

"Do not fear to be eccentric in opinion,
for every opinion now accepted was
once eccentric."

Bertrand Russell



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The role of Sustainable Development Goals in Improving the Economic Status of Youth in Serbia

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Abstract. *For a long time, young people in Serbia have been facing numerous economic challenges like high unemployment, the problem of underemployment and informal work, a large NEET population (youth Not in Employment, Education, or Training), and intensive socio-economic disparities. These challenges have a negative effect on further economic progress and social prosperity and also disrupt progress toward multiple Sustainable Development Goals (SDGs). The focus of this paper will be directed towards the research of the socioeconomic position of young people in the context of sustainable development. Furthermore, we will analyse the most relevant SDGs that have a decisive influence on improving the position of young people in the 21st century. The main purpose of the work will be to analyze the position of young people on the labor market, their opportunities, but also the limitations they face, and the ways to overcome the mentioned problems and improve their position. It will provide a research study by mapping Serbia's youth socio-economic challenges to specific SDGs and targets. The relevant data and policy analysis will show how each SDG is relevant to improving youth economic outcomes in Serbia.*

Keywords: labour force, NEET population, sustainable development goals, youth unemployment.

JEL Codes: J24, Q01

1. Introduction

The importance of sustainable development and the goals that have been focused on the realization of sustainable development for a long period are and will be of exceptional significance for research in the modern world. The analyses always start from the 2030 Agenda for Sustainable Development and its 17 key goals for sustainable development. Interest in young people and their contribution to the achievement of sustainable development goals is increasing every year, and what is important to analyze in this paper is the impact of sustainable development goals in relation to employment, education, and youth equality. And as for their economic status and position on the labor market, we are analyzing how the goals of sustainable development can contribute to improving the economic situation of young people. Therefore, in the paper, we will first begin with a brief review of the basic idea and importance of the 2030 Agenda for sustainable development, with a focus on the three goals that are the most relevant to the analysis for this paper. The three goals of sustainable development aimed at young people and relevant to the analysis of this paper refer to: (1) Sustainable Development Goal 4 - Quality Education - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; 2) Sustainable Development Goal 8-Decent work and economic growth - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; 3) Sustainable Development Goal 10 - Reduced Inequalities - Reduce income inequalities and promote the social, economic and political inclusion of all (UN, 2016).

As we have stated, the greatest focus will be directed to the analysis of the three stated objectives, because within the framework of SDG 4, the contribution to the development of skills and lifelong learning,

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a very important factor for improving the competencies of young people, was analyzed. The SDG 8 is important from the aspect of better business opportunities on the labor market, and the importance of improving and focusing on youth entrepreneurship and finding jobs, which will provide young people with dignified work and satisfaction during its implementation, as well as the economic benefits that come with it. And the goal under number 10 is directly related to the extremely important issue of inclusive policies and reducing structural inequalities, which, as a result, have very negative impacts on young people and their opportunities for advancement. However, what is also important to emphasize is the fact that young people have a significant role in implementing efforts for sustainable development at all levels defined by the Agenda, but for this paper, the focus is only on these three stated goals.

Given that many of the above-mentioned questions, problems, and opportunities faced by young people are almost universal, the first part of the paper is directed towards general guidelines and data that can provide us with a broader picture of the mentioned issues, and then the focus of this paper will be directed towards the situation and position of young people in Serbia and its progress in achieving the Sustainable Development Goals.

2. Research Elaboration

2.1. Importance of the SDGS of Employment, Education, and Equality for Youth

To illustrate and explain the impact and relevance of the SDGs on improving the Serbian youth socio-economic status, the research approach combines the following research methods: problem-oriented analysis, indicator-based evaluation, and critical analysis, including a policy review. The study is using both qualitative and quantitative methods. For a better understanding of the situation, the recent labour and other relevant statistics were used for the analysis within the quantitative component of the research. Qualitative analysis is used for critical analysis and mapping the current state of youth in the labour market and its link with the Sustainable Development Goals and their targets. The research relies on both primary data obtained from the Statistical Office of the Republic of Serbia, Eurostat, UN SDG base, etc, and secondary data from research papers, reports, and policy analysis, making sure that the time frame covers the most recent available statistical data. The goal is to provide a context-specific evaluation of the progress of Serbia toward the fulfillment of the relevant SDGs, point out existing challenges and problems, and provide a solid base for policymaking.

Since the beginning of the 21st century, many studies that have dealt with the socioeconomic position of young people, both at the local and international levels, have not shown satisfactory results in their research. All the major global changes and crises that have taken place, including the world economic crisis, the pandemic crisis, and the large number of wars in the world, have only contributed to the fact that the disadvantage of young people remains a worrying issue in many countries.

In a world where we constantly emphasize the importance of sustainable development, respect and appreciation of equality, equal rights to life and dignified work and earnings, environmental protection and sustainable business, it is important to look at the role of young people in this, because young people are part of all the above processes, but also more widely. These are just some of the things that are listed and described through the goals of sustainable development, which is why it is important to once again state the importance and role of the 2030 Agenda for Sustainable Development, especially in the context of young people. Therefore, one of the first ideas of the 2030 Agenda for Sustainable Development was to try to ensure the development of all countries, resulting in economic growth with aims related to improving health and education, reducing inequality, and tackling climate change (Del Arco et al., 2021). In the document entitled *Transforming our world: the 2030 Agenda for Sustainable Development*, 17 sustainable development goals with their 169 tasks included in the new Agenda build on and supplement the unachieved Millennium Development Goals, with a focus on three dimensions of sustainable development: economic, social, and environmental (UN, 2015). According to the report *World Youth Report: Youth and the 2030 Agenda for Sustainable Development* (UN, 2018), to improve the position and development of young people, the decisions resulting from the 2030 Agenda are reviewed, to look at things that were important for young

people and how they can be helped to accelerate the goals that ensure a better position and conditions for young people.

According to Ansell et. al. (2020), in order to understand young people, it is crucial to study them in the contexts of their social lives. Because of that, we would start with three important aspects and three different goals of sustainable development directly involved in a very important question for youth (UN, 2025):

1) Sustainable Development Goal 4, which aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

2) Sustainable Development Goal 8, which aims to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" - with some specific addresses to the global challenges of youth employment.

3) Sustainable Development Goal 10, which aims to ensure that equality and prosperity are available to everyone, with the idea that only then can we expect the entire world to prosper (UN, 2025a).

In order to achieve the set goals of sustainable development, cooperation and coordination of all interested parties are necessary, and young people are one of the most important actors. Therefore, in the further part of the work, we will present the key determinants of each of the three goals and show the results achieved so far, which are directly related to young people.

2.2. Sustainable Development Goal number 4 - "Quality Education"

Education and lifelong learning are the key themes in a number of goals and major elements of SDGs, but the most relevant is recognized in the goal SDG 4 - "Quality Education", especially in the context of youth and how SDG contributes to skills development and lifelong learning of youth.

According to the last results from *The Sustainable Development Goals Report 2024* (UN, 2024), analyzing the key findings from SDG 4 in almost all regions, progress is noticeable - reduction of differences between boys and girls in terms of schooling and education at all levels. In some places, there is even a higher percentage in favor of girls, which was not the case until now. When it comes to the percentage of young people who have completed primary and secondary school, for the period 2015-2023, we present the following data (UN, 2024): the primary school completion rate increased from 85% to 88%, the lower secondary education completion rate from 74% to 78%, and the higher secondary education from 53% to 59%. However, what is also very important to point out refers to the general impression regarding educational systems everywhere in the world, that its vulnerability, because in many countries there is a percentage decline in mathematical skills, as well as reading skills. And what is certainly considered a priority in the coming period is related to greater financial investments in education, continuous training of teachers with regard to a greater degree of inclusivity, the use of new technologies, and modern digital tools.

Some of the mentioned things are directly related to the problems that young people have in the labor market, because the level of their education and knowledge does not fit into the new tendencies and needs of the labor market. That is why we have such a need to improve knowledge and acquire new skills, not only through formal, but also through informal training and seminars (popularly called "soft skills"). That is why one of the goals of SDG 4 is to promote lifelong learning opportunities for all, and in this case, especially for youth, to prepare them better for the future and to give them the opportunity for a better position in the competitive labor market.

2.3. Sustainable Development Goal number 8 - "Decent work and economic growth"

Analyzing the importance of Sustainable Development Goal 4, which emphasizes the importance of education for young people and improving their competences on the labor market, the goal that directly relies on these key values is Goal 8 (SDG 8: decent work and economic growth). In order to encourage the economic growth and development of a country, and in the World Bank Group report from 2019, it is indicated that one of the key solutions lies in solving the problem of gender inequality in the workplace (S. Amulya Jeevanasai et al., 2023). And other international institutions (International Labor Organization, 2017 and UNDP, 2021), which deal with issues related to the right to dignified work and economic growth,

consider that inequality between the sexes, differences in the opportunities available to them, differences in earnings and obstacles that exist on the way, are still present everywhere in the world, especially in developing countries. This is why many countries are struggling and working to create the necessary conditions for all people to have decent jobs, especially for young people, who already have a lot of difficulties in the labor market.

According to the results of the latest report, *The Sustainable Development Goals Report 2024* (UN, 2024), in 2023, a global unemployment rate of 5% was recorded (which is considered a historical minimum). In the period from 2010 to 2014, global real GDP per capita grew by an average of 2.1%, while in the period from 2015 to 2022. was at 1.6%. The average global level of national respect for labor rights, in the period 2015 - 2022, fell by 7%.

2.4. Sustainable Development Goal number 10 - “Reduced Inequalities”

The main purpose of SDG 10 is to reduce inequality within and among countries regardless of gender, race, religious beliefs, or economic status. Because when every individual is self-sufficient, the entire world prospers (UN, 2024, 2015). Achieving these objectives can help to lessen inequality within and between nations, which will benefit women, girls, and the general populace. Numerous sources and academic studies back up these claims (Kapur, 2019).

Based on the report for 2023, the data confirm that the situation is still quite unfavorable in terms of all relevant factors that are analyzed within this goal. In 2023, the largest number of refugees in the world was recorded, as well as the death rate that befell them on migration routes. As before, developing countries still remain in an unenviable position when it comes to being fairly represented in international economic decision-making. Workers' earnings have not kept pace with productivity, and the decline is also present in the share of labor in GDP (UN, 2024). All this directly affects young people in all countries around the world - on their position, protection, equality in work, and what comes from it. That is why this goal of sustainable development is directly related to the analysis of the socioeconomic status of young people.

3. Results and Discussions

3.1. Economic Challenges Faced by Youth in Serbia

Since the beginning of the 21st century, Serbia has been going through a significant economic transition reforms and rebuilding. Despite the obvious improvements in economic activity and macroeconomic indicators, the population and especially youth, are still facing significant economic difficulties. According to data from the latest population census (Popis, 2022), young people aged from 15-29 make up 15,8% of the total population in Serbia. This makes a 4% decrease from the previous census in 2011, indicating that it is necessary to improve their position, economic status, and future perspective. Another indicator of the unfavorable position for young individuals is a continuously high rate of youth migration and is often discussed as a reason behind the improvement of youth activity statistical data. All these challenges are very important in the context of further progress towards the previously mentioned SDGs. Since Serbia agreed to participate in the Agenda 2030, it is essential to focus on creating favorable living and working conditions for youth to successfully achieve the SDGs. Therefore, in this part of the paper, we will discuss various challenges in the youth labour market in Serbia and map them with SDG obligations to better understand the current state and position.

As previously mentioned, SDG 8 tends to “promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all” (UN, 2024). Serbia’s youth situation coincides with different targets developed within this goal. From the aspect of youth socio-economic situation, the most relevant is target 8.5, aiming to improve employment prospects for everyone, including youth, and 8.6, pursuing a substantial decrease in the proportion of youth not in employment, education, or training (NEET). Regarding these two goals, Serbia’s performance is showing positive trends, but there is still a significant need and potential for improvement.

For a long time, youth unemployment, followed by the migration of young people, has been one of the main problems of the Republic of Serbia. Various government attempts were made to improve their socio-economic situation, and certain results have been achieved.

Table 1: Youth (15-24) Activity Key Indicators, 2016-2025 (%)

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024
Rates %									
Active	30.3	30.6	30	29.6	28.0	33.3	32.0	31.9	32.4
Employed	19.7	20.9	21.1	21.5	20.2	24.5	24.2	23.9	24.9
Unemployed	34.9	31.9	29.7	27.5	27.7	26.4	24.3	25.0	23.0
NEET	17.7	17.4	16.5	15.3	15.9	16.4	13.0	12.4	12.9

(Source: SORS, 2018, 2020, 2022, 2024, 2025)

The analysis of the statistical data in Table 1 indicates that there is a relatively low level of the active young population in Serbia. Despite the slight increase of 0.5% in 2024, it is still considered relatively low. Then, the level of youth unemployment has shown a trend of decrease during the observed period, with a slight increase in 2023 due to the slower recovery from COVID-19 and ongoing macroeconomic constraints. The decreasing trend continued in 2024 with 2% decline in the youth unemployment level. Despite the encouraging results, the level of youth unemployment remains significantly higher than the level of unemployment, which stood at 8,9% in 2024 (SORS, 2025). This indicates that young people are still facing difficulties in entering and participating in the labour market. Lastly, to fully understand the socio-economic situation of youth in Serbia, it is essential to analyze the NEET rate. Besides focusing on those who are formally employed or searching for a job, this indicator is addressing young people disengaged from work but also from any form of education or training. The share has decreased during the observed period, and at the current level of 12.9% and therefore Serbia has made progress toward Target 8.6 aimed at significantly reducing the NEET level. However, the percentage remains high and indicates lost economic productivity and increased risk of social exclusion and poverty.

SDG 8.5 is clear about the dedication to provide decent work, and therefore, it is important to discuss the quality and type of work, and not only focus on job availability. Another challenge for young people in Serbia is the high level of informal work. According to research conducted by the National Youth Council of Serbia (2024) 37% of participants have permanent employment contracts, and 17% are working without a contract - "off the books" or in the informal economy. Informal work is devastating for the economy and society by undermining labour standards and wages. Young individuals are feeling lower job satisfaction, and often they are discouraged, insecure, lacking health and social security, and a steady income.

Another challenge for employed youth in Serbia is the underemployment situation in which they are not using their knowledge and skills or are not able to get enough working time as they would like. When asked whether they are employed in a position related to their field of study, 61% of young participants responded that they are not, while 18% are employed in a related position. Only 21% of youth are working in a job for which they acquired appropriate education. This continues to highlight the mismatch between the needs of the labor market and the education system, as well as the ineffective career guidance processes for young people, which partially overlap with target 8.4, aiming for quality education and lifelong learning.

To address these challenges, in July 2021, Serbia supported the Western Balkans Declaration on sustainable youth labor market integration and accepted an EU initiative to invest in human capital called the Youth Guarantee. As stated in the Youth Guarantee Implementation Plan 2023-2026 (Official Gazette of the Republic of Serbia, 2023), the program addresses youth unemployment through cross-sector and social partner collaboration. It ensures that young people under 30 receive an offer for employment, further education, or training within four months of becoming unemployed or completing formal education. The implementation plan was adopted at the end of 2023 and launched in 2024 across 28 municipalities and three

employment service areas. Aligning with Target 8.b, which encourages the development and implementation of a global youth employment strategy, Youth Guarantee aims to improve youth labour market inclusion. Another crucial measure of the government of the Republic of Serbia is the National Youth Strategy 2023-2030 which focuses on better organization of youth work and giving equal opportunities to young individuals to develop their potential and enhance their position in the workforce. These are evidence of strategic actions to tackle youth socio-economic status and unemployment in line with SDG 8.

One of the main preconditions for a prosperous professional career is the level and quality of education. It is essential for the employment prospects and economic outcomes of young individuals since it builds their professional capacities and equips them with the skills and knowledge needed for a dynamic labour market. But, if young people cannot see good opportunities to work and gain adequate wage, if they don't have permanent contracts and they feel insecurity at their workplace, there is a high chance that they will become discouraged from pursuing education. In this situation, they don't see a clear link between educational achievement and satisfactory employment.

Based on the Labour force survey (SORS, 2025) the indicator "Early school leaving," which represents the percentage of young people aged 18 to 24 who, at best, have completed primary education and have not continued further education (i.e., have not participated in any education or training in the past four weeks), stood at 6.2% in 2024. Compared to 2023, it increased by 0.4 percentage points. Since a certain percentage of Serbian youth still leave school early, we can conclude that target 4.1, aiming for universal completion in secondary education, is not being met. But even those who have finished secondary education often face challenges entering the labour market and finding suitable and stable employment, often due to a lack of adequate skills required by employers, as stated in several research studies. This leads us to Target 4.4, which addresses the need for increasing youths' skills, especially technical and vocational, and raising their employability. Based on the National Statistic Office of the Republic of Serbia research about the usage of Information and Communication Technologies (SORS, 2023a) although 95.8% of young people old stated that they use the computer daily less than 50% of them are familiar with some of the basic and advanced e-skills required by the market and only 7.3% can use advanced skills. Considering that technology and digitalization are the leading sectors in the national economy, this lack of professional IT skills is concerning and requires more attention.

Therefore, the important task is the modernization of the curriculum, especially STEM (science, technology, engineering, and mathematics) and IT education due to the quick progression in this area and strengthening links between educational institutions and employers. Furthermore, formal education should be supported with practice, internship, and experience rather than just theory and examples. Also, lifelong learning (part of SDG 4) is important for youth: programs for re-skilling or up-skilling unemployed youth can help reduce the NEET population. The government should fully or partially finance effective educational programs to raise the labour capital and soft skills among young people and prepare them for decent work. Improving access to second-chance education and training for early school leavers would contribute to all three goals SDG 4, 8 and 10. Also, promoting different career opportunities can attract youth interest, which is particularly important for discouraged young workers.

In Serbia, young people are exposed to different types of inequalities mainly: socio-economic, regional, income and wage and one of the extremes in this area are marginalized groups. Socio-economic inequalities among Serbian youth, resulting in different levels of education, are another important challenge. Not every young individual in Serbia has an equal opportunity to be educated or achieve good academic results. Young individuals from rural areas, lower-income households, with disabilities, or minority communities (such as Roma) or with disabilities, frequently have lower educational results and, because of that, unpromising employment chances (European Commission 2024). Roma youth suffer from very high dropout rates and often do not complete secondary education, especially Roma girls, resulting in low chances in the formal job market and leading to poverty risk. In order to make progress in SDG Target 4.5 and eliminate disparities, Serbia has accepted inclusive education policies, but the gap is still present. Serbia's effort on education reform, vocational training, and youth skill development aligns with SDG 4 targets and complements its

pursuit of SDG 8. Therefore, the effort is still needed to make sure that everyone gains a quality primary and secondary education, and if interested in pursuing further vocational/tertiary education is an option as well.

Furthermore, we have the ongoing regional inequalities present in Serbia for decades that are affecting the future of young people and their working prospects. Based on the data from the Labour market survey (SORS 2025), the unemployment level of youth between 16 and 24 years is 21.3% in the Belgrade region, 20.0 in the Vojvodina region, 22.2% in Šumadija and Western Serbia, and 29.6% in the South and Eastern Serbia region. This illustrates different situations and opportunities for young individuals and their economic inclusion depending on the region, often making them migrate towards bigger cities or abroad. This is creating other problems like abandonment of villages and land, causing the local population to decline and aging and overcrowding, and infrastructure and environmental pressure in urban areas.

3.2. Impact of Sustainable Development Goals of Youth in Serbia

According to the latest report presented in Serbia on progress in achieving the Sustainable Development Goals for 2023, compiled by the Statistical Office of the Republic of Serbia (2024), we highlight some of the conclusions that directly relate to the SDG goals, which we have analyzed in this paper.

When it comes to the degree of progress of the set goals, the report provides the following tabular overview for Serbia for the year 2023 (Table 2), from which we can draw the following conclusions. The Report states that when it comes to "Achieved goals according to the standards defined at the global level", among the three goals that we have singled out for analysis, this value stands out only for goal number 8 and that for standard 8.b.1. which refers to the existence of a developed and operationalized strategy for youth employment. In the "Area of progress in achieving the goals of sustainable development", results were recorded for all three goals, and we will single out only those that directly concern young people. So, with SDG 4, we highlight standard 4.3.1. which refers to the increased participation of young people and adults in formal and informal education and training. In SDG 8, we highlight standards 8.5.2 and 8.6.1, which refer to the reduced unemployment rate and the reduced share of young people who are not covered by education, employment, or training. With SDG 10, we single out standard 10.4.1, which refers to the growth of the share of labor income in GDP, which consists of wages and transfers for social protection.

Table 2: Overview table of progress towards sustainable development goals for SDG 4, 8, and 10

SDG	Indicators								
4	4.1.1	4.1.2	4.2.1	4.2.2	4.3.1	4.5.1	4.6.1		
									
8	8.1.1	8.3.1	8.4.2	8.5.1	8.5.2	8.6.1	8.7.1	8.10.1	8.b.1
									
10	10.1.1	10.2.1	10.3.1	10.4.1	10.5.1	10.7.2	10.7.3	10.a.1	10.b.1
									

Legend:

 - Achieved goals according to the standards defined at the global level.

 - Area of progress in achieving the goals of sustainable development.

-
- ▼ -Areas of departure from the goals of sustainable development.
 - ▲ - Areas of inconsistent trends.

(Source: SORS, 2024)

Summarizing the results and the impact of sustainable development goals on young people in Serbia, based on the Report of the Statistical Office of the Republic of Serbia (2024), we can single out the following. When it comes to goal number 4, there has been moderate progress towards it within the sub-goal that directly deals with lifelong learning among young people, with an emphasis on a noticeably higher percentage of participants in various forms of both formal and informal education, in the observed period of 2021-2022. When it comes to goal number 8, it is of great importance to highlight the progress in terms of the reduced rate of youth unemployment (both male and female population), achieved progress in terms of dignified work, and progress in the field of incentives in the education and employment process. And as far as target number 10 is concerned, there is a moderate deviation from the target recorded in terms of financial investments for development (SORS, 2024).

Many of the mentioned things were achieved with the support of the Government of Serbia, which with its strategies and program reforms contributed to the support of young people in order to achieve the goals of sustainable development and the goals of improving the position of young people on the labor market and their better and more secure economic position. First of all, by adopting the National Strategy for Sustainable Development, Serbia expressed its serious intention to make sustainable development a part of its development commitment and direction. And some of the important documents for young people that followed those changes are: Strategy for youth in the Republic of Serbia for the period from 2023 to 2030, Strategy for the development of education and upbringing in the Republic of Serbia until 2030 with an Action Plan, Employment strategy in the Republic of Serbia for the period from 2021 to 2026, Program of economic reforms for the period from 2023 to 2025, Strategy for scientific and technological development of the Republic of Serbia 2021–2025., Strategy of smart specialization in the Republic of Serbia for the period from 2020 to 2027 (4S) and others. This is only a small part of the documents that contributed to Serbia working on the adequate implementation of the goals defined in Agenda 2030, especially in terms of achieving the goals and sub-goals of sustainable development aimed at young people. In the following period, the focus should be directed towards improving the implementation of the adopted documents, because very often in practice, precisely the absence of the practical part and its implementation, leads to worse results and the lack of real improvement of the position of young people. Which is why sometimes the results indicate progress and successful changes, but in reality, young people still do not feel these changes, nor can they fully apply and realize them in practice.

What is also important to note is the attitude of young people towards changes and how and to what extent they can influence them. According to Mojsilović (2018) comparative analysis of youth policy in Serbia with youth policies in EU countries (Netherlands, Poland and Croatia) showed that Serbia still has a lot of work to do in terms of improving the quality of youth policies, strengthening their implementation, and monitoring. Also, this refers to the role of young people in the way of reaching those changes. Namely, as much as young people are talked about as an active and very important participant in achieving the goals of sustainable development, Orsini (2022) believes that the marginalization of young people as actors in global politics is still present, because most research still focuses on young people as passive victims or recipients of international politics, and not as decisive actors in decision-making.

4. Conclusions

The socio-economic status of Serbian youth is a complex issue and is closely interrelated with the country's Sustainable Development Goals. One of the most severe problems is labor market volatility, characterized by high youth unemployment, with the continuous presence of informal employment and underemployment. Another indicator is a significant percentage of NEET population combined with gender,

regional, and socio-economic inequalities. Present educational challenges and skill mismatches between the supply and demand of young labor force are calling for additional effort and action knowing that only the improvement of education and training can push economic progress and social stability in the long term. Well-strategized support for rural youth, minority youth, and other disadvantaged groups is of vital importance so that no one is neglected.

Despite the significant progress from the beginning of the 21st century, Serbia still has a long way to go to provide the necessary conditions for young individuals to learn and study, work, and continuously develop their professional skills to lead the country to prosperity.

Therefore, Serbia has recognized the 2030 Agenda and SDGs as a certain form of guidelines when formulating and designing its policy framework. The majority of relevant policies explicitly address youth employment and inclusion, aligning national targets with the SDGs. By mapping these challenges to specific SDGs and targets, this analysis makes clear that certain progress has been made, but we are still in need of comprehensive, analytically supported, and more inclusive solutions. Since Serbian youth is the carrier of our future with great potential to contribute to the overall national prosperity, it is essential to fully support and encourage their productive potential. Together we can create communities in which young people live and will choose to stay.

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Phygital Marketing Communication and Metaverse Usage Experiences in the Banking Sector

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Abstract. *The aim of the study is to focus on the marketing communication strategies in the banking and finance sector from past to present, and to detail the concepts of phygital banking and metaverse banking in terms of both usage and the advantages and disadvantages it brings from the perspective of industry professionals. In-depth interviews were conducted with a total of 6 expert bankers from 3 different banks, which constitute the universe of the research while providing sample criteria. The data transcripts created with participant statements were divided into six themes and forty-three sub-codes and presented to expert opinion to ensure the external control of the research. The data were subjected to content analysis using the MAXQDA 2022 qualitative analysis program. Based on the findings, answers were sought to the following questions: (1) What are the definition, scope, and application areas of digital marketing communication in the banking and finance sector? (2) What are the elements of digital marketing communication used in the banking and finance sector? (3) What are the advantages and disadvantages of the digital marketing communication era in the banking and finance sector compared to the traditional marketing communication era shopping experience? According to the data analysis results, participants define digital marketing as a new marketing strategy that enhances consumer experience by combining traditional financial services with digital technologies. In addition, digital applications in the banking and finance sector are concentrated in areas such as application processes, marketing activities, payment systems, and smart voice systems. While the most commonly used digital elements are artificial intelligence (AI) and QR code, augmented reality (AR), virtual reality (VR), and blockchain are following these digital elements. According to the research results, the prominent advantage of digital marketing is experience-oriented, while it is observed that digital spaces such as metaverse, with their decentralized and anonymous structure, also bring some privacy and security disadvantages. Concepts such as digital and metaverse are important innovative concepts that shape the future understanding of marketing communication. In the study, focusing on the digital marketing strategies used in the banking and finance sector, their characteristic features and technological components were evaluated from the perspective of industry professionals, and recommendations were made to the banking and finance sector based on the findings.*

Keywords: marketing communication, phygital marketing, digital marketing, metaverse marketing, banking and finance sector

JEL Codes: 033, O140, D910

Introduction

In the age we live in, where digital-based applications dominate and communication activities are completely redesigned with new-generation digital tools, businesses have developed their communication activities and implemented many new applications in order to differentiate themselves positively from their competitors in the market and to be at the forefront in consumer preferences. Especially in this new era, consumers' willingness to use digital technologies and their quick adoption of new digital applications, as well as their desire to continue some habits from the

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past (such as visiting stores, experiencing products, etc.), have led businesses to strive to integrate these two polarized worlds.

As a result of this effort, a new marketing strategy has emerged in digital marketing. This strategy involves the execution of marketing communication efforts across multiple channels and integrates physical and digital channels in a cohesive manner (Çelik, 2021). With digital marketing, businesses have opened the doors to a new two-poled world by integrating new-generation technologies such as augmented reality (AR) and virtual reality (VR) with consumers' physical habits to access products and services.

In the current process, consumers can navigate this new digital world they enter by creating their own avatars, obtain information about products and services with a digital assistant, participate in social activities such as conferences, concerts, or meetings, and even experience many elements such as virtual products, virtual shelves, virtual payment points as if they were in real life. Throughout this process, bridges are created based on the shared experience of physical and virtual worlds between the consumer and the business, enabling high-level communication between the brand, product, and store (Çelik, 2021).

The process of digitalization provides the opportunity to continue the real shopping experience in a virtual world, independent of time and place, while also offering businesses the possibility to conduct high-level marketing communication in terms of product and service promotion. However, in the fluid structure of today's information age, the concept of digitalization, like all other developments, undergoes a continuous process of evolution and change. Looking at it, businesses have made significant strides beyond the monotonous use of technologies such as artificial intelligence, QR codes, augmented reality, or virtual reality, by creating new virtual spaces or even universes. The most well-known name for these open spaces or virtual worlds where complex digital uses are presented is the metaverse. Metaverse environments emerge as a shared virtual space where physical and digital realities are integrated using virtual infrastructure technology (Şahinbaş & Güneş, 2022).

Today, metaverse environments, which have become one of the most important places where digital strategies are implemented, have become a digital space where important components of marketing communication (product, price, promotion) are applied in a holistic manner. When we look at the characteristic structure of metaverse environments, it is observed that they offer many complex features such as the ability to use new generation technologies together, the ability to establish connections at any time regardless of time and space, and the ability to transition between other metaverse environments, which has not escaped the attention of businesses. The opportunity for efficient content production in metaverse environments has led businesses to increasingly participate in these platforms.

Focusing on the evolution of marketing strategies in the process of transitioning from traditional marketing communication to digital marketing communication, this study aims to highlight all the components and characteristic features of metaverse environments, which are important application areas of digital marketing and digital marketing strategy. Based on this motivation, it is deemed appropriate to conduct a sectoral study in order to further detail the subject and to present the concept in all its aspects.

The study examines marketing communication efforts in the banking sector as an important area of financial systems, followed by an exploration of the concepts of digital

banking and metaverse banking, both in terms of their impact on this field and their advantages and disadvantages.

In order to shed light on the reflection of digital marketing communication tools in the banking sector, a semi-structured interview was conducted with marketing communication experts working in the banking sector. The data obtained from the interviews were thoroughly analyzed, and the findings were discussed in a comprehensive manner to contribute to the literature by presenting all aspects in a straightforward manner.

1. **Phygital Marketing Communication**

In today's societies, experiencing the age of information, significant developments are taking place in the fields of information technology and technology. Technological advancements not only lead to changes in consumer attitudes and behaviors but also bring about changes in the way businesses operate. This situation causes a shift away from the physical elements of the traditional era marketing understanding towards a marketing approach dominated by digital elements.

Digital uses offer consumers some advantages such as time-saving, easy and effective shopping, and online store experience. However, it is still observed that a significant consumer segment tends to maintain their physical shopping habits from the traditional era. Brands that do not overlook this situation have developed a new marketing strategy where they integrate consumers' physical store experiences with digital environments, allowing them to execute these two separate spaces in a unified manner. This strategy is called digital marketing communication.

The term "phygital" is derived from the combination of the words "physical" and "digital." Phygital marketing communication is defined as the presentation of traditional marketing elements combined with digital elements to a new consumer profile that is in constant transition from one world (physical) to the other world (digital) (Moravcikova and Kliestikova, 2017). Phygital marketing is a synthesis of physical and digital words (Gaggioli, 2017). In other words, phygital marketing can be defined as a process where digital elements are transferred to physical environments and presented to consumers as simulated face-to-face experiences (Johnson and Barlow, 2021). In this context, it is possible to define phygital marketing as a process where sensory, cognitive, and symbolic elements, synchronized between physical and digital environments, are simultaneously activated, addressing both online and offline aspects.

1.1. **Phygital Marketing Communication Tools**

One of the most important factors influencing consumer purchasing behavior is the ability to experience the product. However, the fundamental elements that initiate this experience process should not be overlooked. Among these factors, the attractiveness of the product and its ability to be presented effectively are particularly significant (Rızwan et al., 2014). Today, with the advancement of digital technologies, significant advantages are provided in emphasizing product features; however, the main focus is on activating digital elements that can trigger the purchasing impulse by enabling interaction between the consumer and the product (Johnson & Barlow, 2021).

In this context, numerous phygital marketing communication practices are being developed that are experience-oriented, interaction-based, arouse curiosity and interest, are memorable, and influence purchasing decisions in line with consumer expectations. Especially with next-generation technologies such as Augmented Reality (AR), Virtual Reality (VR), and Blockchain, these experiences are being taken to a higher level. In this regard, delving into the details of the technological infrastructures that support phygital marketing communications, which attract consumer attention, is essential to understanding and conceptualizing these infrastructures.

Augmented Reality (AR): Offers enriched experiences by integrating virtual objects onto real-world images through the intertwined use of digital elements (Hakansson, 2018). MasterCard, by combining technologies such as Masterpass and Identity Check Mobile, provides its users with a shopping experience enhanced by photorealistic visuals (Günen, 2017).

Virtual Reality (VR): Simulates real-world environments and offers users a virtual setting. With the help of VR headsets, users can perceive virtual dimensions and navigate within these environments.

Artificial Intelligence (AI): Refers to technological systems capable of storing and processing information beyond human capacity (Tsaih & Hsu, 2018). AI has particularly evolved through concepts such as machine learning and deep learning and has become prevalent in applications like digital assistants, smart emails, and digital payment systems (Akarçay, 2021).

QR Code (Quick Response Code) Usage: QR codes reveal the information they contain when paired with compatible smart devices (Team et al., 2021). QR codes are used in various sectors including education, food, media, advertising, pharmaceuticals, transportation, city promotion, industry, banking, and finance (Kaya, 2019).

Facial Recognition (FACE ID) Technology: This technology scans facial features to provide identity verification services (Küstür, 2019). It operates in conjunction with AI and holds the potential to revolutionize marketing communication. However, Microsoft has announced that certain limitations will be imposed on its usage due to privacy concerns (The Economic Times, 2022).

Eye Recognition (Eye-ID) Technology: Aims to identify individuals by analyzing iris patterns (Şamlı & Yüksel, 2009). In marketing, it is especially used by businesses to ensure secure access to their products and services (Yalçın & Gürbüz, 2015).

Near Field Communication (NFC): Communication is achieved through electromagnetic induction between the initiating and target devices (Rahul et al., 2015). In recent years, it has become widespread in many areas, from mobile applications to payment systems (Almaiah et al., 2022).

Blockchain Usage: In e-commerce transactions, secure payment services are typically provided through intermediary institutions, which can lead to trust issues between buyers and sellers. Bitcoin aims to enable payments without the need for a third-party intermediary (Gadekallu et al., 2022). Blockchain, with its decentralized and distributed data storage feature, builds trust between customers and businesses and contributes significantly to marketing strategies (Lemos et al., 2022). It also stands out for enhancing the security of digital assets, online payments, and financial services (Peters et al., 2015).

1.2. The Concept of Phygital Banking

The banking sector stands out as an area where communication activities are intensive (Yetiz and Ünal, 2018). The high level of communication activities in the sector is an important factor facilitating the acceptance of new communication technologies. Nowadays, banking and financial systems can be integrated with modern communication tools, enabling the implementation of various marketing communication strategies to reach wide customer segments, use alternative communication channels, and promote products in different geographic areas. The development process of marketing communication in the sector can be examined under three main headings. In the pre-2000 period, during traditional banking eras, a product-service-focused marketing approach was adopted, while after 2000, with the digital revolution, a transition to digital banking was made, and new customer-focused strategies were adopted (Khanboubi and Boulmakoul, 2019). Today, the concept of "fintech" banking has evolved into a marketing strategy based on AR and VR-based virtual networks.

Phygital banking can be defined as a model where traditional banking merges with digitalization. Banks have moved towards digitalization influenced by the transition of computers from information-based usage in the Web 1.0 and Web 2.0 eras to becoming effective communication tools in the Web 3 era. During this process, the opportunity to reach consumers through mobile devices and conduct various banking transactions through digital channels has emerged. However, according to a report published by Barclays, one of Europe's major banks, many consumers, including Generation Z, value face-to-face experiences during shopping and find visiting traditional bank branches important for new product experiences (Odeabank, 2022). This indicates that consumers' physical and digital habits continue in parallel. In this context, the concept of phygital banking emerges as a banking model that addresses consumers' both physical and digital habits together.

Phygital banking is a new type of banking that blends the advantages of the digitalization of physical branches to provide holistic service (Odeabank, 2022). In another definition, the concept of phygital banking integrates many of the conveniences brought by digitalization with human touches (Öncü, 2022).

From the perspective of definitions, phygital banking represents an approach that aims to integrate physical and digital worlds, offering consumers both traditional banking experience and digital conveniences. Especially in today's world of Web 4.0, where the "semantic Web" era is experienced, virtual bank branches established in digital-based environments created by technologies such as VR, AR, artificial intelligence, and the Internet of Things allow customers to fulfill their expectations of product experiences from the traditional era through digital channels. Thus, banks can transition to the concept of phygital banking and offer their customers an interaction and experience-oriented new marketing strategy

2. Empirical Background

When the relevant literature is examined, it is observed that studies on phygital marketing remain limited. Particularly, there is a lack of studies that detail the phygital marketing strategies used in the banking and finance sector, as well as the advantages and disadvantages of these strategies based on the predictions of industry professionals.

Çakin and Yaman (2020) conducted a study titled "An Examination of Phygital Marketing Applications: The Case of Amazon Go," where the Amazon Go digital grocery application developed by Amazon in 2018 was analyzed as a case study. The study focuses on the importance of phygital marketing, a new marketing strategy emerging with digitalization. The research aims to examine the impact of elements such as AR and VR, embedded within this new marketing strategy, on the interaction between consumers and brands, using the example of the Amazon Go digital grocery application. As a result of the study, it was concluded that Amazon Go is an application that combines digital and physical experiences.

In Aydın's (2022) master's thesis titled "A Study on the Impact of Augmented Reality Applications in Phygital Marketing on Generation Y and Z," the focus is on augmented reality (AR) technology, an important element of phygital marketing. The study particularly investigates the positive effects of marketing strategies implemented with AR digital elements, especially on Generation Y and Z.

Dal Colle (2022) conducted a study titled "Phygital: Where and How We Could Intervene in the Customer Journey to Provide a Better Customer Experience" as part of a master's thesis in Italy. Emphasizing the importance of customer experience, the research highlights the significance of establishing meaningful interaction between customers and brands. The study concludes that phygital marketing, by offering a blend of physical and digital elements, provides the best customer experience.

In Melekhova's (2020) article titled "Phygital Technologies as a Tool for Developing Efficient Communication with Today's Customer," attention is drawn to the effective communication that can be established between businesses and Generation Z, a significant target audience for global online commerce, through phygital elements. The study examines the impact of phygital marketing communication on the target audience.

The primary objective of this study is to deepen the discussion on the concepts of phygital and metaverse, which are discussed limitedly in the literature, by expanding the discussion through an important service sector such as banking and finance, thus providing a different perspective on these concepts and interpreting them comprehensively. The main aim of the research is to detail the concepts of phygital banking and metaverse banking from the perspective of industry professionals in terms of both usage and the advantages and disadvantages they bring

3. Methodology

In this study, which aims to detail the technological components and characteristic features of digital marketing communication strategies used in the banking and finance sector from the perspective of industry professionals, the qualitative research method of "in-depth interviews" was employed. In-depth interviews, where the researcher can obtain comprehensive answers by asking open-ended questions about the subject they want to acquire detailed information on, are one of the strongest techniques of the qualitative method, conducted in one-on-one interviews (Tekin and Tekin, 2012).

Due to its nature, qualitative research does not have a clearly defined method or technique for validity and reliability (Tutar, 2023, p. 120). Therefore, in qualitative research, researchers have developed various criteria and modeling to measure the validity and reliability of the

research. In this study, the following measures were taken to confirm the validity of the research and to ensure its accuracy and reliability for participants and readers:

1. Multiple and diverse sources: The subject and themes were continuously examined in detail through different sources to determine their appropriateness.
2. Member (participant) checking: A comprehensive draft of the research was prepared and presented to the participants for examination. Thus, the opinions of participants who had conducted draft checks before the interviews were obtained.
3. Recording of interviews: Interviews with participants were conducted via the Cisco Webex video platform and recorded. For participants who did not want their interviews recorded via video conferencing for privacy and security reasons, face-to-face interviews were conducted, and minutes were taken and signed for receipt.
4. Expert examination: To ensure external control of the study, expert opinion was consulted. In this context, the themes and codes were thoroughly examined by a senior engineer working in the banking and finance sector. After consultations, necessary checks were made on themes and codes, and the final version was created.
5. Computer usage: Themes and codes (top-level codes) generated from participant statements were analyzed for their distribution and frequency levels across all documents using the MAXQDA 2022 qualitative data analysis program.
6. Rich and intensive description: During the analysis of the data, rich descriptions were made, and themes and codes were interpreted in detail. All data and visuals obtained during the study were used to enrich the description, contributing to the transferability of the research. Thus, detailed information about the phenomenon under investigation was conveyed.

The universe of the research consists of the banking and finance sector. In the selection of the sample, the purposive sampling model of "criteria sampling" was preferred. Criteria sampling is a method in which the researcher selects the sample based on criteria determined in line with the research objective (Baltacı, 2018). In this context, the criteria for selecting bank employees for interviews using the criterion sampling model were determined as "using elements of digital marketing communication" and "using metaverse environments as significant implementers of digital marketing communication." Accordingly, a total of 6 employees competent in digital marketing from 3 different banks were selected as the sample of the research. Our research obtained ethical approval from the Ondokuzmayıs University, Social and Human Sciences Research Ethics Board, with decision number 2023-163 dated 29.03.2023.

After conducting a literature review, a semi-structured interview form consisting of fifteen questions relevant to the research purpose was created, and data were collected using this form.

Content analysis method, frequently used in qualitative research, was preferred for data analysis. Content analysis is a method where the researcher analyzes written and visual data by categorizing them (Özdemir, 2010). The data obtained from the participants were first transcribed into text and then analyzed. A theme and code table were created. To ensure external validation of the theme and code table, it was presented to a senior engineer working in the banking and finance sector. Following consultations, necessary revisions were made to the themes and codes to finalize them. The obtained codes and themes were then imported into the MAXQDA 2022 Qualitative and Mixed Methods Data Analysis program for analysis. Finally, the findings were tabulated.

4. Analysis

The participants exhibit an equal distribution, with three being female and three being male. It is observed that all participants hold a bachelor's degree in terms of educational background. The participants consist of individuals specializing in various roles within the banking and finance sector. The number of participants with 1 to 5 years of work experience is 2, while those with 5 to 10 years of experience are represented by 1 individual. Additionally, there are 3 participants with over 10 years of work experience.

Table 1 Participant Demographic Characteristics

Participant	Gender	Education	Occupational Field	Work Experience	Title/Position
P1	Woman	Undergraduate	Banking and Finance	16	Metaverse Department Manager
P2	Woman	Undergraduate	Banking and Finance	3	Specialist Assistant
P3	Man	Undergraduate	Banking and Finance	7	Director
P4	Woman	Undergraduate	Banking and Finance	1	Specialist Assistant
P5	Man	Undergraduate	Banking and Finance	17	Branch Manager
P6	Man	Undergraduate	Banking and Finance	11	Authorized Person

(Source: Authors)

Findings Regarding the First Research Question

In this section, data related to the research question 'What is the definition, scope, and application areas of digital marketing communication in the banking and finance sector?' have been presented.

