that if LDR increases by 1 unit, then Return on Asset will decrease by -0.020 units by assuming that other independent conditions were constant.

T-test

Hypothesis testing helps to find out the influence of JISDOR, CAR and LDR on the Return on Asset. Based on the table 4, the significance value of JISDOR is 0.130. The value is greater than $\alpha = 0.05$, it could be concluded that there is no effect between the JISDOR on ROA. The significance value of CAR is 0.001. The value is smaller than $\alpha = 0.05$, it could be concluded that there is a significant effect between the CAR on ROA. The significance value of LDR is 0.128. The value is greater than $\alpha = 0.05$, it could be concluded that there is no effect between the LDR on ROA.

F-Test

The F-test is conducted to test the simultaneous effect between all independent variables to dependent variables. This study used the level of significance is 5% as the tolerated value for the error.

Table 6. F-test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.077	3	.359	15.080	.000 ^b
	Residual	1.334	56	.024		
	Total	2.411	59			

a. Dependent Variable: ROA

b. Predictors: (Constant), LDR, CAR, JISDOR

Based on Table 6, F test results describe that the significance value was 0,000. It can be seen that sig-value < 0.05. This showed that all of the independent variables have simultaneous effects on the Return on Assets.

Conclusion

Financial performance generated by banks plays a crucial role in maintaining financial system stability. Especially in developing countries, since banks serve as fundamental financial intermediaries, the performance of the sector directly affects economic development. The aim of this research is to investigate the ability of financial ratios, JISDOR, CAR and LDR in predicting Return on Assets by using multiple regression analysis. There

is no partial effect between the JISDOR, LDR on ROA. Otherwise, there is a significant partial effect between the CAR on ROA. Furthermore, all of the independent variables have a simultaneous effect on the Return on Assets, significantly.

Discussion

Theoretical Implications

This research has contributed to signalling theory research by establishing the need for understanding the role of JISDOR, CAR and LDR in influencing Return on Asset in banking companies in Indonesia for BUKU IV. The asymmetric information triggers signals to outsiders such as investors through management policies. It is expected that the signal will provide information for investors about how they view the company's prospects. By understanding this information, investors can make better investment decisions.

Based on Table 3, the significance value of JISDOR is 0.130. The value is greater than $\alpha = 0.05$, it could be concluded that there is no effect between the JISDOR on ROA. The significance value of LDR is 0.128. The value is greater than $\alpha = 0.05$, it could be concluded that there is no effect between the LDR on ROA. The significance value of CAR is 0.001. The value is smaller than $\alpha = 0.05$, it could be concluded that there is a significant effect between the CAR on ROA. Based on this result, CAR has a negative effect on ROA. However, a negative effect between profitability and the capital ratio can be expected given that well-capitalized banks are safer because they take less risk and generate lower returns. The study conducted by Saona (2016) found a negative effect between capital adequacy and profitability.

There are other findings that support the significant effect between CAR and ROA (Vong, and Chan, 2009; Azam and Siddiqui, 2012). They found the significant roles of the Capital Adequacy Ratio in determining Return on Asset. Vong, and Chan (2009) studied factors that affect the profitability of banking companies in Macau from 1993-2007. Internal determinant such as the Capital Adequacy Ratio has a positive effect on the profitability of banking companies.

Azam and Siddiqui (2012) compared the profitability of public, private, and foreign banks operating in Pakistan from 2004-2010. Profitability measurements were Return on Asset (ROA) and Return on Equity (ROE), while the factors that could affect the profitability were internal and external factors. They found that Operating Expense to Operating Income (OE/OI) and Gross Domestic Product (GDP) have an effect on ROA for public banks. CAR, Net Interest Margin (NIM), deposits, and Loan to Deposit Ratio (LDR) have an effect on ROA for private banks; and OE/OI and GDP have an effect on ROA for foreign banks. Meanwhile, OE/OI and GDP have an effect on ROE for public banks. Deposits have an effect on ROE for private banks and CAR, NIM, OE/OI and inflation have an effect on ROE for foreign banks.

Practical Implications

The results of this paper are useful to academics, managers, investors and other stakeholders. This study may help investors to achieve the maximum gain in stocks. By making an investment in the capital market, the capability to analyze the fundamental factors is crucial. Some of the investors choose the stocks that have higher Return on Asset. The variable that has a significant effect on profitability in this study is the Capital Adequacy Ratio. Investors need to consider that variable in order to get the optimal Return on Assets. This analysis is done to mitigate the losses or other unpredictable things in the future.

For management, the result of this study helps them to improve profitability. It would be good to evaluate the profitability of banking companies and find out the cause and effect of internal and external factors to create solutions to improve bank profitability. As seeing that Capital Adequacy Ratio has a significant effect on Return on Assets should have taken action to manage the profitability of banking companies in a way to maintain the stability of national economies.

For creditors, the result of this study helps them to observe how banks manage the profitability, especially for Return on Assets. Furthermore, they can propose new loans to banks based on good performance, especially for profitability ratio.

Limitations and Recommendations for Future Research

This paper has limitations which can be addressed through future empirical studies. This paper only examined the determinants of Return on Assets from January 2015 to December 2019 for BUKU IV. Regarding limitations, future research should study that not limited to Capital Adequacy Ratio, Jakarta Interbank Spot Dollar Rate and Loan to the loan-to-deposit ratio for banking companies in order to generate better results. Future research should focus on a paper that uses mixed methods, which will allow qualitative variables to determine bank profitability. Future research should consider the other variables related to the banking industry across many countries. A larger sample size as well as a longer time horizon should be considered for better prediction models.