Table 2. Coded Section-Based Frequency Table of Statements Regarding Definitions of Phygital Marketing Communication

	Section	Percentage
Definitions Regarding the Content	20	64,52
Definitions Regarding the Concept	11	35,48
TOTAL	31	100

(Source: Authors)

Among the definitions provided by the participants regarding Phygital marketing communication, it is observed that content-related definitions, with approximately 65% frequency rate across 20 sub-codes, predominate. On the other hand, conceptual definitions have a 35% frequency rate with 11 sub-codes. Figure 4.3 reveals a model of code-subcode sections, including sample participant statements.

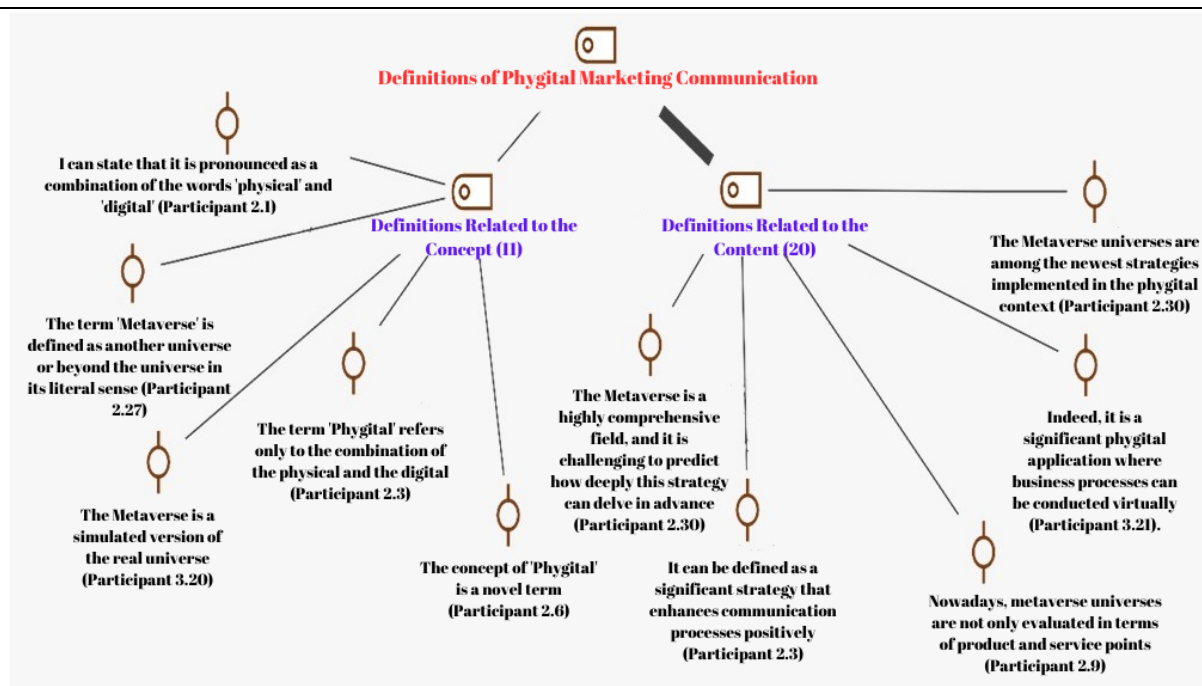


Fig. 1: Model of Code-Subcode Sections for Definitions of Phygital Marketing Communication (Source: Authors)

When examining participant statements, it is observed that the conceptual definitions of digital marketing communication align with widely accepted definitions in the literature. For instance, participant K2 characterizes digital marketing communication as a combination of physical and digital uses. Regarding definitions related to the content of digital marketing communication, it is described as a strategy with a broad content, incorporating numerous technological elements in its infrastructure, which cannot be solely evaluated at the product-service level. For example, participant K3 perceives digital marketing communication as a significant strategy not only for conducting business processes virtually with various content elements but also for positively enhancing communication processes.

Table 3. Coded Section-Based Frequency Table of Statements Regarding the Scope of Phygital Marketing Communication

	Section	Percentage
Scope in Business Life	7	63,64
Scope in Everyday Life	4	36,36
TOTAL	11	100

(Source: Authors)

In accordance with participant statements, the scope of Phygital marketing communication is characterized as a more prevalent occurrence in business life, with 7 sub-codes and a frequency value of 63.64%. Meanwhile, its scope in everyday life ranks second with 4 sub-codes and a frequency value of 36.36%

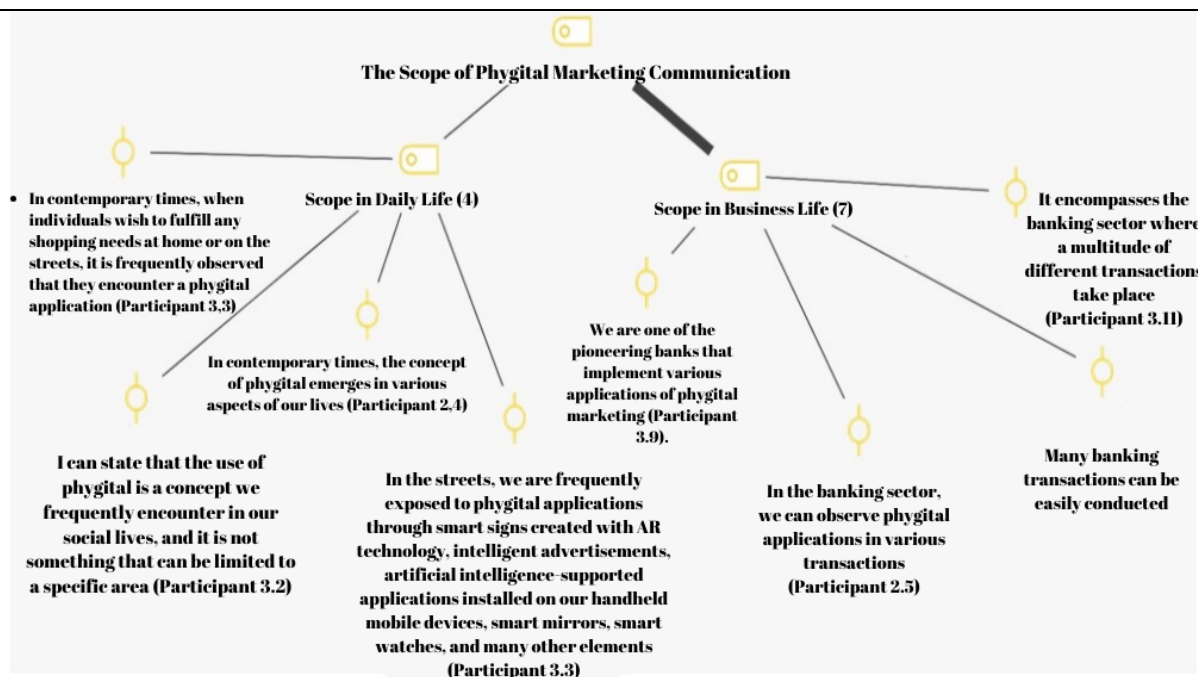


Fig. 2: Model of Code-Subcode Sections Created with Participant Statements Regarding the Scope of Phygital Marketing Communication (Source: Authors)

According to participant statements, Phygital marketing communication is frequently utilized as a strategy in business life. For instance, participant K2 indicates that Phygital marketing applications in the banking sector are employed in multiple transactions, while participant K3 mentions the widespread use of various elements of Phygital marketing in diverse banking areas, ranging from account transactions to reporting. Furthermore, in line with participant expressions, data regarding the scope of Phygital marketing communication in everyday life highlight this strategy's prevalence in various points, from individuals' living spaces to streets and thoroughfares. Examples of this include 3D advertising billboards commonly encountered on the streets, smart mirrors in stores, and digital technologies such as QR codes, AR, and VR experienced by individuals in mobile applications on start devices.

Table 4. Coded Section-Based Frequency Table of Statements Regarding the Areas of Application of Phygital Marketing Communication

	Section	Percentage
Application Processes	4	12,50
Marketing	4	12,50
Child Banking	4	12,50
Payment Systems	4	12,50
Smart Voice Systems	3	9,38
Account Transactions	3	9,38
Document Inquiry	2	6,25
Open Banking	1	3,13
Biometric Verification	1	3,13
Income Modeling	1	3,13
Limit Transactions	1	3,13
Approval Processes	1	3,13
Money Transfer	1	3,13
Reporting	1	3,13

Payment Documents	1	3,13
TOTAL	32	100

(Source: Authors)

According to participant statements, Phygital marketing communication in the banking and finance sector is employed in 15 different banking areas. Among these areas, application processes, marketing, child banking, and payment systems, with 4 sub-codes and a percentage of 12.50%, rank first. Smart voice systems and account transactions are the second most utilized banking areas, with 3 sub-codes and a percentage of 9.38%. Following these mentioned areas, document inquiry processes, with 2 sub-codes and a percentage of 6.25%, open banking, biometric verification, income modeling, limit transactions, approval processes, money transfer, reporting, and payment documents areas each have 1 sub-code and a percentage of 3.13% in terms of usage.

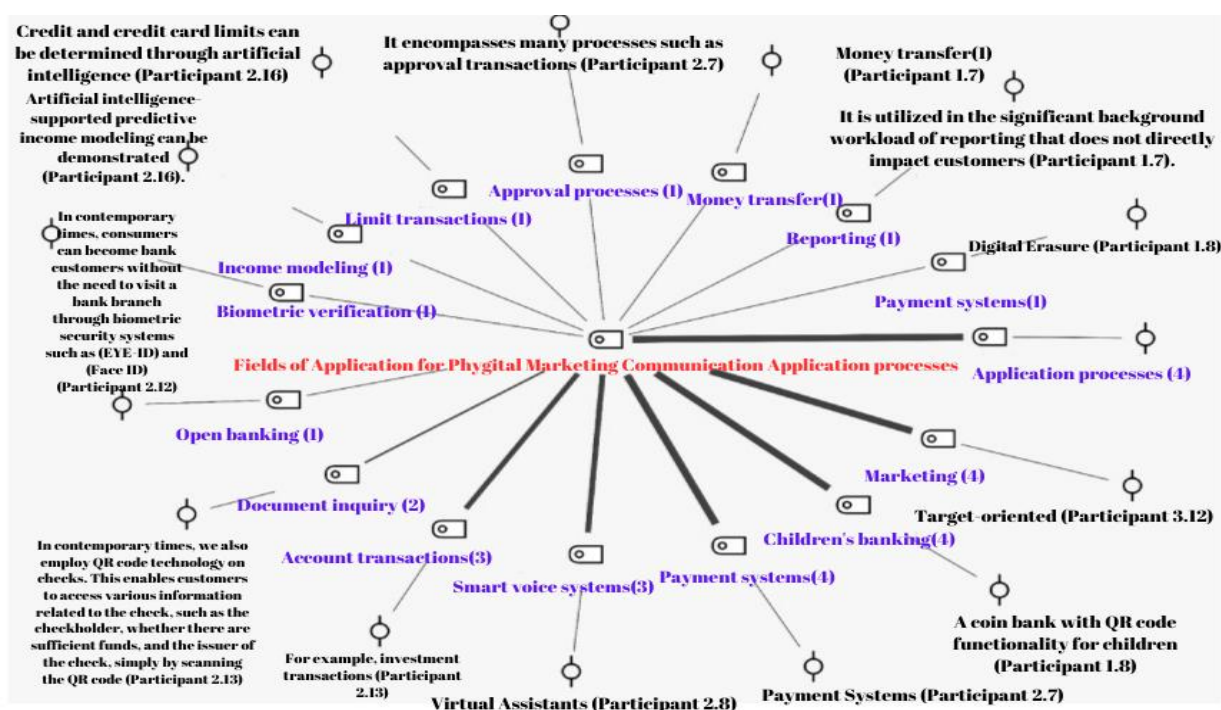


Fig. 3. Model of Code-Subcode Sections for the Areas Where Phygital Marketing Communication Is Implemented
 (Source: Authors)

When examining the code-subcode model created in accordance with participant statements, the distributions of the areas where Phygital marketing communication is applied can be observed hierarchically. It is evident that participants concentrate their coding efforts predominantly on themes such as application processes, marketing, payment systems, smart voice systems, account transactions, and child banking. For instance, participant K2 highlights the frequent use of the significant digital element, QR code technology, in document inquiry processes, while participant K1 indicates that a substantial reporting burden is accomplished through digital elements with the support of artificial intelligence-driven robot software. Participant K3, on the other hand, discusses the use of digital technologies in application processes and marketing areas, emphasizing targeted marketing efforts conducted through digital marketing communication elements.

Findings Regarding the Second Research Question

Findings Regarding the Second Research Question In this section, data related to the research question 'What are the elements of Phygital marketing communication used in the banking and finance sector?' have been presented.

Table 5. Frequency Table of Encoded Section-Based Expressions on Phygital Elements in the Banking Sector

	Section	Percentage
Artificial Intelligence (AI)	12	27,27
Quick Response Code (QR Code)	10	22,73
Augmented Reality (AR)	7	15,91
Virtual Reality (VR)	7	15,91
Blockchain	2	4,55
Eye Recognition Technology (EYE-ID)	2	4,55
Near Field Communication (NFC)	2	4,55
Facial Recognition Technology (Face ID)	2	4,55
TOTAL	44	100

(Source: Authors)

According to participant responses, artificial intelligence emerged as the most frequently utilized element in the banking and finance sector, with 12 sub-codes and a frequency value of 27.27%. Following this element are QR codes (Quick Response Code) with 10 sub-codes and a frequency of 22.73%, augmented reality (AR) and virtual reality (VR) with 7 sub-codes each and frequencies of 15.91%. Blockchain, eye recognition technology (EYE-ID), near field communication (NFC), and facial recognition technology (Face ID) follow with 2 sub-codes each, possessing a frequency value of 4.55%.

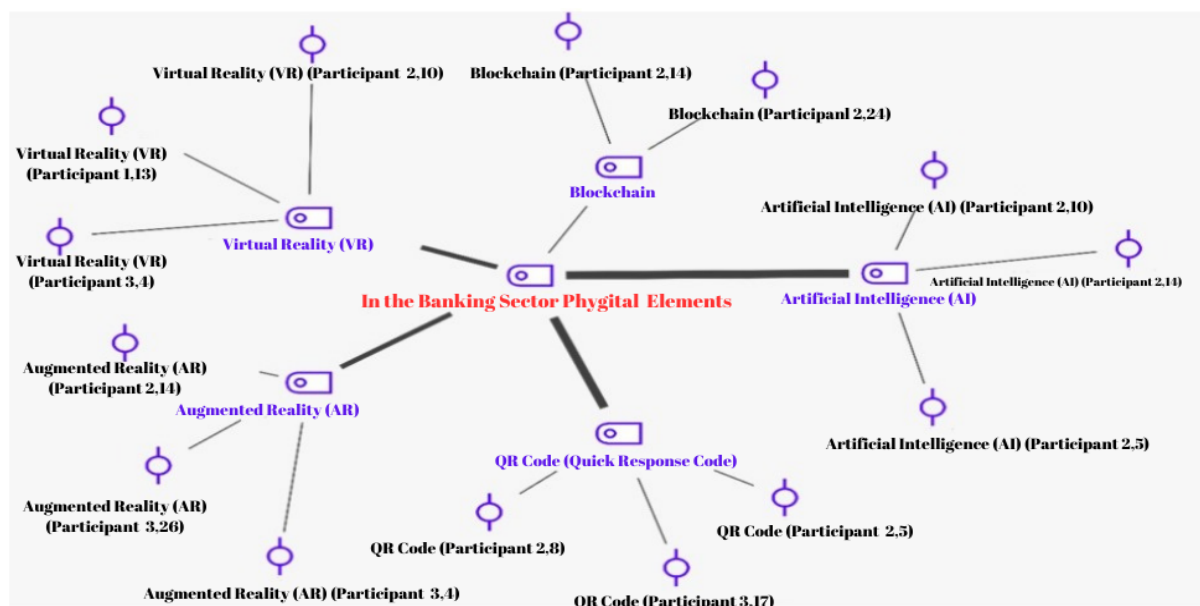


Fig. 4: Model of Code-Subcode Sections Created with Participant Statements Regarding Phygital Elements (Source: Authors)

When examining the model of code-subcode sections created based on participant statements, it is observed that the participants predominantly encoded themes related to prominent Phygital elements in the banking sector as artificial intelligence (AI), QR codes, augmented reality (AR), and virtual reality (VR) applications.

Findings Regarding the Third Research Question

In this section, the data related to the research question, 'What are the advantages and disadvantages arising from the era of Phygital marketing communication in the banking and finance sector in terms of shopping experience compared to the era of traditional marketing communication?' is presented.

Table 6. Frequency Table Based on Encoded Sections of Statements on the Advantages of Phygital Marketing Communication

	Section	Percentage
Experience-Oriented	11	18,97
Ease of Use and Quick Accessibility	8	13,79
Personal Communication	7	12,07
Physical and Digital Integration	6	10,34
Engaging	6	10,34
Human-like Characteristics	5	8,62
Cost Reduction	4	6,90
Interactive	3	5,17
Versatility	3	5,17
Effectiveness Generation	2	3,45
Marketing-Focused	2	3,45
Simultaneity	1	1,72
TOTAL	58	100

(Source: Authors)

In accordance with participant statements, the prominent advantage of Phygital marketing communication is 'experience-oriented,' with 11 sub-codes and a frequency value of 18.97%. Following this theme, 'ease of use and quick accessibility' ranks second with a frequency of 13.79%, and 'personal communication' ranks third with a frequency of 12.07%. The advantage of combining physical and digital uses, a significant feature of Phygital marketing, holds the fourth position with a frequency value of 10.34%. Subsequently, other advantages such as physical and digital integration, engaging content, cost reduction, interactivity, versatility, effectiveness generation, and marketing focus follow in consecutive order.

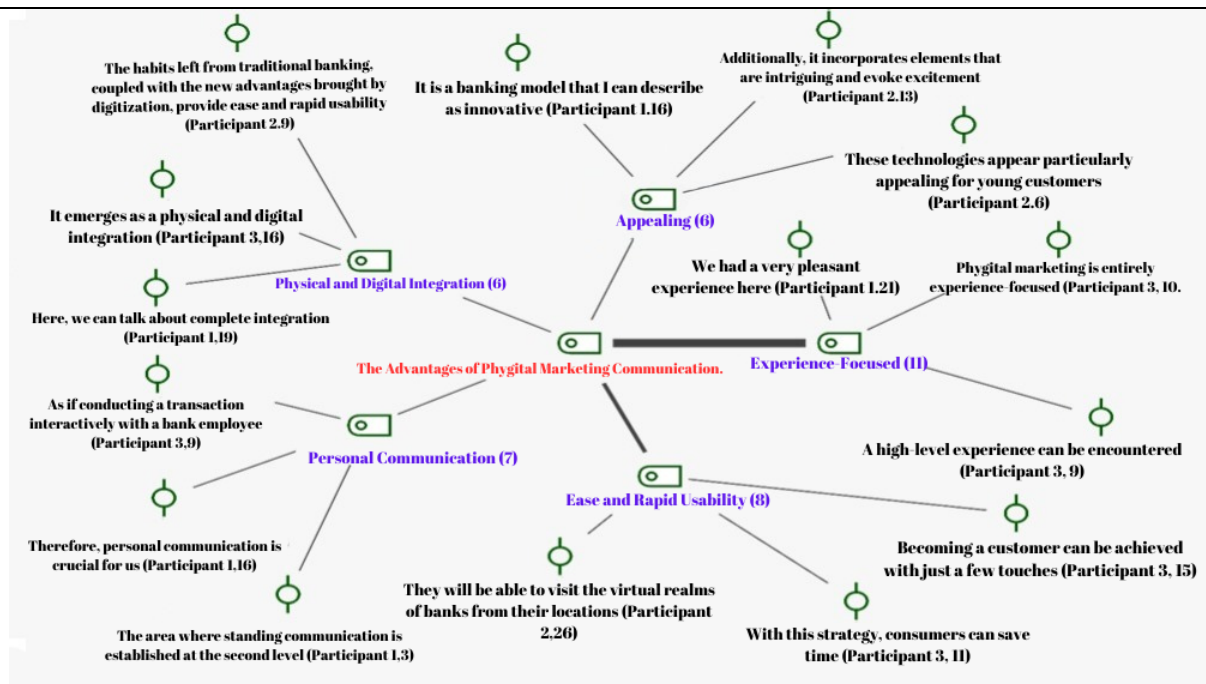


Fig.5: Model of Code-Subcode Sections Encompassing the Advantages of Phygital Marketing Communication (Source: Authors)

In line with participant statements, being experience-oriented is one of the prominent advantages of Phygital marketing. In this context, research results suggest that digital spaces like the metaverse are perceived as applications that enhance user experience. Another emphasized advantage by participants is gaining prominence in terms of ease of use and quick accessibility. For instance, participant K3 notes that through digital applications, consumers can become bank customers with just a few touches. Participant K2 characterizes digital uses as a strategy where individuals can perform transactions from their current locations, enabling time-saving.

Table 7. Frequency Table Based on Encoded Sections of Statements Regarding the Advantages of Phygital Marketing Communication

	Section	Percentage
Privacy and security concerns	9	50,00
Customer usability issues	5	27,78
Anonymity	2	11,11
Financial burdens	2	11,11
TOTAL	18	100

(Source: Authors)

The most significant disadvantage of Phygital marketing communication in the banking and finance sector is privacy and security concerns, with 9 sub-codes and a frequency value of 50.00%. Following this theme, customer usability problems rank second with 5 sub-codes and a frequency rate of 27.28%, while anonymity and financial burdens follow with 2 sub-codes each, having frequency values of 11.11%.

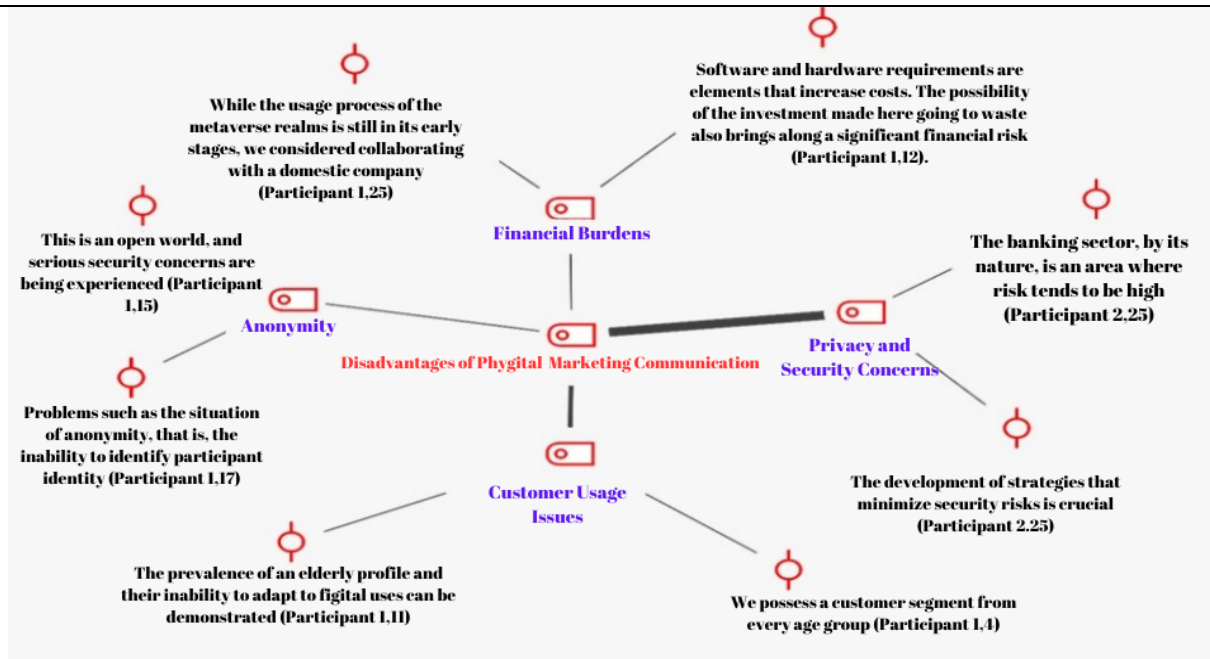


Fig. 6: Model of Code-Subcode Sections Encompassing the Disadvantages of Phygital Marketing Communication (Source: Authors)

When examining the model of code-subcode sections created based on participant statements, privacy and security concerns are seen as the most significant disadvantage in Phygital marketing communication. Among the reasons for this, particularly in a high-risk sector such as the banking industry, decentralized digital applications like the metaverse are shown to complicate participant tracking, leading to privacy and security concerns. Therefore, it is concluded that developing Phygital strategies that minimize risks and implement necessary controls is crucial for the sector. Another important disadvantage in Phygital communication is gaining prominence as customer usability problems. Especially, the challenges faced by consumers, particularly the elderly, in using digital applications are perceived as a significant drawback. It is observed that a notable disadvantage arises in the phase of offering new-generation Phygital applications, predominantly adopted by Generation Z, to the usage of elderly customers.

5. Conclusions

In this study, an attempt was made to detail the digital elements in the banking and finance sector, what financial transactions they are used in, and the advantages and disadvantages of these elements from the perspective of sector employees. A total of 6 participants from 3 different banks were interviewed using the in-depth interview method to collect data, and the data were then transferred to the MAXQDA 2022 data analysis program and subjected to content analysis. According to the analysis results, the concept of digitalization emerged as a new marketing strategy containing many technological components such as QR codes, artificial intelligence (AI), augmented reality (AR), and virtual reality (VR). This finding can be compared to Çelik's (2021) statement regarding the technological elements that are effective in defining the digital concept. Another definition brought by the participants to the digital concept is that it is a marketing strategy

created through the unity of physical and digital. This finding is similar to the definition provided by Moravcikova & Kliestikova (2017) regarding digital marketing communication.

According to the research results, the elements constituting digital marketing in the banking and finance sector are used in various financial transactions such as application processes, payment systems, smart voice systems, document verification, limit operations, approval processes, money transfers, and reporting. For example, artificial intelligence technology is used in estimated income modeling and reporting processes, while QR code technology can be preferred in various financial transactions such as cash withdrawal, deposit, and check operations. Digital tools such as Augmented Reality (AR), Virtual Reality (VR), Blockchain, and Near Field Communication (NFC) are generally used in banking types such as metaverse banking, mobile banking, and open banking. This finding parallels with the digital elements mentioned by Dönmez (2022) in the technological constituents of metaverse banking. According to the research results, digital elements such as eye recognition technology (EYE-ID) and face recognition technology (Face ID) are used in the banking and finance sector. These digital tools are generally used in areas of biometric banking such as identity recognition. Biometric systems are categorized into two main categories: physical and behavioral. Eye recognition technology and face recognition technology fall into the category of physical biometric systems. This finding is consistent with the biometric elements used in financial transactions in the study titled "Examination of Biometric Security Systems" by Yalçın & Gürbüz (2015).

According to the research findings, the most significant advantages of digital applications used in the banking and finance sector are experience focus, ease of use, speed, personalized communication, and being engaging and effective. Especially in banking transactions conducted in virtual environments like the metaverse, the use of technologies such as virtual reality, mixed reality, and augmented reality together enhances interaction between brands and consumers, creating a more experience-focused shopping process. When examining the literature, it can be noted that these findings are consistent with statements emphasizing that digital technologies such as augmented reality and virtual reality create unique, personalized, effective, and experience-focused strategies that combine physical and digital experiences (Odabaşı, 2017; Sorensen, 2020; Yurtsever, 2022).

The research also concluded that digital marketing communication provides significant advantages in creating effectiveness. Especially in environments like the metaverse, the ability to use important elements of digital marketing communication such as augmented reality (AR), virtual reality (VR), and artificial intelligence (AI) together provides significant advantages in creating effectiveness. This finding aligns with statements in the literature suggesting that the decentralized and highly interactive nature of metaverse environments makes them an important actor in activities such as corporate social responsibility (Kılıç, 2022).

According to the research results, the most significant disadvantage of digital elements used in the banking sector is privacy and security concerns. Given the inherently high-risk nature of the banking sector, security and privacy are among the most important issues. Especially in digital spaces with decentralized and anonymous structures like the metaverse, the existence of identity-less, unidentified, and genderless avatars brings about identity verification issues. This finding is parallel to the observations made by Falchuk et al. (2018) regarding the security problems arising from the decentralized, extensive, and anonymous structure of metaverse environments.

Another disadvantage in digital marketing is the usage problems posed by new generation applications. The presence of a customer base of all ages in the banking sector makes it difficult to adopt digital tools. Particularly, the predominance of elderly customers is one of the most significant factors hindering the acceptance of digital strategies by this consumer segment. While there are no studies specifically examining the usage of digital marketing tools in the banking and finance sector from the perspectives of consumers and bank employees, there are studies on the usage of digital strategies in different retail sectors. Similarities can be drawn between the results obtained from Ismailzada's (2022) study on the digital shopping experience in the apparel sector and the findings of this study.

Another disadvantage emerging in the banking and finance sector regarding digital marketing is the financial burdens. High budgets are allocated for the software and hardware needs necessary to create digital marketing strategies, and significant investments are made to establish the infrastructure required to integrate these technologies into systems. This situation creates a cost disadvantage in digital marketing. The most significant drawback here is that investments made may not meet the targeted need, rather than the acquisition of technology itself.

In conclusion, significant changes are observed in the understanding of marketing communication in the digitalized world. Nowadays, we see that brands design a more experiential and interactive shopping strategy with new digital technologies such as augmented reality (AR), virtual reality (VR), artificial intelligence (AI), and blockchain. The most important marketing strategy of today, conducted through cutting-edge communication technologies, is digital marketing communication. What makes this study unique is the identification of the perspectives of bank employees who are proficient in digital usage and have significant expertise in metaverse banking towards digital marketing communication in the banking sector. In this aspect, the study contributes to the literature, and based on the results obtained from the study, the following recommendations are provided to banks:

Digital marketing communication is an important strategy for creating better customer experiences and establishing strong bonds between the brand and the customer. The use of components of digital marketing, such as augmented reality (AR) and virtual reality (VR), stands out as prominent digital elements in enriching consumers' shopping experiences. In the banking sector, it is recommended to intensively use AR and VR technologies to enhance customer experience and increase brand loyalty.

In the banking sector, the use of AR and VR is generally observed in metaverse banking. The limited number of banks using the metaverse brings about the problem of consumers not benefiting enough from AR and VR-based banking applications. Moving from the point of establishing strong bonds between the brand and its target audience through digital elements, digital technologies such as AR and VR in the banking sector should not remain as technologies experienced solely in metaverse environments. It is recommended to integrate these technologies into other banking transactions through strategies such as location-based (branch, ATM, etc.) visualization, virtual product experiences, interactive AR content creation, and AR and VR-based financial information viewing, making them more accessible to consumers through devices such as VR glasses and mobile devices.

Metaverse banking is one of the most important innovative concepts that will shape the future financial system. Currently, many financial institutions continue their efforts to transition to metaverse environments. However, the decentralized nature of metaverse environments is unsettling

for financial representatives, and it is observed that the question of how to fully provide financial services in this new virtual world is being sought. Therefore, the number of financial institutions that have entered metaverse banking is currently low. A significant portion of banks that have entered metaverse environments are still in the process of understanding and internalizing them. Consequently, many banking and financial transactions are not yet feasible in metaverse environments. In light of this information, it can be stated that banks that rapidly adapt to metaverse environments and provide innovative banking experiences to their consumers can gain a competitive advantage in the market and effectively establish their presence both online and offline.

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Socio-Economic Assessment of Digitalisation of Municipal Services in Kazakhstan

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Abstract. *The relevance of the study is conditioned by the need to assess the impact of digitalisation and innovation on the financial stability and competitiveness of enterprises and regions in the context of modern challenges and transformations in the digital era. In this regard, this study was aimed at determining the efficiency and profitability of innovations in Astana, the capital of the Republic of Kazakhstan. The statistical method was chosen as the leading method of investigating this problem, which allowed conducting the necessary calculations to determine such indicators as the efficiency and profitability of innovations. The paper reveals the essence of digitalisation in the context of the modern economy, describes the concept of “Smart Astana” and reveals its characteristics concerning the development of six socio-economic areas. The study substantiates the importance of digitalisation of enterprises for the development of a sustainable economy of the state and provides statistical data on the introduction of innovations in business processes by enterprises of Kazakhstan in general and Astana in particular. Indicators of income increase and cost reduction of Astana enterprises due to the introduction of innovations were analysed, calculations of the profitability of innovations and the effectiveness of innovations in the region were carried out. The disadvantages of digitalisation were also identified and ways to overcome them were proposed. The research materials can be used in the preparation of management decisions and the creation of development strategies both for individual enterprises and for the overall region.*

Keywords: innovation efficiency; innovation profitability; sustainable development; competitiveness; digital transformation; business processes

JEL Codes: O3, O32, O38

1. Introduction

The investigation of the topic of digitalisation and its role in modern socio-economic development is becoming increasingly relevant, since over time digital technologies become the driving force for economic growth, improving the quality of life, and ensuring sustainable development. The study of this topic is of great importance, as it enables the understanding of how digital transformation can affect the future of Kazakhstan. The scope of the study is related to the need to adapt the country to the rapid pace of digital technology development, including the challenges associated with the deployment of digital infrastructure, providing access to high-speed Internet for all segments of the population, developing digital services and strengthening cybersecurity. It also includes issues related to the training of personnel in the field of information technology and the strengthening of innovation activities. The problem of digitalisation in Kazakhstan has begun to gain momentum in recent decades, and has become especially relevant with the launch of the Digital Kazakhstan programme, which was initiated by the state in 2017 and aimed at the active development and implementation of digital technologies in various spheres of society and the

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economy of the state (Sheryazdanova, 2020). During this period, the state faced both new challenges and new opportunities and prospects.

The study by Turekulova et al. (2023) was devoted to improving the indicators of socio-economic development of the regions of Kazakhstan. The analysis of data and trends allowed the researchers to identify factors affecting the level of development and well-being of the population, including factors related to infrastructure, education, employment, and investment. Kredina et al. (2023) analysed the current state and level of development of socio-economic indicators in the Abai region of Kazakhstan. The paper highlighted such key indicators as the GDP of the region, the unemployment rate, the availability of education and healthcare, the level of income of the population, infrastructure, and other factors affecting the quality of life and development. The assessment of the current socio-economic productivity and development of vulnerable and depressed territories in Kazakhstan was carried out by Kireyeva et al. (2022). As a result of statistical analysis, analysis of data on income, employment, access to education and healthcare, and social services, the researchers provided recommendations to improve the situation of vulnerable and depressed territories by developing infrastructure, supporting entrepreneurship, increasing access to education and healthcare, and improving access to financial services.

Digitalisation of the economy of Kazakhstan as a factor of innovative development of the country was considered by Zhanbayev et al. (2020). Analysing the processes of digital transformation in various sectors of the economy, researchers assessed their impact on stimulating innovation and modernisation and concluded that digitalisation contributes to the growth of innovation in the country. The study also positively assessed the effectiveness of current programmes and activities aimed at supporting innovation and stimulating research and development. The role of marketing in ensuring the competitiveness of Kazakhstan's regions in the context of the transition to the digital economy was investigated by Tovma et al. (2020). The main focus of the study was on marketing methods and strategies that can contribute to the successful adaptation of regions to new digital realities. The results of the study included an analysis of successful marketing practices in the regions of Kazakhstan, which were able to successfully attract investment, develop digital infrastructure, and stimulate digital transformation in their fields of activity.

In the reviewed papers, the topics of infrastructure, education, digital technologies and marketing strategies for improving the socio-economic development of the regions of Kazakhstan were revealed. However, it is important to note that the real effectiveness of digitalisation and its impact on the development of regions requires additional research and evaluation. In this context, the purpose of the study was to conduct a detailed analysis of the results of digitalisation and to assess how these changes have contributed to improving the quality of life and the level of well-being of the population.

2. Materials and Methods

This empirical study required the use of theoretical and practical methods of scientific cognition. The following methods were applied: statistical, systematisation, analysis, comparison, synthesis, deduction, and classification. The method of systematisation in this paper was used to deepen the understanding of the processes of digitalisation of enterprises in the context of the Republic of Kazakhstan and the city of Astana. The key indicators were analysed, including the costs of innovation and the indicators of enterprises for the introduction of innovations in the city of Astana. With its help, the challenges and tasks facing enterprises and authorities in the context of digitalisation were described.

The classification was used to divide Astana enterprises into groups according to whether they used innovations, and to estimate the number of changes in their income and expenses as a result of this use. The comparison allowed comparing indicators between groups of enterprises with and without innovations in

Astana. This method of analysis identified the difference in average incomes and expenses between the two groups and allowed drawing conclusions about the impact of innovations on the economy of Astana. The statistical method was used to carry out the calculations necessary for the study. With its help, such indicators as the efficiency and profitability of innovations in Astana were identified.

Profitability of Innovation was calculated as the difference between the average income of enterprises with innovations and the average income of enterprises without innovations:

$$P_I = R_I - R_{NI}, \quad (1)$$

where: P_I – profitability of innovations; R_I – average income of enterprises with innovations; R_{NI} – average income of enterprises without innovations.

Efficiency of Innovation was defined as the ratio of the average income of enterprises with innovations from innovative products to the average costs of these enterprises for innovation:

$$E_I = R_I / C_I * 100. \quad (2)$$

where: E_I – efficiency of innovation (in %); R_I – average income of enterprises with innovations from innovative products, C_I – average cost of innovation.

Using the equations presented above, the profitability and efficiency of innovations in Astana were calculated: profitability amounted to KZT 3847.54 million, and efficiency – 75%. The analysis allowed evaluating the data obtained and interpreting the results of the study, to identify patterns between innovations and profitability/efficiency indicators of Astana enterprises. Thus, with the help of logical analysis, a deeper understanding of the impact of innovations on enterprises and the economy of the region was achieved.

The deduction was used to identify common patterns. With its help, generalised conclusions were formulated about how innovations affect the profitability and efficiency of enterprises in the city of Astana. The deduction helped to establish causal relationships between the introduction of innovations and the economic performance of enterprises, which provided a better understanding of the processes of innovative development in this region. Using the synthesis, all previously identified data and aspects of the study were combined into a complete picture, which contributed to a deeper understanding of the concept of profitability and efficiency of innovations in the region under consideration.

3. Results

Digitalisation is a key engine of modern society, providing improved efficiency of business processes, innovative developments (Björkdahl, 2020), improving people's daily lives, and preserving the environment (Mondejar et al., 2021). This transformation increases the availability of education and healthcare, reduces the negative impact on the environment, and expands the ways of communication and information exchange. Digitalisation creates new opportunities for economic growth and improving the quality of life, becoming an integral element of modern society and economy (Khan et al., 2025).

The concept of “Smart Astana” is based on the idea of creating a modern, innovative and efficient urban space that actively uses digital technologies and infrastructure to improve the quality of life of citizens, improve economic productivity and reduce the negative impact on the environment (Shalbolova and Kenzhegaliyeva, 2018). Based on this concept, the roadmap for achieving this idea includes six key characteristics:

1. Smart economy aims to use digital technologies to support economic growth and diversity by creating innovative start-ups, developing digital infrastructure, supporting entrepreneurship, and improving business conditions.
2. Smart management is associated with the effective regulation of urban infrastructure and resources using modern information systems and analytics. It includes centralised monitoring and management of transport, energy supply, water supply, and security systems.
3. Smart life focuses on improving the quality of life of citizens and includes providing access to high-quality educational and medical services, creating comfortable housing, developing cultural and sports initiatives.
4. Smart mobility is associated with solving transport problems and creating innovative transport logistics systems through the development of integrated public transport systems, traffic management, public transport support, and the development of mobile applications for the comfort of citizens.
5. Smart people – this aspect of the concept is designed to develop education, skills, and raise awareness of citizens. It includes access to online education, support and development of innovative and scientific research, and strengthening cooperation between scientists and business.
6. Smart environment is associated with the creation of an environmentally sustainable urban environment in which effective resource management, emission reduction, and environmental cleanliness are carried out. This aspect includes measures to reduce air pollution, improve waste management, and create green public spaces.

Based on the consideration of the concept of “Smart Astana” and the analysis of data on the digitalisation of enterprises, it can be argued that digital technologies play a crucial role in the implementation of the concept of a smart city. The use of modern digital solutions, both in the field of urban infrastructure and in enterprises, contributes to the development of “smart” economy, management, mobility, life, environment, and quality of education (An et al., 2024; Khalegi et al., 2024).

Digitalisation of enterprises allows optimising production processes, improving the quality of products and services, and providing more efficient management of resources and finances (Zhivkova et al., 2024; Yudina et al., 2024). This, in turn, contributes to improving the overall competitiveness of the region, in a particular case, the city of Astana. Digitalisation of enterprises is a key tool in the implementation of the “Smart Astana” concept, leading to a more sustainable and prosperous economy, and improving the quality of life of the city’s residents. Analysing data on the digitalisation of enterprises in the Republic of Kazakhstan and, in particular, in the city of Astana, it was revealed that at the country level by the end of 2022, there were 3390 enterprises that introduced innovations in business processes. Of these, the largest number of enterprises have introduced innovations in the development of products and business processes (809), information and communication systems (539), marketing and methods of selling goods (540). Logistics, delivery or methods of selling goods (532), administration and management (318) are also important. There were 633 enterprises in Astana that introduced innovations in business processes. Of these, the largest number of enterprises focused on the introduction of innovations in the categories of “Information and communication systems” (139) and “Marketing and methods of selling goods” (226). Another important aspect was the introduction of innovations in logistics, delivery or methods of selling goods (351).

Comparing these data, it can be noted that Astana, as the capital and a major economic centre, has a higher level of innovation in such areas as information and communication systems and marketing, compared with the national average, which may indicate a higher readiness and activity of enterprises in Astana in the field of digitalisation. The overall picture of the country and the city of Astana indicates the importance of developing and supporting innovations in business processes, especially in the field of

information and communication systems and marketing, in order to promote digital transformation and increase the competitiveness of enterprises and regions.

Analysing the costs of innovation in Astana, it can be noted that Astana has implemented a substantial budget for innovation, amounting to KZT 45591.7 million. The largest costs were associated with the purchase of modern machines, equipment, software and other capital goods (KZT 21414 million). Significant amounts were also invested in internal research and development (R&D), including labour remuneration and capital investments in buildings and equipment (KZT 14763.8 million). Certain funds (KZT 3438.3 million) were also allocated to external R&D, which indicates the need to use external knowledge and resources for innovative development. Marketing research, design, and other activities also received significant investments (KZT 3438.3 million). The city of Astana has higher innovation costs compared to the national average (KZT 70444.3 million per region), which indicates the desire of the capital to actively develop and introduce innovations in various fields, including technology and marketing. These data indicate a significant attention to innovation processes both at the national level and in the city of Astana, which can contribute to sustainable growth and development in the future.

Analysing the indicators of enterprises implementing innovations in Astana, it can be highlighted that 59 enterprises (9.3% of the total number) from Astana reported that they had no increase in income as a result of the introduction of innovations. 561 enterprises (88.6% of the total) reported an increase in revenue in the range from 1% to 24%. 2 enterprises (less than 1% of the total number) reported an increase in income in the range from 25% to 50%. 1 enterprise (less than 1% of the total number) reported an increase in income by more than 50%. 185 enterprises (29.2% of the total number) from the city of Astana reported no cost reductions as a result of innovation. 438 enterprises (69.1% of the total) reported cost reductions ranging from 1% to 24%. 1 company (less than 1% of the total) reported cost reduction in the range of 25% to 50%. These data indicate that innovations in the city of Astana contribute, first of all, to an increase in the incomes of enterprises. This may be conditioned by the active development and modernisation of the city's economy, which, in turn, contributes to improving its competitiveness and attractiveness for business (Bureau of National Statistics, 2023).

Based on the available data, it was possible to analyse the profitability of innovations and their effectiveness. The average income of enterprises with innovations in Astana amounted to KZT 4218.39 million, and the average income of enterprises without innovations – KZT 370.85 million. Accordingly, the profitability of innovations in Astana amounted to KZT 3847.54 million. When calculating the effectiveness of innovations, the number of enterprises with innovations in Astana was taken into account, which is 633 enterprises, and the costs of these enterprises for innovations of all types (product and business processes), which amounted to KZT 45591.7 million. The volume of innovative products sold amounted to KZT 34179.7 million. Thus, the efficiency of innovations in the capital was determined at the level of 75%, that is, the average income of enterprises with innovations in this region is higher by so many percent compared to enterprises without innovations. Based on the calculations carried out, it can be argued that innovations in Astana are profitable and effective. These results emphasise the importance of innovation as a key factor contributing to the increase in profitability and competitiveness of enterprises in Astana.

Digitalisation has a significant positive impact on the social and economic aspects of urban households. The most significant of them is economic growth and increased productivity (Albukhitan, 2020). Since digitalisation improves the efficiency of production processes and the provision of services, this, in turn, increases the economic growth of a city or region, and the introduction of digital technologies into the business environment contributes to the creation of new jobs and stimulates innovation. Digitalisation can contribute to the development of a digital ecosystem, including start-ups and innovative companies, which creates jobs and attracts investment (Alnaimat et al., 2023; Mehdi, 2025). Digitalisation of urban households

can contribute to the development of digital infrastructure, such as high-speed Internet connections, sensor networks, and transport management systems, which contributes to improving the living comfort of citizens (Zangiacomi et al., 2020). In addition, digitalisation allows urban enterprises to use resources more efficiently, such as energy, water, transport and others. Optimisation of city management processes, including smart management of transport and infrastructure, reduces operating costs.

Digital innovations can make cities more convenient and safer to live in (Issayeva et al., 2024; Piddubna et al., 2024). For example, health monitoring systems, smart lighting and automated security systems can improve the quality of life of citizens. Electronic government and commercial services can simplify access to services and reduce time and physical distances, help cities become more environmentally sustainable by reducing greenhouse gas emissions, optimising transport and energy management (Destek et al., 2024; Madiyarova et al., 2015). Digitalisation can make education and healthcare more accessible through distance learning, telemedicine, and other digital solutions (Barr Taylor et al., 2020). Thus, it is possible to highlight the advantages of digitalisation:

1. Productivity improvement: automation and optimisation of processes can improve the productivity and efficiency of businesses and government organisations.
2. Increasing accessibility: digitalisation can make services, education, healthcare and information more accessible through online platforms.
3. Sustainability and environmental friendliness: digital technologies allow reducing greenhouse gas emissions and optimise the use of resources.
4. Innovation development: digitalisation contributes to the creation and development of innovative companies, start-ups, and the digital ecosystem.
5. Improving the quality of life: smart cities, smart management of transport and infrastructure, and technologies for healthcare and education can improve the quality of life of citizens.
6. Effective city management: digital systems allow better management of resources, transport, security, and other aspects of urban infrastructure.

However, the introduction of digital technologies can also raise questions in the field of data security, privacy of citizens and inequality in access to digital resources. Therefore, it is important to balance digital transformation considering the interests and needs of different segments of the population and to ensure data protection and privacy.

The digitalisation process has a number of advantages, but also entails some disadvantages and challenges (Table 1).

Table 1. Disadvantages of digitalisation and ways to solve them

Disadvantages and challenges of digitalisation	Practical steps and recommendations for solving these problems
Cybersecurity and privacy: increasing the volume of digital data and interactions also increases the risks of cyber-attacks and privacy violations.	Cybersecurity: development and implementation of more advanced systems for protection, monitoring and response to cyber threats. Privacy: development and compliance with strict policies and standards for the processing and storage of personal data.
Infrastructure and accessibility: digitalisation is not always available or accessible on equal terms for all segments of the population, which can lead to digital inequality.	Infrastructure: investments in expanding digital infrastructure, including broadband access in remote and rural areas. Training and support: training and support for those who do not have access to digital technologies.
Dependence on technology: cities can become vulnerable to failures in digital systems or to technological changes.	Diversity of technologies: the use of a variety of technologies and architectures to reduce the risks of dependence on a single system, constant updating and adaptation to new technological

	trends.
Threat to jobs: automation can lead to a decrease in demand for certain types of labour and to the loss of jobs.	Retraining and training: development of retraining and training programmes so that employees can acquire new skills and adapt to changes in the labour market. Supporting start-ups and innovations: promoting the development of innovative companies and sectors that can create new jobs.
Risk of data loss: data protection and backup are important to avoid data loss due to failures or attacks.	Backup: regular and reliable data backup and development of disaster recovery plans. Cyber insurance: consideration of the possibility of cyber insurance to protect against data loss.
Regulatory difficulties: from a legislative and regulatory standpoint, digitalisation requires the development and implementation of new rules and regulations.	Development of legislation: creation of transparent and modern legislation and regulation that contributes to the development of the digital economy. Cooperation with the private sector: interaction with the private sector in the development of norms and standards.
Digital disparity: not all of the population is ready or able to use digital technologies, which increases social inequality.	Inclusive programmes: implementation of inclusive programmes and projects to reduce the digital divide and ensure the availability of digital resources for all groups of the population. Subsidies and financial support: provision of subsidies and financial support for those who cannot afford access to digital technologies.
Ethical and legal issues: there are questions about the observance of rights and ethical standards in the field of digitalisation.	Code of ethics: development of ethical codes and norms in the field of digitalisation. Legal regulation: establishment of clear legal rules and regulations for data processing and digital activities.

Source: compiled by the authors.

Addressing these challenges requires joint efforts by the government, the private sector, educational institutions, and civil society. The key factor is a versatile approach and a balance between innovation and ensuring security, accessibility, and fairness.

4. Discussion

The issue of digital division in the world was considered in the study by Mubarak et al. (2020). The researchers analysed the relationship between socio-economic indicators and the process of digitalisation, and how socio-economic factors affect the availability and use of digital technologies. The paper examined various opinions on this issue, identified factors contributing to digital separation and possible ways to reduce this gap. The results and conclusions provided valuable information for the development of a policy in the field of digitalisation: they stressed the need to consider socio-economic aspects when creating digital development strategies and highlighted those areas where additional efforts are required to address the impact of digital division on social and economic inequality in the world. Comparing the results of this study with the previous one, there are general conclusions about the importance of taking socio-economic factors into account when designing digital development strategies to address the digital divide and socio-economic inequalities.

Li et al. (2020) analysed how the use of digital financial services, such as mobile payments, online banking and e-wallets, affects patterns and consumption volume among Chinese households. The study found that digital financial instruments influence the financial behaviour and consumer decisions of Chinese households, which included changes in the structure of consumer spending, the level of savings, and access

to financial services and loans. The use of digital financial services in China stimulated the growth of consumer spending among households that actively used mobile payments, online banking and e-wallets. They spent more on goods and services while often reducing their cash costs. It is important to note that the successful use of digital financial instruments also depended on education and Internet access: households with a higher level of education and stable Internet access used digital financial services more actively. The results of this study complement the understanding of the impact of digital technologies on the modern economy not only from the standpoint of business, but also as an effective method of socio-economic development of society.

The relationship between the digital inclusive financial infrastructure and the consumption structure in rural areas of China has been investigated by Yu et al. (2022). The analysis showed that households that have access to digital financial services, including mobile banking and online payments, often change their consumer habits. With the development of a digital inclusive financial infrastructure, rural households have become more active consumers of goods and services, which may be due to more convenient access to financial resources that allow online payments, purchases and investments (Raiymbergenova et al., 2023; Makhazhanova et al., 2024). The study concluded that the development of a digital inclusive financial system can promote diverse and better consumption in rural areas, and can also contribute to economic growth and improve the lives of rural populations. The researchers also stressed the importance of developing digital infrastructure and financial inclusion in rural areas in order to reduce the gap between urban and rural populations and stimulate economic development in all regions. This study emphasised that access to digital financial services contributes to changes in consumer behaviour, including an increase in activity in the field of purchases and investments, while the study revealed the positive impact of innovation on the incomes of enterprises and the efficiency of the economy as a whole.

The study by Zhang et al. (2020) examined the relationship between the development of the digital economy, financial inclusion, and inclusive economic growth. It was revealed that the digital economy, which relies on information technology and digital platforms, can stimulate financial inclusion by increasing the availability of financial services through digital channels such as mobile banking and e-wallets, and financial inclusion, in turn, contributes to inclusive economic growth. This allows broad segments of the population, including low-income and remote communities, to access financial services, invest and receive loans, which contributes to the creation of new jobs, the development of entrepreneurship, and an increase in overall well-being. The study also revealed the importance of developing the right policies and regulations to ensure financial inclusion and inclusive growth in the digital economy era, which should include measures to ensure cybersecurity, data protection, and the creation of an enabling environment for the development of digital financial services. The link between the digital economy, financial inclusion, and inclusive growth is of great importance for the modern economy (Kuzmin et al., 2014). The study reviewed confirmed the idea that the development of digital technologies can contribute to sustainable and more even economic growth, considering the interests of all segments of society.

Dana et al. (2022) focused on investigating the impact of digital technologies on urban entrepreneurship and the development of sustainable business in smart cities. The article investigated how digital innovations and infrastructure contribute to business development in modern urban environments, where new approaches to the management and maintenance of urban infrastructure are applied. Successful cases of smart cities where entrepreneurs have used digital technologies to create innovative business models related to environmental sustainability and solving urban problems were discussed. The researchers came to the conclusion about the importance of digital technologies in supporting urban entrepreneurship and developing sustainable businesses in modern smart cities. The study described how digital innovations and infrastructure

contribute to business development in modern urban environments, which was confirmed by the conducted research on the example of enterprises in Astana.

The importance and influence of digital technologies on the processes of economic development were considered by Magomedov et al. (2020). The researchers analysed how digital innovations can contribute to increasing labour productivity, optimising business processes, and creating new opportunities for entrepreneurship. The impact of digital technologies on the level of business competitiveness on the world stage was also assessed. The paper included examples of successfully implemented projects that show how digital technologies can stimulate economic growth and improve the quality of life of citizens. The issues of digital infrastructure, accessibility to information resources and cybersecurity as important aspects of the digital development of society were also considered. This study confirmed the conclusion that digital technologies are necessary to improve the quality of life and economic development of states by optimising business processes and creating new opportunities for entrepreneurship.

The relationship between digital technologies, innovation and skills development in the modern world was highlighted by Ciarli et al. (2021). The researchers investigated the impact of digital technologies on innovation in various spheres of the economy and society, which included consideration of the impact of digital tools such as artificial intelligence, the Internet of Things and blockchain on the processes of creating new products and services. In addition, the paper described the skills and competencies that are most in demand in the context of digital transformation, and how educational programmes and systems should adapt in order to train personnel capable of working effectively with digital technologies. The study raised issues of challenges and risks associated with digital innovation, including cybersecurity issues, ethical aspects of data use, and issues of accessibility of digital resources. The topic of digital innovation and skills development disclosed in this paper complemented the results of the study and demonstrated the importance of such digital tools as artificial intelligence, the Internet of Things, and blockchain in the process of socio-economic development of society.

Jiang (2020) considered the impact of the digital economy on the world economy and society in light of the global COVID-19 pandemic and post-pandemic challenges. The study highlighted the digital economy as a key tool for ensuring business continuity and providing services in conditions of restrictions and distancing during the pandemic by supporting remote work, online education, telemedicine and remote services. In addition, the paper analysed the transformation of industries and business models in the context of the digital economy and changes in consumer behaviour, which included consideration of trends in e-commerce, digital entertainment industry, and other areas. The author raised issues of challenges and opportunities related to the digital economy in the post-pandemic era, including issues of cybersecurity, digital inequality, and regulation of digital technologies. The study highlighted the importance of digitalisation of business processes to ensure the smooth operation of enterprises, which confirmed the importance of the digital economy in the modern world and emphasised its positive impact on business.

Based on the reviewed papers, it can be concluded that the digital economy is becoming a key engine of modern world development. Researchers emphasise that digital technologies and innovations contribute to productivity growth, sustainable business, increased access to financial services, and improved quality of life.

5. Conclusions

The study examined the impact of digitalisation on economic and social indicators in Kazakhstan. It was revealed that the digital transformation of urban farms contributes to productivity growth, improves the quality of life, stimulates business, and provides opportunities for creating innovative solutions. It also has a significant potential to increase the productivity and competitiveness of urban farms, due to increased

availability of information, optimisation of processes and the creation of new opportunities for entrepreneurship. The study also aimed to assess the impact of digitalisation on the indicators of social well-being of citizens. In this context, it was revealed that digitalisation contributes to improving the quality of life of citizens, as technologies provide more efficient management of urban infrastructure, increase mobility and accessibility of educational and medical services. In addition, digital transformation promotes innovation and the development of the start-up ecosystem, which contributes to the creation of new jobs and economic growth.

Analysis of the dynamics of digitalisation of enterprises in the Republic of Kazakhstan and the city of Astana revealed the successful introduction of innovations at enterprises in Kazakhstan and Astana: the results of profitability and efficiency analyses confirmed significant progress in the field of digitalisation. It was shown that the average income of enterprises that actively implement innovations turned out to be significantly higher in comparison with those enterprises that do not attach due importance to digital transformation. The digital transformation of enterprises in Kazakhstan and Astana contributes to an increase in labour productivity and, as a result, to an increase in competitiveness both locally and globally. In addition, the study found a number of challenges and tasks that need to be addressed. Among them: ensuring cybersecurity, reducing digital inequality, and developing effective regulatory measures. To ensure continuous digitalisation, methods for solving these problems are provided in the paper.

For the sustainable development of the digital economy in Kazakhstan, special attention should be paid to education and support for small and medium-sized enterprises to ensure maximum inclusiveness and consider the interests of all segments of the population. In this regard, further research is recommended to focus on the development of an effective methodology for introducing innovations and expanding their functionality in small and medium-sized businesses. This will improve economic and social development in urban and rural areas: increase the profitability of enterprises, create new jobs, and attract investment.

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Exploring the Role of Brand Cultural Identity in Business Performance: A Systematic Review and Bibliometric Analysis

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Abstract. *This study explores the significant role of brand cultural identity in shaping business performance through a systematic literature review (SLR) and bibliometric analysis. In the face of globalization and increasing market competition, understanding the intersection between cultural identity and brand success has become essential. By synthesizing over 2,500 articles from Scopus, the research evaluates how cultural alignment influences brand performance, particularly for small and medium-sized enterprises (SMEs). The findings emphasize that a robust and coherent brand cultural identity fosters stronger consumer loyalty, enhances employee engagement, and drives superior financial outcomes. Additionally, cultural adaptation in branding strategies proves crucial for businesses seeking to resonate with diverse audiences and expand in global markets. This paper outlines key factors such as brand values, vision, and positioning, highlighting their impact on both internal and external brand perception. Through the analysis, the study identifies gaps in the literature, suggesting future research directions, particularly in the integration of digitalization and sustainability with brand cultural identity. The research offers practical insights for brand managers and marketers to develop culturally relevant strategies that not only improve market competitiveness but also ensure long-term business sustainability.*

Keywords: Brand Cultural Identity, Business Performance, SMEs, Brand Loyalty, Cultural Adaptation.

JEL Codes: M31, M14, M13.

1. Introduction

Brand cultural identity is becoming more and more important in modern company strategy. This is especially true as technology, innovation, and competition make brands more complicated and demanding. Managing a brand has gotten more difficult as customers have become more knowledgeable and varied. Consistently showing the brand's identity is an important part of good brand management. This includes the brand's culture, values, mission, and corporate identity (Elikan & Pigneur, 2018). For a brand to be recognized and be relevant in a fast-paced, ever-changing global market, it is important to always communicate its identity. A brand identity that is consistent and culturally appropriate can help a firm connect with its audience more deeply, which can lead to deeper relationships and loyalty (Raposo, Daniel, et al., 2017).

Culture has a big impact on how people see a brand's identity. The culture where a brand works affects how people see it. For example, cultural influences are quite important in how brands are received in Gulf countries. Brands that don't change their identities to fit the region's cultural norms and values can have a hard time being accepted (Kushwah et al., 2020). This shows how important it is for brands to make their identities fit the cultural differences of their target audiences, especially in places where cultural sensitivities are stronger. Also, building a brand identity is not a one-time thing; it happens over time with the help of the

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brand and its stakeholders. Cultural differences also play a role in this process. These variations affect how identities are built and change over time, which makes cultural knowledge even more important in brand management (Voyer et al., 2017).

A Systematic Literature Review (SLR) has many benefits for understanding the complex link between a brand's cultural identity and its financial success. One of the main reasons to do an SLR is that it can help you find important ideas and holes in the current literature. For instance, an SLR can assist in finding the basic ideas behind a company's brand identity and help create strategic tools for co-designing that identity (Elidan & Pigneur, 2018). Also, SLRs often point out gaps in the research, such as the fact that there aren't enough studies on smaller brands or different sorts of markets. These are important for getting a whole picture of how brands do in different market sectors (Saldarriaga-Romero et al., 2024). Researchers and brand managers who want to have a better and more complete picture of what makes brands successful in different situations may find these findings useful.

Additionally, SLRs help provide frameworks that may be utilized to look at cultural brand value from several angles, such as the financial, market, and consumer points of view (Wang & Yin, 2020). These combined frameworks are necessary for figuring out how internal and external influences affect brand performance. SLRs combine previous research to provide a structured way to look at the complicated factors that affect how people see a brand and how well it does in different regions. In today's globalized economy, when companies have to deal with many diverse cultural, economic, and social situations, it's extremely crucial to be able to look at brand value from different points of view.

SLRs also give brand managers strategic information that can assist them in deciding how to establish or change a company's identity to fit the culture they want to reach. Brand managers may improve brand acceptance and market performance by learning about cultural diversity and how it affects how people interact with brands. This is very important for firms that want to reach more people in other countries or provide more products. SLRs also give useful information on how to deal with the difficulties of cultural differences, which is important for creating marketing strategies that work for a wide range of people (Johri et al., 2024). This kind of information are useful not only for brand managers but also for marketers who want to make campaigns that are more culturally conscious and effective.

Using SLRs to study brand cultural identity also has useful effects for marketers. Researchers can find the best ways to change brand identity for different cultures by putting together information from diverse sources. This method helps brands produce messaging, designs, and marketing plans that are in line with the values, norms, and tastes of the cultures they want to reach. As people's expectations change, especially as authenticity and cultural relevance become more important, brands that can change their identities are more likely to get more engagement and loyalty from their customers. For example, brands that want to sell in other countries need to learn about the cultures there so they don't make mistakes that could turn off potential customers (Kushwah et al., 2020).

It is very important to do an SLR on brand cultural identity in order to grasp how complicated brand identity is and how it relates to culture. SLRs are helpful for both brand managers and academics since they help find important ideas, fill in gaps in existing research, and create detailed ways to measure how well a brand is doing. SLRs also give strategic advice on how to adapt brand identities to varied cultural settings, which makes branding strategies more effective and businesses do better. In the end, the information acquired from an SLR can help organizations better deal with the problems that come with running a brand in a worldwide environment, where cultural diversity is becoming more and more vital for brand success.

The main goals of this study are to look at the current state of brand cultural identity in business performance research and to see if this topic is still relevant for future research. The study also looks at how the academic conversation around brand cultural identity in company performance has changed over time and tries to figure out how this work may help marketing management. The research question that has been proposed is:

RQ1: Is the exploration of brand cultural identity in business performance a subject that continues to hold significance for future scholarly inquiry?

RQ2: What is the present allocation of research investigations related to brand cultural identity in business performance?

RQ3: What are the theoretical and practical implications from the perspective of future research?

The study combines a systematic literature review (SLR) and bibliometric analysis to address three questions. The systematic literature review approach is good for combining existing research and finding gaps, trends, and future study paths. It also gives evidence-based insights that can change policies, practices, and future research. This makes sure that results are based on a wide range of studies and points out areas that need more research. Bibliometric analysis will add to the evaluation by measuring how many and how much publications about brand cultural identity affect business performance. This study will look at articles from different journals about Brand Cultural Identity in business performance, focusing on those that were published before June 21, 2025. It will use VOSviewer and the Scopus database. This method allows for a full mapping of the growth of this field and gives us a better idea of how it has grown and where future research should go.

2. Literature Review

Brand cultural identity and business performance are two very important ideas for understanding how small and medium-sized businesses (SMEs) work and plan. Small and medium-sized businesses (SMEs) frequently have limited resources and can't grow very quickly. A strong brand cultural identity can help them do better overall in business. This examination of the literature looks at both ideas, what they mean, and how they are related to each other, especially in the context of small and medium-sized businesses (SMEs).

2.1. Brand Cultural Identity in SMEs

Brand cultural identity is the set of cultural markers, values, and stories that make a brand unique and that it shares with its stakeholders. It is a changing and growing idea that connects the business to its audience and lets the brand show off its cultural roots through its activities, products, and services. Raposo, Daniel. et al. (2017), say that brand cultural identity combines the organization's mission, vision, and cultural traits, such its values, traditions, and corporate identity, into a story that speaks to the target audience. This identity becomes a way to stand out in competitive markets, especially for small and medium-sized businesses (SMEs) that have trouble doing so.

Brand cultural identity is very important for small and medium-sized businesses (SMEs) since it helps them stand out in a crowded market. Small and medium-sized businesses (SMEs) typically have to compete with bigger companies that have more resources. A well-designed brand cultural identity can provide SMEs with an edge by making strong emotional connections with customers. A company's cultural story, which might be based on local customs, societal beliefs, or moral concerns, can help people connect with the brand on a deeper level, both locally and globally (Aman, 2024). Small and medium-sized businesses (SMEs) can build stronger relationships with their customers by using these cultural components. This boosts loyalty and helps the business expand in a way that is good for the environment.

Brand cultural identity is also a very important link between organizational variables and brand performance. Gisip & Harun (2015) say that integrating internal resources like people and the company's culture with the market's cultural expectations can help a brand do better. This alignment makes sure that the brand not only reflects cultural values but also meets the requirements and wants of its target audience, which increases customer happiness and brand equity.

2.2. Business Performance in SMEs

People usually look at a small business's financial success, market share, and customer happiness to see how well it's doing. It shows how well the business can reach its strategic goals and adapt to the needs of the market. Muhonen et al. (2017) say that small and medium-sized businesses (SMEs) are commonly judged on both quantitative indicators, such as revenue growth and profitability, and qualitative measures, like brand reputation and customer happiness.

There is a lot of evidence that brand cultural identity affects how well a business does. A strong brand identity, which contains clear brand values and a mission, makes the brand perform better, which in turn affects the business's bottom line. For example, when small and medium-sized businesses (SMEs) create a brand identity that matches what customers want and what is popular in society, it gives them a competitive edge and makes them more money Muhonen et al. (2017). The type of consumer, the industry, and the state of the market are all essential factors that affect this relationship. This means that the brand's cultural identity should be able to change to meet the needs of different markets.

According to Maurya et al. (2015), aligning corporate identity with customer orientation can greatly improve business success. A consistent corporate identity, driven by cultural values, generates a brand image that customers can relate to, which boosts customer loyalty and market share. For small and medium-sized businesses (SMEs), having a brand identity that matches the company's identity helps create a consistent image that draws in and keeps clients, which leads to business success.

2.3. Interrelationship Between Brand Cultural Identity and Business Performance

Brand cultural identity and business success are intimately related, but small and medium-sized businesses (SMEs) have their own particular problems when it comes to managing these things well. When businesses don't have the money or knowledge to build a strong brand cultural identity, it might hurt their performance. SMEs may have trouble keeping their brand consistent and aligning with their culture because they don't have enough resources (Patel, 2021). But small and medium-sized businesses (SMEs) can get around these problems by taking a design-led strategy and focusing on brand-led tactics. SMEs may stand out in the market by using their cultural identity and encouraging creativity. This lets them come up with distinctive value propositions that boost business performance and sustainability.

The literature says that small and medium-sized businesses (SMEs) need a strong brand cultural identity to compete in tough marketplaces and improve their company success. By making sure that their cultural values match what their customers anticipate, small and medium-sized businesses (SMEs) may build stronger relationships with their customers, make them happier, and be successful in the long run. There are problems, but effective brand management may help small and medium-sized businesses do well in a market that is becoming more international and competitive.

3. Method and Analysis

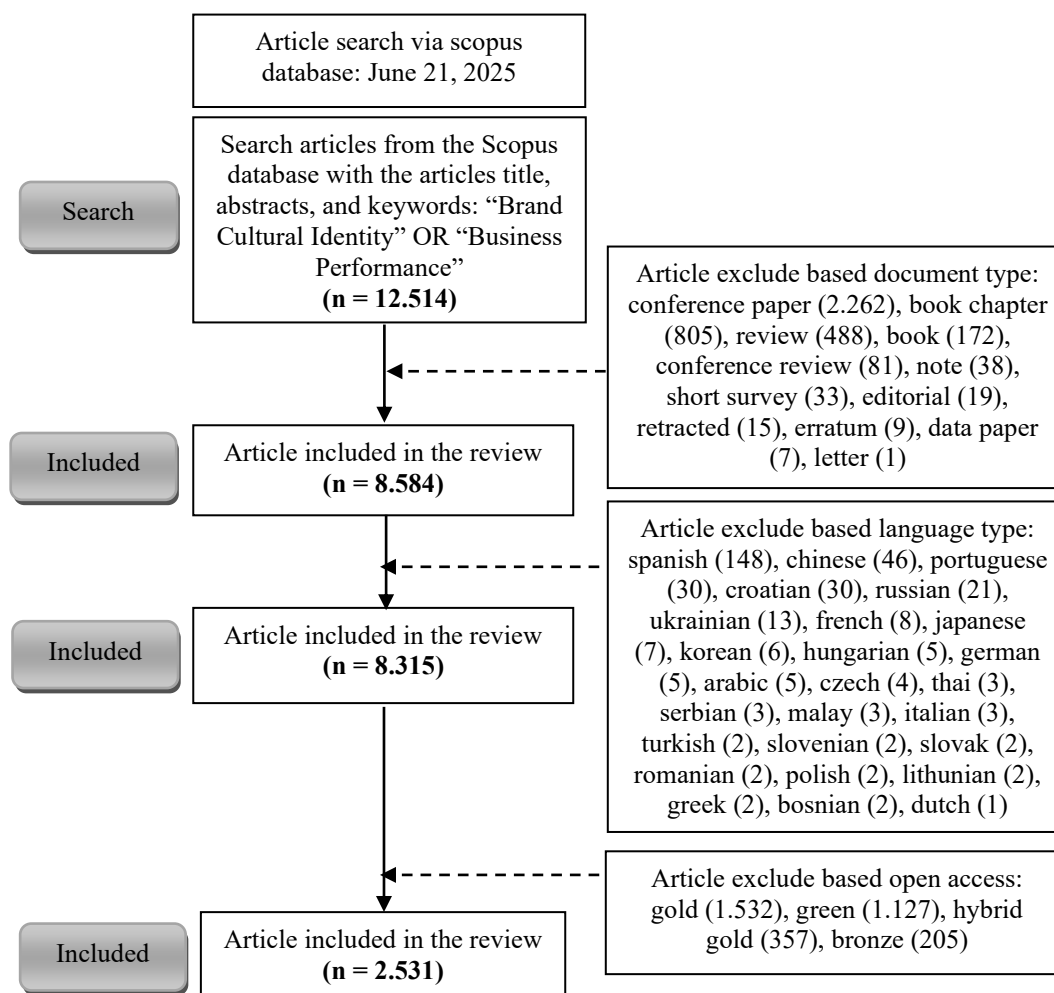


Figure 1. Systematic Literature Review Information Flow using PRISMA.

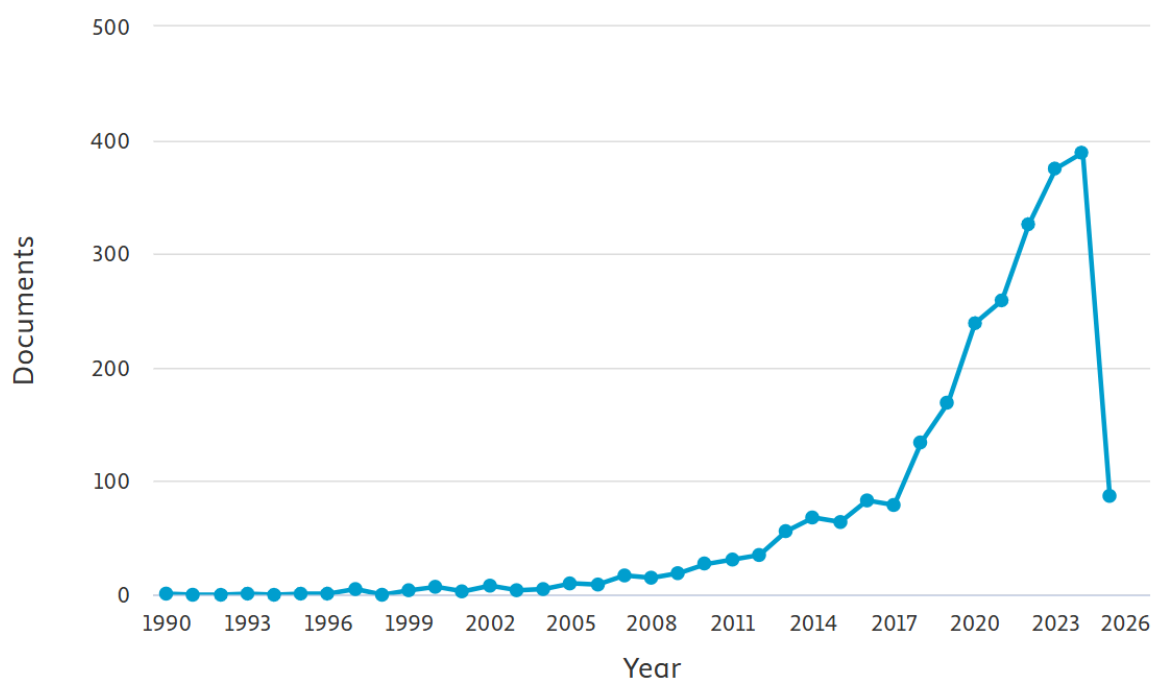
Using the article title, abstract, and keywords "Brand Cultural Identity" OR "Business Performance" in the Scopus database on June 21, 2025, we found 12,514 documents on the subject. These documents range from the oldest publication in 1990 to the most recent in 2025 (see Figure 1). After this discovery, the screening mechanism sorted the documents by their type. We took out articles based on their type: conference papers (2.262), book chapters (805), reviews (488), books (172), conference reviews (81), notes (38), short survey (33), editorial (19), retracted (15), erratum (9), data paper (7), letter (1), non-English (352), resulting in a total of 3.221 documents. The screening results, categorized by document type, yielded 2.531 articles. The documents were then further analyzed in this study to answer *RQ1: is the exploration of brand cultural identity in business performance a subject that continues to hold significance for future scholarly inquiry?* *RQ2: what is the present allocation of research investigations related to brand cultural identity in business performance?* *RQ3: what are the theoretical and practical implications from the perspective of future research?*

4. Result and Discussion

The main focus of this study is the results of 2,531 papers in the Scopus database that looked at how brand cultural identity affects business performance. We got this information by counting the number of published articles, the number of publications over the years, and the journal sources. This study will also look at the most important factors in brand cultural identity that affect company performance, such as the authors, their affiliations, and the countries involved.

RQ1: is the exploration of brand cultural identity in business performance a subject that continues to hold significance for future scholarly inquiry?

Based on information from the Scopus database, it has been proven that there have been 2,531 scholarly articles written about how brand cultural identity affects company performance in the last few decades. Figure 2 shows this. Over the past ten years, the trend in publishing articles about how brand cultural identity affects company performance has changed a lot. From 1990 to 2010, the number of publications stayed rather steady and modest, with an average of less than 20 documents published each year. This means that the subject or area of study had not yet gotten a lot of attention in the academic literature. There was a moderate rise from 2011 to 2016, which suggests that people were becoming more interested in the topic, but the growth rate was still not very high. There was a big increase in publications between 2017 and 2023, which shows that the subject got a lot of attention from researchers and academics. It looks like 2024 was the year with the most documents released, with about 400. This big jump could mean that the field grew more important, maybe because of new technologies, changes in policy, or new trends that made people want to learn more and do more research. There are fewer publications in 2025 than there were in 2020. But this decline could be because the data for the year is not complete yet, since the data we have doesn't show the whole number of publications for 2025 yet. So, you need be careful when you look at this drop and wait until you have statistics for the whole year to see if the trend is still going down. Overall, the substantial rise in publications starting in 2017 shows that the topic has become much more important or urgent, potentially due to outside influences or new requirements in society or industry.



Source: Scopus database

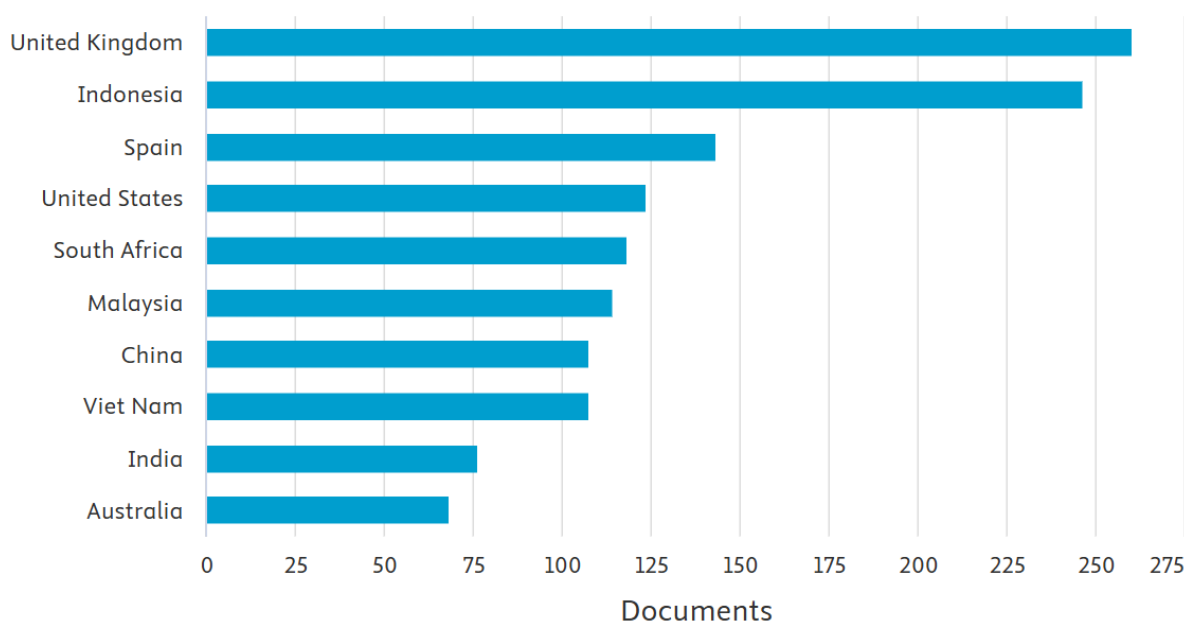
Figure 2. Number of Brand cultural identity in business performance publications

There hasn't been much research on how brand cultural identity affects business success during 1990–2006 since there haven't been enough researchers to do it. There were only a few studies in the Scopus database between 1990 and 2006, with fewer than 10 publications.

RQ2: what is the present allocation of research investigations related to brand cultural identity in business performance?

We looked at the distribution of Brand Cultural Identity in Business Performance research in 2,531 articles. To do this, we grouped the articles by country, region, affiliation, source, and author, but we only looked at the top 10 articles in each group. Researchers and marketers have been focusing on the connection between culture, brand, and business performance in recent years. As businesses grow and enter worldwide markets, it's become crucial to know how a brand's cultural identity affects its business performance in order to make good plans.

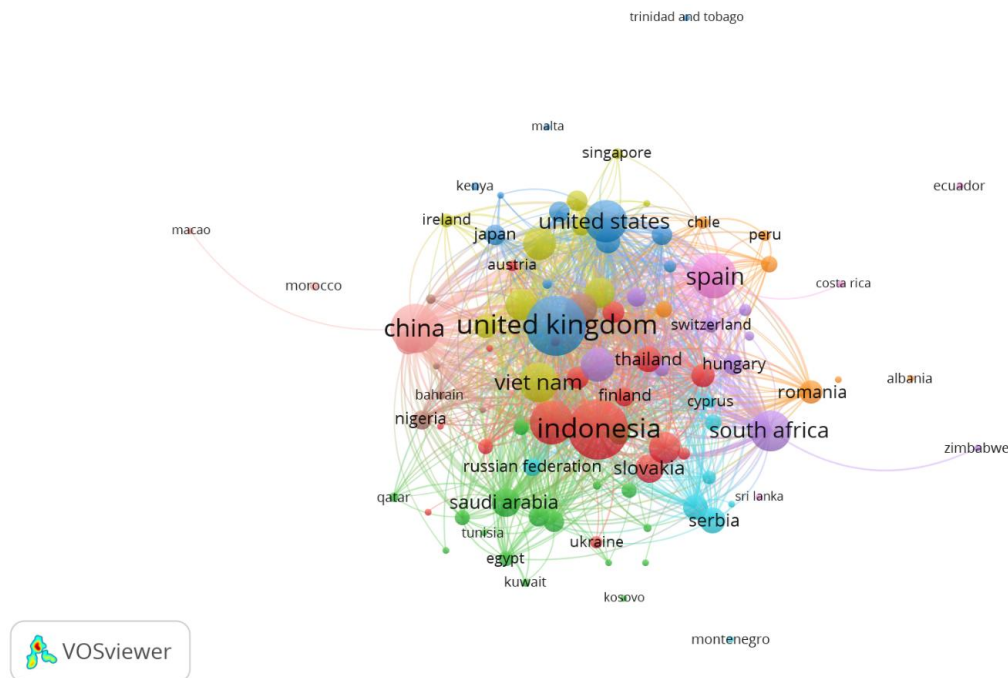
The UK has the most articles about Brand Cultural Identity in Business Performance, with 260. Indonesia has 246, Spain has 143, the US has 123, South Africa has 118, Malaysia has 114, China has 107, Vietnam has 107, India has 76, and Australia has 68 (see Figure 3).



Source: Scopus database

Figure 3. Number of articles by country or territory (top 10 country)

The researchers will also use the VOSviewer software to look at how the countries engaged in the Brand Cultural Identity in Business Performance study are connected to each other. This step is very important for making a systematic plan for future study. The VOSviewer results from the study suggest that countries that look into brand cultural identity in business performance have linkages with each other (see Figure 4).

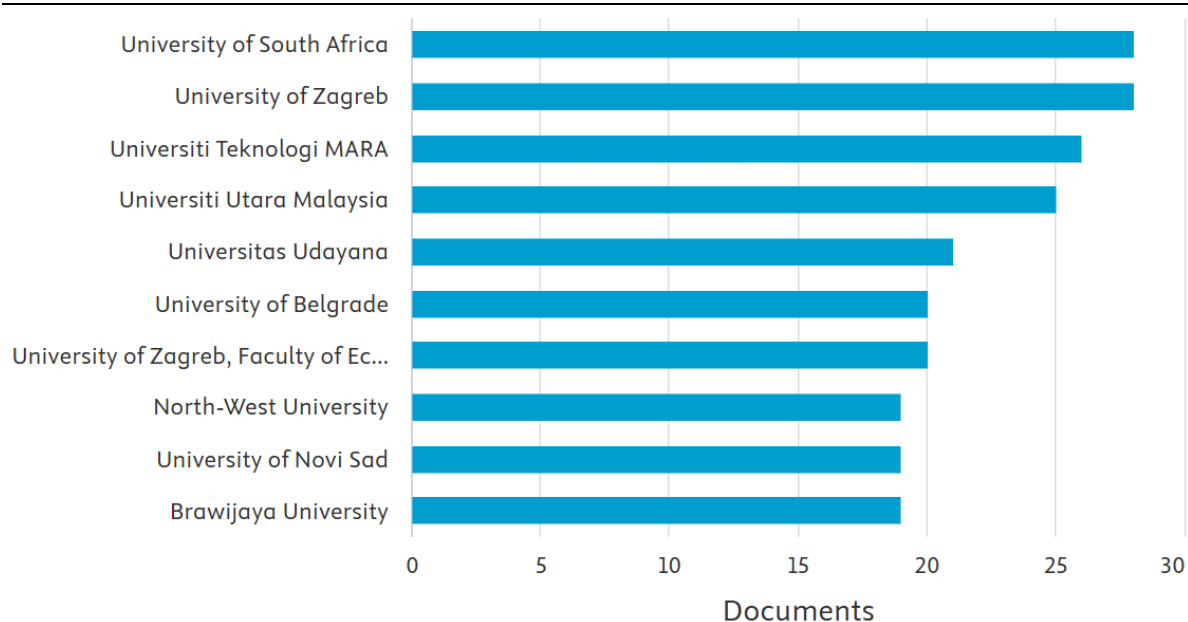


Source: Output VOSviewer software

Figure 4. Network country visualization

VOSviewer makes network visualizations that show how different countries are connected based on particular criteria utilized in the analysis. The dots in the picture stand for countries, and the size of the dot shows how important or relevant that country is to the network. The dots' varying hues show groups of countries that are more closely related or have stronger ties to each other. Lines between countries illustrate how they interact or relate to each other. Thicker or denser lines show stronger ties. In this picture, China, the UK, Indonesia, and the US look like bigger nodes or center points, while other countries are organized into smaller clusters.

Secondly, the University of South Africa has the most articles (28) about how brand cultural identity affects business performance based on institutional affiliation. The University of Zagreb has 28 articles, Universiti Teknologi MARA has 26 articles, Universiti Utara Malaysia has 25 articles, Universitas Udayana has 21 articles, University of Belgrade has 20 articles, University of Zagreb, Faculty of Economics and Business has 20 articles, North-West University has 19 articles, University of Novi Sad has 19 articles, and Brawijaya University has 19 articles.