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DESK AUDIT IN THE STATE AUDIT SYSTEM⁶

The introduction of effective desk audit in the system of state audit allows establishing a productive use of public funds, and avoiding misuse of the budget. Conditioned upon the spread of Covid and the tightening of quarantine measures, the situation with on-site tax inspections has become more complicated. In modern conditions, the importance of analysing the directions of this type of audit, its evaluation, and identifying the prospects for its development is increasing. The purpose of the article is to assess the current state and directions of development of desk audit in the state audit of the Republic of Kazakhstan, to identify possible problems during this type of tax audit and to find ways to solve them. The scientific article uses the following methods of research: the method of analysis of scientific sources, the method of information retrieval, the method of analytical review, the method of analysing regulatory documents on the subject of conducting a desk audit, the method of functional analysis, the method of analysing the root cause. The international practice of application of desk tax audit is studied. The assessment of the current state of desk audit in the system of state audit of the Republic of Kazakhstan was carried out. The directions of development of desk audit in the system of state audit are determined. The main results of this research can be considered not only the identification of problems during the desk audit, but also the determination of ways to solve them. The directions for improving the organisation of the process of desk audit are determined. The results of this scientific study, including the conclusions formed on their basis, contribute to the study of the problems of desk audit in the Republic of Kazakhstan.

Keywords: taxation; international experience; budgetary funds; financial control; violations; targeted use.

JEL: H26; H83; H76; H61; H72; H77

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1. Introduction

To establish effective management of budgetary funds, the state needs to receive reliable information about their use. The introduction of an effective desk audit allows to obtain complete information about the expenditure of public finances, identify violations in a timely manner and thereby avoid misuse of budget funds (Pois, 1975; Willison, 1987; Harden, 1993; Çalıyurt, 2021). In Kazakhstan, the Committee of the Internal Public Audit of the Ministry of Finance of the Republic of Kazakhstan and its territorial divisions carry out desk audit in the state audit system. Verification is carried out by analysing the data provided by the audit object through the Web portal. This type of financial audit is performed without a direct visit to the facility, which is subject to financial audit (Nurbayev, Zhanbekova, 2022). Among the purposes of the desk audit, the following can be distinguished: collecting financial statements for tax audits, avoiding violations of tax legislation by identifying unpaid taxes and organising control of tax payments by taxpayers. The organisation of timely, accurate and high-quality control of tax payments is one of the main tasks of the tax department of each country (Furmanchuk, 2023, pp. 34-42). Different countries use different methods of state fiscal management. In developed countries, special bodies have been created whose functions include tax administration. However, they differ in different ways of organising tax services and their subordination. In Japan, Australia and China, the tax authorities have an independent status, in Italy, the United States of America (USA), Sweden and France they are subordinate to the financial authorities of the countries (Harris, 2020). In Kazakhstan, they are subordinate to the authorised body managing state revenues (Nurbayev, Zhanbekova, 2022). Tax policy in Kazakhstan is carried out by the Ministry of Finance, in Switzerland – the Federal Department of Finance, in Greece – the Ministry of Finance, in France – the Ministry of Economy and Finance, in Japan – the National Tax Administration. In China, tax policy is carried out by the Tax Administration, which is subordinate to the Ministry of Finance, but tax audit is carried out by the Main State Tax Administration. In Japan, the tax audit is carried out by the National Tax Administration, in Malaysia – the Inland Revenue Board, in Germany – the Federal Tax Office, in Switzerland – the Federal Tax Administration, in the USA – the Internal Revenue Service, in Brazil – the Federal Revenue Service, in France – the General Directorate of Taxes, in Kyrgyzstan – the State Tax Inspectorate (Harris, 2020). Considering the experience of different countries in the implementation of the function of state control over the payment of taxes, a number of authors (Maydew, Shackelford, 2005; Shaviro, 2006; Kirchler, 2007; Meuwese, 2011; Burton, Sadiq, 2013) highlight the following features: in developed countries, there is awareness among the civilian population of the need to pay taxes, which creates a favourable environment, a national number is entered for each taxpayer. In many developed countries, in addition to punitive measures in violation of tax legislation, incentive measures are also applied (Financial report..., 2002). As incentive measures, additional services are provided to the taxpayer: training and consulting in the provision of tax returns, assistance, etc.

Researchers (Pois, 1975; Çalıyurt, 2021) emphasise that improving the organisation of the process of conducting desk audits at the state level is a factor in increasing the effectiveness of on-site tax audits. The international experience of state tax audit has been widely studied by the legislators of the Republic of Kazakhstan, with the aim of using it in drafting laws regulating the tax sphere and practical application. When studying the research of scientists

of the Republic of Kazakhstan (Nurbayev, Zhanbekova, 2022; Omarbakiyev, 2020), a number of problems were identified in the implementation of desk audit. N. Nurbayev and Sh. Zhanbekova (2022) emphasises that the tax service of the Ministry of Finance of the Republic of Kazakhstan plays an important role in filling the state budget, while significant budget expenditures are required for the implementation of the activities of tax authorities. Conditioned upon the insufficiently rationally organised structure of the tax service, there is an overspending of budget funds allocated for their activities. As a result, there is a reduction in the potential of the tax service and a decrease in the efficiency of its activities. L. A. Omarbakiyev (2020) emphasises that the tax system of the Republic of Kazakhstan does not have a stimulating initiative that should accompany the implementation of all tax functions.

In connection with the above, the purpose of the article is not only to assess the current state and directions of development of desk audit in the state audit of the Republic of Kazakhstan, but also to find ways to solve the identified problems, since their solution will allow the regulatory authorities conducting desk audits in the state audit to improve this process.

2. Materials and Methods

The article uses the following research methods: the method of analysis of scientific sources, the method of information retrieval, the method of analytical review, the method of analysis of normative documents on the subject of desk inspection, the method of functional analysis, the method of analysis of the root cause. The article analyses and summarises the experience of conducting a desk audit in the state audit system of various countries. The use of the method of analysis of scientific sources allowed the collection of scientific data on the topic, determining the role of desk analysis in the system of state control. The method of information retrieval was used to find and select practical experience in conducting desk audits, regulatory documents and modern research. The method of analysing regulatory documents on the subject of the desk audit allowed searching for earlier regulatory legal acts affecting the same area of research. The method allows finding all the normative legal acts regulating the development of the desk audit system in the state audit system for a certain historical period, concerning one direction. Allows expanding the search range of documents relative to the initially defined search directions.