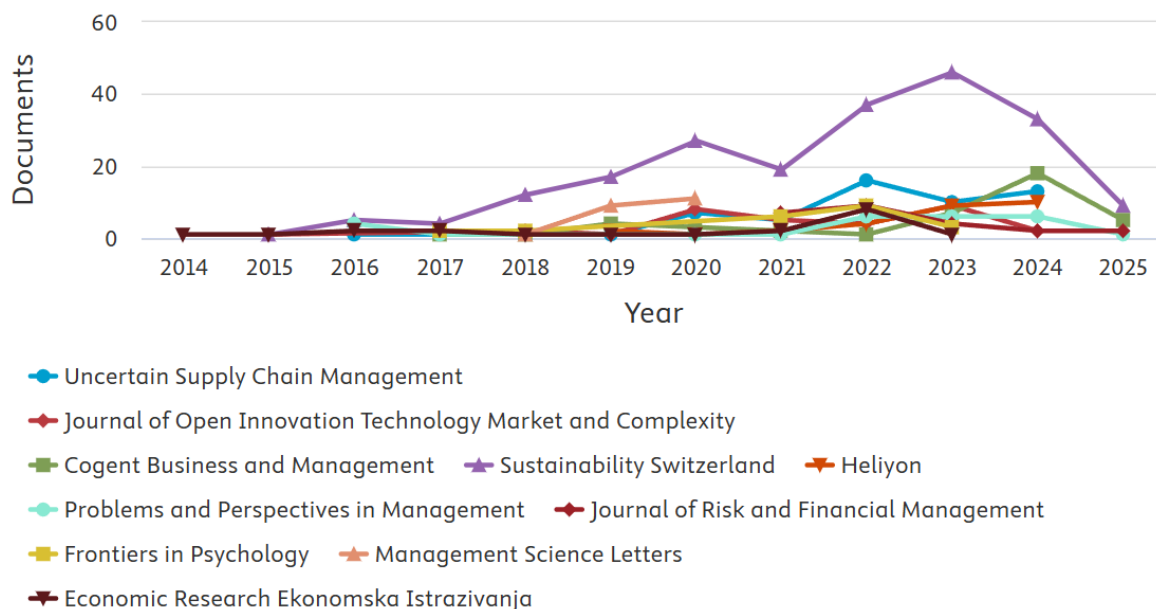


Source: Scopus database

Figure 5. Document by affiliation (top 10 affiliation)

The University of South Africa has the most documents, followed by the University of Zagreb and Universiti Teknologi MARA, which both have a lot of documents. Other universities, such Universiti Utara Malaysia, Universitas Udayana, and the University of Belgrade, contain a little less but still a lot of records. There are also universities with less documents, like the University of Zagreb, Faculty of Economics, North-West University, University of Novi Sad, and Brawijaya University. This chart shows how many documents each university has published, which might be useful for academic or research study.

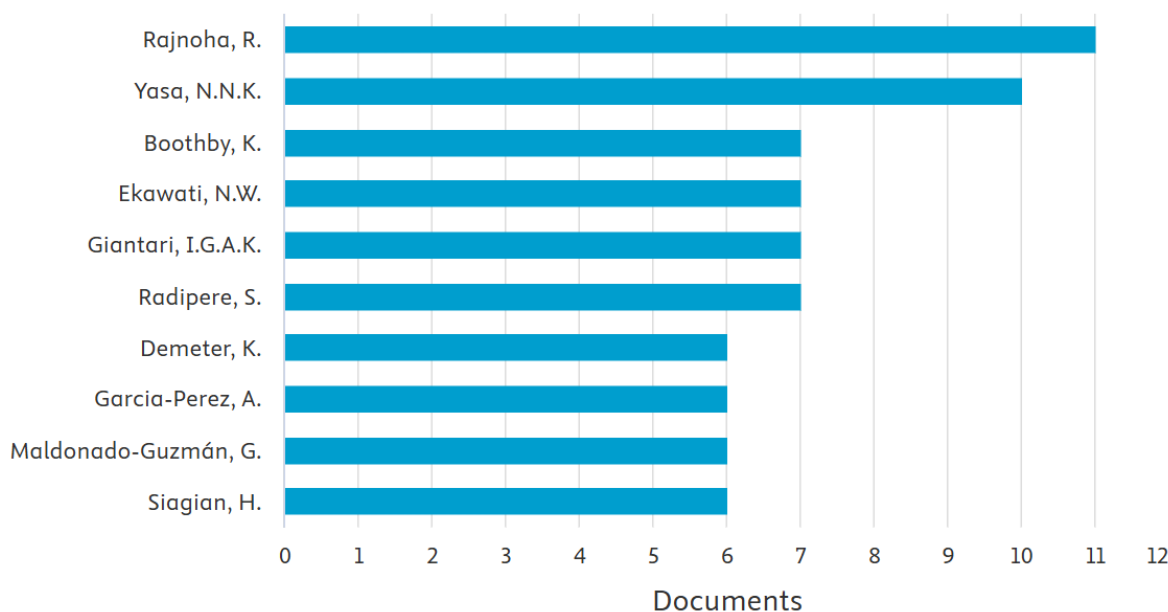
Third, the distribution of questions about Brand Cultural Identity based on sources is dominated by Sustainability Switzerland with 210 articles, Uncertain Supply Chain Management with 53 articles, Cogent Business and Management with 42 articles, Journal of Open Innovation Technology Market and Complexity with 32 articles, Heliyon with 28 articles, Problems and Perspectives in Management with 26 articles, Journal of Risk and Financial Management with 24 articles, Frontiers in Psychology with 22 articles, Management Science Letters with 21 articles, and Economic Research Ekonomska Istrazivanja with 20 articles (see Figure 6).



Source: Scopus database

Figure 6. Number of articles by sources (top 10 sources)

Fourth, Rajnoha, R. has the most documents, with 11. Yasa, N.N.K. is next with 10 documents. Boothby, K., Ekawati, N.W., Giantari, I.G.A.K., and Radipere, S. are some of the other authors who each have 7 documents. At the same time, Demeter, K., Garcia-Perez, A., Maldonado-Guzman, G., and Siagian, H. each have 6 documents. This chart shows how each author's work compares to the overall number of papers published. This makes it handy for figuring out which authors are the most productive in this area. The different numbers of documents also show how various authors could help the topic grow (see Figure 7).



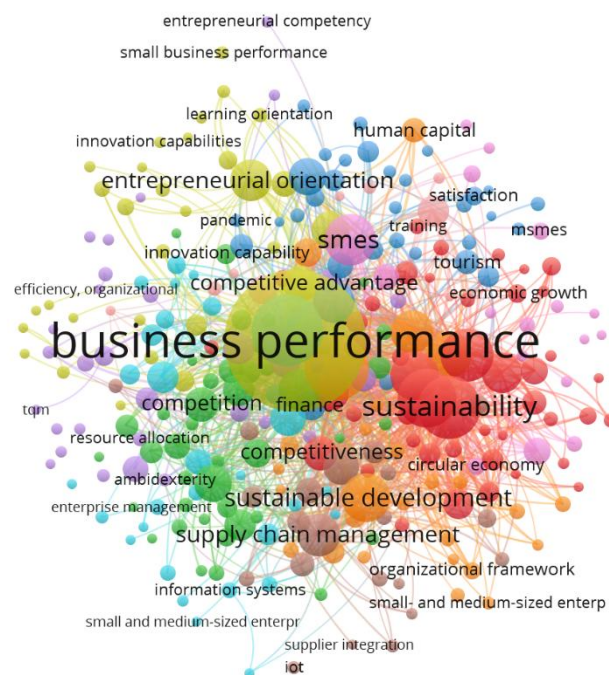
Source: Scopus database

Figure 7. Count of publication by author (top 10 authors)

RQ3: What are the theoretical and practical implications from the perspective of future research?

We looked at 2,531 publications from the Scopus collection and used VOSviewer to show that the results could have both theoretical and practical effects on future research on Brand Cultural Identity in Business Performance. The metadata analysis results from VOSviewer will help researchers and professionals better comprehend the ideas and results connected to Brand Cultural Identity in Business Performance. The bibliometric analysis with VOSviewer can identify which variables have been studied a lot by other researchers and which ones haven't been studied as much. This can help other researchers figure out what to study next. From the practitioner's point of view, the results of the literature review utilizing VOSviewer will help practitioners use Brand Cultural Identity in Business Performance in the future and spread the word about it to businesses all over the world.

Figure 8 shows that the most common keywords are business performance (828), sustainability (169), business (146), innovation (174), business development (116), performance (212), industrial performance (91), performance assessment (102), sustainable development (102), and small and medium-sized enterprise (81). The last thing to do is show Table 1, which has the 10 terms that show up the most often.



Source: Output VOSviewer software

Figure 8. Co-occurrence framework and representation of key terms

Table 1. Keywords by authors

Rank	Keyword	Total link strength
1	Business performance	2994
2	Sustainability	1078
3	Business	1064
4	Innovation	902
5	Business development	866
6	Performance	797
7	Industrial performance	789

8	Performance assesement	764
9	Sustainable development	749
10	Small and medium-sie enterprise	660

Source: Output VOSviewer software.

Based on the results of the mapping and a look at previous studies, it has been found that there is a gap in previous research. The study of the distribution of research on Brand Cultural Identity in Business Performance shows that the UK (260 articles) and Indonesia (246 articles) are the top contributors, followed by Spain, the US, and South Africa. This suggests that countries with a lot of cultural diversity and changing economic conditions are very interested in looking into the link between brand cultural identity and business performance. This is in line with the growing need for businesses to make sure that their branding strategies are in line with local cultural values in order to improve their market success in the long term. Sustainability Switzerland has the most articles published, with 210. This shows that there is a lot of research being done on sustainability in the context of brand cultural identity and how it affects business performance. Other journals that follow are Uncertain Supply Chain Management and Cogent Business and Management. This means that supply chain management, open innovation, and company performance based on cultural brand identity are becoming more and more connected. For future research, it's important to look into how digitalization and the use of technologies like AI and big data can help strengthen brand cultural identity in cross-country business models. This is especially important for supporting long-term business performance in a global market that is changing quickly and needs to be able to adapt to new cultures quickly.

4.1. Discussion

To understand how firms work in today's global market, you need to know what brand cultural identity is. This identity includes a brand's values, vision, positioning, and personality. It shows not only what the company stands for but also where it fits in with other cultures and groups. As brands compete more and more in the market, it's important to understand how deeply brand cultural identity affects business performance. This conversation goes into detail on what brand cultural identity is, what its main parts are, and how it affects many aspects of business performance, such as brand equity, customer loyalty, staff engagement, and financial results.

Brand cultural identity is the unique set of beliefs, values, traditions, and ways of life that a brand stands for. These are influenced by the brand's cultural roots and connections. This identity isn't only based on looks; it's also based on the deeper values that guide how a brand interacts with its customers, staff, and business partners. Muhonen et al. (2017) say that brand cultural identity is made up of a lot of different things, like brand values, vision, positioning, and personality. Each of these things affects how well the brand does in the market as a whole.

Cultural identity has a big impact on how consumers see brands, which affects their expectations, engagement, and loyalty. A strong cultural identity also helps the business stay consistent, making it easier for employees to connect with the brand's goals and values. This alignment can then lead to better employee performance, which in turn affects the business's bottom line.

Key Components of Brand Cultural Identity

There are several important parts that make up a brand's cultural identity. Each of these parts affects how people see the brand and how it gets its message across (see Figure 9):

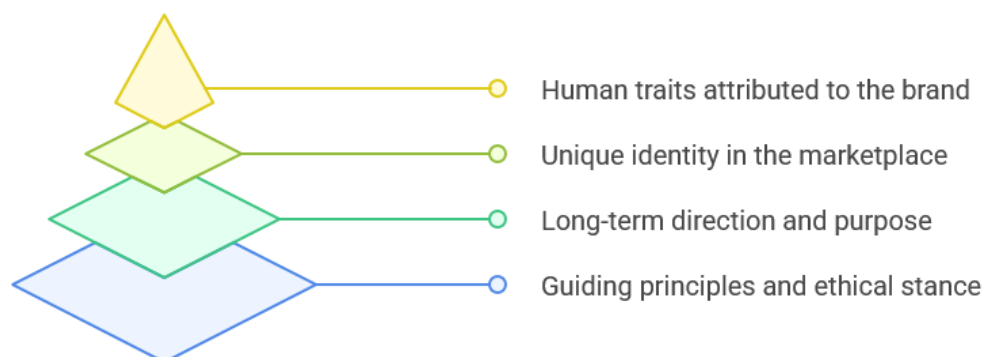


Figure 9. The Pyramid of Brand Cultural Identity

1. **Brand Values:** Brand values are the concepts and principles that guide a brand's behavior and are at the heart of its cultural identity. These values are very important for showing how a brand feels about ethics and how much it cares about its consumers, staff, and society as a whole (Joukanen et al., 2018). Brands that are open about their principles build better customer loyalty because people are more likely to buy from brands that share their convictions. When a brand's values match those of its customers, the brand's equity and customer retention increase up (Rajagopal, 2006).
2. **Brand Vision:** The brand vision gives the brand a long-term goal and direction, making it apparent to stakeholders where the brand is going. It spells out the brand's goals and acts as a guide for making decisions and planning strategies. A strong brand vision makes employees feel like they belong and strengthens the brand's story, making it a market leader (Muhonen et al., 2017).
3. **Brand Positioning:** Brand positioning is a strategic part of a brand that makes it stand out in the market. It helps a brand create a unique identity that appeals to its target audience and sets it apart from its competition. To position a brand well, you need to know not only the market and what customers that want, but also how cultural elements affect how people think and act. A brand can better reach its target audience and become more successful in the market by making sure its positioning matches its cultural identity (Coleman et al., 2015).
4. **Brand Personality:** Brand personality is the set of human attributes that people think a brand has, such as warmth, elegance, or dependability. These features make people feel something about the brand, which helps them build stronger relationships with it. Rajagopal (2006) says that brand personality affects how people think and act, which makes them more loyal and more likely to recommend the brand. Brand personality's emotional resonance is especially important in markets where standing out is important and customers want both functional and emotional satisfaction from their brand interactions.

Impact of Brand Cultural Identity on Business Performance

Brand cultural identity has a lot of effects on business performance. It affects many parts of brand management, customer interactions, and financial results (see Figure 10).

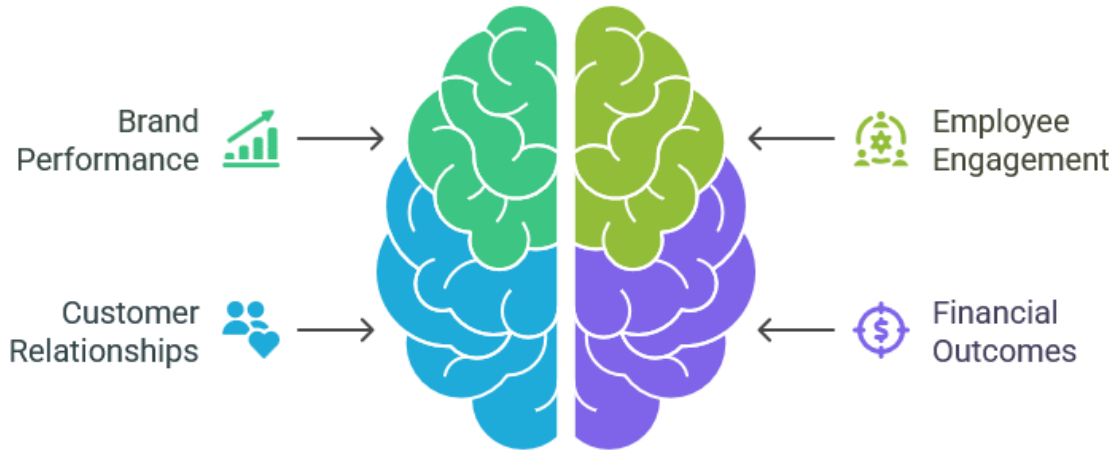


Figure 10. The Impact of Brand Cultural Identity

1. **Brand Performance:** A strong and well-communicated brand cultural identity improves brand performance by increasing brand equity. This is done by making customers more loyal, happier, and more likely to choose your product over others. As a result, brands that do a good job of managing their cultural identity are more likely to gain market share and make more money (Muhonen et al., 2017). A strong cultural identity can also help protect against brand dilution, making sure the brand stays relevant and resonates in a competitive market.
2. **Employee Engagement:** Internal branding is an important part of making sure that employees feel connected to the brand's culture. Internal branding processes make sure that staff are engaged and dedicated to keeping the brand promise by making brand values and vision a part of the company's daily operations. Punjaisri et al. (2009) showed that employees are more engaged when they feel connected to the brand's values. This leads to better performance, better relationships with customers, and more support for the brand. So, internal branding not only makes the brand more trustworthy, but it also makes the company run more efficient and happy customers.
3. **Customer Relationships:** A strong brand cultural identity helps build strong relationships between customers and brands. Brands may build trust and loyalty by making a real and genuine relationship with their customers. This leads to long-term engagement and advocacy. Kieu & Ho (2018) say that emotional resonance is what keeps customers coming back, and the brand's cultural identity makes this even stronger. Also, as social media and omnichannel tactics become more popular, having a consistent brand identity across all channels improves the consumer experience as a whole, strengthens the customer's relationship with the company, and leads to higher satisfaction and loyalty (Lourenco et al., 2024).
4. **Financial Outcomes:** In the end, a strong brand cultural identity has a direct effect on how well a corporation does financially. Brands that successfully incorporate cultural aspects into their identity usually make more money, have a bigger market share, and have more devoted customers. This, in turn, improves the performance of the business as a whole, since consumer preference and support lead to real financial gains. When a brand's identity matches what customers value and expect, it can lead to strong brand loyalty, which is very good for the company's bottom line (Jin et al., 2025).

There are a number of things that can change how brand cultural identity affects business performance, such as the type of industry and the type of consumer. The link between brand cultural identity and performance may be different in different industries. For example, service companies may feel the effects more strongly because they work closely with customers and customer experience is so important. For example, service firms that focus on cultural identity in their brand story are more likely to create close relationships with customers because their products are more personalized (Muhonen et al., 2017).

Also, the sort of consumer is very important in figuring out how brand cultural identity affects business performance. In B2B settings, where functional features and expertise are more important, cultural identity may not have as direct an effect as it does in B2C settings, where emotional connections and brand personality are more important factors in how people act (Joukanen et al., 2018).

Brand cultural identity is one of the most important things that affects how well a firm does. It affects things like brand equity, customer loyalty, staff engagement, and financial success. Companies may stand out in the market, build stronger relationships with customers, and enhance internal alignment by making sure that their brand values, vision, positioning, and personality fit with the culture they work in. Also, the effects of brand cultural identity on performance are affected by things like the type of industry and the type of consumer, which means that organizations should be careful while maintaining their brand identity. In the end, a strong and real brand culture is a significant asset that can help your organization succeed over the long term.

5. Conclusions

Brand cultural identity is becoming a very important part of marketing and brand management strategies in a business environment that is becoming more global and connected. Brand cultural identity includes the values, stories, and cultural traits that make up a brand and are shown to customers through the company's products, services, and behavior. Brand cultural identity is a dynamic link between the brand and its audience. It helps develop emotional connections with customers and affects the long-term success of the firm. The results of this study show that a brand identity that is consistent and relevant to the culture not only develops relationships with customers, but it also increases loyalty, engagement, and financial performance.

Brand cultural identity gives small and medium-sized businesses a big edge over their competitors. SMEs that can show a real cultural identity stand out in congested markets where resources are limited and larger companies are aggressive competitors. Small and medium-sized businesses (SMEs) can make stronger relationships with their customers by aligning their brand's cultural identity with the values of the local culture. This can lead to long-term success and growth. When brands work in global marketplaces with many different cultures, it becomes more and more vital to change their brand identity to fit cultural trends and what customers want.

This analysis also demonstrates that there has been a big rise in academic interest in the link between brand cultural identity and commercial performance in the past several years, as seen by the large number of publications since 2017. This shows that the topic is becoming increasingly important to scholars and professionals who know how important it is to match brand strategy with cultural values in order to boost corporate performance. The bibliometric analysis done in this study also showed that countries with a lot of cultural diversity, like the UK, Indonesia, and Spain, made important contributions. This suggests that understanding brand cultural identity is a key area of focus for countries that are growing economically and socially.

Brand managers and company decision-makers need to know what this research means for them in real life. Brand tactics that adapt to different cultures are vital not only for getting more people to buy your products, but also for making your brand stronger in a market that is becoming more competitive. If you don't pay attention to cultural factors when managing a brand, you might not be able to get people's attention, which will hurt the brand's overall performance. So, brand managers need to keep an eye on cultural trends all the time and use what they learn about culture to help them build their brands so that they stay relevant and appeal to a wide range of people.

In the global market, which is becoming more connected, future research should focus on learning more about how digitalization and new technologies like big data and artificial intelligence may help develop brand cultural identity. Also, it's important to look into how brand cultural identity can include sustainability to improve business performance and build customer loyalty, since customers are putting more and more weight on social and environmental issues.

In general, this study gives us useful information about how brand cultural identity affects business performance and how businesses should manage their brand identities to be successful in the long run.

Companies who can adapt to the fast changes in culture and technology will have a big edge over their competitors in the global market.

6. Conflict of Interest

The authors declare that there is no conflict of interest.

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Dynamics of the European Commercial Real Estate Market with an Empirical Focus on the Retail Italian Sector

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Abstract. *This paper conducts a comprehensive analysis of the dynamics within the European commercial real estate sector, with an emphasis on the Italian retail market. It scrutinizes investment trends, sectoral performance, and macroeconomic influences spanning the period from 2020 to 2024. The study delves into the ramifications of macroeconomic shocks, evolving consumer behaviors, and shifting investor strategies on capital allocation across various retail asset classes, such as high-street retail, shopping centers, retail parks, and supermarkets. The research finds that retail real estate investment in Europe experienced significant volatility, with a sharp contraction in 2023 due to rising interest rates and inflationary pressures, followed by a recovery in 2024, particularly in resilient asset classes such as grocery-anchored retail and luxury high-street locations. Italy, despite facing macroeconomic constraints, demonstrated a substantial resurgence in retail investment, with supermarkets and urban high-street retail outperforming traditional shopping centers. This research augments the corpus of scientific socio-economic knowledge through the quantification of investment fluctuations across diverse asset classes and the identification of pivotal structural transformations within the retail real estate sector. The study delineates a direct correlation between commercial real estate investment, shifts in consumer behavior, and macroeconomic policy adjustments, thereby providing profound insights into the prospective trajectory of retail property markets. The findings support the hypothesis that grocery-anchored retail and prime urban assets provide long-term stability, while secondary retail formats require adaptation to remain viable.*

Keywords: commercial real estate, commercial property investment, European real estate market, Italian real estate retail.

JEL Codes: R30, R33, E44, L81, G11

1. Introduction

Retail real estate is a cornerstone of the European commercial property sector and a major catalyst for economic growth, job creation and urban development in Europe. But things have changed dramatically in this space in the last five years, these shifts have been prompted by changing consumer preferences, digital innovation and macroeconomic conditions.

The volatility in the markets is increasing pressure from the COVID 19 pandemic, growing inflation and changes in monetary policy, which are leading to massive fluctuations in investment amounts. The aim of the paper is to explore the path of retail real estate investment in Europe by focusing empirically on the Italian market and trying to find out which role macroeconomics, asset classes performance and investor strategies have played in driving capital flows from 2020 to 2024.

These dynamics have been the focus of an increasing amount of academic scholarship. E-commerce activity is currently priced as an investment risk in institutional grade shopping centres, in particular regional malls, emphasising investor awareness for digital retail pressures on asset performance Kaiser & Freybote (2021). Previous work by Dixon and Marston (2002) observed that e business does not always result in the death of bricks and mortar retail, but it certainly does require adjustments in network stores and leasing practices.

Recent market comments (BNP Paribas Real Estate, 2022; CBRE 2025) stress that retail parks and grocery-anchored assets are beginning to be seen as creatures of the new caution in investment, and that, at

the same time, investors are inching tentatively back again into retail following the shock of the Covid-19 virus and its

structural shock to the way the sector will price.

Results indicate significant degree of cyclicity in European retail real estate investment, reflecting a steep decline in 2023 driven by higher interest rates and weaker consumer sentiment, and rebound in 2024 for defensive asset types including grocery-anchored retail and high street luxury. Italy also saw a surge in investment, this time in the retail sector, particularly supermarkets and urban high street retail, which outperformed more traditional shopping centres despite some macro headwinds. Placing these investment trends in the context of wider economic and macroeconomic constructs, this research contributes to the literature on risk-adjusted returns and balanced portfolio investment strategies, as well as shifts in retail's role in the commercial property cycle.

2. Research Elaboration

2.1 Research Methodology

The study is based on information from official reports, institutional reports, macroeconomic databases and academic literature. BNP Paribas Real Estate and CBRE provide market intelligence reports offering analysis on retail investment volumes, performance by asset class and the regional spread of retail investments.

Macroeconomic data from Eurostat, the European Central Bank (ECB), Italian's Ministry of Economy and Finance (MEF) and the International Monetary Fund (IMF) provide background on growth in Gross Domestic Product (GDP), inflation, interest rates and consumer expenditure, all of which are critical to the way Retail Real Estate developments are analysed.

2.2 Macroeconomic conditions in Europe

Euroland's economic firmament has seen some sharp swings during the past five years—troubled by pandemic-inflicted contractions, inflation surges and monetary-policy changes. These macroeconomic influences have had a direct impact on investment, consumer sentiment and the state of the real estate market, in particular with the retail asset class.

Overall economic activity in the Eurozone declined 5.6 per cent in 2020 amid the COVID-19 pandemic, with lockdown measures, weaker consumption and supply chain disruptions. This trend reversed in 2021 with a robust recovery all through the year as post-pandemic GDP soared by 6.3% principally incentivized by government hand out programs, active use of increased household savings and quick resumption of economic activity.

But the recovery lost pace in 2022, with GDP growth slowing to 3.5%, as inflation and fluctuations in the oil price started to weigh on business sentiment.

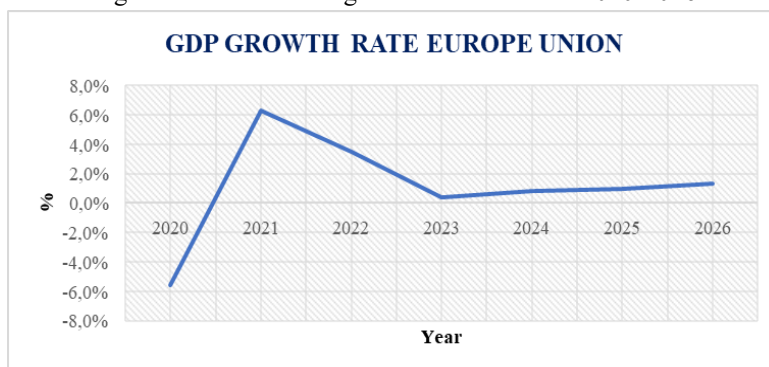
By 2023, economic expansion had nearly stagnated, with GDP growth dropping to 0.4%, marking the lowest non-recessionary growth rate in recent years. This slowdown was primarily attributed to higher borrowing costs, reduced disposable income and geopolitical uncertainties.

In 2024, the Eurozone economy showed modest signs of recovery, with a GDP growth rate of 0.8%¹. While this marks an improvement from the near-stagnation of 2023, it remains substantially below the pre-pandemic average growth rates.

Looking ahead, GDP growth in the Eurozone is projected to stabilise, with forecasts indicating a gradual recovery to 1.3% in 2025 and 1.6% in 2026². This expected growth trajectory suggests a slow but steady return to economic normality, underpinned by easing inflationary pressures, gradual interest rate adjustments by the ECB fostering renewed business investment and supply chain stabilisation, particularly in the industrial and retail sectors.

Despite these positive signals, structural economic challenges persist, including labour market rigidities, fiscal constraints in highly indebted nations, and potential geopolitical disruptions that could hinder economic expansion in the medium term.

Fig. 1: Line chart GDP growth rate Eurozone 2020-2026



(Source: Eurostat 2020 - 2026)

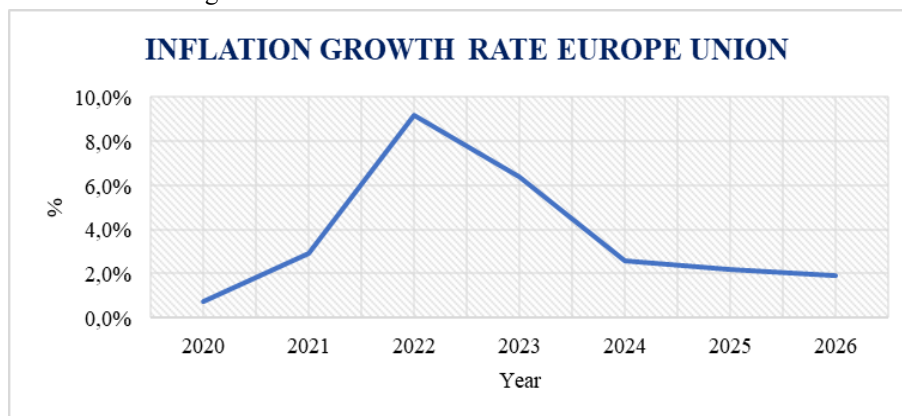
It has been the characteristic economic predicament of the Eurozone, affecting decisions on interest rates, investments in real estate, and consumer spending power.

After a long period of price stability, as inflation stood at 0.7% in 2020, the recovery in economic activity from the pandemic triggered a rapid rise of inflation, which climbed to 2.9% in 2021. But the biggest shock came in 2022 as inflation soared to 9.2%, driven by energy cost spikes and food price inflation. Inflation also stayed high into 2023, to the tune of 6.4%, causing the ECB to take drastic action towards monetary tightening with a series of interest rate increases. These policies led to reduced GDP growth and weaker consumer confidence.

By 2024, inflation is recorded to decline significantly to 2.6%, marking a return towards the ECB's target inflation rate of 2%³. This disinflationary trend reflects monetary policy effectiveness, easing of supply chain disruptions, particularly in manufacturing and logistics and slower wage growth, limiting inflationary wage-price spirals.

Looking forward, inflation is expected to moderate further, with projections indicating 2.2% in 2025 and 1.9% in 2026⁴. This trend suggests a stabilisation of consumer prices, which will likely have positive spillover effects on retail spending and investment activity in the real estate sector, such as boosting retail consumption, lower financing costs making retail real estate investments more attractive and lower input costs (e.g., energy, logistics, wages) could enhance retailer margins, increasing demand for commercial retail space.

Fig. 2: Line chart inflation rate Eurozone 2020-2026



(Source: Eurostat 2020 - 2026)

The Eurozone's macroeconomic conditions remain a critical determinant of retail real estate market dynamics. The period of high volatility observed between 2020 and 2023 created substantial challenges for investment strategies, rental growth and consumer spending patterns.

2.3 Macroeconomic conditions in Italy

Italian retail real estate market is embedded in the Italian broader economic context characterised by GDP growth, inflation, monetary policy and consumer confidence. All these have collective impact on investments, tenant demand, rent growth and absorption of retail space, thus, they are important variables to consider when assessing market dynamics.

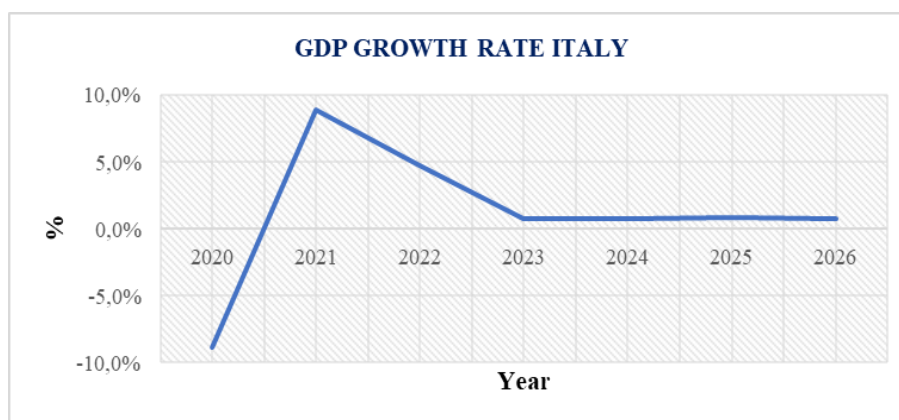
In the past five years, the Italian economy has experienced seesawing growth, and the broader macroeconomic situation in the country that shares the Euro with its EU partners, is far from being healthy.

After the steep contraction (-8.9%) in 2020 caused by the COVID-19 crisis, the economy strongly bounced back in 2021, with a growth rate of 8.9%, under the impetus of government incentives, EU recovery funds and a recovery of private consumption. But that recovery slowed sharply in 2022 as GDP growth slowed to 4.7%, then to 0.7% in both 2023 and 2024.

Such a deceleration in economic progress can be explained as being the result of structural labour market and public sector productivity inefficiencies, still-high energy cost, tight monetary policy decisions, tightening consumer spending resulting from higher borrowing costs and lower disposable incomes.

Italy's GDP is forecast to experience modest growth in the coming years, with projections of 0.8% in 2025 and 0.7% in 2026⁵.

Fig. 3: Line chart GDP growth rate Italy 2020-2026



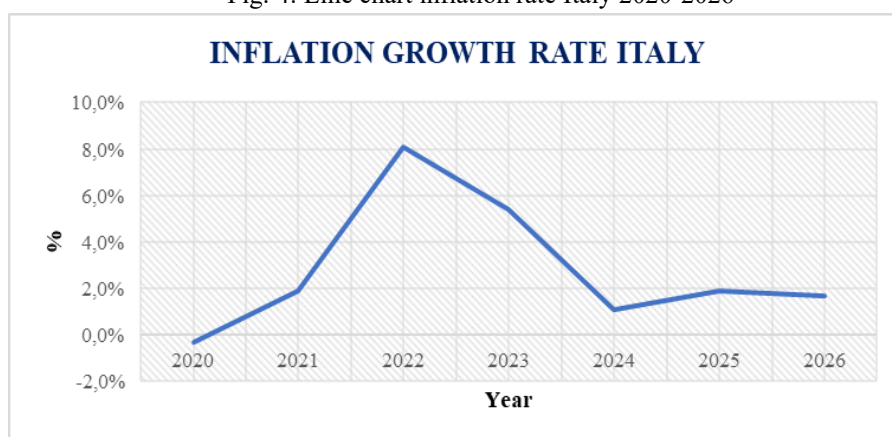
(Source: IMF 2020 - 2026)

Inflation has been a major economic challenge for Italy, particularly in the aftermath of the pandemic. While inflation was near zero in 2020 (-0.3%), it surged to 1.9% in 2021, before peaking at 8.1% in 2022, in line with broader Eurozone trends.

Despite ECB interest rate hikes, inflation remained elevated at 5.4% in 2023, before declining sharply to 1.1% in 2024⁶. The return to low inflation levels is expected to improve household purchasing power, boosting retail consumption, reduce operational costs for businesses, particularly in real estate and stabilise rental price adjustments.

Inflation in Italy is expected to stabilise at 1.9% in 2025 and 1.7% in 2026, aligning with the ECB's long-term inflation target of 2%⁷.

Fig. 4: Line chart inflation rate Italy 2020-2026



(Source: Ministry of Economy and Finance Italy 2025)

While challenges persist, including structural inefficiencies and public debt concerns, the projected stabilisation of inflation and gradual GDP recovery should support retail market expansion and investment activity in the coming years.

3. Results and Discussions

The European CRE market has rapidly swung back and forth between 2020/24, charging and retreating like a startled bull, in response to shifting macroeconomic trends, changes in monetary policy, and changes in the psyche of investors.

After an exceptionally turbulent period in the markets as a result of the effects of COVID-19 and the subsequent economic bounce back, investment demand is passive in most asset classes and geographical markets.

This chapter explores investments and the total amount of investments as well as by country, providing an overall picture of the European CRE landscape. In the five years 2020–2024 total investment volume into European commercial property showed that volume was highly cyclical influenced by the economic cycles, interest rate policy and the changing strategies of investors.

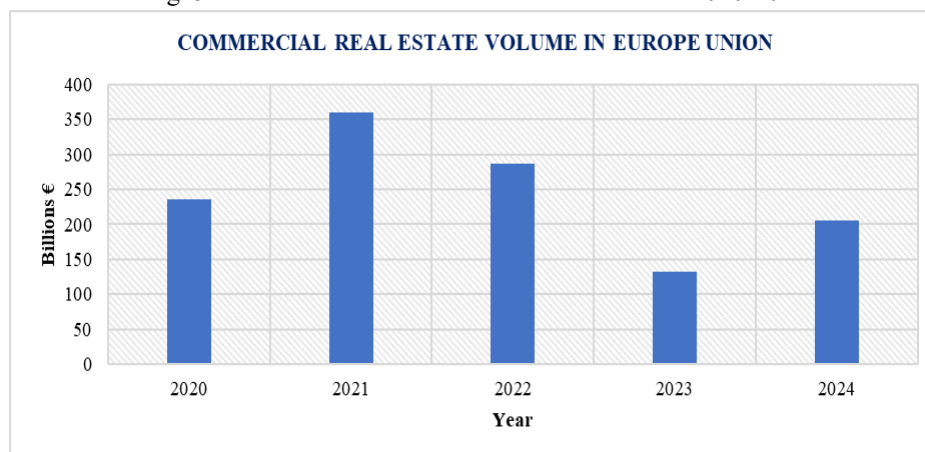
In 2020, transactions reached €235bn, representing a dramatic downturn brought about by the restrictions associated with the pandemic and the resulting economic uncertainty. Investment volumes reached €359 billion in 2021, far surpassing the previous year thanks to robust economic recovery, record-low interest rates and robust demand from investors for property as a hedge against inflation.

However, the momentum shifted in 2022, with investment volumes declining to €287 billion as rising inflation and the ECB's hiking cycle resulted in higher financing costs and a drop in risk tolerances.

Total investment dropped to €133bn by 2023, the lowest level observed in recent years, as increasing cost of borrowing and recessionary concerns dampened transactional activity across asset classes.

In 2024, investment volume appeared to have partly recovered to €206 billion, indicating rising market confidence in a backdrop of moderating inflation and economic activity.

Fig. 5: Clustered column chart CRE volume in EU 2020-2024



(Source: CBRE 2025)

Within the broader CRE market, different asset classes have exhibited varying degrees of resilience and responsiveness to macroeconomic shifts, reflecting sector-specific fundamentals and investor sentiment. The retail sector has faced persistent challenges, with investment activity remaining subdued throughout 2023, primarily due to weaker consumer demand and the continued expansion of e-commerce⁸, which has fundamentally altered traditional retail dynamics. However, not all segments of retail real estate have been equally affected.

While secondary shopping centres and non-prime retail locations have struggled to attract investment, luxury high-street retail and grocery-anchored assets have continued to demonstrate resilience.

These asset classes have retained strong investor interest due to their defensive characteristics, with luxury retail benefitting from high consumer spending in prime urban areas and grocery-anchored retail maintaining stable cash flows driven by non-discretionary consumer demand.

The office sector, on the other hand, has undergone a period of significant correction, particularly in secondary locations, as the widespread adoption of hybrid work models has led to a structural decline in demand for traditional office spaces.

Corporations have increasingly reassessed their spatial requirements, favouring flexible working environments and high-quality, ESG-compliant office spaces.

Despite this transformation, prime office markets in central business districts such as London, Paris and Berlin have shown greater resilience, maintaining relatively stable occupancy rates and rental growth due to strong demand from financial institutions, multinational corporations and technology firms⁹.

In contrast to the struggles faced by the retail and office segments, the logistics and industrial sector has emerged as one of the strongest-performing asset classes, largely benefitting from the accelerated growth of e-commerce and the restructuring of global supply chains.

Investment in warehousing and distribution centres has remained robust, as occupiers seek modern, strategically located logistics hubs to enhance last-mile delivery capabilities.

The increasing demand for highly automated, energy-efficient logistics facilities has further fuelled investor interest, making logistics one of the most sought-after real estate asset classes in recent years.

The hospitality sector, which suffered a sharp downturn in the wake of the COVID-19 pandemic, has demonstrated a remarkable recovery in 2024, driven by rising international tourism and increased occupancy rates in major European cities.

The resurgence of business travel, coupled with a strong rebound in leisure tourism, has contributed to higher hotel performance metrics, particularly in destinations such as Paris, Rome, Barcelona and London¹⁰.

Investment activity across major European markets varied considerably, with some economies experiencing steeper declines in capital flows due to country-specific economic and regulatory factors.

Germany has long been the largest and most liquid commercial real estate market in Europe, underpinned by strong economic fundamentals, a diversified investment landscape and a transparent regulatory framework. In 2021, investment volumes peaked at €110 billion, fuelled by low interest rates, favourable financing conditions and strong demand for logistics assets.

The country's status as Europe's largest economy and its deep institutional investor base further reinforced its appeal to both domestic and international capital.

However, shifting macroeconomic conditions led to a sharp decline in investment activity. By 2022, volumes fell to €51.7 billion, as rising inflation, energy price volatility and the ECB's monetary tightening dampened investor confidence.

This downturn intensified in 2023, with transactions plummeting to €21.5 billion, an 80% decline from the 2021 peak, driven by higher borrowing costs and increased risk aversion. Despite these challenges, 2024 data indicate a partial recovery, with investment volumes rebounding to €34.3 billion¹¹.

The United Kingdom (UK) CRE market has shown notable resilience despite economic headwinds, rising interest rates, and global uncertainties. As one of the world's most liquid and transparent real estate markets, it remains a key destination for institutional investors, particularly in prime office, retail and logistics sectors. In 2024, investment volumes stabilised at €61.6 billion, reflecting London's enduring appeal as a global financial hub.

The capital continues to attract strong cross-border investment, particularly from North America, the Middle East, and Asia-Pacific, due to its deep market, high concentration of corporate headquarters and world-renowned retail districts.

Although investment peaked at €62.7 billion in 2021, the UK experienced milder fluctuations compared to Germany and France, maintaining relatively stable transaction activity. Although financing costs and economic uncertainty persist, the UK remains a key global hub for finance and real estate¹².

France's CRE market has followed the broader European investment cycle, experiencing notable fluctuations due to economic shifts, rising interest rates, and changing investor sentiment. As the Eurozone's second-largest CRE market, France has long attracted institutional capital, particularly in Paris and other key metropolitan areas.

In 2021, investment volumes peaked at €38 billion, driven by low borrowing costs, strong economic growth, and a rebound in occupier demand. Paris remained a key investment hub, drawing international capital into premium office, retail and hospitality assets.

However, tightening ECB monetary policy and inflationary pressures in 2022 led to deteriorating financing conditions, triggering a steep market contraction. By 2023, investment volumes had dropped to

€14.3 billion, a 62% decline from the 2021 peak. By 2024, the market showed signs of recovery, with investment rebounding to €18.1 billion¹³.

Spain's CRE market has traditionally been more volatile than in other European regions including the North and West, reflecting structural economic differences and a lower level of immunity to macroeconomic cycles and changing investor sentiment.

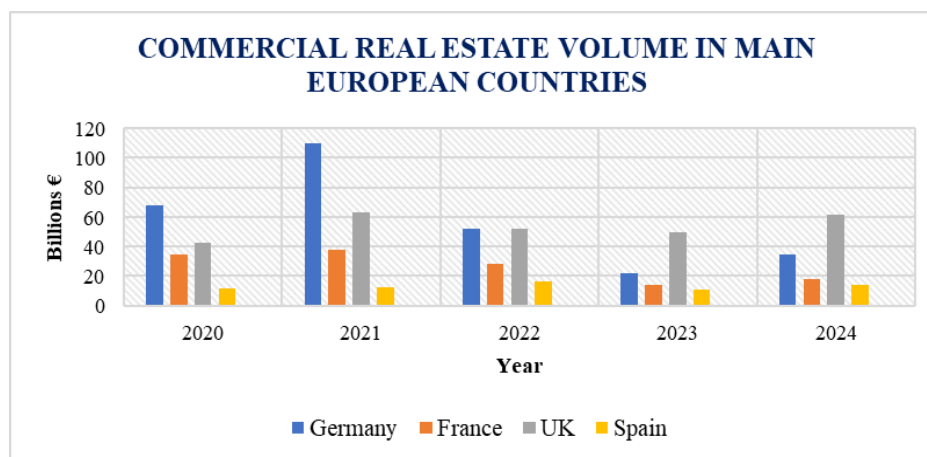
Despite the challenges, however, 2024 was a turning point with investment volumes hitting €14 billion (+26% y-o-y) represented in the highest market uptake since the recovery giving evidence of the renewed market confidence.

Activity in Spain slowed to €11.1 billion in 2023 due to higher borrowing costs, escalating inflationary pressures and decreased inflows of institutional capital. These caused a large reduction in investment transactions volumes, particularly for office and secondary retail assets.

The market was on a slow recovery path, thanks to the improving macro stability and the less hostile financial conditions by 2024 though. The rebound was fueled by sustained investor appetite for prime stock, especially in Madrid and Barcelona where office and retail demand remained robust.

Tourism-related real estate, such as hotels and resort properties in the Balearic and Canary Islands, also saw more capital inflow, benefiting from Spain being one of Europe's most popular tourist destinations. The logistics sector also saw steady growth, supported by the expansion of e-commerce and last-mile distribution networks¹⁴.

Fig. 6: Clustered column chart CRE volume in main European countries 2020-2024



(Source: CBRE 2025 & Bnp Paribas Real Estate 2021 - 2025)

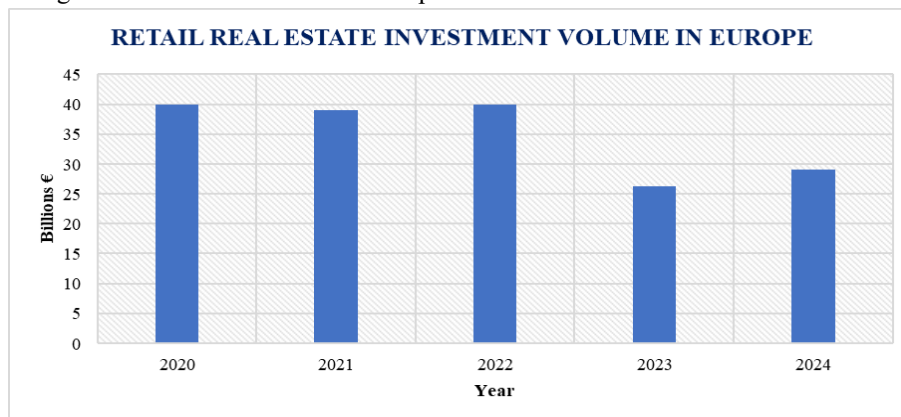
European retail real estate has experienced a marked up- and downswing from 2010 to 2015 driven by macroeconomic dynamics, changes in consumer habits and alterations in investor risk appetites / portfolio strategies.

After a period of relatively constant transition from 2020 to 2022, the volume of retail real estate trade crashed in 2023 before going into recovery mode in 2024.

While the net figure for total retail investment volume across Europe in 2020 was €40 billion, it remained steady in 2021 and 2022 at €39 billion and €40 billion. But the volume of investment in 2023 crashed to €26.2 billion, 35 percent lower than the previous year, because of higher interest rates, inflation and feeble investment sentiment.

The market mildly improved in 2024 at €29bn, reflecting improving investor sentiment and stabilising macro environment.

Fig. 7: Clustered column chart European retail real estate investment 2020-2024



(Source: PNB Paribas Real Estate 2021 - 2025)

Investment patterns across major European retail markets have varied considerably, reflecting differences in economic performance, retail resilience and investor sentiment. While some markets, such as Germany and France, experienced continuous declines in retail investment, others, like Italy and the UK, displayed a more dynamic recovery in 2024.

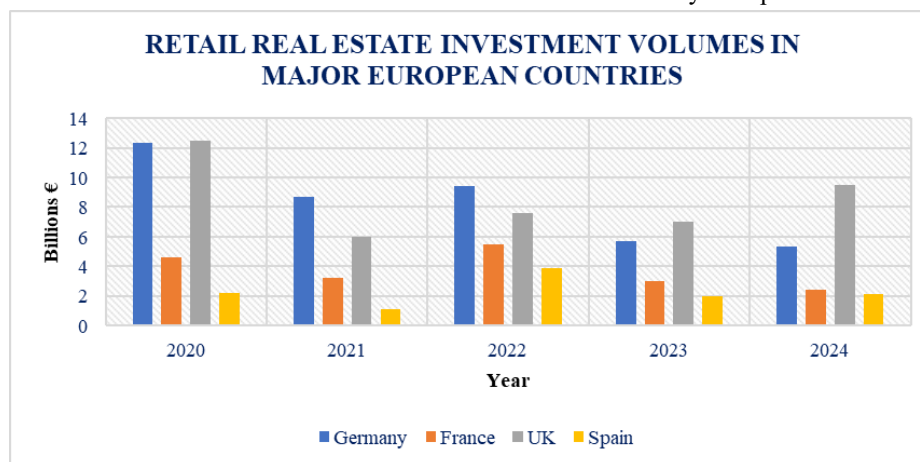
Germany, traditionally the largest retail real estate market in Europe, saw a sharp contraction in investment volume over the period. In 2020, retail investment reached €12.3 billion¹⁵, but this figure steadily declined reaching €5.3 billion in 2024¹⁶, reflecting structural shifts in consumer behaviour, the impact of e-commerce¹⁷ and weaker investor appetite for shopping centre assets.

The French retail real estate market also faced investment decline, with volumes dropping from €4.6 billion in 2020 to €2.4 billion in 2024¹⁸. The slowdown was driven by rising operational costs, lower retail sales growth and evolving retail formats favouring omnichannel strategies.

Unlike Germany and France, the UK retail real estate sector displayed greater resilience, with investment volumes rising from €7 billion in 2023 to €9.5 billion in 2024¹⁹. London, in particular, remained a focal point for luxury retail and high-street investments, benefiting from strong consumer spending and international tourism.

Spain's retail investment activity remained relatively stable, reaching €2.1 billion in 2024²⁰, a slight increase from the previous year. Investor demand continued to focus on prime locations in Madrid and Barcelona, particularly in grocery-anchored retail centres and outlet malls.

Fig. 8: Clustered column chart retail real estate investment volumes in key European countries 2020-2024



(Source: CBRE 2025 and BNP Paribas Real Estate 2021 - 2025)

The Italian CRE market reported a combined investment volume of €45.7bn from 2020 to 2024, spread across six main property types: offices, logistics, retail, hospitality, alternatives and mixed-use schemes.

The capital allocation mix in the late 2000s has been driven both by cyclical economic evolution and by changes to market structure that have impacted on investor mood and expectations in risk-adjusted returns.

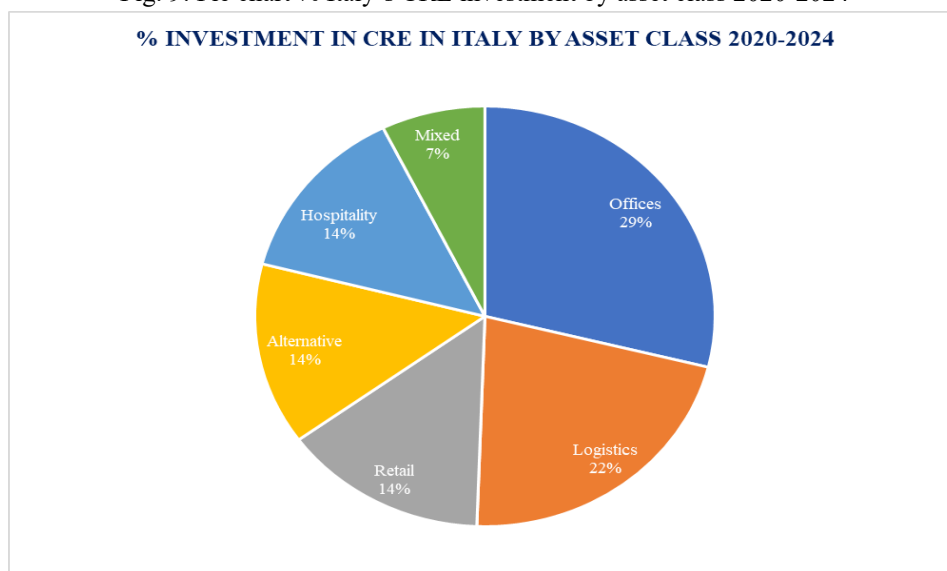
Office investment dominated total investment over the five-year period with €13.2 billion invested and was the main contributor to the overall investment volume at 28.9%.

The logistics industry was the fastest growing category, with total investment reaching €9.9 billion (21.7%), driven by increasing global e-commerce and shifts in supply chains.

The retail segment, as it went through a major structural change, secured €6.6bn (14.4%), while the hotel sector, fuelled by the country's worldwide reputation as a tourist destination, accounted for €6.25bn (13.7%). Investors also allocated £5.6bn (€6.4bn, 14.0%) in alternative assets, including such as student accommodation, data centres and care homes, representing a growing range of assets being held by institutions.

Finally, mixed-use, which combines elements of different asset classes, also saw investment strength, with a volume of €7.3bn, or 7.3%, as investors continue to seek an ability to adapt to evolving spaces and focus attention on urban regeneration schemes.

Fig. 9: Pie chart % Italy's CRE investment by asset class 2020-2024



(Source: BNP Paribas Real Estate 2021 - 2025)

The commercial property sector in Italy has demonstrated varying investment dynamics across asset classes on an annual basis, reflecting macroeconomic cycles, evolving investor sentiment and sector-specific performance trends.

Between 2020 and 2024, investment volumes exhibited notable fluctuations, driven by shifts in monetary policy, post-pandemic economic adjustments and the structural transformation of real estate demand.

Total Italian CRE investment volumes varied significantly across asset classes, with periods of expansion and contraction reflecting broader economic conditions.

Investment peaked in 2022, reaching €11.8 billion²¹, before declining to a five-year low of €6.1 billion in 2023²². A partial recovery in 2024, with investment rebounding to €9.8 billion²³, indicates a stabilisation of market conditions and renewed investor confidence.

Fig. 10: Clustered column chart CRE investment volumes in Italy 2020-2024



(Source: BNP Paribas Real Estate 2021 - 2025)

The office sector remained the largest investment category in Italian CRE, yet it faced considerable fluctuations. Investment volumes declined from €3.3 billion in 2020 to €2.1 billion in 2021, before peaking at €4.3 billion in 2022.

This growth was largely driven by strong demand for Grade A assets in Milan and Rome, particularly in ESG-compliant buildings. The sector experienced a partial recovery in 2024 (€2.2 billion)²⁴, supported by institutional capital targeting prime office locations.

The logistics sector has maintained stable investment levels, benefiting from e-commerce expansion and supply chain reconfigurations.

Investment volumes doubled from €1.5 billion in 2020 to €2.9 billion in 2022, before stabilising at €1.5 billion in 2023 due to higher interest rates affecting yield spreads.

Investment in 2024 (€1.7 billion)²⁵ indicates ongoing investor confidence, particularly in distribution hubs near Milan, Bologna, and Rome, where demand for last-mile logistics remains high.

The hospitality sector, severely impacted by the COVID-19 crisis, has experienced a steady recovery. Investment in 2020–2021 remained below €1.5 billion²⁶, but increased to €1.3 billion in 2022 as international travel resumed.

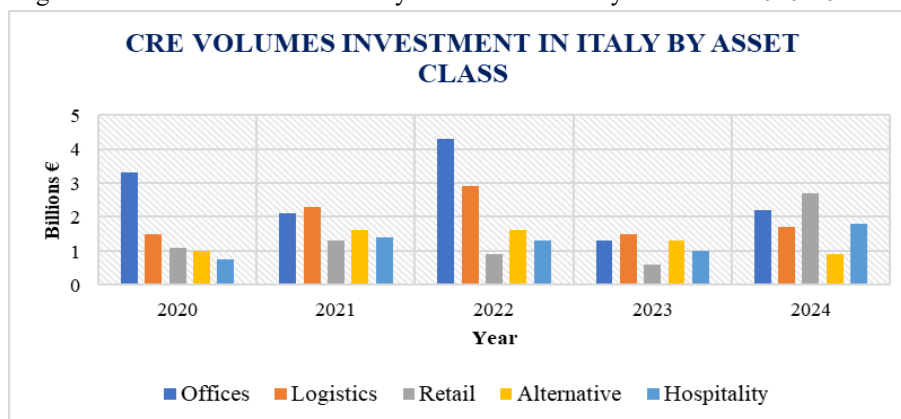
Despite macroeconomic pressures in 2023 (€1.0 billion), the 2024 investment volume (€1.8 billion) signals renewed investor confidence, particularly in luxury and boutique hotels in Rome, Florence, and Venice.

The alternative asset class, comprising student housing, healthcare real estate and data centres, has gained notable traction. Investment volumes remained stable at €1.0–1.6 billion annually, with a cumulative €6.4 billion over the period.

Investors have increasingly prioritised healthcare facilities and student housing, capitalising on demographic trends and demand for purpose-built assets.

Although not individually quantified annually, mixed-use investments amounted to €7.3 billion, reflecting the sector's growing relevance in Italian CRE. These assets cater to evolving urbanisation trends, integrating retail, office, and residential functions to enhance long-term asset viability.

Fig. 11: Clustered column chart Italy CRE investment by asset class 2020-2024



(Source: PNB Paribas Real Estate 2021 - 2025)

The Italian retail real estate market has been a consistent driver of commercial property investment trends over the last five years.

Over the period 2020–2024, retail real estate was represented in 14.7% of the total CRE investment, resulting in a cumulative investment volume of approximately €6.74 billion.

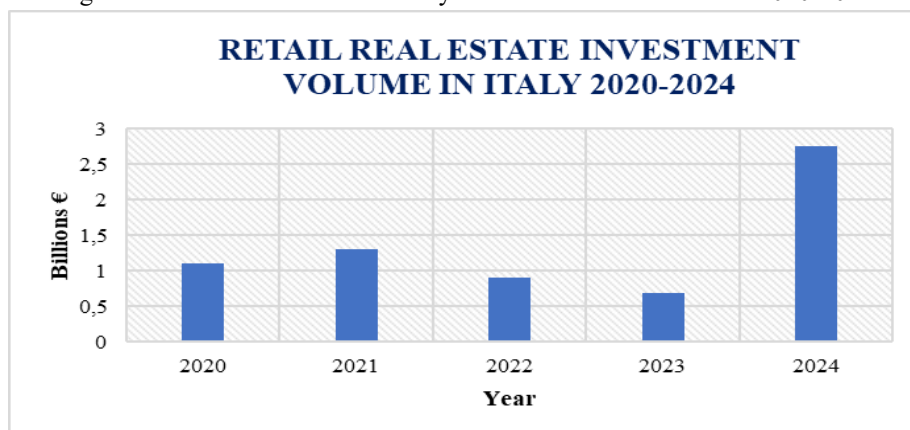
The industry, meanwhile, was characterised by huge volatility, driven by macroeconomic swings, changing consumer habits and shifting investor sentiment.

Investment in the retail sector fell over the period, from €1.1bn in 2020 to €690 mln in 2023, as the continued prospect of higher interest rates, inflation and lack of clarity over the post-pandemic recovery hampered consensus among investors.

But 2024 saw a significant rebound with retail investment volumes rocketing to €2.75 billion, indicating a recovery in capital flows and improving market dynamics.

This is more than triple the rate of the previous year and adds weight to the evidence of increasing investor appetite for resilient retail asset classes, particularly supermarkets and high-street retail.

Fig. 12: Clustered column chart Italy retail real estate investment 2020-2024



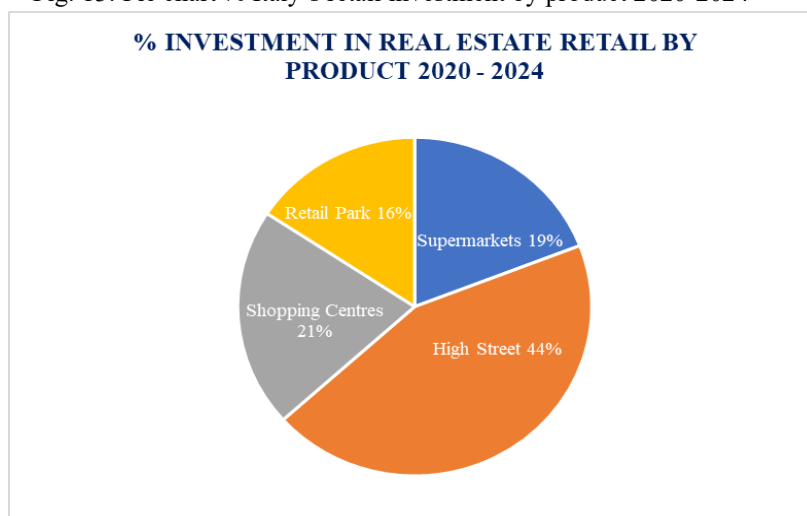
(Source: PNB Paribas Real Estate 2021 - 2025)

This recovery trend can be attributed to the defensive nature of grocery-anchored retail, which has demonstrated resilience against economic downturns. Additionally, the sustained performance of high-street retail, particularly in prime urban locations and the repositioning of underperforming retail assets have contributed, as investors shift their focus from traditional shopping centres to more adaptable formats.

Investment patterns across retail asset classes have varied, with some sectors demonstrating greater resilience and others experiencing structural challenges.

High-street retail emerged as the dominant asset class, capturing 44.2% of total retail investment (€2.98 billion), followed by shopping centres (20.92%), supermarkets (19.14%) and retail parks (15.73%).

Fig. 13: Pie chart % Italy's retail investment by product 2020-2024



(Source: PNB Paribas Real Estate 2021 - 2025)

Supermarkets have become one of the most robust retail asset classes, reaching a total €1.29bn as an investment over the 2020–2024 period, representing 19.14% of the entire retail real estate investment.

This area of investment has been more stable than other retail formats because there is a steady demand of goods that we all need, and isn't impacted by economic fluctuations the need to buy food, cleaning products is a constant.

That makes supermarkets a defensive investment.

Long-term leases also assure investors consistent indexed rental income. In addition, there has been maintaining stability following the growth of discount supermarket chains which have taken market share amid cost-of-living concerns.

For all its robustness, investment in supermarkets contracted sharply from €600 million in 2020 to a mere €60 million in 2023.

Despite its overall resilience, investment in supermarkets declined significantly between 2020 and 2023, dropping from €600 million in 2020 to just €60 million in 2023. However, 2024 saw a partial recovery, with volumes rising to €380 million²⁷, indicating a renewed investor appetite for grocery-anchored retail assets.

High-street retail has been the largest retail investment category, attracting €2.98 billion between 2020 and 2024, representing 44.21% of total retail real estate investment. Investment activity has been concentrated in Milan and Rome, where luxury brands and flagship stores continue to drive leasing demand.

Shopping centres and retail parks combined accounted for 36.65% of total retail real estate investment, but their performance has been highly fragmented.

The Italian retail real estate sector has exhibited structural resilience, with a renewed growth trajectory in 2024. While high-street retail remains the dominant segment, supermarkets and grocery-anchored assets continue to attract institutional capital, reflecting investor preference for stable, income-generating retail properties.

4. Conclusions

This study has provided an in-depth analysis of the European retail real estate market, with a particular focus on the Italian sector, contributing to the scientific and socio-economic understanding of investment dynamics in commercial real estate. The results presented are expected to enrich the literature on commercial real estate investment by operationalising market volatility and recovery, categorising investment approaches along retail formats and associating retail performance with social and economic trends.

The study quantitatively gauged retail real estate investment dynamics through 2024, using big data to map how macroeconomic factors such as COVID-19, inflation and ECB interest rates have shaped where in different asset classes capital has flowed. The empirical data supports the hypothesis that grocery-anchored retail and high street assets have shown resiliency in turbulent economic times, further solidifying their position in portfolio diversification and risk management plans.

In addition, the research undertakes a deep dive into investment patterns by supermarket, shopping centre, high-street retail and retail park, exposing dramatic changes in investor demand. The findings illustrate the overall resilience of prime urban retail properties and necessity-based sectors, such as supermarkets, over traditional shopping centres, suggesting a structural shift in retail real estate investment strategies. The analysis also confirms a relationship between real estate investment and socio-economic factors such as consumption habits, urbanisation, and technological evolution in retail. The rise of high street retail investment and grocery-anchored retail properties also reflects larger socio-economic trends, such as the growth of experiential retail, consumer interest in convenience and the growth of omnichannel retail strategies.

Supported by such trend observation, the empirical findings are with consensus: at the level of hard evidence, the investment data of industry-leading reports indicate the preference for stable retail property types in a volatile economy. The relative comparison of investments spread over asset classes and geographies further strengthens the changing profile of the European and Italian markets for commercial property. In addition, the article provides a theoretical structure linking investment activity and

macroeconomic causality, namely, through two further pull channels explaining how monetary policy changes affect retail real estate performance.

5. Acknowledgements

Author's note on the use of Generative AI

Certain small sections of this paper were written with the support of a generative Artificial Intelligence tool (ChatGPT by OpenAI), used primarily to assist in the formulation of structure and language. The content, analysis and conclusions remain the sole responsibility of the author, who has critically reviewed and validated all outputs.

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Customer Satisfaction through Omni-channel Retailing: An Analysis of Consumer Grocery Shopping Experiences in Hungary

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Abstract. *In this research, a qualitative approach is utilized, employing a semi-structured questionnaire to gather comprehensive insights from a sample of 12 respondents. The study aims to delve into the grocery shopping behaviors and experiences of Hungarian consumers, focusing on their familiarity with diverse retail channels, levels of satisfaction, preferences concerning product distribution in retail spaces, and expectations from retailer channels. The qualitative data is precisely analyzed to discern prevalent themes and construct a consumer journey-based framework.*

The outcomes of the study shed light on the pivotal factors influencing consumers' selection of grocery stores. Proximity to their residence, familiarity with the retail outlet, and the availability of high-quality products at reasonable prices emerge as key determinants. Furthermore, the research reveals distinct spending patterns correlated with household sizes, elucidating a segmentation of shoppers based on their respective household dimensions. Notably, the study observes a generational divergence in purchasing behavior. Younger demographics display a propensity for online food purchases, despite enduring longer delivery durations. Conversely, older generations exhibit a strong inclination towards traditional offline shopping experiences. In summary, this study presents valuable insights into the intricate dynamics of grocery shopping behaviors among Hungarian consumers. By unraveling the preferences, tendencies, and expectations of shoppers, the findings contribute to a deeper understanding of the retail landscape, potentially informing retailers, and policymakers on strategies to enhance customer satisfaction and tailor offerings to diverse consumer demographics. This research provides a foundation for developing effective retail strategies that align with the distinct shopping inclinations of various consumer segments within the Hungarian market.

Keywords: Customer satisfaction, omni-channel retailing, retailing place distribution policies, grocery shopping habits, consumer journey.

JEL Codes: M30, M31

1. Introduction

The retail industry has undergone a significant transformation in recent years due to technical advancements and online shopping trends. The retail business has been transformed by the introduction of new channels, such as internet shopping and delivery services. There are currently numerous purchase choices available to customers, including groceries. In this highly competitive market, retailers adopt a variety of methods to attract and retain customers. To build effective strategies, retailers must know client preferences regarding retail distribution practices (Hübner et al., 2016). The location of retail stores, the availability of online delivery services, and the convenience of pick-up locations might impact customer selections. To

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remain competitive and effectively meet consumer expectations, retailers must know the factors driving client preferences.

This study seeks to investigate the normal grocery shopping behaviors and experiences of Hungarian consumers and ascertain their preferences regarding retail distribution policies. In recent years, the Hungarian retail industry has witnessed a great boom because of new retail formats and increased internet shopping (Sikos & Kovács, 2022). Yet, there is a paucity of studies on customer preferences about retail distribution restrictions in Hungary. This study will contribute to the existing literature by throwing light on the grocery shopping habits of Hungarian consumers. The outcomes of this study will aid merchants in Hungary in devising strategies to attract and retain customers in an intensely competitive market.

The investigation will be led by four research questions (RQ1-RQ4). RQ1 seeks to evaluate customers' familiarity with various retail channels, whereas RQ2 investigates how customer satisfaction levels vary based on observed problems. RQ3 examines customer preferences about retail distribution policies, and RQ4 examines how customers anticipate retailers to address their satisfaction. These questions will provide retailers with significant insights into the grocery shopping patterns of Hungarian consumers, allowing them to identify areas for development and develop strategies to attract and keep customers in a highly competitive market.

2. Research Elaboration

As technology advances, it is becoming increasingly integrated into our daily lives. There will be a convergence of our online and offline activities in the future. Adapting to shifting consumer patterns is a challenge for marketers, sales professionals, and customer support employees (Fontanella, 2022). Instead of focusing on desktop, smartphone, tablet, and Apple Watch experiences, we should adopt an omni-channel approach that customers can access at any time. In e-commerce and retail business, "omni-channel" refers to a method of providing a unified shopping experience across all channels, including in-store, mobile, and online (Oracle, n.d.). It involves providing the same inventory, price, and promotions across all channels, or providing a tailored experience based on how people interact with your company (Fontanella, 2022). A uniform experience should be provided across all platforms if you have a website, an app, and a physical store. In addition, consumers should be able to easily switch between channels. It is possible for consumers to begin their search online and then pick up the item in person. Store associates can recommend items to add to your online shopping cart to increase the average order value. It is also important to note that firms that use an omni-channel approach often do so primarily for the purpose of improving the consumer experience. One survey indicates that omni-channel clients are the most loyal and profitable to organizations (Oracle, n.d.). Today's consumers are more connected than ever before, and they expect businesses to meet them wherever they may be. To foster loyalty and increase the likelihood of repeat business, it is important for the company to provide a consistent and seamless experience across all channels.

A business must first understand the desires and habits of its customers to comprehend how omni-channel works. Furthermore, they must be able to manage multiple channels and track data across them. To implement an omni-channel strategy successfully, companies must possess the necessary resources (Roberts, 2022). Coordinating activities across channels and keeping everyone informed is part of this process. Finally, businesses should be prepared to adapt their omni-channel approach on a frequent basis. To remain competitive, companies must be able to adapt to changing consumer tastes and behaviours. It requires experimenting with innovative ideas, accepting new concepts, and adjusting as necessary (Roberts, 2022). There are several businesses that are re-evaluating the performance metrics related to omni-channel retailing. Several benefits can be derived from the omni-channel concept, including:

Companies can reach a wider audience through it. When a company utilizes an omni-channel strategy for retail, marketing, or customer service, it can reach clients wherever they are. Consequently, they no longer must search everywhere for one (Fontanella, 2022). A simple click, email, direct message, or telephone call can be used to contact the team or items at any time.

Furthermore, it leads to a prominent level of customer satisfaction. Providing consumers with several options for contacting your customer service and sales team may result in long-term customer satisfaction; conversely, individuals may obtain items quickly regardless of their device or platform of choice (Fontanella,

2022). It is important to ensure client satisfaction to reduce customer churn and to keep clients returning to your business. It is evident that providing an omni-channel experience to customers is fundamental to the success of a business.

A business item that is offered in multiple platforms and channels increases the likelihood that business prospects will purchase the item at the appropriate time (Fontanella, 2022). Clients will be more likely to return to you or renew their memberships if you provide them with a variety of purchasing options.

The use of omni-channel is also important for marketing purposes. Through omni-channel marketing, marketing teams can give a more powerful brand message by integrating the capabilities of each communication channel (Fontanella, 2022). It is also possible to reach out to potential clients immediately, thus increasing the likelihood of converting them into leads. An omni-channel marketing strategy uses the viewpoint and interests of your customers to make your marketing message more effective. As an example, you may target only those with shared interests on Facebook and Instagram and produce materials that are tailored to each individual audience.

Despite this, organizations should understand that omni-channel marketing requires time to implement. For businesses to achieve success in omni-channel marketing, they need to develop an effective omni-channel marketing strategy (Roberts, 2022). Across all platforms, channels, and devices, omni-channel marketing strategies use the exact words, images, and positioning statements. By doing this, you can provide your clients with a consistent brand experience across a variety of platforms (Fontanella, 2022). You can assure consumers that they will receive a comparable purchasing and customer service experience if you are available on all channels and platforms that they use.

Considering the above, Palazón et al. (2022) indicate that consumer journey paradigm has been widely embraced in marketing research as a means of analysing customer experience. A client journey paradigm is based on four phases: pre-shopping, shopping, post-shopping, and loyalty. As the customer progresses through each stage, he or she experiences a distinct set of actions and emotions. This framework is designed to assist researchers and marketers in identifying the touchpoints that impact the consumer experience and developing strategies to improve customer satisfaction. Pre-shopping involves assessing customers' needs and collecting information about available items and merchants. Among their options, they may conduct research online, compare prices and deals, and speak with family and friends. As part of this study, we are seeking to identify the pre-shopping channels and sources that customers prefer to use and the factors that influence their purchasing decisions. In this study, we will investigate the factors that influence product selection, including price, quality, availability, and brand. It also seeks to uncover the elements that affect the shopping experience, including store layout, cleanliness, employee friendliness, and checkout speed.

A customer's post-purchase experience includes analysing their purchase and providing feedback to others. A customer may submit a comment to a retailer or publish a review online. In this study, we will investigate factors that influence consumer satisfaction and loyalty post-purchase, such as product quality, customer service, and brand reputation. Customers decide whether they will return to the company for future purchases during the loyalty phase. A goal of the study is to identify the factors that influence consumer loyalty, including product quality, price, convenience, and promotional offers. Furthermore, it focuses on ways that businesses can increase client loyalty, including targeted offers, rewards programs, and exceptional customer service. By employing the consumer journey framework, this study provides an insight into customers' daily grocery shopping patterns and experiences in Hungary. Based on the framework, the investigation can identify the critical touchpoints influencing the consumer experience so that retail strategies can be developed to increase customer satisfaction and loyalty.

2.1. Literature Overview

Consumers prefer to shop at stores that are conveniently located and offer priced, high-quality goods, according to research on consumers' grocery shopping habits and experiences. Customers typically plan their grocery shopping, and the older generation prefers offline shopping, whereas the younger generation has demonstrated an interest in online shopping (Gupta & Mukherjee, 2022). Additionally, research indicates that combining shopping spaces may be a viable method for retailers to attract customers (Zhang et al., 2021).

Kim's (2021) study investigates the factors that influence consumer purchasing behavior in the context of online grocery shopping. The study indicates that consumers' attitudes and preferences, such as convenience, product variety, and price, affect their decision to buy groceries online. In addition, the study emphasizes the significance of trust and perceived risk in online grocery shopping, as consumers must have confidence that the products they purchase online will be of high quality and delivered on time.

The study by Hiremath et al. (2022) investigates the effect of store layout on consumer purchasing behavior. A grocery store's design significantly impacts consumers' purchasing decisions, as it influences their perceptions of product availability, product quality, and price. In addition, the study indicates that store layout can impact customer satisfaction, loyalty, and willingness to recommend the store to others. The literature review conducted by Abdolmohamad Sagha et al. (2022) on the effects of sensory marketing on consumer behavior. The study's findings indicate that sensory marketing, such as the use of scents, music, and lighting in grocery stores, can influence consumers' emotions and perceptions, influencing their purchasing decisions. In addition, the study indicates that sensory marketing can improve customer experiences, boost store loyalty, and boost sales performance. The study by Joghee et al. (2021) investigates the effect of green marketing on consumer behavior. The study demonstrates that consumers' environmental attitudes and values significantly influence their purchase of green products in grocery stores. In addition, the study suggests that green marketing strategies, such as eco-friendly packaging and labelling, can improve customers' perceptions of the quality and value of a product, thereby boosting sales performance.

The influence of social and cultural factors on grocery shopping behavior is an additional crucial factor. Guo et al. (2022) investigated the effect of culture on grocery shopping-related consumer decisions. The study found that culture can affect consumers' attitudes toward food products and preferences for various store types. For example, consumers from collectivist cultures prefer traditional grocery stores, whereas consumers from individualist cultures prefer supermarkets. In addition, consumers' social networks also influence their grocery shopping behavior. Kabir and Islam (2021) investigated the influence of social influence on consumers' intentions to buy organic food products. The study discovered that social impacts, such as recommendations from friends and family, can significantly affect consumers' attitudes toward organic food products and their willingness to pay a premium.

Psychological variables have a significant impact on supermarket buying behavior in addition to social factors. Hermes and Riedl (2021) investigated the effect of emotions on consumers' grocery shopping-related decision-making. The study found that positive emotions, such as happiness and excitement, can increase consumers' purchase propensity and perception of the products' worth. Negative emotions, such as anxiety and sadness, can reduce consumers' willingness to buy products and their perception of their value. In addition, consumers' cognitive processes can also influence their grocery shopping decisions. Miftari et al. (2022) investigated the influence of cognitive biases on consumers' attitudes toward food products. According to the study's findings, cognitive biases, such as the availability heuristic and confirmation bias, can influence consumers' perceptions of product quality and taste, as well as their willingness to pay for products.

The research conducted by Breeden et al. (2019) explored the emotional antecedents and outcomes of grocery shopping among older consumers. Positive emotions experienced during shopping result in higher satisfaction and store loyalty, whilst negative emotions result in dissatisfaction and a decreased likelihood of returning. According to the survey, elderly consumers also cherish the social side of grocery shopping, which fosters a sense of community and belonging. Food shopping was the subject of Chenarides et al. (2020) investigation of consumer behavior throughout the COVID-19 epidemic. According to the survey, customers purchased more shelf-stable items, frozen foods, and cleaning supplies during the pandemic. Consumers preferred online shopping and home delivery to avoid delicate contact and reduce the risk of infection.

The research conducted by Grunert et al. (2014) indicated that most respondents preferred online grocery purchases using mobile apps, citing convenience and timesaving as the top reasons. Moreover, the survey indicated that offline shoppers judged offline buying more credible and trustworthy than online purchasing.

According to Negara (2023) a store's ambience and layout can affect customers' purchasing behavior and experience. A well-designed retail design can increase client happiness and boost sales. In contrast, a well-designed store layout can lead to customer clarity and displeasure, potentially decreasing sales. Whereas,

according to Zhao et al., (2021) price perception is another significant aspect that determines the grocery buying behavior of consumers. Consequently, buyers perceive pricing differently depending on factors such as the store's reputation, the quality of the goods, and their individual experiences. In addition, shoppers utilize a variety of tactics to evaluate prices, including store-to-store comparisons, unit pricing, and the pursuit of discounts and sales (Zhao et al., 2021). Research also indicates that social and cultural factors influence the shopping behavior of clients. Customers from collectivistic cultures, for instance, tend to prioritize social bonds and community harmony, which can impact their shopping habits (Faraoni et al., 2021). On the other hand, individualistic societies tend to prioritize personal objectives and independence, which can result in distinct shopping practices. Therefore, client retention and loyalty are crucial considerations in grocery retail. According to research, people tend to remain loyal to retailers who provide high-quality goods at competitive pricing and customized attention (Gerpott & Berends, 2022). Nevertheless, successful customer relationship management methods can impact customer loyalty and retention by fostering long-term relationships with customers. Additionally, research indicates that introducing technology in grocery retailing can dramatically influence customers' purchasing behaviors and experiences. For instance, self-checkout systems and smartphone applications can improve customers' shopping experiences by reducing wait times and enhancing convenience (Duarte et al., 2022). Yet, introducing technology in grocery commerce can also result in difficulties, such as technical failures and privacy concerns. In addition, research indicates that the availability of fresh produce and healthy food selections is a crucial element that influences the grocery shopping behavior of consumers (Duarte et al., 2022).

A grocery store that provides individualized experiences and rewards is more likely to retain consumers (Ameen et al., 2021). According to Ameen et al. (2021), grocery stores can increase consumer happiness and loyalty by adopting sustainable practices, such as minimizing packaging waste and utilizing eco-friendly products. Moreover, businesses can use social media platforms to engage with customers and understand their preferences and demands (Ameen et al., 2021). According to a study by Ha and Jang (2012), people view the environment of a grocery store as a significant aspect of their shopping experience. Customer behavior and purchasing decisions can be influenced by in-store displays, music, lighting, and other environmental elements Ha and Jang (2012). Moreover, Ha and Jang (2012) discovered in a separate study that stores layout and design, such as the positioning of aisles and shelves, can influence customers' purchasing behaviors and preferences.

3. Methodology

As part of the methodological framework of this qualitative study, a semi-structured interview questionnaire was used. Compared to quantitative research, qualitative research aims to gain a deeper understanding of complex events by examining how they are perceived and experienced by humans. Semi-structured interviews are beneficial for researching challenging topics and can produce rich, detailed data when used as part of a research process. As a result, researchers can ask open-ended questions while maintaining some control over the interview direction. The sample size of this study consisted of twelve Hungarian respondents who participated in the study. It is often the case that the sample sizes of qualitative studies are smaller than those of quantitative studies, even though qualitative research focuses on understanding individual experiences in-depth rather than generalizing findings to a larger population (Villiers et al., 2019).

The study employed a purposive sampling strategy to ensure the inclusion of respondents with relevant and varied perspectives on omni-channel grocery shopping. This approach was selected to deliberately target individuals who met predefined eligibility requirements and could provide meaningful insights aligned with the study's objectives. The criteria for inclusion were as follows: respondents had to be citizens and residents of Hungary, aged between 24 and 50 years in the final sample, with mixed representation in terms of gender, urban and rural residence, and household size. Given the focus on omni-channel retailing, all respondents were required to have experience with both in-store and online grocery shopping. Candidates with only single-channel shopping experience were not considered suitable for inclusion.

Recruitment was conducted through the researchers' personal and professional networks. Potential participants were identified and invited via email to voluntarily participate in the interviews. In line with the study's aim to capture diverse consumer perspectives, efforts were made to achieve variation in age, residential

location, and shopping frequency. The final sample consisted predominantly of citizens and residents from Budapest, supplemented by citizens and residents from suburban areas and small towns, ensuring representation across different geographic contexts within Hungary.

Exclusion criteria included current employment in the retail sector, so as to avoid potential bias arising from insider professional knowledge, and a lack of grocery shopping experience within the past year. This ensured that all participants were active consumers with current, firsthand experience in omni-channel grocery retail environments.

While the sample size of twelve respondents is smaller than in quantitative designs, it is consistent with qualitative research practice, where the emphasis is on depth of understanding rather than statistical generalization (Villiers et al., 2019). The final number was determined by a combination of data saturation, where no substantially new themes were emerging from interviews, and time constraints related to the data collection window. This pragmatic consideration balanced the need for rich, detailed accounts with the study's logistical and resource limitations, while still capturing a breadth of perspectives relevant to the Hungarian grocery retail context.

According to the questionnaire, the purpose of the study was to gather information about respondents' knowledge of retail channels, their overall satisfaction with grocery shopping, their preferences regarding retail distribution tactics and expectations from retail channels in terms of satisfaction. We included open-ended questions in our survey to give respondents the opportunity to express their thoughts and experiences. The data from the interviews was then analyzed to identify recurring themes that emerged from them. To accomplish this goal, a method widely accepted in social science research, known as thematic analysis, was used (Villiers et al., 2019). A thematic analysis is the process of identifying data patterns to organize them into a conceptual framework or model based on the findings. Following the analysis of the results, a framework based on the consumer journeys of the respondents was developed to map the findings onto.

In this research endeavor, 12 interviews were conducted over two weeks starting on October 18th and concluding on October 27th, 2022. The interviews were conducted remotely using the video-conferencing platform Google Meet, which provided the functionality of screen recording. Every participant engaged in the interview via this digital platform. Following the interview sessions, the transcriptions of each conversation were meticulously generated employing the transcription tool, Descript.com. Additionally, minor spelling corrections were applied where deemed necessary, aiming to bolster the accuracy and readability of the transcriptions. These transcriptions held pivotal importance as fundamental textual data for the subsequent comprehensive analysis and interpretation of the study's findings.

Post-interview sessions, the transcriptions underwent an intricate analytical process, commencing in November 2022 and lasting two months. This rigorous analysis entailed a systematic scrutiny of the transcribed data, involving the identification of recurrent themes, patterns, and notable insights from each interview. The analysis encompassed an extensive categorization and coding of the data, enabling a thorough understanding of the participants' perspectives and experiences in alignment with the research objectives. The insights gleaned from this analytical approach constituted the foundation for drawing conclusive inferences and deriving meaningful implications within the research's contextual domain. The robustness of the findings was diligently ensured through an extended and meticulous analytical phase, facilitating a heightened degree of accuracy and nuanced comprehension of the research domain.

One of the methodology's merits is that it allows for a thorough investigation of individuals' experiences and perspectives. Using open-ended questions in semi-structured interviews encourages respondents to describe their experiences in their terms, producing rich and detailed data. Due to the small sample size, it may not be possible to generalize the results to a larger population. However, the gathered results are subjective and may be influenced by the respondents' individual biases or points of view. However, purposive sampling can help reduce this limitation by recruiting individuals with diverse experiences and viewpoints. This study's methodology provides a complete assessment of Hungarian consumers' grocery shopping behaviors and experiences. The combination of semi-structured interviews and thematic analysis allows for a comprehensive understanding of the experiences and perceptions of respondents. The framework developed based on the

consumer journeys of the respondents provides valuable insights into the factors that influence grocery shopping pleasure and can impact retail strategies and policies.

4. Results and Discussions

The study's findings provide significant insights into customers' grocery shopping habits. The location of a grocery store has a considerable influence in recruiting customers since respondents tend to choose establishments depending on their proximity. This research emphasizes the significance of shops having a strong physical presence in their customers' neighborhoods to meet their needs. In addition, familiarity with a particular grocery store was revealed to be a key factor in consumer decision-making. Respondents favored stores where they were acquainted with the layout, merchandise, and personnel. This conclusion emphasizes the significance of businesses' efforts to cultivate a strong relationship with their customers and provide a pleasant shopping experience.

Another major result is that grocery shopping is planned, and expenses fluctuate based on the size of the household. This conclusion emphasizes the significance of retailers providing a varied selection of products to meet the needs of various households. The study also revealed that the older age preferred purchasing offline, whilst the younger generation has demonstrated an interest in internet shopping. To attract younger customers, retailers may explore offering online purchasing choices with speedier delivery periods. In addition, the study discovered that shoppers prefer in-store purchasing fresh goods, such as meat and vegetables. Consumers can touch, smell, and scrutinize merchandise, which is not feasible while purchasing online. This research highlights the need to keep high-quality fruit and to invest in in-store displays to attract customers.