To identify problems in the application of desk analysis in the state audit, a functional analysis was used to establish a causal relationship between the identified shortcomings in the process of conducting a desk audit and the negative impact that these “gaps” may have on the quality of the audit performed. The use of the root cause analysis method in research allowed identifying the main causes of problems among the outlined problems in the method of using desk audit in the state audit system and determining the measures necessary to eliminate them. The use of a combination of the above methods of research allowed not only to find, systematise and analyse the necessary information, but also to identify the main trends in the development of the practice of using desk audit in the state audit system.

The research was conducted in three stages. In the first stage, information was collected for further analysis. By the method of information search, information sources were selected with a description of the experience of using desk audit. In particular, information sources

were selected describing the experience of conducting a desk audit in the state audit system of the Republic of Kazakhstan. A list of regulatory documents regulating the conduct of desk control in the Republic of Kazakhstan has been selected. In the second stage, the experience of conducting a desk audit in the state audit system both in the Republic of Kazakhstan and in the practice of other countries was analysed and summarised. Methods of analysis of scientific and regulatory sources of information allowed systematising information about the experience of conducting a desk audit, determining the main ways of development of this type of tax control. In the third stage, a causal relationship was established between the identified shortcomings in the process of conducting a desk audit and the negative impact that these “gaps” may have on the quality of the audit performed. For this purpose, functional analysis was applied. The method of analysing the root cause allowed for identifying the main causes of problems among the outlined problems in the methodology of using desk audit in the state audit system and determining the measures necessary to eliminate them.

3. Results

The analysis of the experience of conducting desk audits in the state audit gave the following results. Tax control is one of the most important levers of state regulation. It is carried out, first of all, with the aim of conducting an effective financial policy of each state. As studies have shown (Pois, 1975; Willison, 1987; Harris, 2020; Çalıyurt, 2021), the number of cases of tax evasion has been increasing recently, which in turn leads to the loss of a large number of potential financial revenues to the budget. Sending claims for payment directly to the taxpayer's address is one of the effective measures to eliminate such tax violations (Burton, Sadiq, 2013). In modern conditions, there is an increasing need to improve the tax control system by increasing the effectiveness of its work. Therefore, it is worth considering international experience in assessing the functioning of tax services. To analyse the ways that are used to increase the effectiveness of the activities of fiscal services.

State tax authorities around the world are also trying to constantly increase the effectiveness of tax audits. The tax system of the United States of America is one of the most efficient in the world. This is achieved not only by optimising the tax control procedure, but also by ensuring the protection of taxpayers' rights in court (Burton, Sadiq, 2013). Desk audit has been widely used in the tax practice of developed countries for quite a long time. However, the United States of America has become a pioneer in the field of electronic reporting. It is in the experience of this country that there are the most effective examples of improving the efficiency of desk audits. In 1986, the first electronic reports were transmitted through communication channels. In 1999, the volume of financial statements in electronic form reached 2500000 units. Then Germany, Great Britain, Australia and Canada began to use this form of control in tax practice. In France, desk audit is widely used in the system based on external data (Shaviro, 2006).

The USA Internal Revenue Service (IRS) is built on a territorial and functional principle. In the USA, two types of tax audits can be distinguished: audit or examination – tax audits themselves and checking, compliance check and compliance review – other control measures (Willison, 1987). Before the tax audit, the USA Internal Revenue Service performs checking

– a preliminary check for discrepancies and mathematical errors. An automated system is used for this purpose. The time and place of the tax control (examination, audit) are chosen by the representatives of the IRS. Either taxpayers themselves or third parties are summoned. The IRS has the right to request only those documents for tax audit that are necessary for a particular case (Shaviro, 2006). At the same time, to investigate a tax violation, the IRS has the right to request accounting and other filing documents, books, records, data from other media, and declarations of an informational nature for verification (United States v. Arthur Young..., 1984).

Depending on the location of the tax audit, there are: desk (office audit) and field audit (U.S. v. Cohen, 1959). Desk audit can be carried out in two ways: face-to-face (in person) audit – by personal meeting in the office and remote audit – correspondence checks, submission of documents by taxpayers at the request of a representative of the IRS (IRS Official Website Information, 2022). Representatives of the IRS, regardless of the method of conducting a tax audit, can personally visit the places of control to establish possible tax violations that can be detected only by personal inspection. When performing an absentee check, a request is sent to the taxpayer's address to provide additional documents. Most often, at this stage, the audit ends if the representative of the tax service receives all the necessary documents in the required volume. If an employee of the IRS has additional questions about the object of inspection, then the taxpayer is called to the office of the tax service to give explanations about the questions of the representative of the IRS.

In the USA, when tax authorities select declarations for verification, they are most often guided by the “distinctive parameter” method. The use of this mathematical method allows the classification of tax returns according to the level of probability of errors or discrepancies. Thus, employees of fiscal services sort declarations into groups. For example, declarations of individuals are divided into groups according to the amount of their income, and a special mathematical formula sets the parameters of their classifications. Next, the specified parameters are summed up to obtain a “distinctive” parameter. The higher the value of this parameter, the more likely a tax audit will be conducted (Meuwese, 2011). This method is very effective because it reduces the time and money resources of tax services when selecting tax returns for verification. USA law prohibits inappropriate checks. The USA Internal Revenue Service checks only those taxpayers who are suspected of financial fraud and from whom large financial receipts will come to the budget. The inspector of the USA Tax Service, when making a decision to conduct a desk audit, is guided by the fiscal interests of the state. Even if the taxpayer is suspected of financial fraud, the inspector will decide that it is inappropriate to initiate an audit, since the amount of possible tax revenues to the budget will be insignificant. Thus, there is a saving of limited IRS resources.

Employees of the USA tax authorities have a high rating, which is based on a high level of wages. The system of tax service has a multi-stage system of salary levels, which allows further increasing it with career advancement. A bonus reward system is also used. The tax authorities effectively implement a policy on advising taxpayers. Education of taxpayers on the issues of filling out tax returns and changes in tax legislation is carried out through publications in the media, dissemination of methodological guidelines and telephone consultations. Centres have also been established to provide advisory assistance to individuals. The private sector of tax consultants is developed. As for medium and large

businesses, their representatives have such consultants in their organisations. Thus, the state creates favourable competitive conditions, but at the same time controls the legality of activities. Despite the fact that the state requires effective budget revenues from the tax authorities, it does not skimp on spending on technical support for tax authorities and consulting taxpayers. Quite large funds are allocated for the professional development of employees of tax authorities, as one of their areas of modernisation of the tax service. In the media, measures are being taken to form a negative attitude of society towards tax evaders (Berestovoy, 2005). And despite such a level of budget expenditures, statistical data shows the high efficiency of tax services.