Table 1: Selection of grocery stores based on consumer's instant location

Consumer	Reasons for Store Selection
Female 37	Next to Keleti station on the way home
Female 26	Promotions, sales, new products; Proximity to home
Male 27	Near to workplace; Wide product selection
Male 28	Convenience; Quality products “(Male 28) Yeah. I think some guidance or some sign, you know, that hey, something used to be here, but we rearranged. You can find it here. You know, like for example, when there is a store in town and they have, they move to another office building or something like that, they put the sign on the door that, hey, we move from here to there and that is easy for you to find this, this store is closed.”
Male 31	Proximity to gym; Quick shopping; Convenience

(Source: Our compilation)

Also, the study indicates that merchants might integrate store locations to engage customers. Customers can collect points and redeem them in-store by using a store's mobile application, which is a viable technique for merchants to boost consumer engagement and loyalty. In conclusion, the study's findings offer crucial insights into the grocery shopping habits of customers. These insights can be utilized by retailers to enhance their store offers and attract more customers. By emphasizing elements such as location, familiarity, and product selection, businesses can create a pleasurable shopping experience that fits their customers' needs.

Table 2: Grocery shopping routines

Topic	Summary
Planning	In Hungary, respondents schedule their grocery shopping a week in advance and create a shopping list. They shop only for necessities and avoid making impulsive purchases. Several respondents have dietary restrictions and must make a shopping list prior to visiting a large supermarket. Younger respondents examine costs between retailers on the Internet and arrange their shopping trips for the following week accordingly.
Expenditure	Depending on the size of a multi-person family, the amount spent on groceries will vary. Specifically, the weekly grocery bill ranges between 28,000-40,000 HUF (Hungarian forint). In one household, however, every other day's expenditures are between 7,500 and 8,500 HUF. In contrast, people living alone spend between 10,000 and 20,000 HUF each week on groceries.

(Source: Our compilation)

Table 3: Experiences and attitudes towards in-store vs. online grocery shopping

In-store Grocery Shopping (Dislikes)	Online Grocery Shopping (Reasons for not doing it)
Crowded with other customers	Prefer short walk outside
Staff loading shelves with new products	Do not trust freshness of delivery for meat products
Inferior quality shopping bags	Want to touch and smell the vegetables
Annoyed by shuffling of shelves	Long delivery times
	Prefer in-person shopping for food
	Not opposed to online shopping, but not brave enough

(Source: Our compilation)

The disadvantages of grocery shopping in-store include congested stores, personnel filling shelves, low-quality shopping bags, and constantly shifting shelves. Despite these disadvantages, some consumers continue to prefer in-store shopping. The reasons for not shopping for groceries online include a preference for short journeys outside, more confidence in the freshness of delivered meat goods, a desire to touch and smell the veggies, and the experience of extended delivery times. Nonetheless, some consumers are not against internet buying but must test it.

Table 4: Summary of regular grocery shopping habits and store preferences

Shopping Habit	Store Preference	Reason
Choose based on home location	Nearest grocery store	Easy to get there
Quality over quantity	Auchan	Products are of decent quality

Specific products	Aldi	Products can only be found there with that taste and quality
Fresh fruits and vegetables	Lidl	Good for fresh fruits and vegetables
Stick to familiar store	Affordable products of decent quality	Familiarity and decent quality products
Younger respondents prefer	Open on Sundays	Shop at the weekend and need stores open on Sundays
Penny Market	Penny Market	Decent prices and can find everything there
Variety of foods	Auchan	Wide variety of foods
Fresh and unprocessed products	Butcher or vegetable store	Fresh and healthy products
Flowers, healthy options, cheese, plants, and variety of foods	Aldi	Affordable and decent quality products
Broad variety of products	Aldi and Lidl	Affordable and broad variety of products
Promotions and discounts	Chinese discount shops	Close to apartment and discounts
Online shopping	Check products, stock, and prices	Online shopping before buying in-store
Familiarity, fresh products, and decent prices	Lidl	Easy to go to, familiar with products, fresh products, and decent prices
Guidance or sign for rearrangement	Any store	Helps customers find products in a newly arranged store

(Source: Our compilation)

4.1 Discussions

To answer the research questions, the above findings need to be supported by the literature to be considered valid.

RQ1: How familiar are different customers with retail channels, and how do they use them?

The familiarity of various customers with retail channels and how they use them is crucial to comprehending their shopping behaviors. The study's findings indicate that traditional retail channels such as supermarkets and hypermarkets continue to be the preferred shopping destinations for most consumers. Customers' preference for shopping close to their houses shows the importance of convenience in their decision-making processes. This preference is more pronounced among elderly respondents, who may have mobility restrictions or prefer the familiarity of shopping at local establishments. Nonetheless, the shopping patterns of the younger population suggest a shift toward internet outlets. These respondents are more likely to compare costs online and schedule their shopping trips for the next week appropriately.

This research suggests that younger shoppers are more knowledgeable and employ technology to enhance their purchasing experience. In addition, the study revealed that only one respondent, a male aged 50, purchases groceries online but is open to exploring new Auchan products. This research demonstrates the potential for online channels to attract a broader range of customers, provided retailers can handle the constraints of online buying, such as delivery times and product quality. In conclusion, the findings of the study reveal that familiarity with different retail channels differs by age group, with older customers being more familiar with traditional retail channels and younger customers being more comfortable with online channels. Retailers must

comprehend these disparities in client behavior to adapt their marketing methods to attract a broader spectrum of customers.

RQ2: How does customers' overall satisfaction differ depending on the problems they encounter before making a final purchase decision?

This subject was not particularly addressed in the survey, although it is evident that factors such as location, product quality, and price affect respondents' happiness. Yet, past research has explored the relationship between customer happiness and the difficulties they face during the buying process. For instance, Brandtner et al. (2021) observed that issues such as lengthy wait times, product unavailability, and bad customer service negatively impacted consumer satisfaction. Tzeng et al. (2021) discovered in a separate study that customer satisfaction was much lower when they faced issues with product quality, price, and delivery. Similarly, Damanik (2022) discovered that customers' satisfaction was affected by issues they encountered during the online shopping process, such as difficulty browsing the website, sluggish website speed, and technical difficulties.

Those who had a pleasant online buying experience, on the other hand, reported greater levels of satisfaction. Consequently, it is logical to suppose that consumer happiness varies based on the challenges they encounter prior to reaching a final purchase choice. Customers are likely to report lower levels of satisfaction if they encounter barriers during the buying experience. By resolving these issues and delivering superior customer service, retailers may boost customer happiness. In addition, merchants can conduct surveys and solicit customer feedback to discover areas for improvement and seek to enhance the shopping experience.

RQ3: What are the preferences of customers in terms of retailing place distribution policies?

Respondents tend to choose grocery stores based on proximity, familiarity, and the availability of inexpensive, high-quality goods. Using a store's mobile application to accumulate points and redeem them in-store enables the identification of combining purchasing areas. Further research has been undertaken to understand client preferences regarding retail distribution policies. According to a survey, people prefer to prioritize a retail store's closeness and convenience when making purchasing decisions. People frequently favor stores that are easily accessible from their homes or places of work and offer a diverse selection of goods at reasonable rates.

Kowalczyk and Siepmann (2020), discovered that buyers value the ability to purchase things both online and in-store. Consumers like the ability to explore and compare products online prior to making their final purchase in a real location. Retailers who give this purchase option to their clients have a competitive edge over those who offer only one. According to research, people prefer stores that are straightforward to navigate and have clear signage (Nguyen et al., 2019). This makes their shopping experience more productive and pleasant. Moreover, product placement within a business might affect purchasing decisions. For instance, presenting complementary products close to chips and dips can attract customers to purchase both things (Grewal et al., 2022). Overall, it is evident that shoppers prioritize ease and affordability when selecting a retail location. By prioritizing these characteristics in their distribution practices and store design, retailers may attract and maintain loyal customers. Offering many purchase alternatives, including online and in-store, can also give merchants a competitive advantage.

RQ4: In what ways do customers expect retailer channels to address their satisfaction?

The survey did not directly address this research topic; however, it may be extrapolated that shoppers expect shops to provide convenient, economical, fresh, and high-quality grocery shopping options. Nonetheless, research on customer happiness in the retail business indicates that customers have specific expectations of retailers that influence their levels of satisfaction. To retain customers and achieve a competitive advantage, retailers must fulfill these requirements (Panda et al., 2020). Consumers anticipate retailers to provide high-quality products, an extensive selection of products, competitive prices, a clean and well-kept store atmosphere, efficient and courteous service, and convenient payment and delivery choices (Panda et al., 2020). In addition, shoppers anticipate shops to appreciate their feedback and take complaints seriously, providing timely and effective responses to problems they encounter (Panda et al., 2020).

Personalization is increasingly gaining importance as a component of customer happiness, as customers demand advice and experiences that are tailored to their own requirements and preferences (Tyrväinen et al.,

2020). Customers expect a fluid and user-friendly interface, accurate and up-to-date product information, a range of payment and delivery options, and dependable and quick delivery services when grocery shopping online. Customer ratings and reviews are also influential in determining customer happiness, as buyers rely on the experiences of others to make informed purchasing decisions. Moreover, customers want shops, whether online or offline, to provide a hassle-free and satisfying buying experience. Therefore, retailers must meet these expectations to establish and maintain a loyal consumer base and to remain competitive in the retail business.

The findings of this study illuminate the significance of understanding customer preferences concerning retail distribution policies. The results imply that to attract and retain customers, merchants must prioritize location, convenience, accessibility, product quality, and price. One of the most critical findings from this study is the significance of location in customer decisions. Consumers like stores located close to their homes or places of employment, as this makes shopping more convenient and accessible. Customers' familiarity with the store is another crucial component in their decision-making. Consumers are more likely to prefer familiar establishments because familiarity fosters a sense of comfort and trust. To attract and retain customers, retailers must invest in creating brand recognition and loyalty. To attract customers, providing affordable, high-quality products is essential. Consumers seek value for their money and prefer stores selling high-quality goods at competitive pricing.

The report also emphasizes the significance of comprehending customer purchasing behavior. This affects businesses regarding inventory management and stocking tactics, as customers typically plan their grocery purchases. To prevent disappointing customers, retailers must ensure they have a sufficient stock of popular items, particularly during peak shopping. The study also revealed that the older age preferred purchasing offline, while the younger generation has demonstrated an interest in internet shopping. This emphasizes the need for businesses to adopt a multi-channel strategy to reach various client segments. While online shopping may only be suitable for some clients, shops need to offer this alternative to those who prefer its ease.

The study indicated that people prefer fresh items such as fruits and meats when they shop in-store. This is because people like to see and touch products before purchasing. To attract and maintain customers, retailers must guarantee that they offer fresh, high-quality goods. The study concludes that integrating retail locations can be an effective method for shops to attract customers. Using mobile applications that allow customers to collect and redeem points in-store can be an efficient method of encouraging customers to visit the store and make purchases. This method can also assist retailers in enhancing customer involvement and brand loyalty.

To attract and retain customers, retailers must prioritize location, convenience, accessibility, product quality, and price. In addition to gaining access to distinct consumer categories, retailers can also benefit from a comprehensive understanding of customer buying habits and the provision of multi-channel possibilities. Retailers must also offer fresh, high-quality produce to attract and maintain customers. Retailers may boost consumer engagement and brand loyalty by merging store venues and employing mobile applications to engage customers.

5. Conclusions

The study's findings emphasize the significance of understanding customer preferences in retail distribution policies. While designing distribution policies, retailers must consider location, convenience, accessibility, product quality, and price. Consumers favor familiar establishments close to their homes which offer priced, high-quality goods. Businesses may increase customer happiness by providing fresh, high-quality products and ensuring their store is accessible and convenient. The study's findings also indicate that the older age prefers conventional offline buying while the younger generation is more receptive to online shopping. This recommends that shops offer various shopping options, including online and offline ones, to accommodate the interests of multiple ages. In addition, companies may encourage younger customers to shop online by reducing delivery times and enhancing the usability of the online shopping experience.

Customers prefer purchasing fresh produce in-store because they can touch and smell it before purchasing. Retailers must prioritize the quality and freshness of their produce and maintain constant stock levels. Also, shops can entice customers to shop in-store by offering specials and discounts on fresh food. The study

identifies combining store areas as a potential technique for merchants to engage customers and increase customer loyalty. By employing a smartphone application to collect and redeem points in-store, retailers may deliver a seamless shopping experience for customers and encourage them to shop at their stores. This strategy can also assist retailers in collecting data on client preferences and tailoring their goods to match customer wants. Overall, the study gives insightful information on client preferences in retail distribution policies. Retailers can use this data to design customer-centric initiatives that eventually increase customer happiness and brand loyalty. By prioritizing criteria such as location, convenience, accessibility, product quality, and price, retailers can distinguish themselves from competitors and gain a competitive advantage in the retail business.

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Value Orientations of Young Students (Ages 18–23) in Kazakhstan: Findings from an Urban University Sample

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Abstract. *We analyze value orientations among urban university students (ages 18–23) in Kazakhstan using a cross-sectional survey (n = 600) and 20 semi-structured interviews conducted face-to-face on university premises in Almaty and Astana (Oct–Nov 2024). The questionnaire adapts WVS-7 items via double translation and piloting; interviews were transcribed and thematically coded. Scope is limited to students in two cities. Results. At the individual level, students prioritize self-enhancement: 64% name financial stability as a key goal and 81% emphasize career advancement; leisure/time autonomy is important to 83%. Health is widely valued (65% monitor it, though 33% report no systematic approach). At the social level, family remains central (e.g., 97% prioritize relatives' health/safety; 96% intra-family relations; 95% family prosperity; 91% intergenerational ties), while wider non-family circles are thinner. Institutionally, ideals of transparency/fairness are endorsed, but confidence is cautious: 25% trust those in power; 29.8% report trusting no public sources at all. Civically, respondents support lawful avenues (authorized rallies) and community responsibility, yet engagement is selective (34% express interest in socio-political life; 29% report volunteering). Environmental concern is affirmed in principle, but salience is uneven: 23.4% do not believe climate change is real. Contribution. The value profile blends enduring family-centered norms with pragmatic individualism and critical-loyal views of institutions. Findings inform higher-education policy and student support (civic-engagement infrastructure, career transition and financial-literacy services, environmental literacy), rather than nationwide youth policy. Limitations include urban student focus and cross-sectional design; we outline longitudinal and comparative extensions.*

Keywords: young students; university students; value orientations; institutional trust; civic attitudes; Kazakhstan; WVS-aligned measures.

JEL Codes: I23; Z10; Z13; Z19; J24; Y80.

1. Introduction

In the first decades following independence, Kazakhstan underwent large-scale sociopolitical changes that significantly influenced the value orientations of its youth. The abrupt transition from Soviet ideology to the construction of a national state was accompanied by an official ideological vacuum and a simultaneous revival of traditional values and religion. Studies show that the post-Soviet generation of Kazakhstani

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citizens, who came of age outside the communist system, has gradually been reassessing its priorities, although fundamental collectivist values have remained intact (Adilova et al., 2021; Beissenova et al., 2014). Thus, despite profound social transformations, young people still prioritize family values, stability, and respect for the older generation, reflecting the mechanism of intergenerational transmission of enduring cultural elements. At the same time, today's youth display traits that distinguish them from their Soviet predecessors: a more pronounced individualism, a drive for personal achievement, and a pursuit of material success in the context of market reforms (Laruelle, 2019). This so-called "Nazarbayev generation," whose childhood and adolescence unfolded under the first president, on the one hand became a product of the economic liberalism of the 1990s–2000s, and on the other hand served as a target of deliberate state policies concerning national education (Burkhanov et al., 2019). The state actively promoted the idea of a qualitatively new generation, free from the Soviet legacy (Beylur, 2020), which manifested in the revival of the Kazakh language and cultural traditions, the heightened role of Islam in society, and the formation of a nationwide identity. Sociological data confirm the rising interest of young people in religion: the proportion of young Kazakhstanis who deem it important to instill religious faith in children grew significantly from 9% in 2011 to 17% in 2018 (Sharipova, 2020). According to researchers, this new generation, which never experienced Soviet ideology, naturally turns to Islamic values and national traditions in its search for self-identification (Ileuova, 2023). These processes reflect the complex interweaving of modernization and retraditionalization trends in the sphere of youth values in Kazakhstan.

Since independence, Kazakhstan has undergone substantial socio-economic change—market reforms, urbanization, expansion of higher education, and rapid digitization. Youth socialization has unfolded within this shifting environment, producing a hybrid value profile in which enduring family-centered norms coexist with rising individual aspirations. Prior research documents both continuity (family, intergenerational obligations, respect for order) and gradual shifts toward self-realization and entrepreneurship (e.g., WVS-aligned studies; Inglehart/Schwartz frameworks).

Against this background, the early 2020s brought adjustments in policy and administration as well as livelier public debate about institutions. In this article we deliberately refrain from classifying regime types or narrating specific political episodes. Instead, we treat the context in general terms—as a moving institutional and information environment that may shape expectations about fairness, opportunity, and institutional performance. Our empirical focus is not politics per se but observed value orientations among young students.

We analyze urban university students (ages 18–23) in Almaty and Astana using a WVS-aligned survey (n = 600) and 20 semi-structured interviews (Oct–Nov 2024). The analysis is organized across four layers—individual, social, institutional, and civic—and reports distributions and thematically coded interview material. Given the design and scope, inferences are descriptive and limited to students in two cities. The contribution is twofold: (i) an updated student-focused portrait of value orientations that can inform university-level policy and student services (e.g., civic engagement infrastructure, career transition and financial literacy modules, environmental literacy); and (ii) comparable indicators that can be reused in longitudinal and cross-regional extensions. For general background on youth socialization, institutional context, and external influences in Kazakhstan, see Adilova et al. (2021); Beissenova et al. (2014); Junisbai & Junisbai (2020); Kenzhebayeva et al. (2018); Junisbai et al. (2017); Kudaibergenova & Laruelle (2022); Thorez (2022); Chapman & Zhandayeva (2023); Sharipova & Beimenbetov (2021); Laruelle (2019); Zhussipbek & Nagayeva (2019).

Regarding Western influence, it often appears as a cultural and educational benchmark. Through scholarship programs such as “Bolashak,” thousands of young Kazakhstanis have studied in Europe and the United States, assimilating aspects of Western political culture and human rights values. Globalization and digitalization have opened access to worldwide informational resources, social media platforms, and international discussions, fostering a more universalist worldview among advanced segments of youth. Nevertheless, the adoption of “Western” values proceeds selectively. Many young specialists who have been educated in the West participate in civic initiatives and volunteer movements, promoting values such as transparency, environmental responsibility, and gender equality (Khasanova, 2020). However, the broader youth population continues to exhibit a certain detachment from Western political models: according to opinion polls, only a minority view the liberal democracies of the United States or Europe as a suitable model for Kazakhstan, whereas most either favor a distinct path or look to nearer neighbors. This ambivalence reflects the complexity of value transformation: the younger generation is simultaneously embedded in global cultural contexts and rooted in local tradition.

Contemporary Kazakhstani youth find themselves at the intersection of multiple influences—post-Soviet structures, national reforms, and global trends—which predetermines the hybrid nature of their value orientations. While preserving continuity in core values (family, stability, respect for order), young Kazakhstanis increasingly exhibit new traits: a drive for self-realization and entrepreneurship, a rise in critical attitudes toward authority, and a demand for social justice. The geopolitical shifts and domestic reforms of recent years have accelerated the evolution of youth values, making them more dynamic and open to change (Zharkynbekova et al., 2025). This dynamism manifests, on the one hand, in the continued pursuit of modernization and pluralism (e.g., tolerance for cultural diversity, technological and global engagement), and on the other hand, in an awareness of individual identity and rights within the state. In this study, we track how the value profile of the “New Kazakhstan” generation develops, those who will shape the country’s future, develops under these new historical conditions. The present study aims to analyze these processes and phenomena, offering a comprehensive view of the transformation of Kazakhstani young university students’ value orientations in light of recent political reforms and external influences.

2. Research Elaboration

2.1. Methodology

We combined a WV S-7-aligned survey (n = 600) with 20 semi-structured interviews (Oct–Nov 2024). Survey items were double-translated (Kazakh/Russian) and piloted; quantitative analysis relied on descriptive statistics and cross-tabulations. Interview audio was transcribed verbatim and subjected to thematic content analysis. A hermeneutic reading was used only to adjudicate context-dependent meanings during coding—for example, distinguishing (i) “trust” directed at authorities from (ii) “trust” as interpersonal reliability; and separating “volunteering” framed as charity from “volunteering” as career signaling. For comparative context, selected indicators were benchmarked to Kazakhstan’s WVS-7 (2018). We report only those analytical procedures actually used in coding and analysis.

To achieve the study’s objectives, a combination of quantitative and qualitative methods was employed for data collection and analysis. During the preparatory stage, secondary sources were analyzed, including a systematic review of archival materials and findings from prior sociological studies, which enabled the identification of persistent trends in youth value changes. In addition, expert assessments were incorporated to broaden interpretive capacity and ensure a multi-perspective view of the problem (Yanow & Schwartz-Shea, 2015). Data from several relevant studies on values in Kazakhstan (Seidumanov & Nurmuratov, 2022;

Institut, 2021; Kazakhstan, 2020; Kazakhstan, 2024) also served as a contextual basis; their results were taken into account when interpreting the empirical data obtained. The core of the empirical component of this work consisted of an original sociological survey and a series of in-depth interviews with young people.

The survey questionnaire was administered among young university students in Almaty and Astana, comprising a structured instrument divided into several thematic sections that covered key spheres of values. These included family values and relationships; religious beliefs and spiritual orientations; sociopolitical views, civic identity, and activity; as well as life goals and career aspirations. The questionnaire was predominantly composed of closed-ended questions with fixed response options (including rating scales), facilitating subsequent quantitative data processing. At the same time, the survey contained several open-ended questions that allowed respondents to identify the values most important to them or to provide extended comments. This enhanced the survey results with qualitative information and provided deeper insights into the youth's value priorities. The questionnaire was developed based on a standardized instrument from the seventh wave of the World Values Survey (WVS), thus ensuring comparability of the collected data with international research findings and confirming the content validity of the measured indicators. To adapt the instrument to the local context, the questions were translated into Kazakh and Russian through a double-translation procedure that minimized semantic distortion. Prior to the main study, a pilot test of the questionnaire was conducted on a small group of respondents, helping to verify comprehension of the questions and the logical structure of the thematic blocks, thereby improving the instrument's reliability.

The target population for inference is young university students (ages 18–23) enrolled in universities in Almaty and Astana. We reserve the term “youth” for legal definitions (ages 14–35) and for literature comparisons; all empirical claims in this paper concern the student sample. The survey encompassed 600 respondents, including 346 women and 254 men. The sample was formed through purposive selection at universities in the country's two largest cities—Almaty and Astana—primary centers of youth concentration and higher education. When selecting respondents, the main demographic characteristics of student youth in these metropolitan areas (specifically gender and age) were considered to ensure the sample's representativeness. Participation was voluntary: all respondents provided informed consent. The inclusion criteria were membership in the 18–23 age group, active student status at the time of the survey, and agreement to participate.

Scope note. While Kazakhstan's law defines youth broadly (ages 14–35), our empirical evidence concerns young university students aged 18–23 in Almaty and Astana. Accordingly, we use “young students” when presenting our data and reserve “youth” for legal definitions and literature discussing the broader age cohort.

We carried out fieldwork in Oct–Nov 2024, using the face-to-face formal interview method. Trained interviewers conducted the survey in person on university premises, filling out the questionnaires based on the participants' answers. The face-to-face format minimized the risk of misunderstandings and ensured more complete, higher-quality responses. All interviewers received preliminary training and adhered to uniform instructions. The procedures for conducting the survey strictly followed international ethical standards for sociological research, including the principles of voluntary informed consent, confidentiality, and interviewer neutrality, in line with the ICC/ESOMAR Code and WVS fieldwork guidelines.

In addition to the survey, the qualitative phase of the study employed semi-structured in-depth interviews. A total of 20 interviews were conducted with young students aged 18–23 who agreed to share their views in detail. The interviews followed a specially designed guide—a set of open-ended questions addressing topics consistent with the main blocks of the questionnaire: family attitudes and priorities;

religious and spiritual values; civic position and political participation; professional plans and self-realization values. Interviews were conducted in Kazakh and Russian, according to participant preference (interviewer and language were matched to the respondent). This format allowed participants to freely convey their opinions and discuss personal experiences, revealing nuances of value orientations not always captured by standard survey methods. We audio-recorded all interviews (~60 minutes each) and transcribed them verbatim.

We analyzed data using descriptive statistics; calculated proportions/means; constructed cross-tabulations; compared student indicators to WVS-2018; applied thematic content analysis; coded transcripts; and triangulated qualitative with quantitative findings. During the qualitative processing stage, transcripts were coded, and key themes and meaning categories were identified, enabling the systematization of respondents' opinions. The resulting qualitative and quantitative findings were then juxtaposed (through inter-method triangulation) for mutual corroboration of conclusions and to strengthen the credibility of the interpretations.

The methodology described here provided the requisite level of scholarly rigor and transparency in all procedures, establishing the conditions for a high degree of reliability in the results obtained. Although direct statistical estimates of error or reliability (e.g., internal consistency coefficients for individual scales) were not calculated, validation of the methodology is supported by the use of tested WVS instruments, adherence to international data collection standards (Rea & Parker, 2014), and the combination of multiple research methods. Employing standardized measures verified in international practice and ensuring the sample's representativeness bolster the validity of the data. Moreover, the alignment of quantitative and qualitative findings further affirms both their reliability and substantive validity. Thus, the integration of these approaches and procedures allows for identifying significant patterns in the transformation of value orientations among Kazakhstani youth amidst modern global challenges.

2.2. Boundaries and Validity Considerations

Scope & External Validity. The inference population comprises urban young university students (ages 18–23) enrolled in universities in Almaty and Astana. Findings should not be extrapolated to non-students, other age groups, or rural cohorts. Mitigation: we align measures with WVS-7 and document instruments to support cautious comparability.

Design & Inference. The study is cross-sectional (Oct–Nov 2024) and identifies descriptive patterns and associations rather than causal effects or within-person change over time. Mitigation: we state claims at the appropriate level of inference and indicate directions for longitudinal follow-up.

Measurement & Response. Measures rely on self-reports and may reflect social desirability and salience/availability biases; direct reliability coefficients were not computed. Mitigation: double translation and piloting of WVS-aligned items, trained interviewers, and survey-interview triangulation (n=600 + 20 interviews).

3. Results and Discussions

3.1. Results

The analysis revealed distinct patterns in value orientations across four levels: individual, social, institutional, and civic.

Individual (survey indicators, %, n=600)

- Financial stability named as a key goal — 64%.
- Career advancement rated important — 81%.
- Leisure/time autonomy matters — 83%.
- Health is monitored — 65%; 33% report no systematic approach.

Interpretation. Distributions indicate pragmatic self-enhancement: income, career and time autonomy are highly salient alongside attention to health, though routines are uneven (33%). The profile is goal-oriented rather than exclusionary of other domains.

Social (survey indicators, %, n=600)

- Family health/safety prioritized — 97%.
- Intra-family relations — 96%.
- Family material prosperity — 95%.
- Ties with older generations — 91%.
- Religiosity (identity): identify as believers — 78.3% (strict observance 16.7%).

Interpretation. A family-anchored pattern with dense obligations within the household and intergenerational ties; religiosity is common as identity while strict observance is less frequent. Non-family networks are comparatively narrower.

Institutional (survey indicators, %, n=600)

- Trust in “those in power” — ≈25%.
- Trust no public sources — 29.8%.
- Trust in the scientific community — ≈22–23%.
- Trust in political party leaders — 14.2%.
- Trust in bloggers/influencers — 10%.

Interpretation. Confidence in authority and public information sources is restrained, with many defaulting to skepticism; endorsements of institutional ideals are not matched by high reported trust.

Civic (survey indicators, %, n=600)

- Interest in socio-political life — 34%.
- Volunteer work prioritized — 29%.
- “Change the world” as a personal goal — 17%.
- Country’s economic situation prioritized — 89%.
- Do not believe climate change is real — 23.4%.

Interpretation. Civic ideals are widely endorsed but engagement is selective; economic concerns dominate personal agendas. Environmental salience is uneven: while many rate it important, a notable minority (23.4%) deny climate change, helping explain low action.

3.2. Discussion

In light of the data obtained, the value orientations of young university students in our urban sample should be analyzed on four interrelated levels: individual, social, institutional, and civic. Such a multifaceted approach makes it possible to trace how personal priorities are transformed under the influence of one's immediate environment, attitudes toward institutions, and overall civic orientations.

At the individual level, the value orientations of young university students in our sample reflect an intensification of personal aspirations and a high degree of subjective well-being. Survey results show a noticeable shift toward individualism. Nearly two-thirds of respondents strive for financial stability (64%), viewing material prosperity as the foundation of personal and family well-being. Opportunities for self-fulfillment are almost equally significant: career advancement is important for the overwhelming majority (81%), and leisure and free time matter to 83% of those surveyed. At the same time, health remains an absolute priority: 65% of young people monitor their physical condition, although 33% admit they lack a systematic approach to their health. Overall, the value profile at the personal level is characterized by a combination of high aspirations and confidence in the future, accompanied by an awareness of existing constraints. This pragmatic individualism corresponds to theories of value shifts that explain young people's growing pursuit of self-actualization even amid uncertainty. These distributions are consistent with Inglehart's prediction that material security remains salient when existential certainty is limited: in our data, 64% name financial stability as a key goal and 89% prioritize the country's economic situation, while self-expression items are secondary (17% aim to "change the world"; 34% report interest in sociopolitical life; 29% prioritize volunteering). Thus, self enhancement coexists with strong materialist anchors.

Our data indicate a pragmatic individualism anchored in material security rather than a wholesale shift to post materialism: 64% emphasize financial stability, 81% career advancement, and 83%-time autonomy, while explicitly postmaterialist aspirations remain lower (17% aim to "change the world"; 34% express interest in sociopolitical life; 29% prioritize volunteering). This pattern accords with Inglehart's model, which predicts that self-expression values rise only as existential security improves.

The individualistic optimism of Kazakhstan's youth coexists with objective constraints. Such a gap between high aspirations and real opportunities can be examined through the lens of the "value conflict" concept: the discrepancy between an individual's expectations and actual conditions generates internal tension (Thacher & Rein, 2004). In our case, young people who grew up during an era of economic reforms and globalization have internalized ideals of success but encounter obstacles to achieving them. A similar situation characterized the "Nazarbayev generation" in the 2010s: young Kazakhstani citizens, focused on consumption and career growth, experienced frustration due to limited social mobility. Researchers note that institutions' inability to establish conditions for meeting youth's rising expectations became one of the causes of public discontent in the country (Sheryazdanova et al., 2024). Thus, at the individual level, the value profile of the younger generation exhibits duality: on the one hand, there is a strengthening focus on the self (individual achievements, personal well-being, self-expression), while on the other, there remains an understanding of the importance of basic conditions and an awareness of barriers that hinder these aspirations. In our sample, this tension is visible in the intention–action gap: while many endorse health and self-improvement (65% monitor health), 33% lack systematic routines; and although civic ideals are

endorsed in principle, only 34% report interest in sociopolitical life and 29% prioritize volunteering. These discrepancies ground the “value conflict” reading in observed distributions.

At the social level, the values of young students in our urban sample citizens demonstrate the persistence of family-oriented collectivist orientations, although they are undergoing certain changes. Family remains the main value for the vast majority: nearly all respondents rank the well-being of their loved ones as a top priority. Our study showed that 97% of respondents consider the health and safety of their family a priority, 96% emphasize the importance of maintaining intra-family relationships, and 95% specifically note the family’s material prosperity. These indicators confirm that, despite modernization, family ties continue to have fundamental significance. Moreover, 91% of young people highlight the need to maintain close relationships with older generations, indicating the continuity of traditions that honor the family. Our research confirms that family norms serve as a solid guide for youth, providing support in a changing society.

At the same time, shifts have been identified: outside the family, social ties receive more modest recognition. For instance, the importance of friendship and a broad social circle has clearly decreased compared to previous generations. According to comparative data, only about one-third of young people cited friendship as a life priority, whereas in Kazakhstan’s overall population sample, this figure reached around 80% (Haerpfer et al., 2022). This suggests that modern young people are less oriented toward large non-family communities, preferring a smaller circle of close friends and online interactions. Indeed, in their free time, they most often spend time in small groups: the most popular activities are visiting parents (67.8%), communicating on social networks (66.2%), and meeting with friends (49.6%), while cultural events (museums, theaters) and participation in social organizations attract substantially fewer young people. Collectivist values persist primarily in the realm of family and one’s immediate circle, whereas broader social connections have somewhat weakened under the growth of an individualized lifestyle. Young respondents are generally satisfied with their relationships with parents, demonstrating both adherence to a philosophy of family cohesion and an orientation toward stable family ties—much like their parents’ generation.

Young people are less involved in offline socializing outside the family; this trend can be interpreted through the prism of individualization theory: new socioeconomic realities and the “network society” (Castells, 2020) promote a focus on personal projects, sometimes at the expense of traditional informal interaction. Nevertheless, one cannot assert that all forms of collectivism are eroding. One might say that youth synthesize old and new orientations: they retain familial and ethical foundations that foster social cohesion while adapting their lifestyles to the demands of an individualistic era. This synthesis confirms the conclusions of Sh. Schwartz’s theory of values, which holds that in transitional societies, both collectivist (Embeddedness) and autonomous (Autonomy) values can be highly esteemed at the same time (Schwartz, 2006). This overlap mirrors Schwartz’s Embeddedness–Autonomy: family embeddedness is strong (97% family health/safety; 96% intrafamily relations; 95% family prosperity; 91% ties with older generations), while autonomy markers also score high (83%-time autonomy; 81% career). We also see narrower nonfamily circles (friendship as a top priority $\approx$ one third vs $\sim$ 80% in the all population WVS7 comparison cited), and leisure patterns concentrated in small groups (67.8% visiting parents; 66.2% social networks; 49.6% meeting friends).

An important component of the social level of values is the attitude toward traditions and religion. The younger generation shows flexibility in following customs: more than half of respondents are willing to observe family traditions selectively, depending on the situation (55%), and only one-fifth believe customs must be followed unconditionally (19%). Most young people tend to adapt ancestral norms to modern

conditions, which corresponds to findings on the evolution of cultural practices in transitional societies. Religiosity among young people remains relatively high in terms of identity but is more secular in practice. A total of 78.3% identified themselves as believers; however, strict adherence to religious rites is much rarer: only 16.7% strictly follow the prescriptions of their faith, whereas a significant portion (43.6%) confines itself to viewing religion primarily as part of personal identity, without regular participation in services. About 18% visit places of worship sporadically, on special occasions. The family continues to play a key role in transmitting spiritual values: approximately 32% of young people indicated that their parents and relatives had the strongest influence on their religious views. At the same time, tolerance prevails: the majority of young Kazakhstani citizens are at ease with members of other faiths and beliefs, regarding religion as a personal choice. This pattern operationalizes “believing without belonging”: 78.3% self-identify as believers, yet strict observance is 16.7% and irregular attendance ~18%; 43.6% treat religion primarily as identity and 32% cite family as the main source of transmission.

On the institutional dimension of religion, the focus for youth recedes, giving way to a personal search for meaning. This creates new challenges for state and religious institutions. To remain relevant to the new generation, they must restructure their approaches, becoming more flexible and accounting for the individualized spiritual needs of youth. State confessional policy, in particular, should recognize that young people are growing less receptive to directive forms of religious education and tend to define their faith independently.

At the institutional level, young people’s value orientations appear in a critical view of official institutions, coupled with an ongoing intent to improve them rather than abandon them. Our study revealed a high level of skepticism: a significant share of young Kazakhstani citizens do not trust the main social institutions or sources of information. Notably, almost one-third of respondents do not trust any public sources at all (29.8%), indicating a lack of reliable authorities. Government agencies enjoy the trust of only a minority of young students—for instance, only around one-quarter of respondents trust those in power (~25%). A similar level of trust—approximately 22–23%—is shown toward the scientific community, which indicates an acknowledgement of knowledge’s role but also reveals that science holds a relatively moderate level of authority among youth. We observe that roughly 20% of respondents trust well-known public figures, only 14.2% trust political party leaders, and 13.7% trust doctors. Even new media personalities receive limited trust from youth: bloggers and internet influencers are trusted by only 10% of young respondents. The prevailing sentiment is pervasive distrust of institutions and official information, creating the risk of a widening gap between youth and authorities. According to WVS data (Haerpfer et al., 2022), Kazakhstani society at large also exhibits low interpersonal trust—about 72% believe one must be very cautious in dealing with people. Nevertheless, young people show even lower trust in traditional institutions than the general population: for example, the proportion of young people who trust the government is roughly one-third the figure reported nationwide (~25% versus ~68%).

Still, by criticizing institutions, young people do not completely reject them. On the contrary, most aim to operate through legitimate structures and channels, suggesting a form of civic maturity. A significant portion of respondents express a willingness to participate in formal politics—joining youth organizations, political parties, and NGOs—viewing these institutions as tools for influencing the country’s direction. Moreover, the overwhelming majority of young people approve of participating in lawfully permitted rallies and demonstrations, considering them a valid way to articulate their position. According to comparative assessments, youth are more inclined than older generations (Haerpfer et al., 2022) to engage in peaceful protest about issues that matter to them. Our interpretation is that higher levels of education and awareness encourage young citizens to seek evolutionary means of achieving change—dialogue with the authorities—rather than radical methods. This tendency helps explain why surges of dissatisfaction typically do not lead

youth to a wholesale rejection of the state system. Instead, the younger generation's stance on institutions can be reduced to a demand for transparency, efficiency, and the inclusion of youth interests, while maintaining loyalty to the basic foundations of the state structure.

Students in our urban sample prioritize material security and career progress alongside time autonomy, while family obligations remain strong. This configuration is typical for cohorts at the start of the life course in middle-income settings: self-enhancement goals are salient, whereas post-material concerns are secondary. On the institutional dimension, ideals of transparency and fairness are widely endorsed, yet reported trust in concrete actors and information sources is restrained, with a notable minority defaulting to skepticism. We interpret this pattern as "critical loyalty": a preference to see institutions work better rather than to disengage from them.

Civically, respondents support lawful avenues of participation and community responsibility, but engagement is selective; interest, volunteering, and world-changing aspirations trail economic priorities. The intention–action gap likely reflects perceived efficacy and opportunity costs as well as limited proximate entry points. For higher education, tractable levers sit close to students: transparent student governance, credit-bearing service-learning, and structured school-to-work bridges. Small, solvable sustainability micro-projects embedded in coursework can raise environmental salience without competing with near-term economic concerns.

By design, our discussion keeps to the general context and avoids regime labels or political chronologies. The aim is to describe value distributions and their practical implications for universities. Future work should widen geographic and age coverage and track cohorts over time to observe how institutional trust and civic engagement evolve with changing economic and policy environments. For general background on institutional legitimacy and youth civic engagement in Kazakhstan, see Lipset (1994); Haerpfer et al. (2022); Zhelnina (2020); and analyses of protest culture and legitimacy adjustments (Kudaibergenova & Laruelle, 2022).

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Environmental values currently occupy a contradictory position in young people's consciousness. On the one hand, the overwhelming majority of respondents assert the importance of ecological well-being—about 90% consider the state of the environment to be significant. On the other hand, environmental concerns clearly take a back seat to pressing economic interests: many do not possess extensive ecological awareness, and nearly one-quarter of youth do not believe in the reality of climate change at all (23.4%). In sum, environmental well-being is valued in principle, but its issue salience remains low for many students. Our findings suggest that, in a context of uncertainty and limited resources, young people tend to postpone postmaterialist values (such as combating climate change) to the future, focusing on more immediate development goals. This situation accords with theoretical models proposing that fulfilling basic needs precedes the emergence of a sustained interest in global issues (Inglehart, 2000; 2018). Hence, there is a need to intensify environmental education and involve youth in sustainable development projects to raise the salience of these values.

Kazakhstan is a country with a transitional economy, where a large proportion of young people are still addressing fundamental career and financial objectives; thus, it is unsurprising that the environmental agenda is perceived as secondary or abstract. This can partly be attributed to a lack of sufficient information: environmental education is in its early stages, and many simply do not grasp the scale of the threat. At present, sustainable development values among youth remain largely rhetorical. Nonetheless, there is clearly potential for strengthening them. Our research underscores the necessity of enhancing environmental awareness and training among young people, engaging them in specific initiatives (for example, volunteer environmental projects), and integrating sustainable development principles into educational programs. According to value-change theory, as prosperity and literacy rise, environmental consciousness among younger generations will increase (Gifford & Nilsson, 2014). Consequently, laying the foundations of environmental culture now may expedite young people's shift toward postmaterialist values in the future.

Family centric items score 97/96/95/91%, while autonomy markers remain high (83%-time autonomy; 81% career); institutional trust is restrained ($\approx$ 25% trust those in power; 29.8% trust no public sources), and civic engagement is selective (34% interest; 29% volunteering; 17% "change the world"). At the individual level, the younger generation is moving toward self-expression and autonomy, although material constraints still firmly anchor them to more "earthly" priorities. At the social level, we see robust family norms and morality, tempered by the influence of individualized behaviors. The institutional values of youth reflect a critical reassessment of relationships with the state and religion: in demanding efficiency and integrity from institutions, young people simultaneously display a willingness to support them if they meet their expectations, while shifting spirituality into the personal sphere. Finally, at the civic level, youth values balance the desire for stability with a readiness to engage in change—this balance fosters a responsible civic stance, which is crucial for the country's future.

All the identified trends largely accord with R. Inglehart's general theory of value shifts, yet they also highlight the specificity of the Kazakhstani context. The economic and political transitions taking place in society lead youth values to evolve in multiple directions rather than linearly: pockets of traditionalism (family, basic religiosity) persist, shifts toward individualism (self-fulfillment, careerism) emerge, and the first stirrings of post materialism (demands for rights, environmental awareness among an active minority) begin to appear. This complex picture indicates the hybrid nature of the value consciousness of generations born in independent Kazakhstan. Youth are adopting new ideals without wholly discarding older ones, developing their own standards for evaluating social phenomena. For both theory and practice, this outcome

implies the necessity of a more nuanced approach—one that accounts for structural factors (e.g., economy, institutions) and cultural heritage alike when analyzing and formulating higher education policy and student support. The Kazakhstani example confirms that value modernization is context-dependent: global trends (individualization, secularization, post materialism) are refracted through the prism of local conditions. Forward looking aims (64% financial stability; 81% career; 83%-time autonomy) coexist with strong family anchors (97/96/95/91%), yielding a stable profile amid low institutional trust ($\approx 25\%$; 29.8% none) and selective civic engagement (34/29/17). Taken together, our data and literature indicate that as young people integrate new values into their lives, they simultaneously preserve their cultural identity, thereby laying a foundation for constructive societal development.

These limitations suggest several avenues for future research. First, the sample should be expanded to include a broader spectrum of youth. Incorporating participants of different ages (beyond university students), from diverse social backgrounds, and from various regions of Kazakhstan would provide a more representative picture of young people's value orientations. Second, comparative studies could offer additional insights. This includes research comparing value trends across different regions within Kazakhstan, as well as cross-cultural comparisons between Kazakhstani youth and their peers in other countries (particularly in other post-Soviet or developing nations). Such comparative analysis would help distinguish the unique patterns of value change in Kazakhstan from more universal trends driven by globalization.