Another Western state that effectively implements its tax policy is Denmark. The tax authorities of this state use the principle of providing data that corresponds to the information of the tax data bank. Conducting a comparison of such data allows representatives of tax authorities to identify those taxpayers whose tax data do not comply with established standards or industry averages. Thus, those superchargers who provided incorrect data are selected and will be selected for subsequent verification. France has a system of internal control over the activities of fiscal services. The General Tax Administration of France enters into contracts with interregional governing bodies for a period of three years, which specify the main goals, objectives and a system of criteria for evaluating the goals set. Social bonuses are provided for achieving the set goals. The analysis of publications has shown that in the tax practice of countries such as Denmark and the USA, in matters of improving the effectiveness of tax control, the greatest attention is paid to the methods of selecting taxpayers for verification: indirect methods of calculating the tax base and methods of selecting declarations for verification.

4. Discussion

An analysis of the experience of other states allows identifying a number of effective measures to improve the efficiency of the functioning of the state tax service, but it is quite difficult to assess the possibility of introducing such measures into the state audit system of the Republic of Kazakhstan. It is necessary to conduct a preliminary analysis of tax legislation, to study the structure of the tax authorities of Kazakhstan. The Republic of Kazakhstan was the first country from the Commonwealth of Independent States (CIS) to introduce auditing based on international standards. Thus, it was possible to maintain leadership positions not only in the CIS, but also in Central Asia. By Order of the Minister of Finance of the Republic of Kazakhstan No. 598 “On approval of the rules for conducting desk control” (Order of the Minister of Finance..., 2015), the Rules for conducting desk audit were approved. According to this document, “desk audit is another form of control carried out by a territorial subdivision of the department of the authorised body for internal state audit without visiting the object of state audit and financial control based on the analysis and comparison of information systems data, including information about the activities of objects of state audit”.

Western researchers of the tax system M. Burton and K. Sadiq (2013) emphasise that the implementation by the state of its tax policy should include not only the organisation of

control over compliance with the norms of legislation on taxes and fees, but also the creation of optimal conditions for the implementation of such norms. Therefore, it is obvious that it is the increase in the effectiveness of the control work of tax authorities that is a necessary condition for optimising the functioning of the entire tax system of the country. It is necessary to have a clear understanding that with the low efficiency of the work of tax services, one cannot count on the timeliness and sufficiency of budget revenues. The creation of an effective tax control system allows creating a solid financial system that not only ensures the interests of the state, but also aims to respect the rights of taxpayers.

Researcher E. Kirchler (2007) believes that one of the important tasks of the state is to analyse the effectiveness of the work of controlling tax authorities, improve the organisation of tax control, and find ways to optimise the work of tax services. That is why the strategic direction in the management of tax services should be to strengthen the role of desk audits by improving tax control methods. The main purpose of tax control should be to hold accountable taxpayers who have violated tax legislation. It often happens that it is precisely the imperfection of tax legislation that prevents the creation of a stable tax system. The presence of “dark” zones in the legislation contributes to the creation of conditions for tax evasion and the commission of tax crimes by both legal entities and individuals.

As the analysis showed, there are a sufficient number of obstacles to the development of the tax system, caused by both external and internal reasons, which have not yet been eliminated in full. Therefore, the state needs to direct efforts to restore order in the tax system and improve tax legislation. It should be emphasised that the goal of implementing the tax policy of any state is to increase budget revenues while minimising budget expenditures. To achieve this goal, it is necessary to optimise the work of tax authorities, since on the one hand they play an important role in filling the state budget, and on the other hand, their activities require significant budget expenditures. Conditioned upon the insufficiently rationally organised structure of the tax service, there is an excess of the costs allocated from the budget for its functioning. Building an effective tax system leads to an increase in the competitiveness of the economy and an improvement in the standard of living of the population of each country.

According to the Code of the Republic of Kazakhstan “On taxes and other obligatory payments to the budget (Tax code)” (2017) “the structure of the tax service includes the Tax Committee of the Ministry of Finance of the Republic of Kazakhstan, tax committees by regions, cities of Astana and Almaty, inter-district (regional) tax committees, tax committees by districts, cities and districts in cities, and the Tax Police Committee of the Ministry of Finance of the Republic of Kazakhstan, tax police departments for regions, cities of Astana and Almaty, interdistrict (regional) tax police departments or tax police departments for districts, cities and districts in cities”. The territorial bodies of the tax service are not included in the local executive bodies and are subordinate to the corresponding higher body of the tax service. The tax legislation of the Republic of Kazakhstan is one of the complex aspects of the relationship between business and the state, despite the annual additions and changes. Recently, there have been many controversial issues between the state and business in the process of carrying out desk audits. N. Nurbayev and Sh. Zhanbekova (2022) emphasise that since 2018, desk audit has turned from a tool for preventing tax violations into a tool with which tax audits are initiated. This was explained by some changes in tax legislation,

including restrictions on the number of on-site inspections (introduction of quarantine measures).

The analysis showed that the judicial legislation in matters of tax disputes is also not perfect. It is practically impossible to defend your interests in court. Despite the fact that the taxpayer sends all the necessary documents and explanations to them at the request of the tax authorities, representatives of the tax services continue to send decisions stating that the taxpayer has not fulfilled their notifications. After receiving this type of notification, taxpayers can only appeal them in court, as a result, the number of court proceedings increases. There are several factors that lead to this practice. Firstly, when conducting an audit, the specialists of the tax authorities do not analyse each taxpayer individually, but simply follow the established practice. Secondly, tax disputes usually take place in all judicial instances, because state bodies, fearing to be punished, file an appeal to the highest judicial instances, if the court has sided with the taxpayer. Thus, the government costs of conducting tax audits are unreasonably growing. Thirdly, very often representatives of the tax control authorities, when appealing the results of the audit, do not comply with the requirements of the Code of the Republic of Kazakhstan “On taxes and other obligatory payments to the budget (Tax code)” (2017), which states that the notification is considered unfulfilled in two situations: all the explanations provided do not comply with the Tax Code and the taxpayer has not eliminated all the comments provided at all. To eliminate the identified problems, it is first of all necessary to improve the quality of data analysis by the tax authorities before the notification is issued. And it is also necessary to improve the quality of analysis of tax documentation, which is provided by taxpayers for the issued notifications.

The problems of desk audit carry a bureaucratic and economic burden for each taxpayer. Therefore, their decisions will be perceived by business as a positive change in the tax administration. The state bodies of the Republic of Kazakhstan plan to amend the Code of the Republic of Kazakhstan “On taxes and other obligatory payments to the budget (Tax code)” (2017), which will initiate the occurrence of tax disputes not only on procedural grounds, but also on identified potential violations of tax legislation. In this case, if amendments to the Tax Code that initiated tax disputes based on the results of desk audit are made, this will further complicate desk audits and increase the number of disputes arising. In Kazakhstan, the powers of tax authorities in conducting desk audits are quite limited. In some countries of the Organisation for Economic Cooperation and Development, tax authorities can conduct inspections more efficiently. For example, in Germany, Sweden and France, tax authorities have access to electronic databases of tax and accounting documents of taxpayers (Harden, 1993; Meuwese, 2011). There are countries in which tax authorities have access to databases of national banks and other organisations that have the necessary information for tax control. In the process of a desk audit in Sweden and Norway, when checking any declarations, it is allowed to request the taxpayer to provide primary documents. And in Canada, the UK, the USA and Germany, the tax authorities can even conduct operational investigative measures (Maydew and Shackelford, 2005). Such opportunities are not provided for by the tax legislation of the Republic of Kazakhstan. The existence of such measures would reduce the volume of documents received in paper form, the number of frauds and thereby ensure timely receipt to the budget and improve the quality of tax administration.

As a result of the analysis of the experience of conducting tax audits in the Republic of Kazakhstan, a number of difficulties were identified on the way to optimise the work of the tax service (Nurbayev, Zhanbekova, 2022; Omarbakiyev, 2020). As mentioned above, one of the ways to conduct a desk audit is the analysis of documents that are provided at the request of regulatory authorities. The application of this method in practice has a number of problems. Firstly, the volume of documents that can be requested by the monitoring body has not been established. Some information may turn out to be a personal or financial secret that will not be disclosed. Secondly, regulatory authorities request large amounts of information that are often unrelated to the object of verification, including information that is freely available. At the same time, the taxpayer organisation spends considerable labour and financial resources to collect the necessary information, which leads to expenses of the object of verification. The use of the “principle of reasonableness” of the information requested from the taxpayer would significantly reduce the amount of data provided. However, to do this, it is necessary to legislate general requirements for reasonableness. Thirdly, when setting deadlines for the provision of financial documentation, the specific features of a particular organisation are not considered. The deadlines should be adjusted depending on the volume of financial documents to be submitted to the regulatory authorities, and the possibility of their provision (for example, when part of the organisation's documents were seized by investigative authorities, etc.) (Alieksieiev, Paranchuk, Chervinska, 2020, pp. 1-9).

According to N. Nurbayev and Sh. Zhanbekova (2022), the main problems of the tax desk audit in Kazakhstan include the lack of clearly defined criteria for selecting objects for verification, the excessive volume of requested documents, and the insufficient consideration of the individual characteristics of taxpayer organizations. Their study of 50 taxpayers in Kazakhstan found that the average time spent on document collection and submission was 38 working days, with an average of 173 documents submitted per taxpayer. Additionally, 62% of respondents noted that the requested information was excessive and not related to the object of verification. L. A. Omarbakiyev (2020) research also highlights the problems of the tax system in Kazakhstan, including the complexity of tax legislation and the high tax burden on small and medium-sized enterprises. The study found that small businesses in Kazakhstan spend an average of 322 hours per year on tax accounting, which is significantly higher than in other countries in the region. Additionally, the author notes that tax authorities in Kazakhstan often focus on formal compliance with tax regulations rather than on the actual economic substance of transactions, leading to additional burdens on taxpayers.

Guided by the principle of reasonableness, representatives of the object of tax audit could challenge the timing of the submission of documents based on the volume of requested data and the time of their submission, the method of transmission, etc. To achieve the principle of reasonableness in the timing of document submission during tax audits, it is proposed to adopt a risk-based approach that takes into account the level of materiality of the requested data. This means that the volume and complexity of documents requested would be proportionate to the level of risk involved, with more significant risks requiring a more comprehensive audit process. Additionally, it may be useful to establish clear and concise procedures for the submission and transmission of documents, including standardized electronic formats for easier processing. The Government of the Republic of Kazakhstan is taking measures to improve tax administration in the country. In 2019, the provisions of the tax legislation of the Republic of Kazakhstan on horizontal monitoring came into effect. In

2020, the Rules for conducting a pilot project on horizontal monitoring (Order of the acting Minister of Finance..., 2020) were approved, in 2022 – by Order of the Minister of Finance of the Republic of Kazakhstan No. 138 changes were made and additions to Order No. 648 (Order of the Minister of Finance..., 2020).

Horizontal monitoring is “a model of tax administration that allows taxpayers to minimise risks within the framework of tax control and involves providing the tax authority with access to data from accounting systems in exchange for exemption from traditional control measures” (Horizontal Monitoring in Kazakhstan, 2022). The advantages of this model of tax administration will allow taxpayers to automate their interaction with tax authorities, thereby reducing the costs of document management, in specific situations to receive advice on the application of tax legislation and reduce the risk of fines based on the results of audits. About 25 countries successfully applied the concept of horizontal monitoring. In international practice, this effective model of tax administration is carried out in two stages – pre-project work and pilot implementation. In the first stage, preparatory work is carried out on the internal audit system and accounting systems for subsequent horizontal monitoring. The next stage is the pilot implementation itself, with remote access to accounting systems, where the recommendations identified in the previous stage are implemented.