Finally, a longitudinal approach would be especially valuable for understanding how youth values evolve over time. By tracking the same cohort of young people through long-term panel studies or repeated surveys (for example, in future waves of the World Values Survey or similar national studies), researchers could observe how their attitudes shift as they grow older and as the social context changes. This approach would yield deeper insights into the causal factors driving value transformations and enable more accurate predictions of future value trends. Taken together, the pattern matches Schwartz's coexistence of Embeddedness (family centric items: 97/96/95/91%) and Autonomy (83%-time autonomy; 81% career). Consistent with Inglehart, materialist anchors remain strong (64% financial stability; 89% economic situation), while self-expression tracks lower (34% interest; 29% volunteering; 17% "change the world").

4. Conclusions

This study maps value orientations among urban university students (18–23) in Almaty and Astana using a WVS aligned survey ($n = 600$) and 20 interviews collected in Oct–Nov 2024. The design captures four interlinked layers—individual, social, institutional, civic—and shows a patterned mix of continuity and change. Our conclusions rest on observed distributions rather than general claims.

Individual. Students display pragmatic individualism anchored in self-enhancement. Financial stability (64%) and career advancement (81%) feature prominently; time/leisure autonomy matters to 83%. Health is widely valued (65%), albeit with uneven routines (33% report no systematic approach). These priorities reflect the constraints of early life course stages in a transitional economy and help explain why post material concerns remain secondary for many.

Social. Family solidarity is robust: 97% prioritize relatives' health/safety, 96% intrafamily relations, 95% material prosperity of the family, and 91% emphasize ties with older generations. Beyond the family, social circles are narrower, with interaction often concentrated in small, trusted groups. This pattern indicates that collectivist commitments persist primarily in the familial domain alongside growing individual autonomy.

Institutional. Normative support for transparency and fairness coexists with restrained trust in real institutions. Only about a quarter report trust in those in power, and 29.8% indicate they trust no public sources, signaling a credibility gap that channels reliance toward personal networks. Yet the stance is best described as critical loyalty: respondents wish institutions to work and prefer reform over rupture.

Civic. Civic ideals—responsibility, lawful protest, community welfare—receive broad assent, but participation is selective: 34% express interest in sociopolitical life and 29% report volunteering. Many doubt efficacy or lack clear entry points, producing a familiar intention–action gap. Environmental concern is endorsed in principle, yet 23.4% do not believe climate change is real; overall salience remains low relative to immediate economic issues.

Implications (higher education and student services). Because patterns are concentrated in the student sphere, actionable implications sit with HEIs rather than national youth policy. Universities can:

Institutionalize civic learning via credit bearing service learning, support for student led associations, and codesigned, authorized projects with local authorities (clear rules, small budgets, measurable outputs).

Smooth schoolwork transitions through career mentoring, internships, and basic financial literacy modules aligned with the observed primacy of economic security.

Rebuild trust through proximity: transparent student governance channels (participatory budgeting at department level; student seats on academic boards) to make institutional fairness visible.

Raise environmental salience using microprojects (waste audits, campus energy dashboards) embedded in coursework—small, solvable tasks tend to convert concern into action more reliably than generic appeals.

Limitations and future work. Inference is restricted to urban students (18–23) in two cities and to a single cross section. Next steps include (i) regional and rural extensions; (ii) age span widening beyond students; (iii) longitudinal follow up to track cohort shifts; and (iv) targeted experiments on reducing the intention–action gap (e.g., low-cost commitment devices for volunteering). Publishing the adapted instrument and coding scheme as an online appendix will aid comparability and reuse.

In short, contemporary student values combine family centered continuity with pragmatic individualism and reform minded, critically loyal institutional views. The actionable frontier lies in university policy: where institutions are close, legible, and responsive, civic ideals more readily translate into practice.

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Applying the Salutogenic Model in the Czech Armed Forces: Developing a Methodology for Evaluating Resilience and Health Outcomes

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Abstract. *This article applies the salutogenic model to the specific context of the Czech Armed Forces, focusing on soldiers and female soldiers. The main objective is to evaluate the relevance and applicability of Aaron Antonovsky's salutogenic model among service members, with emphasis on mental and physical health outcomes. The theoretical part offers a structured summary, compilation, and comparison of relevant scholarly sources, addressing core indicators of mental and physical resilience in military settings. The methodological section presents the development and adaptation of a diagnostic tool originally introduced by Sedláková and Kovářová (2025), modified for use with personnel of the Czech Army. This tool is tailored to the occupational demands and stress factors experienced by soldiers. The result is a practical, research-based methodology that allows for the evaluation of key components of the salutogenic model—comprehensibility, manageability, and meaningfulness—among members of the armed forces. The findings are intended to support both academic understanding and practical implementation of mental health and resilience assessment in military environments.*

Keywords: salutogenic model; service members; soldiers; female soldiers; mental and physical health

JEL Codes: I12, I13, H51, J21, J24, J16

1. Introduction

The profession of a career soldier in the Armed Forces of the Czech Republic (AFCR) involves a wide range of physical, psychological, and social demands that significantly exceed those of typical civilian occupations. Ensuring long-term operational readiness and promoting the health of AFCR personnel requires an understanding not only of chronological age but also of mental and physical (biological) age. Each of these dimensions offers a distinct perspective on an individual's preparedness, resilience, and ability to adapt to the demanding conditions of military service. These factors are closely linked to the concept of salutogenesis – the processes that support health and the capacity to cope with stress (Antonovsky, 1979).

Military service is accompanied by specific stressors – ranging from direct combat deployment and separation from family to long-term residence in a rigid hierarchical system with limited autonomy (Adler and Castro, 2013; Bystrický, 2024). These conditions can lead not only to acute stress but also to long-term psychological exhaustion, which impacts both individuals and the performance of entire units (Laně, 2024). A critical aspect of military life is the lack of control over one's environment – including the inability to influence deployment location, team composition, or mission duration – which may lead to frustration, anxiety, or a loss of meaning among some soldiers (Schnyder and Clum, 1989; Suedfeld, 1997). Such states can develop into burnout syndrome, especially among soldiers engaged in routine duties over extended periods without opportunities for professional development (Laně, 2024).

The most common manifestations of impaired mental health in the military environment include post-traumatic stress disorder (PTSD), depression, anxiety, suicide risk, and burnout. Research from the U.S. military context, for instance, shows that up to 17 % of soldiers returning from Iraq and Afghanistan meet

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the criteria for PTSD (Tedeschi and Calhoun, 1996; Bonanno, 2004). Prolonged stress without intervention or social support may escalate into self-destructive behavior, and in extreme cases, suicide (Southwick et al., 2005; Pietrzak et al., 2009). The salutogenic approach, which focuses on health promotion and the development of resilience rather than solely on disease prevention, provides a suitable framework for long-term engagement with military personnel. In conditions of chronic stress – often characteristic of military settings – this approach can strengthen both individual and collective capacities to cope with challenging situations. At the core of salutogenesis lies the sense of coherence (SOC), defined as the extent to which one perceives life as comprehensible, manageable, and meaningful. This internal structure supports soldiers in maintaining psychological equilibrium even under extreme conditions (Antonovsky, 1979; Eriksson & Lindström, 2006; Mittelmark and Bauer, 2017). To effectively implement the salutogenic model within the AFCR, interdisciplinary collaboration is essential among psychologists, medical staff, commanding officers, and educational institutions (Křivohlavý, 2001; Kalina, 2010). Only through such cooperation can a system be established that provides not only immediate support but also long-term tools for managing stress and sustaining overall well-being – mental, physical, and social.

2. Research Elaboration

Integrated Understanding of Chronological, Mental, and Physical Age in the Professional Military Context: A Salutogenic Perspective

Professional soldiers in the Armed Forces of the Czech Republic (AFCR) operate under intense physical and psychological demands that go beyond those of civilian occupations. To effectively manage personnel readiness and long-term sustainability, it is crucial to understand the interplay between chronological, mental, and physical age. Chronological age, defined as the number of years since birth, is a key parameter in recruitment and career progression as regulated by Act No. 221/1999 Coll., which sets the age range for enlistment from 18 to 60 years. However, age alone is not sufficient for assessing a soldier's overall operational capability. Mental age reflects cognitive maturity and adaptability, which are fundamental for stress response, decision-making under pressure, and psychological resilience. Mental toughness and post-traumatic growth capacity have been shown to significantly influence a soldier's ability to withstand and recover from combat-related stressors (Tedeschi and Calhoun, 1996; Bonanno, 2004). Physical age, which refers to biological condition and functional fitness, may differ markedly from chronological age and is regularly assessed within the AFCR. Despite natural age-related decline in physical performance, long-term physical resilience can be maintained through structured training, and the concept of hardiness has been linked to reduced illness rates and greater endurance (Bartone, 1999; King et al., 1998).

Salutogenic theory, introduced by Antonovsky (1979), provides a framework that focuses not on disease, but on factors supporting health, adaptability, and resilience. This model is particularly applicable in the military context, where both physical strength and psychological endurance are vital. Soldiers with a high sense of coherence, supported by leadership, social networks, and organizational structures, cope more effectively with stressors inherent in military service (Southwick et al., 2005; Pietrzak et al., 2009). Officers and commanders play a central role in shaping the mental resilience of their subordinates through training, motivation, and examples (Boe and Bang, 2012). In addition to individual traits, institutional factors such as unit cohesion and the ability to maintain perceived control over one's environment help prevent mental health deterioration (Schnyder and Clum, 1989; Suedfeld, 1997).

However, several high-risk stressors continue to pose challenges, especially during foreign deployments. These include direct combat exposure, prolonged family separation, strict hierarchical constraints, and lack of autonomy. Direct exposure to life-threatening situations, death of comrades, and repeated deployments significantly increase the risk of PTSD and depression (Hoge, 2004; Bystřický, 2024). Long-term separation from family disrupts emotional bonds and increases the incidence of divorce and relational instability (Paley, Lester and Mogil, 2013; Schwanová, 2022). Military culture, characterized by low autonomy and routine duties, may also contribute to burnout, especially in garrison settings with repetitive roles (Adler and Castro, 2013; Laně, 2024). Soldiers often report a lack of agency over operational conditions such as deployment

location, team composition, or service duration, which further intensifies psychological strain. Recognizing the differences between chronological, mental, and physical age and applying salutogenic strategies allows for more effective management of soldiers' well-being and prolongs their functional careers within the armed forces.

Sense of Coherence as a Foundation of Mental Resilience in Soldiers

At the core of the salutogenic model lies the concept of the Sense of Coherence (SOC), a psychological orientation reflecting a person's confidence that life is comprehensible, manageable, and meaningful. According to Antonovsky (1987), individuals with a strong SOC perceive internal and external stimuli as understandable and structured, believe they possess the resources to deal with these stimuli, and view the resulting demands as meaningful and worth the effort. SOC is not an innate characteristic; it is shaped through life experiences, especially during childhood and adolescence. In a military context, SOC plays a crucial role in the psychological resilience of soldiers. Those with a strong SOC are more resistant to stress, better equipped to cope with psychological strain, and less likely to develop symptoms of anxiety or depression (Eriksson and Lindström, 2006). The three components of SOC—comprehensibility, manageability, and meaningfulness—manifest in specific ways in the lives of military personnel.

Comprehensibility refers to the degree to which a soldier perceives events and situations as structured and predictable. A high level of comprehensibility allows soldiers to navigate crises with greater psychological stability. Manageability involves the belief that one has access to the necessary resources—both internal, such as skills and self-efficacy, and external, such as team support or leadership—to overcome challenges. For professional soldiers, manageability is often supported by quality training, strong organizational structures, and trust in command. The third and most motivational element, meaningfulness, represents the degree to which an individual perceives challenges as worthy of engagement. Soldiers who find purpose in defending their country, protecting others, or remaining loyal to their unit are more resilient and capable of coping with adversity (Antonovsky, 1987; Frankl, 2006). SOC also significantly contributes to adaptation during various demanding phases of military service, such as rigorous training, deployment in extreme environments, and the transition to civilian life. Research shows that soldiers with a higher SOC report fewer symptoms of post-traumatic stress and apply more effective coping strategies (Schnyder et al., 2000; Nilsson et al., 2012).

The salutogenic model can be applied across the full life cycle of a soldier—from recruitment through active duty to reintegration. During recruitment and selection, psychological assessments can identify candidates with high SOC potential and strong motivation. In training, in addition to physical and tactical readiness, there should be a focus on developing resilience and the ability to find meaning in hardship (Kalina, 2003). Active service places soldiers under intense stress due to operational deployments, family separation, and high-performance demands. A salutogenic approach during this phase involves reinforcing social support, purpose in service, and early intervention when traumatic stress arises. Transitioning out of the armed forces often brings uncertainty and identity loss. Supporting former soldiers in this phase means helping them find new social roles, meaningful employment, and stable environments (Lechner and Bolman, 2016; Zbranek et al., 2018). Implementing the salutogenic model effectively requires interdisciplinary collaboration between psychologists, commanders, educators, and health professionals. A comprehensive support system—focused on prevention, education, intervention, and reintegration—is essential to sustain the mental health and well-being of soldiers (Křivohlavý, 2001; Kalina, 2010). In conclusion, the salutogenic model, with SOC as its core, offers a robust, holistic framework for enhancing the psychological resilience of soldiers throughout their careers. By strengthening the sense of coherence, armed forces can foster greater stress resistance, improve adaptation, and maintain the long-term health of their personnel (Mittelmark and Bauer, 2017; Eriksson and Lindström, 2006).

Mental Health and the Role of Physical Activity Across the Life Course

Mental health is an integral component of overall human health and well-being (WHO, 2022; Galson, 2009). When functioning properly, it enables individuals to better understand themselves, interact effectively with others, cope with complex situations, and resist psychological pressure. Although many people may exhibit

high levels of psychological resilience, adverse life experiences—such as violence or inequality—can impair even the most robust mental states. The greatest risk to mental health stability often arises during childhood, but it is important to recognize that vulnerability exists across all stages of life. For this reason, mental health receives increasing attention globally and is enshrined as a fundamental human right. (WHO, 2022)

From both expert and public perspectives, impaired mental health should be viewed as a chronic health condition that, in most cases, can be treated. Mental health issues ought to be approached as conditions that are manageable and treatable, and individuals should not feel hesitant to seek help (Galson, 2009). Today, the most common barriers to seeking professional help are attitudinal—for example, social stigma, the desire to manage the issue independently, or a low perceived effectiveness of treatment (Kanehara et al., 2015; WHO, 2022). Among younger populations, mental health risks are increasingly linked to unhealthy habits, often associated with insufficient physical activity, inadequate sleep, and substance use (Wiens et al., 2019). Despite the growing prevalence of mental health issues, explicit references to such concerns—particularly within higher education—remain rare, and the root causes are frequently underreported. For instance, as early as 2007, stress was already recognized as one of the most significant factors negatively affecting students' academic performance and shaping their social identity (Clark, 2017). The prevalence of mental disorders varies significantly by age and gender, with anxiety and depression being the most frequently reported symptoms across both sexes. (WHO, 2022)

In many countries, mental health funding is primarily directed toward psychiatric hospitals, which are often unevenly distributed and may fail to provide adequate care to those in urgent need. (WHO, 2022) In military contexts, it is crucial to consider the risk of psychological disruption among individuals exposed to extreme stress during deployment. This has led to the use of pre-deployment mental health assessments to evaluate individual readiness, a phenomenon known as the "healthy warrior effect," which results in the exclusion of individuals with lower psychological resilience from mission assignments (Wilson et al., 2009; Lyk-Jensen et al., 2016).

As mentioned earlier, physical activity plays a critical role in supporting mental health throughout the human lifespan. A comprehensive understanding of this relationship requires examining various age groups, as the psychological effects of physical activity may differ by developmental stage. According to Doré et al. (2022), adolescents aged 14–15 engage in physical activity primarily for enjoyment, competence, personal ability, and social interaction. Interestingly, appearance-related motives were not found to be significant. These findings demonstrated a strong correlation between physical activity and mental health in this age group. A Canadian study further confirmed that adolescents who engaged in at least one hour of physical activity per day experienced, on average, a 2 % increase in mental well-being per day of activity (Bélanger et al., 2019). These results underscore the potential for improving youth mental health by promoting physical activity and reinforcing motivational factors for engagement from an early age (Doré et al., 2022).

Among university students, motivations for engaging in physical activity differ markedly from those of adolescents and are more strongly influenced by societal norms. Factors such as gender, intensity of exercise, and type of activity play a central role. Recent studies show that this population has a higher prevalence of mental health issues and also exhibits greater levels of physical inactivity. Importantly, data reveal a positive relationship between higher levels of physical activity and improved mental health outcomes in this age group (Rodríguez-Romo et al., 2023). Despite widespread awareness of the benefits of physical activity on mental health, more than one-third of adults in high-income countries fail to meet recommended activity levels (Hernández-Pizarro & Maynou, 2024). For many adults, the primary motivator for physical activity is stress reduction. Stress is a key determinant of mental health throughout adolescence and adulthood, and its accumulation over short periods is associated with increased physical activity levels as a coping mechanism (Almeida et al., 2020). As individuals age, mental health becomes increasingly intertwined with physical, environmental, and social factors—ranging from musculoskeletal pain and functional decline to social isolation (WHO, 2022).

Although physical activity is a major contributor to improved mental health, it is not the sole determinant of mental health. Nevertheless, the interconnection between physical activity and psychological well-being is unequivocal.

Methodology

This study applies the salutogenic model within the specific occupational context of the Czech Armed Forces, with a focus on both male and female service members. The primary objective is to evaluate the relevance, adaptability, and diagnostic value of Aaron Antonovsky's salutogenic framework—particularly its core dimensions: comprehensibility, manageability, and meaningfulness—as they relate to mental and physical resilience among military personnel. The methodological design builds upon a diagnostic tool originally introduced by Sedláková and Kovářová (2025). This instrument has been adapted and modified for application in military settings, ensuring its alignment with the professional demands, psychosocial conditions, and stressors characteristic of military service. Special attention was paid to the hierarchical structure, exposure to operational stress, and the dual expectations of physical performance and psychological endurance in the armed forces.

The adapted tool is designed to assess the three central components of the salutogenic model in a way that reflects the unique experience of soldiers. It provides a structured and research-based method for evaluating how well service members understand, manage, and find meaning in their roles and challenges within military life. This methodological approach aims not only to generate relevant empirical data but also to support the practical implementation of resilience-building strategies and mental health monitoring in armed forces contexts. The results of this model application are intended to contribute to both academic insight and evidence-based military personnel management.

3. Results and Discussions

The analysis confirms the need to modify Antonovsky's salutogenic model to reflect the specific context of military service in the Armed Forces of the Czech Republic. The adapted model identifies four key domains: operational and systemic stressors, generalized resistance resources (GRRs), coping strategies, and the sense of coherence (SOC) itself—redefined to align with the value framework and psychological demands of professional soldiers. Results show that a higher SOC level is associated with a lower incidence of PTSD, depression, anxiety, and burnout. Physical activity emerges as a dual-function factor—supporting both physical readiness and mental well-being—with strong links between long-term motivation for physical activity and psychological resilience, particularly when established in adolescence. Despite these positive associations, the study highlights systemic barriers such as low awareness of psychological support, persistent stigma surrounding mental health, and the absence of a structured reintegration system. Consequently, recommendations include revising training and education programs to intentionally strengthen SOC, implementing continuous mental health monitoring throughout the service cycle, and developing comprehensive psychological and social support systems tailored to the realities of military life. The modified model is scheduled for empirical testing on a sample of 300 Czech Army personnel, selected to ensure representation across ranks, genders, age groups, and service duration. The primary objective of this follow-up study is to verify the practical applicability and validity of the adapted model within the military context and to refine strategic recommendations for sustaining resilience and well-being in armed forces personnel. The results confirm the relevance of adapting Antonovsky's salutogenic model to the specific conditions of military service in the Czech Armed Forces. The modified model incorporates military-specific stressors, resistance resources, coping strategies, and a tailored sense of coherence. Higher SOC levels are associated with better mental health outcomes, and physical activity supports both physical readiness and psychological resilience. However, persistent systemic barriers—such as mental health stigma and insufficient reintegration support—must be addressed.

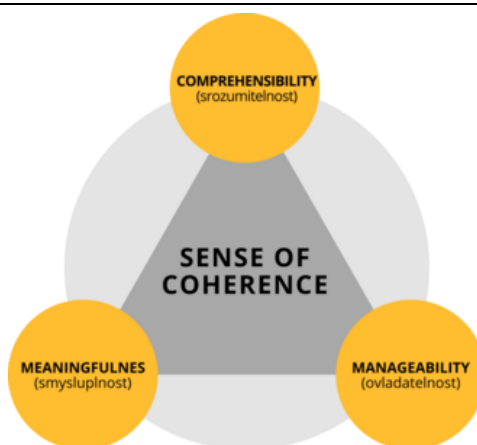


Figure 1. Sense of Coherence Model (Comprehensibility, Manageability, Meaningfulness)

(Antonovsky 1980, 16)

(Source: Antonovsky)

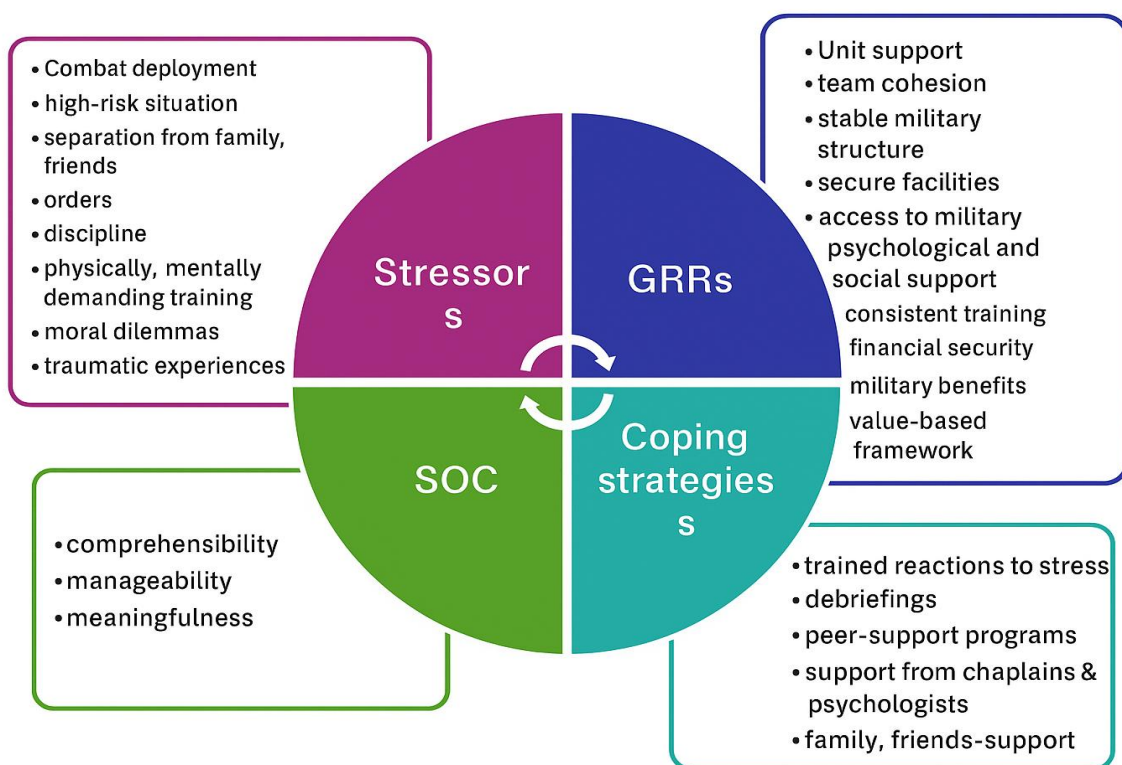


Figure 2. Health as a continuum

(Own elaboration and adaptation of Antonovsky's model by the author)

(Source: own, Antonovsky 1980, 16)

4. Conclusions

Based on the summarization, compilation, and comparison of relevant literature, as well as the original model by Sedláková and Kovářová (2025), it is evident that the salutogenic approach must be adapted to suit the specific environment of the Armed Forces of the Czech Republic. Professional soldiers are exposed to a long-term and structurally distinct set of physical and psychological stressors compared to the general population. It is essential to consider not only chronic exposure to stress but also the high-risk and mentally demanding nature of military service, which includes combat deployment, separation from family, strict hierarchical structures, continuous discipline, and physically and mentally intensive training.

The analysis shows that the concepts of chronological, mental, and physical age are interrelated in this environment, and understanding these aspects are crucial for effective human resource management, training design, health care, and stress prevention. Aaron Antonovsky's salutogenic model—built on the three core components of comprehensibility, manageability, and meaningfulness—offers a useful framework for understanding individual resilience. However, the military context requires modifications of these dimensions to reflect its specific characteristics, as indicated by both the present research and comparative studies.

The modified model applied to the Czech Armed Forces distinguishes four key domains. The first comprises stressors such as combat deployment, separation from family, moral dilemmas, the psychological and physical demands of training, hierarchical command structures, and the necessity of unconditional obedience. The second domain includes generalized resistance resources (GRRs), such as unit support, team cohesion, structural stability, access to healthcare and psychological services, physical readiness, financial security, and a value-anchored framework. The third domain concerns coping strategies, such as stress management training, debriefings, peer support, access to chaplains and psychologists, and family or social support. The fourth domain involves the sense of coherence (SOC) itself, which must be tailored to the military environment and its value system, with emphasis placed on strengthening soldiers' understanding of their mission, ability to cope with challenges, and capacity to derive meaning from their service.

Findings confirm that a higher level of SOC is associated with lower incidence of post-traumatic symptoms, depression, anxiety, and burnout. Physical activity, an integral component of military life, plays a dual role—serving both as a means of maintaining physical readiness and as a significant factor in mental health support. Long-term studies show that motivation for physical activity, often shaped during adolescence, strongly correlates with mental well-being. Among adult soldiers, physical activity increasingly functions as an effective coping strategy for managing stress.

Nevertheless, systemic barriers remain. These include limited awareness of available psychological support, persistent stigma surrounding mental health issues, and the lack of a structured reintegration system following mission return or discharge. It is precisely in these transitional phases that the salutogenic model proves essential—helping soldiers to regain a sense of comprehensibility, manageability, and meaningfulness within a changed life context.

Several recommendations arise from these findings. Training and educational programs should be revised to deliberately develop the components of the sense of coherence. Mental health monitoring must be systematically embedded throughout all stages of the service cycle—from recruitment to transition into civilian life. Furthermore, a comprehensive psychological, social, and reintegration support system needs to be established, one that reflects the specific demands of military service. Physical activity should be promoted not only as a performance element but also as a preventive and therapeutic tool for mental health care.

The adaptation of the salutogenic model for professional soldiers offers a comprehensive framework for enhancing psychological resilience, ensuring physical and mental balance, supporting operational performance and sustaining human potential in the Czech armed forces in the long term.

As part of future research, the modified model will be applied to a sample of 300 members of the Czech Armed Forces. The study will aim for balanced representation across ranks, genders, age groups, and service durations—from newly enlisted personnel to seasoned professionals with years of experience. The objective

is to verify the practical applicability of the model, identify key factors contributing to the development of the sense of coherence, and further refine recommendations for systemic support of mental health and resilience within the military environment. Simultaneously, the study will assess the validity of the model in its modified form, with direct reference to the military context and the specific variables inherent in military life.

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Brand-Related Posts on Social Media: The Effect of Product Type on Consumers' UGC

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Abstract. *This study examines the role of user-generated content (UGC) in shaping brand engagement across two social media platforms, Instagram and X, with a focus on how the nature of the product (utilitarian vs. hedonic) interacts with platform-specific characteristics. Using Latent Dirichlet Allocation (LDA) for text analysis, the research explores UGC terminology, sentiment, and platform-specific differences to identify key patterns in consumer behavior. Findings indicate that utilitarian products generate more functional UGC, particularly on X, while hedonic products elicit more symbolic and self-expressive content, predominantly on Instagram. Additionally, sentiment analysis reveals a general positivity bias in UGC, with hedonic products receiving more positive sentiment on Instagram than on X. We provide theoretical contributions by linking product type, platform features, and consumer sentiment while offering actionable insights for marketers on tailoring communication strategies to specific platforms and product categories. These results highlight the value of platform segmentation, sentiment monitoring, and targeted campaigns to optimize consumer engagement in the dynamic context of contemporary social media.*

Keywords: UGC, social media, platform differences, utilitarian, hedonic.

JEL Codes: M15, M31, M37

1. Introduction

Social media platforms such as Instagram, X (formerly Twitter), and Facebook allow users to interact, express, share, and create brand-related content. For example, consumers share Absolut Vodka videos on YouTube, discuss Monster energy drinks on X, and post Nike sneaker photos on Instagram. This type of engagement, known as user-generated content (UGC), significantly shapes brand perceptions (Christodoulides et al., 2012; Wei, 2024).

Numerous studies demonstrate UGC's impact on purchase intentions (Muda & Hamzah, 2021) and sales performance (Sajedikhah et al., 2023). However, poor implementation indicates that UGC does not always benefit brands (Vinales & Thomas, 2020), highlighting the need for better understanding of how to encourage deliberate and effective consumer engagement within digital spaces.

A major challenge in utilizing UGC lies in its textual and graphic nature, as well as the significant amount of UGC available. For instance, as of February 2025, X and Instagram had a combined 2586 million monthly active users worldwide (We Are Social, & DataReportal, & Meltwater, 2025).

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Although research on extracting insights from social media text has increased in the last years, only a few studies examined brand related posts in depth. For example, Liu et al. (2017) found that brand discussions topics vary by industry and type of product/service, and Keller (1993) showed that purchase decisions are not influenced only by functional, but also by experiential and symbolic attributes. These papers offer a solid foundation for UGC research, but it is still unclear how UGC differs across product categories, especially functional (tools etc.) versus symbolic ones (luxury, etc.).

Additionally, few studies compare UGC across different sites, whereas some analyze UGC on individual platforms. Although Smith et al. (2012) observed notable variations in user-generated content on Facebook, X, and YouTube, their analysis was restricted to two clothing brands targeted at women, which limited the scope of their findings. Cross-platform comparisons could help marketers co-create brand meaning across different digital environments.

This research expands upon previous investigations by examining user-generated content (UGC) in the context of product classification (utilitarian versus symbolic) and platform variations (Instagram versus X), while also taking into account product tangibility. Research indicates that utilitarian items may face challenges on social media due to their restricted emotional appeal (Krishen et al., 2019) and the fact that these platforms are predominantly utilized for entertainment (Helmi et al., 2023). However, baby diapers is an example of a utilitarian product that may do well on social media (Millward Brown, 2011), where Pampers was the second most popular brand. These varied results mean that we need to look more closely into whether and how utilitarian brands do well on social media.

This research examines two principal inquiries: (1) What are the differences in UGC facets (like subjects and sentiment) for utilitarian and hedonic products on each platform? (2) How do these UGC aspects differ between Instagram and X? We want to help marketers come up with tactics for each platform and product that will get people more involved.

The paper continues with a review of the literature, then moves to hypotheses, methodology, results, discussion, and implications for future research and marketing practice.

2. Background Literature and Hypotheses Development

2.1. Product Type

There has been an increasing interest in examining the textual content of brand-related user-generated content (UGC) across diverse products and businesses. Xue et al. (2020) utilized Latent Dirichlet Allocation (LDA) (Blei et al., 2003) to analyze public discussions during the COVID-19 epidemic, uncovering significant topics and sentiments that illustrated individual coping mechanisms and communication patterns. Hammad et al. (2022) employed the same methodology to investigate social media discussions around Mandalika, a special economic zone in Indonesia, providing insights into popular perceptions and attitudes. Nonetheless, this research did not investigate the impact of product type on social media discussions. Understanding how consumers approach utilitarian versus hedonic products on different platforms is essential for marketers.

Research in advertising and consumer behavior has explored a variety of ways to classify products. As noted, this research is particularly interested in products that are either hedonic or utilitarian in nature (Hirschman & Holbrook, 1982). Hedonic products enable people to express their ideal or actual self-image (Khalil, 2000) and are consumed for sensory pleasure and gratification (Holbrook, 1986; Woods, 1960). They are prized for their taste, aesthetics, sensory experience, and symbolic meaning (Holbrook & Moore, 1981), and they arouse emotions (Mano & Oliver, 1993). Symbolic benefits satisfy demands for self-esteem, social acceptance, or personal expression and are frequently associated with non-functional qualities. On the other hand, cognitively oriented advantages are offered by practical items like lawn mowers, washing machines, and

hair dryers (Hirschman & Holbrook, 1982; Strahilevitz & Myers, 1998; Woods, 1960). Customers typically rely on logical assessment and concentrate on the functional features of these products (Kempf, 1999).

H1: UGC about hedonic products will have more symbolic than functional terms (H1b), while UGC about utilitarian products will have more functional than symbolic terms (H1a).

2.2. Social Media Sites

Whereas differences in brand-related topics are expected across product types (utilitarian versus hedonic), we also anticipate differences across social media platforms. Smith et al. (2012) found that YouTube, X, and Facebook all had notable variations in brand-related user-generated content. However, since their analysis was restricted to two clothing brands that primarily catered to women, it is challenging to generalize their findings. Additionally, the study used manual coding instead of text mining.

This study is focusing on two of the main social media platforms: X and Instagram, due to their relatively similar US market penetration. StatCounter (2025) reports that 11.7% of all social media site visits account for X, and 10% for Instagram.

X is a popular microblogging site that lets users post, respond to, and share brief content limited to 280 characters for free accounts (X Developer Platform, 2023). The main topics found on X pertain to sharing of information, news, opinions, grievances, and daily updates. As of February 2025, X had 586 million monthly active users since its 2006 launch (We Are Social, & DataReportal, & Meltwater, 2025). With 67% of users saying they buy from brands they follow (Malhotra et al., 2011), the platform gives brands access to devoted customers.

Instagram, a mobile photo and video sharing app that was introduced in 2010, has reached 2 billion users by February 2025 (We Are Social, & DataReportal, & Meltwater, 2025). Users can tag others with "@," "like" and comment on content, and organize topics using hashtags. Since Instagram was only recently made available to businesses, the scholarly research on the platform is still limited. While the initial Instagram studies were shaped by trial and error and best practices (Miles, 2013; Neher, 2013), more recent studies provide deeper insights on the platform's impact on brands. Maulana et al. (2022) emphasize Instagram's cost-effectiveness for fashion businesses - small and medium-sized. According to Wicaksono (2024), Instagram's ability to increase engagement and sales through visually rich content is the reason for its growing popularity across industries. By liking, commenting, or following users, brands engage with consumers and get similar engagement in return (Susanti & Rodhiah, 2023).

Instagram lets marketers talk directly to customers and learn about their motivations through text and, most significantly, pictures. Posts with pictures on Instagram get more engagement than posts with just text on X (Burnell et al., 2021; Díaz et al., 2021), which leads to more interactions (Soonius, 2012). To engage consumers on Instagram, brands mostly employ two tactics: symbolic and emotional (Khan & Raza, 2024; Rietveld et al., 2020). While the symbolic strategy emphasizes the brand's image and promotes its identity or lifestyle, the emotional strategy seeks to influence consumers' affective beliefs associated with product use. Influenced by platform features and interpersonal relationships, consumers interact with UGC to conform to their social identity and self-image (Buzeta et al., 2024).

Compared to X, which focuses on discussions and sharing factual content, Instagram supports the self-focus behavior better (Hu et al., 2022). Furthermore, retweets are usually motivated by informational rather than emotional value (Chung et al., 2020; Saini et al., 2022). Therefore, we propose:

H2: UGC on Instagram (or X) will include more symbolic (or functional) aspects of a product compared to X (or Instagram).

These differences should also be considered in relation to the product type. For utilitarian products, tangible and functional attributes significantly influence attitude formation, while for hedonic products, the intangible and symbolic attributes have a higher impact (Chaudhuri & Ligas, 2006). These findings, in conjunction with those informing H2, suggest that:

H3: For hedonic (but not utilitarian) products, UGC featuring symbolic aspects is more prevalent on Instagram than on X.

H4: For utilitarian (but not hedonic) products, UGC featuring functional aspects is more prevalent on X than on Instagram.

2.3. Brand Sentiment

Marketers know that social media has made it harder for them to influence how people see their brands. This is because brand image is now shaped not just by what the brands say directly (Davenport & Beck, 2018; Esch et al., 2006), but also by what consumers feel and say about them. Indeed, brand sentiment, or valence, is a widely used metric for assessing the impact of social media initiatives (Choi et al., 2021). Sentiment analysis classifies comments as positive, negative, or neutral, where neutral comments reflect objective statements without opinion. To keep the findings more relevant, this study only looks at positive and negative comments and ignores neutral content due to its lack of evaluative sentiment.

Prior research highlights that there are more positive than negative comments, suggesting that consumers generally prefer constructive engagement (Kovacheva et al., 2022; Sukmana & Rusydiana, 2023). Furthermore, regardless of the product type, users are more likely to share practically useful and positive content over negative content (Mishra & Maheswarappa, 2019; Nikjoo et al., 2021). While people often spread negative news more than positive news, social media trends show that positive content tends to be more viral. Prospect Theory offers an explanation. People devote greater cognitive effort to processing negative stimuli due to the positive-negative asymmetry (Kuo et al., 2009). This effort can lead to negative affect (Garbarino & Edell, 1997) and reduced information processing (Glatz & Lippold, 2023), which clashes with the entertainment-oriented nature of social media. Since the main purposes of these platforms are social interaction, escape, and relaxation (Anwar & Mujib, 2022; Kircaburun et al., 2018), we propose that:

H5: Consumers should generate more positive UGC than negative UGC for both utilitarian (H5a) and symbolic (H5b) products on both social media platforms.

Even if positive UGC is predominant on all social media platforms, as highlighted in H5, it is unclear if all platforms share similar proportions of positive or negative sentiment. For instance, is positive sentiment more common on Instagram than on X? Is negative sentiment more prevalent on X compared to other platforms? Zou et al. (2018) discovered that sentiment valence fluctuates by subject, with positive sentiment being more prevalent in tweets about entertainment and lifestyle, while negative sentiment is likely to surround political discussions. Batchelor (2023) and Smith et al. (2012) on the other hand, did not find any persistent changes in sentiment between platforms. It is worth noting, however, that the former focused solely on microblogs like X, while the latter examined comments across multiple platforms, including Facebook, X, and YouTube. Considering both prior findings and the inherent technical and cultural characteristics of each platform, one might expect no major differences in sentiment across sites. Indeed, users can easily post both positive and negative content on platforms like X and Instagram. However, we argue that previous studies may have failed to detect sentiment differences due to the similarity of the product types analyzed. A closer look at products that are predominantly symbolic versus utilitarian may reveal such distinctions. In line with H3, the symbolic attributes of the hedonic products, along with the emotions they evoke, are more effectively expressed through images on Instagram than through text on X. On the other hand, utilitarian products, which

are evaluated by logic and function, are well-suited to textual communication. These evaluations rely heavily on cognitive processing and memory (Hirschman & Holbrook, 1982), making X just as effective a platform for expressing sentiment about utilitarian products as Instagram. Building on research on social media platforms and product type, we propose that UGC for utilitarian products has a consistent sentiment across platforms. For hedonic products, however, we expect sentiment to differ between Instagram and X, such that:

H6: For hedonic products, Instagram will feature more positive sentiment (H6a) as well as more negative sentiment (H6b) than X.

3. Study

3.1. Method

The units of analysis were individual postings collected using the social media monitoring tool Meltwater. The dataset includes X and Instagram posts about selected brands, gathered over a defined 30-day period in June 2018, a time when social media engagement tends to increase due to seasonal shopping patterns and lifestyle changes (Bronner & de Hoog, 2019). Brands were chosen from product categories that represent primarily utilitarian or primarily hedonic consumption.

By specifying brand names as keywords, the time frame, and the target social media platform (for example, X), we compiled a list of qualifying posts. These were delivered by the social media monitoring company in an Excel file and included typical forms of user-generated content for each platform: tweets, retweets, and replies for X; comments and links for Instagram.

To improve the generalizability of our findings, we selected multiple brands within each product category and considered product tangibility. This allowed for comparisons between utilitarian and hedonic products across both tangible and intangible goods. The dataset included four industries: fast food, airlines, cruises, and beer. These categories reflect both product types and tangibility levels. All selected brands were familiar and relevant to consumers' daily lives (see Table 1).

Table 1 (Information about Industries and Brands Chosen for the Study)

Product type		Brand	tweets	Instagram posts
Tangible	Utilitarian	McDonald's	65,536*	4,994
	Hedonic	Heineken	8,200	1,886
Intangible	Utilitarian	Delta Airline	65,536*	3,745
	Hedonic	Royal-Caribbean	8,736	1,180

*Maximum amount of allowed data download was reached

Source: Created by the Authors

The first stage of data analysis was conducted in R Statistical Software (Team, 2013), using several packages for data cleaning and analysis. During cleaning, we removed non-English words, punctuation, URLs, numbers, and common stop words (such as "the," "to," "is," "in"). We retained only words between three and 30 characters, applied stemming, and eliminated sparse words appearing in fewer than 0.1% of cases. We then applied Latent Dirichlet Allocation (LDA), a machine-learning technique designed to manage large-scale textual data. The analysis used the Variational Expectation-Maximization (VEM) algorithm to identify the most frequent terms within dominant topics for each social media platform. Prior research has shown LDA to be highly effective for topic modeling and sentiment analysis in social media contexts (Hammad et al., 2022; Min et al., 2020; Zhao et al., 2021), which supports its selection for this study.

For each brand, we identified the top three topics and the ten terms most strongly associated with each. Each term was manually classified by the authors as symbolic (emotional, experiential, fun, exciting, enjoyable), functional (helpful, useful, practical), or neutral. Classification was done independently by each author, followed by reconciliation of any differences. Terms open to multiple interpretations were categorized as neutral. The final dataset, based on user-generated content from four brands across two platforms, included 24 topics and 240 terms. Of these, 44 terms were classified as neutral, 82 as functional, and 114 as symbolic.

After coding, the data were entered into SPSS under three main variables: social media platform (Instagram or X), brand type (hedonic or utilitarian), and terminology type (functional, symbolic, or neutral).

3.2. Results

A chi-square test of independence showed that there is a significant association between the hedonic or utilitarian character of the brands and the type of UGC related to them, $X^2(2, N = 240) = 23.17, p < .001$. Post-hoc analyses revealed that significantly more terms used in the UGC of utilitarian brands are functional (48.3%) than symbolic (34.2%, $p < .05$), and significantly more terms used in the UGC of hedonic brands are symbolic (60.8%) than functional (20.0%, $p < .05$); thus, supporting our H1a and H1b hypotheses.

When comparing the terminology used in UGC on X versus Instagram, we observe a significant relationship between the platforms and the comment types, $X^2(2, N = 240) = 18.91, p < .001$. Specifically, 60.8% of the terms used on Instagram are symbolic, compared to 34.2% used on X ($p < .05$), and 45.8% of the terms used on X are functional, compared to 22.5% used on Instagram ($p < .05$). These findings help support our second hypothesis.

Hypotheses 3 and 4 require data analyses by brand type. For hedonic products, a chi-square test of independence assessing the relationships between the terminology type and the social media platforms showed no significant relationship between the two variables, $X^2(2, N = 120) = 4.24, p = .12$, thus not supporting our third hypothesis. However, a similar test of independence conducted for utilitarian products revealed a significant relationship between the two variables, $X^2(2, N = 120) = 19.15, p < .001$. As expected, a post-hoc test showed a significant difference between the proportion of functional terms on X (69.0%) and the proportion of functional terms on Instagram (31.0%, $p < .05$). Since these differences were not observed for hedonic products, we conclude that the data support our fourth hypothesis.