In Kazakhstan, the practice of using other types of audits, such as the auditor's report from the audit of financial statements, in the assessment of the risk of tax violations, is not yet widespread. However, the use of such information can significantly improve the quality of tax control and reduce the burden on taxpayers during tax audits. In particular, the auditor's report can provide an independent assessment of the financial statements, including the correctness of tax calculations and compliance with tax legislation, which can be useful for tax authorities in determining the level of risk of tax violations. Moreover, such reports may provide additional information that can be used to identify potential tax violations and guide the tax audit process more effectively. Therefore, the development of regulations on the use of auditor's reports and other types of audits in tax control is an important direction for improving the tax administration system in Kazakhstan.

Practice shows that conditioned upon automated remote interaction, participation in horizontal monitoring will significantly reduce the costs of tax control support. All controversial issues arising during the pilot monitoring are considered by the commission, which is formed by representatives of the project participants. The great advantage of this project is that it reduces the likelihood of tax disputes being resolved in court, including tax risks and ensures timely receipt of funds to the budget. The project is planned to be implemented in 2023. Its participants will be able to count on trusting relations with the tax authorities, recognition of them as conscientious taxpayers and increase the investment attractiveness of their companies in the market (Horizontal monitoring, 2022). The strategy for the development of this type of monitoring in Kazakhstan is the automation and implementation of standard platforms, automatic reconciliation of tax and accounting documents and the identification of risks through the use of a risk-based approach. Thus, it can be concluded that at the moment the Government of the Republic of Kazakhstan is making efforts to improve tax administration.

5. Conclusions

Based on the analysis results of the experience of using desk audit in the tax practice of other states and the Republic of Kazakhstan, a number of positive examples of changes in the legislative framework of countries to improve tax administration were identified. In a number of countries, in addition to punitive measures for violating tax legislation, incentive measures are also applied, which reduces the number of tax violations. Bona fide taxpayers are provided with additional services: consulting when filling out a tax return, training in filling out a tax return, and the like. However, the application of these methods to improve the tax environment of other states may have difficulties when introduced into the legislative framework of the Republic of Kazakhstan, since the tax legislation of this country is one of the complex aspects of the relationship between business and the state, despite annual additions and changes. The process of researching the practice of using desk control in the Republic of Kazakhstan allowed identify not only “bottlenecks”, but also possible ways to solve these problems. The application of the “principle of reasonableness” to the information requested from the taxpayer would significantly reduce the number of documents processed, thereby reducing the costs of the state to ensure the work of the tax service.

In recent years, a number of measures have been taken that should have a positive effect when introduced into the tax legislation of Kazakhstan. Horizontal monitoring during tax audits was singled out among the most effective measures. The presence of such control measures in the legislation of Kazakhstan could significantly reduce the document flow, thereby lowering government costs for ensuring the work of the desk audit service. The introduction of horizontal monitoring in the tax audit service will reduce the number of fraudulent schemes, which will eventually lead to the timely receipt of payments to the budget and increase the efficiency of public administration in the taxation system. The analysis showed that when forming an effective tax system, it is necessary to respect the interests of not only the state, but also business. So you need to find a balance. On the one hand, it is necessary to reduce the pressure on conscientious taxpayers, on the other – to prevent deliberate violation of tax legislation. The materials of this article, including the conclusions formed on their basis, will be useful to representatives of the desk audit bodies of the Republic of Kazakhstan, whose duties include directly conducting this type of audit.

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SUMMARIES

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ORGANIZATIONAL AND FINANCIAL SUPPORT OF INVESTMENT PROJECT MANAGEMENT IN THE ECONOMIC DEVELOPMENT OF THE REGIONS OF UKRAINE

Investment project management is a crucial component of the economic development of any country region, including Ukraine. Each project goes through certain stages in the implementation, while competent management activity plays a very distinct role. The main objectives of this study were to highlight the current issues of project management in the context of building the potential for regional development and to create a model for managing various investment projects that would be most suitable for the majority of Ukrainian entrepreneurs and to increase the efficiency of their functioning. The methods used quite actively in this study were analysis, deduction, induction, historical, modelling and others. The researchers define the essence of the concept of investment project, in particular, as a set of processes (planning, execution, management analysis) where the project is born and implemented. At the same time, all of the processes described above have subcomponents also characterized by certain features. This approach helped to describe in detail and consider the essence of investment project management. This work also shows that the most effective methodology for enterprise managing processes can be network planning and governing. It has certain comparative advantages, helping to depict the future planned management and implementation process in the form of graphs and models and to manage all internal processes during the project life cycle quite effectively, including technological and production steps. Therefore, this work brings new knowledge to the management theory, opening the way to a different view of the basic principles of investment project management.

Keywords: government support; innovation; network planning; modelling; process approach

JEL: F34; F35

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GREEN ACCOUNTING, CSR DISCLOSURE, FIRM VALUE, AND PROFITABILITY MEDIATION

The study aimed to analyze the profitability in mediating the influence of green accounting and corporate social responsibility disclosure on the firm value. The samples consisted of 220 manufacturing companies, while the moderating variable regression was used in data analysis. The effect of mediating variables was determined using the Sobel test. The study results showed that green accounting did not affect firm value; while CSR disclosure and profitability influenced firm value, but profitability was not able to mediate the effect of green accounting and CSR disclosure on the firm value. The unintegrated system and the company's inability to internalize green accounting and CSR disclosure hindered its non-financial goals to gain an advantage in a competitive market.

Keyword: firm value; green accounting; CSR; profitability

JEL: G32; Q56; M14; L25

Jufrizen, Hazmanan Khair, Adek Trisma Dina, Molana Malik Pandia

FACTOR AFFECTING WORKPLACE SPIRITUALITY, JOB SATISFACTION, AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR: EVIDENCE FROM INDONESIA

This study aims to investigate the process of building organizational citizenship behaviour among employees in the marine transportation business in Indonesia. This study also uses workplace spirituality and job satisfaction as mediators to understand the process of the influence of organizational justice on organizational citizenship behaviour. This research uses a causal research type using a quantitative approach. The study's sample and population are workers in the marine transportation sector. The study's sample size was adapted to the structural equation modelling (SEM) that was applied. Data gathering procedures employed interviews and confidentially lists in questionnaires to evaluate the seven hypotheses proposed in this study, while data analysis techniques used Partial Least Square (SmartPls). According to the study's findings, job satisfaction, workplace spirituality, and organizational justice favour organizational citizenship behaviour. Organizational justice influences organizational citizenship behaviour by mediating job satisfaction, workplace spirituality, and both. The implications of this study's findings, which also reveal the mediating roles of job satisfaction and workplace spirituality, can assist organizations in developing plans to enhance organizational justice and Organizational Citizenship Behavior.

Keywords: Organizational Justice; Organization Citizenship Behavior; Job Satisfaction; Workplace Spirituality

JEL: D23; 015; L91; J28

Muhammd Istan

ANALYSIS OF THE INFLUENCE OF ASSETS STRUCTURE, EARNING VOLATILITY, AND FINANCIAL FLEXIBILITY ON CAPITAL STRUCTURE AND CORPORATE PERFORMANCE IN MANUFACTURING SECTOR COMPANIES ON THE IDX

Companies play a crucial role in improving a country's economy by providing jobs for many people. To enhance their performance in a competitive market, it is important for companies, particularly manufacturing firms, to pay attention to their capital structure and corporate performance. This has prompted the researcher to analyze the effect of asset structure, earning volatility, and financial flexibility on capital structure and corporate performance in manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). The objective of the study was to examine the impact of asset structure, earning volatility, and financial flexibility on capital structure and corporate performance in manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). The research method employed in the study was descriptive quantitative. The data for the study were collected from financial reports of 58 companies using purposive sampling. The collected data were then analyzed using SPSS. The results of the analysis indicated that asset structure, financial flexibility, and earning volatility had a positive and significant influence on both capital structure and corporate performance. The influence value for capital structure was found to be 96.9%, while the influence value for corporate performance was 94.8%. This study suggests that optimizing asset structure, managing income volatility, and enhancing financial flexibility are crucial for manufacturing companies to improve capital structure and corporate performance.

Keywords: Asset Structure; Earning Volatility; Financial Flexibility; Capital Structure; Corporate Performance

JEL: G00; G17; G32; G34

Faruk Ahmeti, Hykmete Bajrami

EXPLORING THE IMPACT OF TECHNOLOGY ACCEPTANCE MODEL CONSTRUCTS ON CONSUMER BEHAVIOR IN SMEs: WITH A FOCUS ON E-MARKETING STRATEGIES

In today's competitive digital landscape, where the Internet has become an integral part of people's daily lives, it is crucial to prioritize user experience and satisfaction, particularly when it comes to web pages. This study seeks to elucidate the importance of specific elements of the TAM model concerning user behaviour in the realm of web design. Using an exploratory approach, the study employed an anonymous questionnaire (utilizing a Likert scale) to gather data from website users. The research sample's adequacy was assessed using Cronbach's alpha and Kaiser-Meyer-Olkin (with 148 respondents), by identifying factors impacting user behaviour, such as website content quality (including the quality and availability of information), and design quality (including appearance, website findability, navigation, and access/usability). Additionally, the study investigated perceived usefulness, ease of use, and attitude toward website use. Pearson correlation coefficients were used to calculate values, and the lower triangle method was utilized to determine the resulting coefficient values. Analysis revealed that website usability and page orientation did not have a significant impact on actual website usage. The study outcome has produced a model that can determine the influence of specific factors on user behaviour concerning their overall user experience.

Keywords: TAM; Marketing; SME; Consumer behavior

JEL: D90; M15; M31; L86

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COMPLIANCE WITH ACCOUNTING STANDARDS BY JORDANIAN SMEs

SMEs are renowned all over the world for being informal, therefore, following accounting standards, is something unique for SMEs. Jordan being the heaven for SMEs is becoming more and more formal for SMEs, yet the government has not imposed any restrictions on SMEs to follow accounting standards. However, several SMEs in Jordan are following accounting standards because of the advantages that SMEs can avail by adopting accounting standards. Hence, it is vital to understand the factors which influence the adoption of accounting standards, as well as it is equally important to understand the advantages which SMEs can gain by adopting accounting standards. Thus, this study has two core aims, initially to identify the factors which influence the implementation of accounting standards and secondly the identification of the significant advantages which SMEs can achieve by the implementation of the same. For conducting the analysis the data has been collected from 100 SMEs operating in Jordan. Purposefully those SMEs were chosen with the help of a filter question that were adopting accounting standards. For evaluating the hypothesis, structural equation modelling has been applied. The results revealed that the adoption of accounting standards have benefits for the SMEs, whereas only demand for quality reporting and financial information external users have shown insignificant impact over usage of accounting standards, perhaps since it is not mandatory by the government. The study also opened horizons for future research, because there is yet a lot that need to be explored that why SMEs are reluctant in adopting accounting standards or what are the major hurdles in the adoption of financial accounting standards.

Keywords: Sustainability; Financial reporting; SMEs; Accounting standards; Taxation

JEL: G10; G19

Erna Listyaningsih, Rahyono Rahyono, Apip Alansori, Amirul Mukminin

FINANCIAL LITERACY, FINANCIAL INCLUSION, AND FINANCIAL STATEMENTS ON MSMEs' PERFORMANCE AND SUSTAINABILITY WITH BUSINESS LENGTH AS A MODERATING VARIABLE

Previous studies have shown a connection between financial literacy, financial inclusion, financial statements, MSME performance, and MSME sustainability. The results of the relationship between these variables varied, according to several studies. Therefore, the aim of this study was to investigate, the impact of financial literacy, financial inclusion, and financial statements on the performance and sustainability of MSME, moderated by the variable of business length. Bandar Lampung, Indonesia is situated in a very advantageous location with regard to the geopolitical constellations at the global, governmental, and regional levels. As a result, 100 MSME actors in Bandar Lampung, Indonesia, were asked to fill out a questionnaire, and the data was then analysed using PLS-SEM. The study found that each of these elements influenced MSME performance and sustainability in a positive way. Moreover, the sustainability of MSMEs is also positively impacted by MSME performance. Furthermore, the length of the business also improves the correlation between these factors. These results imply that business actors are more cognizant of the significance of the accounting process in their operations the longer a business has been in operation. The other findings indicate that the longer a business has been in operation, the more its business development will be influenced by that fact, as a well-established business will typically have more experience and grow more rapidly.

Keywords: Financial literacy; financial inclusion; financial statements; MSME's performance; MSME's sustainability

JEL: G53; G5; L2; M1

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FARMERS' ATTITUDES TO IMPLEMENTATION OF CAP GREENING PRACTICES IN BOTH THE BLAGOEVGRAD AND KYUSTENDIL REGIONS IN BULGARIA

The Common agricultural policy (CAP) is the most integrated policy that offers an opportunity for the agricultural sector to respond to society's demands in terms of food security, safety, quality and sustainability as well as environmental care. New agriculture challenges in the framework of EU political priorities and greening of the sector are related to the implementation of three key objectives based on encouragement of a smart and sustainable agricultural sector; improving environmental care and climate change action; improving socio-economic role of rural areas. The study aims to research the farmers' attitudes implementation of ecological practices on farms using conjoint analysis, correlation analysis, SWOT analysis and descriptive analysis. The conjoint analysis answers a fundamental research question – would farmers carry out ecological practices without CAP support? In addition, we analyzed farmers' attitudes toward implementing mandatory and voluntary ecological practices in farms with or without CAP financial support. The study results confirm the research hypothesis that CAP greening is carried out at the cost of CAP payments. It was found that farmers would not carry out ecological practices without the CAP financial support during the 2023-2027 programming period in both the Blagoevgrad and Kyustendil regions in Bulgaria.

Keywords: CAP greening payments; farmers' motivation; conjoint analysis

JEL: Q10; Q12; Q15

Bahman Huseynli

THE EFFECT OF TOURISM REVENUES AND INFLATION ON ECONOMIC GROWTH IN BALKAN COUNTRIES

Earnings from the tourism industry not only contribute to the expansion of an area's or nation's economy, but also result in the development of new jobs across a variety of industries, the accumulation of foreign currency, and the upgrading of economic infrastructure over the longer term. The purpose of this research is to investigate how income from tourism and inflation rates affect the pace of economic expansion in nations located in the Balkan region (Albania, Bosnia and Herzegovina, Bulgaria, Montenegro, North Macedonia, Greece, Serbia, Croatia, Slovenia, Romania). The Balkans, the region of dynamic developments, diversity of lifestyles, rich historical heritage and authentic culture from ancient civilizations to the present, has various tourism potentials such as sea tourism, mountain tourism, cultural tourism, rural tourism, health tourism and ecotourism. The research covers the years 2005-2020 and includes data on the variables that impact economic development in the nations that make up the Balkan region. Since there were significant gaps in Kosovo's data, the country was excluded from the research. Panel data analysis was used in the research to investigate macroeconomic variables such as foreign tourism revenues and inflation rates in these nations. Both of these factors are related to tourism. In the research that was conducted using a panel analysis method, the conclusive analysis wasn't begun until after the appropriate assumption tests had been carried out. It has been determined, via the use of the Driscoll-Kraay technique of estimating, whether or not these factors have an effect on economic growth. Based on the data that was collected as a result of the investigation, it was determined that the expansion of the tourism sector in the nations that were chosen from the Balkan region does not have a substantial impact on the overall growth of the economies of these countries. In a similar vein, inflation rates were completely unrelated to growth.

Keywords: Tourism; Economic Growth; Tourism Revenues; Driscoll-Kraay; Balkan Countries

JEL: Z32; H27; O47; O52

Lis Sintha Oppusunggu, Ika Pratiwi Simbolon

ANALYSIS OF RETURN ON ASSET FOR BUKU IV: JAKARTA INTERBANK SPOT DOLLAR RATE, CAPITAL ADEQUACY RATIO AND LOAN-TO-DEPOSIT RATIO

The research aim is to study factors that can affect the Return on Assets for BUKU IV Banks in Indonesia. The paper uses monthly data from annual reports. The independent variables are Jakarta Interbank Spot Dollar Rate, Capital Adequacy Ratio, and Loan to Deposit Ratio. Data analysis is done by using multiple linear regression. There is partial effect between the Capital Adequacy Ratio towards Return on Asset, significantly. Furthermore, all of the independent variables have a simultaneous effect on the Return on Asset, significantly. Regarding the research limitations, future research can use the research object not limited to banking companies in order to generate a better research model. Future research may use longer periods for better prediction ability.

Keywords: Capital Adequacy Ratio; Jakarta Interbank Spot Dollar Rate; Loan to Deposit Ratio; Return on Asset

JEL: G10; G11; G14; G18

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DESK AUDIT IN THE STATE AUDIT SYSTEM

The introduction of effective desk audit in the system of state audit allows establishing a productive use of public funds, and avoiding misuse of the budget. Conditioned upon the spread of Covid and the tightening of quarantine measures, the situation with on-site tax inspections has become more complicated. In modern conditions, the importance of analysing the directions of this type of audit, its evaluation, and identifying the prospects for its development is increasing. The purpose of the article is to assess the current state and directions of development of desk audit in the state audit of the Republic of Kazakhstan, to identify possible problems during this type of tax audit and to find ways to solve them. The scientific article uses the following methods of research: the method of analysis of scientific sources, the method of information retrieval, the method of analytical review, the method of analysing regulatory documents on the subject of conducting a desk audit, the method of functional analysis, the method of analysing the root cause. The international practice of application of desk tax audit is studied. The assessment of the current state of desk audit in the system of state audit of the Republic of Kazakhstan was carried out. The directions of development of desk audit in the system of state audit are determined. The main results of this research can be considered not only the identification of problems during the desk audit, but also the determination of ways to solve them. The directions for improving the organisation of the process of desk audit are determined. The results of this scientific study, including the conclusions formed on their basis, contribute to the study of the problems of desk audit in the Republic of Kazakhstan.

Keywords: taxation; international experience; budgetary funds; financial control; violations; targeted use.

JEL: H26; H83; H76; H61; H72; H77