To test the fifth and sixth hypotheses, which propose differences in UGC sentiment by brand type and social media platform, we used R Statistical Software with the *syuzhet* package (Jockers, 2023). To enhance accuracy, we analyzed all 159,813 individual comments using four sentiment analysis methods: *syuzhet*, *bing*, *affin*, and *nrc*. Each method assigned a numeric sentiment score, where lower numbers indicated negative sentiment and higher numbers indicated positive sentiment.

Hypothesis 5 proposed that positive comments would outnumber negative ones for both brand types on both platforms. We recoded sentiment accordingly: negative scores were labeled as negative sentiment, zeros as neutral, and positive scores as positive sentiment. Neutral comments were excluded to focus solely on positive and negative feedback.

Using the *syuzhet* method, the number of positive comments was significantly higher than negative comments for both hedonic brands ($X^2(1, N = 14,713) = 5,983.87, p < .001$) and utilitarian brands ($X^2(1, N = 119,624) = 4,970.4, p < .001$) when the data coded by the *syuzhet* method were analyzed. Results from the *bing*, *affin*, and *nrc* methods were consistent, providing full support for Hypothesis 5.

Hypothesis 6a predicted that positive sentiment would be more prevalent on Instagram than on X for hedonic products, while Hypothesis 6b predicted the same for negative sentiment. When comparing sentiment distribution by platform, we found a significant association between platform and comment valence, $X^2(2, N =$

19,993) = 388.19, $p < .001$. Specifically, a higher percentage of the comments were positive on Instagram (76.2%) than on X (57.4%, $p < .05$), supporting H6a. However, we observed a change in directionality for negative comments, with fewer comments on Instagram (6.9%) than on X (14.5%, $p < .05$) being negative, which contradicts H6b.

3.3. Discussion

Our study offers a valuable perspective on how user-generated content differs as a function of the focal product type (utilitarian vs. symbolic) and the social media platform used by the consumers (Instagram vs. X). The findings show that people tend to talk about hedonic products using symbolic and self-expressive language, while utilitarian products are usually described in more practical, functional terms. In addition, the differences seen across platforms indicate that Instagram works better for promoting hedonic products, whereas X is a stronger fit for utilitarian ones. This not only helps understanding consumer behavior on different social media platforms, but can also guide marketers in tailoring their messages to specific product types.

Another important finding involves the sentiment in user-generated content. Although positive UGC was common for both product types, it was not equally distributed between Instagram and X. This suggests that each platform is shaped differently, with unique dynamics that determine how consumers interact with brands.

4. Theoretical contributions

This research significantly enhances the understanding of user generated content (UGC) by validating relationships between product type, platform attributes, and consumer sentiment.

First, it confirms that UGC related to utilitarian products includes predominantly functional terminology, while UGC for hedonic products focuses more on symbolic language. These results build on previous research indicating that conversations about utilitarian products focus more on functionality, while topics about hedonic products elicit more experiential and symbolic responses (Micu et al., 2017). This improves our understanding of how consumers express themselves based on product characteristics.

Second, this study provides insights into behaviors specific to social media platforms. Instagram users tend to focus on symbolic features, while X users tend to focus on functional features. This aligns with studies indicating that different platforms promote different types of UGC and ways of interacting (Schanke et al., 2023). It also confirms that UGC for utilitarian products on X has more functional elements than similar content on Instagram, backing up prior research on platform differences and media richness theory (Basile et al., 2024).

The study also identifies a general positivity bias in UGC across both product types and platforms, supporting claims that online consumer content often carries a positive tone (Nandwani & Verma, 2021). Instagram, in particular, shows more positive sentiment for hedonic products than X, emphasizing how platform culture shapes sentiment, especially for pleasure-driven products (Chen et al., 2024). These insights expand our understanding of consumer engagement and emotional expression across platforms.

Finally, this research offers a strong methodological contribution by combining automated text analysis with manual classification. This hybrid approach provides a reliable framework for examining UGC and can serve as a model for future studies exploring consumer behavior in digital contexts. It ensures a more comprehensive view of the interaction between product type, platform dynamics, and sentiment (Nandwani & Verma, 2021), laying the groundwork for continued research in this area.

5. Practical applications

This research offers explicit direction for marketers aiming to enhance their social media communication strategies. First, companies that sell hedonic products should use Instagram to its full potential, taking advantage of its emotional and self-expressive features. On the other hand, utilitarian products can do better on X, where people are more open to functional and informational messages.

Additionally, the prevalence of positive sentiments in user-generated content suggests that strategies encouraging consumers to create positive content can be highly effective. Marketers should create campaigns that encourage people to have fun and share their experiences on social media in a natural way.

6. Conclusions and recommendations

This study highlights the importance of adapting marketing strategies to both product and social media platform characteristics. We recommend that social media campaigns should be designed with consumer preferences and platform-specific features in mind, particularly focusing on the following actions:

Platform Segmentation. Companies should allocate their resources function of the product type being promoted and the social media platform best suited for that product. On one hand, when promoting utilitarian products, marketers should conduct more marketing campaigns on X and emphasize functional and tangible product features, as UGC on X tends to favor this content (H1a, H4).

On the other hand, hedonic products should be advertised on Instagram through visually pleasing content that emphasizes the product's symbolic and self-expressive qualities (H1b, H2).

Promoting Positive Content. Encourage consumers to create positive user-generated content through interactive campaigns and contests that offer tangible benefits. Design interactive campaigns to encourage consumers to highlight the symbolic aspects of a product, particularly on Instagram, where symbolic and positive sentiment is more prevalent (H6a).

For utilitarian products, create contests on X that encourage users to showcase functional and tangible benefits, such as using a product in everyday scenarios, with rewards like discounts or free upgrades (H5a, H4).

Sentiment Monitoring. Use sentiment analysis tools to track positive and negative sentiment trends for both utilitarian and symbolic products across platforms (H5a, H5b). Closely monitor Instagram UGC for symbolic products as this platform is expected to generate a higher percentage of positive sentiment compared to X, and adjust messaging strategies if sentiment deviates (H6a). Segment UGC based on content type (functional vs. symbolic) and platform, and identify trends that align with or contradict brand expectations (H1a, H1b). Actively respond to and amplify positive UGC while addressing negative feedback swiftly to maintain an overall positive sentiment for both product types (H5a, H5b).

To confirm and expand the results of this research, further studies could examine different social media platforms and even additional product categories. Researchers could take advantage of the remarkably fast evolution of large language models, and study even larger datasets from various social media platforms, drawing more accurate and more profound insights.

7. Acknowledgements

Authors' note on the use of Generative AI

Note: Artificial Intelligence was used only to rephrase some sentences for clarity, readability, and flow. AI was not involved in generating or analyzing scientific content or in developing the research findings.

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Does Technological Accessibility to Distance Learning Correlate with the Development of Human Capital in the Workplace?

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Abstract. *Education ought to be the human right of every citizen, rather than being a privilege; owing to its capability to transform the economy, and encourage social development and global sustainability (Ayoko, Orifah, Kehinde & Orifah, 2024). Due to the complexity of information asymmetry and its incorporation into the ecosystem, the zeal to acquire and adopt relevant knowledge has formed the major determinant of human capital development. Therefore, this study delves into the technological accessibility of distance learning and how it impacts the development of human capital. While adopting the descriptive survey research method in this inquiry, data generated through a well-structured questionnaire set from a population of 6879 personnel drawn from the civil service of the 5 South-eastern states of Nigeria were utilised, out of which, 362 were sampled using Krecjie and Morgan's 1970 sample size determination formula. Both descriptive (table, mean, and frequencies) and inferential (Regression Analysis using Ordinary Least Square Method) statistics were used to test the gathered data. The findings showed a statistically significant relationship between human capital development and the accessibility of distant learning. Highlighting remote learning's strategic potential as a tool for developing human capital, particularly in the public sector. Also, workplaces can raise staff skills, productivity, and general performance by providing easily available and flexible training possibilities, thereby supporting institutional efficiency and national development.*

Keywords: Accessibility, Distance Learning, Flexible Training Programme, Human Capital Development, Employee Performance, Information Communication Technology

JEL Codes: O15, O32, O33

1. Introduction

Learning through teaching is an act of shaping human mental capacity, moulding individual attitudes and widening innovative ideas' horizons that propels human capital development. The feasibility of such a milestone can only be achieved through education, which is an essential component in the design of a modern society where prosperity thrives. Education ought to be the human right of every citizen, rather than being a privilege; owing to its capability to transform the economy, and encourage social development and global sustainability (Ayoko, Orifah, Kehinde & Orifah, 2024). Due to the

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complexity of information asymmetry and its incorporation into the ecosystem, the zeal to acquire and adopt relevant knowledge has formed the major determinant for human capital development. Human capital development is referred to as the quantity of knowledge and competencies possessed by a defined number of people within an organization, a society or a nation. Quantum of developing and developed nations have strived to promote the accessibility of distance learning (ADL) for those who could not attend university through conventional means due to varied challenges (financial, disadvantaged geographical location, physical disabilities, etc.), to create an academic atmosphere which encourages equitable distribution of education to every willing person with tenacity to acquire higher institution knowledge (Nwalia, Arachie, Monyei & Ukpere, 2024; Monyei, Aiyelabegun, Kelvin-Iloafu & Ukpere, 2023; Isola, 2002). Accessibility of distance learning is proxy by flexible training programmes. Flexible training programmes allow students the option to choose their preferred mode of lecture, location of study and time that is convenient without altering the institution's original schedule. This is made possible by the deployment and the utilization of a variety of flexible training programmes approaches and interactive contents (live online meeting platforms, video and audio recordings, various social media platforms interactive sessions, text messages, email, etc.) aided by technological advancement (Songkram, Khlaisang, Puthaseranee, & Likhitamrongkiat, 2015). These training approaches and interactive contents enable the execution of work-related activities, social functions and family responsibility; simultaneously with study. Human capital development (HCD) borders around intellectual investment in people through skill training, internship, and mentorship programmes to enhance employees' performance in the specific area of interest. While, employee performance is referred to as the staff's attitude towards the effective execution of assigned tasks and responsibilities in the workplace, without compromising on outcome quality. Thus, it is a strategic issue that management must pay adequate attention to remain relevant in the industry (Obi-Anike, Igwe, Monyei, Kelvin-Iloafu, Nnabugwu & Ukpere, 2023; Donohoe, 2019). The major driver of the above essential construct is education. In recent years, access to quality education has become a mirage due to infrastructural decay that is ravaging most developing countries, giving rise to intense poverty. These challenges incapacitate disadvantaged citizens, who will form the future workforce in either public or private enterprise, from attaining higher institution learning and knowledge. This impediment of inability to attain quality education dilutes the mental capability, knowledge base and competence level of these future employees, mostly within the middle-to-lower cadre in an organization. Previous research has focused on human capital development and the challenge of realising Vision 2020 (Nwogbo, 2013), open and distance learning as an innovation in education and a panacea for national development (Nwalia et al., 2024; Olusola, 2019), open and distance learning as a panacea for human capital development (Ayoko et al., 2024), and the contribution of open and distance learning programs to human capital development (Ofoha, 2012). Since there is a perceived dearth of literature that looks at the accessibility of remote learning and human capital development, this study is considered topical. This study's objective, therefore, is to determine how accessibility of distance learning as a strategy can impact the development of human capital in Nigeria's civil service.

2. Literature Review

2.1 Modernization Theory

An individual's values, beliefs, attitudes, and behaviours are transformed by education, according to modernisation theory. When individuals are exposed to contemporary institutions like schools, social media, the internet, and new technologies, they are being indoctrinated with modern values. Modernisation theory was born out of McClelland's (1961) research. He believes that some nations—Western societies, specifically—are more developed due to their cultural background, enabling environment, and personality attributes. In his capacity as a social psychologist, he attempts to explain why certain cultures advance more than others in terms of social and technological development. According to this notion, communities should embrace technology advancements and be more receptive to new ways of doing things. The world is changing quickly, thus society needs to embrace and adopt current lifestyles to remain relevant. This idea was connected to the study's performance applications and knowledge components. McClelland's (1961) book on the Achieving Society was the foundation of this theory, where he developed the "Achievement Theory". In David McClelland's view, societies that embrace the precursor to modernization will be the developed ones. The root of modernization lies, among other things, in education and the embrace of modern technology. Interestingly, McClelland argues that societies that rely on religion would lag in terms of modernization and economic development. He specifically referred to India, with her Hindu religion, as doomed in terms of socio-economic development. Today, however, India is a veritable player in the global in both the medical field and technology. This feat was brought about through a gradual acceptance of rationalism in place of spiritualism.

2.2 Accessibility of Distance Learning (ADL)

Accessibility plays a significant role in the area of development, a substantial amount of the global population can benefit from having boundless access to distance learning educational programmes, this can be enhanced by the successful removal or alleviation of various barriers (infrastructural decay, paucity of funds, age discrimination, obsolete technology, e.t.c) to promote active participation in ADL and further stimulate human capital development (Nwalia et al., 2024; Szenberg, Ramrattannx & Gottesman, 2006). Accessibility means the provision of flexible training programmes or models to soothe distinct individual preferences and needs at a convenience, with minimal cost implication (Leo, 2004). Accessibility of distance learning refers to the creation of a conducive environment where various forms of advanced technological tools and gadgets are deployed to grant access to a significant number of people who have eroded the opportunity to attain higher education in their early stage of life, to benefit quality education without conflicting with their work, social activities, and family responsibilities (Federal Ministry of Education (FME), 2012). Jegede (2012) also posits the accessibility of distance learning as the availability of simplify education programme model that is all-inclusive and proffers broad educational opportunities to all and sundry who wish to learn. Thus, ADL disdains some factors (previous academic achievement, age, disabilities, etc.) that tend to prevent some disadvantaged people from benefiting from the dividend of education.

2.3 The Link between Flexible Training Programmes (FTP) and Access to Distance Learning

Flexible training programs give students the chance to participate in class activities whenever, wherever, and whenever it is most convenient for them. FTP is primarily driven by e-learning, which is the act of successfully engaging students online with the use of cutting-edge technology tools (Kim, Hong & Song, 2019). A flexible training programme is an act of experiencing enormous freedom and limitless pace, place and time of study, it refers to the use of information and communication technology (ICT) to reduce constraints in the learning environment (Naidu, 2017; Li & Wong, 2018). Kariipanon, Cliff, Lancaster, Okely, and Parrish (2019) aver that flexible training programmes

facilitate behavioural engagement, student-centred training and an interactive learning environment. It consists of the following components: flexible time management, interactive teacher engagement, and flexible syllabus. The aforementioned elements of FTP give students the luxury of comfort and ease throughout the program (Bergamin, Ziska & Groner, 2010; Bergamin, Ziska, Werlen & Siegenthaier, 2012).

2.4 Human Capital Development

Employee performance is greatly impacted by human capital, which may be defined as the economic value of an individual's experience, education, training, intelligence, health, loyalty, and punctuality. Nwajei and Egbule (2024) contend that human capital can thus be thought of as an intangible asset that is not represented on a business's balance sheet. According to Monyei and Ukpere (2024), and Angela (2014), human capital is the culmination of an employee's talent or knowledge, abilities, competence, experience, and other pertinent qualities, which improves performance and helps the organisation reach its strategic objectives. Human capital, according to Bontis and Fitz-enz (2012), is the sum of an employee's knowledge, abilities, inventiveness, and capacity to do tasks successfully. Human capital development (HCD), on the other hand, offers a strategic method for managing employees inside an organisation. In contrast to traditional HR methods, it is primarily focused on maximising employee performance for mutual benefit and efficient performance, with less emphasis on administrative duties and procedures. The main objectives of HCD are to collect, assess, and share data that informs corporate strategic investment and operational decisions, front-line management, and value-adding personnel management (Paul & Anantharaman, 2013). What sets HCD apart is the use of metrics to guide a people management approach that sees people as assets and emphasises the importance of making strategic investments in those assets through employee engagement and retention, training, talent management, and other developmental efforts. Because of its potential, companies that are against human capital development programs are encouraged to reconsider. Human capital development is one of the most crucial prerequisites for ensuring the continuation and enhancement of workers' outputs, according to Onwumelu and Dialoke (2018). The ability to identify key employees as possible future managers can facilitate strategic planning and streamline the decision-making process for present senior management. The execution of human capital developmental training needs is the only way to make this possible. Three (3) important levels of human capital development training needs are relevant: (a) strategic level: top management determines the training needs while keeping in mind the organization's fundamental values and the training's goal. (b) Tactical level: middle-level managers advocate for these training needs to foster growth and collaboration between management and different departments. (c) Operational level: lower-level personnel spearhead these training requirements while taking departmental objectives and employee performance difficulties into account (Kelvin-Iloafu, Monyei, Ukpere, Obi-Anike & Onyekwelu, 2023; Temple, 2018).

2.5 Examining Employee Performance as an Outcome of Human Capital Development

An organization exists to achieve its goals and objectives. Employees' performance is the bedrock of a firm's sustainability, and its outcome is embedded with pecuniary and non-pecuniary benefits, for motivation (Anitha, 2014). Employee performance connotes staff attitudes towards the execution of assigned tasks and responsibilities effectively and efficiently at the workplace, without compromising on product or service quality. Thus, it is a strategic issue that management must pay adequate attention to remain relevant in the industry (Donohoe, 2019). Armstrong and Tailor (2017) corroborated the above argument by asserting that employee performance signifies personal work progress after the

deployment of skills and competencies in collaboration with organizational resources to accomplish assigned duties within a specific time. Salespeople may be expected, for instance, to reach a predetermined number of prospective leads per hour, with a predetermined percentage of those calls leading to closed sales. Conversely, a manufacturing worker can be subject to performance standards for both hourly output and product quality (Nwajei & Egbule, 2024). According to Armstrong (2012), an organization's success and sustainability are improved by effective employee performance, which ultimately makes it more successful and gives it a competitive edge. Perceiving that they are functioning well and no more performance enhancement is necessary presents hurdles for organisations (Summers & Hyman, 2005). A systematic approach to creating, overseeing, and continuously enhancing employee performance is offered by performance management. Accountability requires an efficient employee performance management system to optimise HCD's potential and improve staff performance. According to Pradhan and Jena (2017), the objective of the performance management system should be in line with the organisational vision to create employee-centric strategic policies that foster a positive staff-management relationship. The staff-management relationship includes employee job satisfaction and security; and judicious utilization of the firm's scarce resources for efficient productivity (William & Cusack, 2003). It is in this light that, Gurman and Saks (2011) concluded that employee performance is a very crucial aspect of organizational effectiveness and sustainability.

2.6 Accessibility of Distance Learning and Human Capital Development – The Strategy

Nwalia et al., (2024), and Monyei et al., (2023) researchers have pointed out that several strategies influence organisational growth and sustainability in the modern period. The primary determinant is education (the availability of flexible training programs as a stand-in for online learning). Guest (2018), William and Cusack (2003), and Wright (2013) further assert that adaptable training programmes are crucial to HCD (employee performance) during an organization's evolution. Consequently, this gives the organisation a competitive edge. According to studies, there is a notable distinction between companies that support their employees' participation in distance learning programs and those that do not. The body of existing research shows that flexible training programs have a clear impact on worker performance. Others expanded to a broad perspective of organisational performance, while others went further by evaluating organisational growth specifically in terms of employee performance (Guest, 2018). Since employee performance affects organisational profitability, the two are therefore related in that it depends on the availability of high-quality, reasonably priced education. Wright (2019) pointed out that good, adaptable training programs help employees build their competencies in connection to the aforementioned. Flexible training programs therefore contribute to better organisational performance by improving employees' knowledge, skills, and attitudes that will be needed for future purposes in addition to improving their overall performance in carrying out their official responsibilities. Prior studies on the relationship between flexible training programs and employee performance have demonstrated that training improves performance and has associated advantages for both the employee and the company by favourably impacting high productivity through the growth of employee competencies, knowledge, skills, abilities, and behaviour (Guest, 2018). Flexible training programs have also been discussed in other research (Onwumelu & Dialoke, 2018; Udoudo, Ebitto & Ubam, 2018; Eyikorogba & Agullah, 2021) as a technique to address skill gaps and performance gaps and enhance employee performance. To

improve employee performance and develop certain skills and abilities, Wright (2019) defines bridging the performance gap as the process of implementing a relevant training intervention.

2.7 Empirical Insight

Ayoko et al. (2024) investigated e-learning, open, and remote learning as a solution for developing human capital. The concept of open, distant, and e-learning (ODEL), its relationship to human capital development, and the transformative functions that ODeL plays in human capital development both domestically and internationally were all attempted to be explained in this paper. The literature analysis and qualitative investigation in this study were conducted using the interpretative research paradigm. Secondary sources were used to collect the data, which was then categorised into subjects and subjected to a thorough and historical analysis of the issues. It was discovered that ODeL has surmounted the obstacles of social and cultural barriers, infrastructure difficulties, logistical and human limitations, and geographic distance. This study supports the notion that ODeL is critical to the development of human capital and, in turn, to the nation's progress. The study's conclusions indicate that ODeL will promote improved human capital development for growth on a national, global, community, and personal level. The study also suggested that legislators should provide sufficient electricity (energy), internet access, and information and communication infrastructure to enable successful student-teacher interactions.

Similarly, Achugbue and Ochonogor's (2013) study looked at how human capital development and education may be achieved through the proper use of information services. The research essentially conducted a descriptive examination of Delta State's educational and human development status and evaluated the government's preparedness for these developments. According to a review of numerous publications, the government's commitment to the development of education and human capital is insufficient, and its use of information technology and services is deemed inadequate, resulting in the starvation of those who benefit from these sectors. In light of the aforementioned, it was suggested that the government of Delta State enhance its budgetary allotment to education, implement suitable practices for teacher training and retraining across all academic institution categories in Delta State, and reform its information service delivery system.

Additionally, to explore the role of open, distance, and e-learning in the development of human resources, Adelowotan (2014) looked at disclosures about human capital development in the corporate annual reports (CARs) of prominent South African listed companies. Utilising the content analysis method, the study looked at these businesses' CARs using Atlasti qualitative analysis software. In new economy firms, open, remote, and e-learning were found to have a major impact on the development of human capital.

Kokoc's (2019) work on e-learning flexibility: modelling its relationship to academic success and behavioural engagement. The study investigated how behavioural engagement and academic achievement in an online learning environment are impacted by perceived flexibility. The study used a predictive correlational strategy. The study had 119 college students who were engaged in a 15-week course that was entirely online. Data sources included student academic performance as

determined by midterm, quiz, and final grades; behavioural engagement data from learning analytics indicators; and data from the Perceived Flexibility Scale. The study data was analysed using the Partial Least Squares Structural Equation Modelling technique to test the research model. It was found that perceived flexibility of time and perceived flexibility of topic have significant positive benefits, but, interestingly, reported flexibility of teacher contact had no detectable influence on behavioural engagement or academic attainment. The research contributes to our understanding of how flexibility parameters impact online learning experiences and results. In conclusion, the study's findings show that learning designers and instructors can improve students' behavioural engagement and learning performance in the context of e-learning by providing flexibility in terms of course content and learning time. Therefore, it was suggested that instructors and learning experience designers create a flexible online learning environment that lets students choose when and where to learn.

3. Methodology

The characteristics of the study, which aim to gather information about phenomena from sampled respondents, lead to the implementation of a survey research design. 6879 workers from the civil service of Nigeria's five southeast states comprise the study's population. The essence of choosing these people is to know what they feel about the accessibility of distance learning and if it could enhance their knowledge. 362 of these 6879 people were sampled using the formula for determining sample size developed by Krejcie and Morgan in 1970. Data for the study were gathered using a standardised questionnaire and primary sources. The questionnaire underwent validity and reliability evaluations. Reliability was evaluated using the Cronbach Alpha test, while validity was evaluated using the face and content validity tests. With a coefficient of .893, the reliability test results indicate that the instrument is 89% reliable, and the validity test experts verified the instrument's validity after making the necessary modifications. Both descriptive (table, mean, and frequencies) and inferential (Regression Analysis using Ordinary Least Square Method) statistics were used to test the gathered data. At a significance level of 5%, the hypothesis was examined.

4. Data Analysis and Result

This study's general goal is to assess how accessible distance learning is for developing human capital, and its specific goal is to investigate the connection between employee performance and flexible training programmes. Using stratified sampling, 362 copies of the questionnaire were given to the participants; two research assistants who had received specialised training for this purpose helped collect 316 copies or 87% of the distributed copies. From these collected copies, 6 copies were not used as a result of incomplete responses and mutilation of the questionnaire. Therefore, 310 of the distributed copies were used, representing 86% of the sample size.

Table 1: Responses of Respondents on flexible training programmes and employee performance

S/N	Questionnaire Items	SA (5)	A (4)	UD (3)	D (2)	SD (1)	X	Decision
<i>Distance Learning Access / Flexible Training Programmes</i>								
1	An opportunity to learn remotely increases knowledge acquisition.	150	98	15	35	12	4.09	Accept

2	Choosing a learning medium raises information sharing.	170	93	32	15	-	4.35	Accept
3	Interest in learning using online mediums is heightened.	78	109	48	65	10	3.58	Accept
4	Trainings are beneficial as at and when due.	130	150	9	21	-	4.25	Accept
5	Knowledge gained using online platforms is unsatisfactory.	59	78	5	111	57	2.91	Reject
6	Physical and contact learning offer more than remote learning.	23	110	6	89	82	2.69	Reject
7	Technology-infused learning is more engaging.	71	90	-	89	60	3.07	Accept
<i>Human Capital Development / Employee Performance</i>								
8	An improved training technique enhances task outcomes.	124	119	45	22	-	4.11	Accept
9	Attending training courses raises the value of the organization.	100	165	5	30	10	4.02	Accept
10	Productivity is heightened when skill sets are improved.	191	79	19	21	-	4.42	Accept
11	Additional training hinders task performance.	34	60	39	80	97	2.53	Reject
12	Performance is greatly improved due to further education and training opportunities.	89	132	12	77	-	3.75	Accept
13	Service delivery is not enhanced through training.	68	156		76	10	2.99	Reject

Source: Field Survey, 2025

Table 1 shows respondents' responses to the questionnaire items on distance learning accessibility and human capital development. Using the mean and a threshold of (3) three, the analysis is carried out. This implies that any item on the questionnaire with a mean of 3 should be deemed legitimate, while any item with a mean below 3 should be disregarded as irrelevant. On questions used in measuring distance learning accessibility, the respondents agreed that an improved training technique will enhance their task outcomes as a mean of 4.09 obtained here is greater than the benchmark of 3. They also agreed that an opportunity to choose a learning medium will raise information-sharing levels with a mean of 4.35 which is also greater than 3. Similarly, they agreed that their interest in learning using online mediums will be greatly heightened and beneficial with a mean of 3.58. A mean of 4.25 also indicates that they accepted training to be more favourable and beneficial only when required. They, however, disagreed that knowledge gained through online platforms will appear to be unsatisfactory as shown by a mean of 2.91 and also disagreed that physical and contact learning offer more than remote learning with a mean of 2.69. They agreed that technology-infused learning

is more engaging as revealed with a mean of 3.07 which is greater than 3. On questions used in measuring human capital development, the respondents agreed that opportunities for improved training techniques will enhance their task outcomes as shown by a mean of 4.11. A mean of 4.02 also indicates the respondent's concurrence with the proposition that attending training courses will raise the value of the organization. In the same vein, they agreed that productivity will be heightened when their skill sets are improved as indicated by a mean of 4.42. However, they disagreed that additional training hinders task performance as a mean of 2.53 obtained here is less than the 3 benchmark. They did, however, agree that opportunities for additional education and training significantly boost performance (mean of 3.75), although they hardly disputed (mean of 2.99) that training does not help a firm's service delivery.

Test of Hypothesis

H₀₁: There is no significant relationship between flexible training programmes and employee performance.

Table 2: Model Summary of Research Hypothesis

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.975 ^a	.950	.950	1.356

a. Predictors: (Constant), DLA

To test the hypothesis that states no significant correlation between human capital development and distance learning accessibility, the regression results are summarised in Table 2. The table shows that the correlation coefficient, R, is .975, indicating a 98% relationship between the independent (accessibility of distance learning) and dependent (human capital development) variables. According to the R square, the coefficient of determination, which is .950, changes in the accessibility of remote learning led to a 95% shift in the growth of human capital.

Table 3: ANOVA Output

Model		Sum of Squares	df	Mean Square	F	t	Sig.
1	Regression	10736.632	1	10736.632	5838.784	76.412	.000 ^b
	Residual	566.365	308	1.839			
	Total	11302.997	309				

a. Dependent Variable: HCD

b. Predictors: (Constant), DLA

Table 3 shows the outcomes of the ANOVA-based regression analysis. Sig is .000, the probability value and F is 5838.784 with t of 76.412. Because the p-value is below the 5% level of significance employed in the study's decision criterion, the null hypothesis is thus rejected in favour of the

alternative hypothesis. Therefore, it can be said that there is a statistically significant correlation between the development of human capital and the accessibility of distant learning.

5. Discussion of Results

The study found a statistically significant correlation between distance learning accessibility and human capital development based on the regression analysis results conducted using the ordinary least square approach of the statistical package for social sciences. This relationship is observed to be positive because of the correlation coefficient being positive. Being positive implies that a movement in one direction of the independent variable will lead to the same movement in the same direction in the dependent variable. That is, when there is an improvement or a conscious effort to adopt flexible training programmes, there will also be a concomitant improvement in employee performance. When the employees improve their participation in flexible training, this will lead to an enhancement of their skills and knowledge, which will increase their value to the organization and, by extension, improve their performance. These findings align with those of Nwalia et al. (2024) and Ayoko et al. (2024), who examined e-learning (ODEL) as a panacea for human capital development, distance learning as a tool for knowledge acquisition and utilisation, and the openness of distance. According to their research, distant learning is crucial for knowledge acquisition and application. It is also necessary for the development of human capital, which in turn contributes to the success of people, businesses, and countries. Thus, they concluded that ODeL contributes to better human capital development for national, international, community, and personal growth. At the individual, organisational, and national levels, these human resources with ODeL contribute to improved performance. The results of the current study also corroborate those of Adelowotan (2014) and Obi-Anike et al. (2023), who looked at disclosures about human capital development in the corporate annual reports (CARs) of top South African listed companies to talk about the role of ODeL in human resource development. The paper claims that ODeL has a significant influence on the economy's human resource development. Furthermore, the current study's findings were similar to those of a 2019 study by Kokoc that looked at flexibility in e-learning: modelling its relationship to behavioural engagement and academic performance. The study's findings demonstrated that perceived time and content flexibility greatly improve behavioural engagement and academic accomplishment.

6. Conclusions and recommendations

With an eye towards Nigeria's civil services, this study examines how the accessibility of distance learning impacts human capital development. The results showed a statistically significant association, meaning that distance learning accessibility as a strategy improves and develops the human capital found within a workplace. These outcomes underline the strategic possibilities of remote learning as a tool for human capital advancement, especially in the public sector. Organisations can raise staff skills, productivity, and general performance by providing easily available and flexible training possibilities, thereby supporting institutional efficiency and national development. The study emphasises the significance of creating distance learning courses that fit the particular requirements of workers thereby guaranteeing their accessibility and relevance to professional development.

Based on the findings of the study, the following recommendations are worth pondering:

- The management and leaders in the civil service should provide infrastructural support to workers who intend to engage in flexible learning programmes to make the experience seamless as this will enhance their productivity in the civil service.
- Incentives should be given to employees who engage in training, especially online training which will enable the employees not to leave the organization, but work while learning as this will enable the organization to be as more productive as possible than allowing the employees to leave the organization solely for training purposes.

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Empowering Communities Through Community-Based Tourism: A Systematic Review of Local Involvement and Communication Role on its Implementation

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Abstract. *Community-Based Tourism (CBT) refers to tourism activities that involve local communities in their planning and execution. Nevertheless, the initiatives face various challenges in attaining sustainability and effectiveness due to limited resources, knowledge and communication. This study seeks to answer the question: What is the role of local involvement and communication in implementing CBT? The current study employs a systematic literature review (SLR) method and reviews 99 peer-reviewed studies published between 2014 and 2024 on Scopus and Web of Science databases. The findings revealed that the local community's active participation in planning, management and operational roles boosts economic benefits and social unity by creating a sense of ownership. Communication between stakeholders (community, government, NGOs) is essential for comprehending and implementing the intended goals. The study concludes that local participation and inclusive communication are critical to CBT's long-term sustainability. It recommends adopting structured communication channels and capacity-building programs to refine stakeholder collaboration in future CBT projects.*

Keywords: Community-Based Tourism (CBT), Local Participation, Stakeholder Communication, Sustainable Tourism Development.

JEL Codes: Z32, D83

1. Introduction

Community Based Tourism (CBT) is a model of tourism development that puts local communities at the heart of planning and governance. It aims for two outcomes: economic growth and the conservation of cultural and natural heritages (Strydom et al., 2018). When initiatives succeed, they can help communities in rural areas to earn more and create jobs. However, poor business skills, lack of capital and weak collaboration among stakeholders may nonetheless act as barriers to many efforts with lasting outcomes (Zielinski et al., 2020). Due to a lack of cooperation between operators, the government and communities, tourism sustainability is threatening developmental gains. This study focuses on two important aspects of CBT: community

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participation and communication. If the community members are actively involved in governance, they create stewardship and embed projects within the community life leading to environmental and cultural sustainability as well (Janjua et al., 2021). Strategic Knowledge Dangi & Jamal (2016) state that dialogue and wide engagement of stakeholder enable sharing of strategic knowledge. Lack of or exclusion from communication leads to conflicts, misalignment of goals, and poor execution (Sulistiono, 2024). To ensure CBT's viability, inclusive and participatory communication is essential. Case studies demonstrate this dynamic. The storytelling practices are used in In Situ Gede, Indonesia to create solidarity and improve tourism management (Annas et al., 2025). In contrast, tourism on Pari Island has caused unequal distribution and the breakdown of cohesion due to poor governance and communication (Kinseng et al., 2018). These examples demonstrate that CBT can strengthen communities or exacerbate divisions depending on communication and participatory structures. Places also have to act as brokers between residents and visitors due to tourism polycentrism. The stories the community creates affect sustainability significantly (Sürücü & Avcı, 2023). CBT has since 1980s been defined as a self-regulating model that aims to balance social, economic and ecological objectives (Sapkota et al., 2024).

The values of cultural preservation, stewardship, economic self-sufficiency, and sustainability enable local residents to be the custodians of the story of tourism, and see tourists as partners in conservation. CBT's durability depends on many factors: responsible resource management, inclusive decision-making, careful external support, and strong social capital. Capacity may also be enhanced through training, moderated financial means and balanced partnership with NGOs. The problem of elite capture may arise due to too much tendency of outer control. Fairly allowing locals to handle resources is needed. Vision and dialogue are key assets for CBT coherence. Forums help disseminate information, increase accountability and curb corruption or elitism (Sapkota et al., 2024; Zielinski et al., 2020). Communities utilize reflexive communication to balance economic profits with cultural values and to transform external capital into sustainable socio-environmental benefits (Strydom et al., 2018). In the end, CBT is seen as a comprehensive model of sustainable development (Strydom et al., 2018). According to Sapkota et al. (2024), community participatory action can counter risks of environmental damage, cultural dilution and inequality from tourism, and steer efforts toward stewardship and solidarity. A study shows that participation, communication, and sustainability are interdependent determinants of CBT success (Zielinski et al., 2020). Additionally, it has been shown that the structural conditions and emotional representations, for example, accessibility, biodiversity, nostalgia and communal memory, impact destination attachment and participation (Sürücü & Avcı, 2023; Chandra et al., 2023). Multiple texts suggest that authentic participation and real-time communication are structural requirements for effective CBT. When dialogue is inclusive and honest, it reaps economic, social and ecological benefits. Exclusionary dialogues can lead to the project's failure and the loss of cultural identity.

2. Research Elaboration

For this study, the authors addressed the issue of community involvement, local communication roles, and how these aspects are employed in carrying out community-based tourism (CBT) through the use of a Systematic Literature Review (SLR) method. With the SLR technique, the objectives of the study are addressed utilizing a defined, systematic, and transparent method of finding, sifting through, and synthesizing particular academic materials relevant to the other objectives of the study.

This approach is methodologically sound and, in this case, follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) standard. The entire research process is broken down into five interdependent components: defining research objectives, setting a review protocol, collecting and assessing necessary materials, information retrieval, and finally thorough assessment by means of content review. All these components, as well as the chosen and filtered documents, are collectively presented in Figure 1, Research Framework and Article Selection Process.

2.1. Identification of Research Objectives and Questions

This systematic review begins by defining specific objectives and formulating pertinent research questions. The primary focus of this research is target oriented. First, it seeks to explore the community engagement activities undertaken by stakeholders and the participants in the practice of community-based tourism (CBT). Secondly, it aims to analyze the functional and structural communication mechanisms in regard to the success and sustainability of CBT initiatives. These objectives provide the basis for building the review protocol, formulating the keywords, and constructing the criteria for inclusion and exclusion in the review procedure.

2.2. Development of Review Protocol

For the purpose of maintaining coherence throughout the review, a review protocol was developed capturing the search and eligibility parameters. The keywords selected for the search were “community-based tourism” and “communication” or “local community,” which allowed the review to focus on the literature examining the effectiveness of CBT from participatory and communicative perspectives. The literature considered for the review was screened for a set of pre-defined criteria: it is a journal article, it is published and accessible to the general public, it is peer reviewed, the language of the article is English, the time period is from the year 2014 to the year 2024, and it is focused on the praxis of community-based tourism and/or employs communication in the strategies. Such a protocol was developed in analogy to the SLR protocols in tourism (Janjua et al., 2021; Sapkota et al., 2024; Sulistiono, 2024).

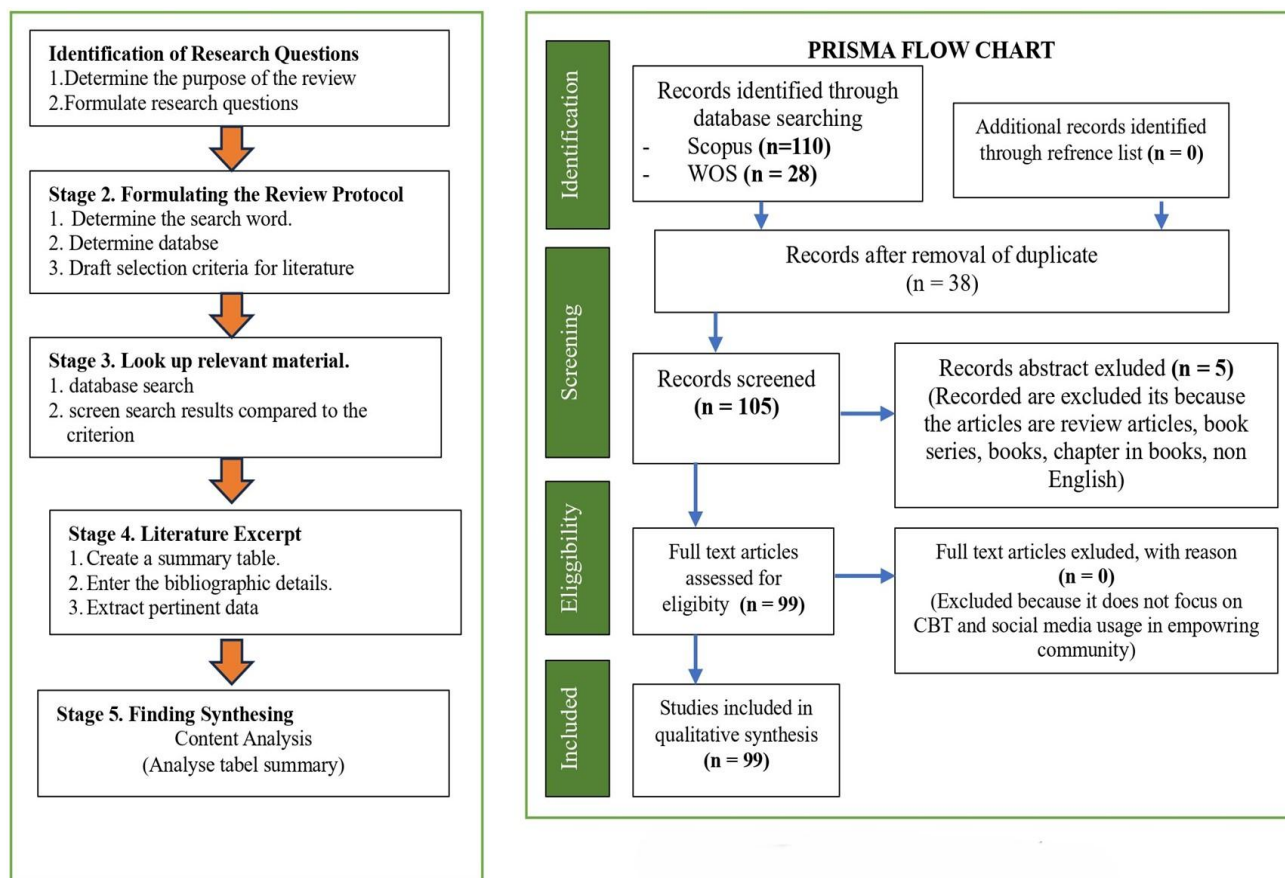


Fig. 1: Research Framework and Article Selection Process.

2.3. Literature Search Strategy

The scanning of literature was completed using two databases in particular, Scopus and Web of Science (WOS) because of their extensive coverage of social sciences' peer reviewed journals in tourism and development studies. The use of Boolean operators (AND, OR) in the key search phrases helped to capture the relevant studies. The date of the last search was 10th of September 2024 and it allowed for the first batch of 138 articles to be captured. The scope was set to balance wideness and narrowness by focusing on titles, abstracts, and keywords of the articles. These steps are in conformity with the practices of systematic reviews for tourism studies.

2.4. Article Selection Procedure

The screening and selection of articles was done with the PRISMA framework which offered an orderly and clear approach for narrowing the relevant literature. From the 138 articles obtained at the start, 38 were removed due to duplication. The 105 records remaining after this point were then abstract screened. At this point, six articles were removed from the corpus as they were either review papers, book chapters, non-English publications, or peripheral to CBT and its communicative aspects. The final count was 99 articles which were fully read and subsequently the only ones deemed appropriate for the qualitative synthesis. The detailed charted steps of this selection process are illustrated in Figure 1. Research Framework and Article Selection Process.

2.5. Content Analysis of Selected Studies

The recurring items' thematic patterns and themes regarding the implementation of CBT, community participation, and the role of communication was the focus of an examination on the 99 selected articles. This approach enables the researcher to extract and classify different variables within individual studies. This analysis was centered on several critical questions: what types of CBT practices were implemented, what was the geographical range of the studies, what types of respondents were involved, what were the prevailing research methods, what theoretical frameworks were utilized, and most critically, what were the local community involvement and communication strategy roles. All analyzed documents were synthesized into a coherent summary table, the details of which will be updated later in Chapter 3 (Results and Discussion) in accordance with the new structure of this study. This content analysis highlights the thematic aspects CBT is framed and practices in varying contexts.

2.6. Source Validity and Relevance

In order to ensure the reliability and scholarly integrity of the current review, only peer-reviewed journal articles stemming from Scopus and the Web of Science were consulted. This guaranteed the studies included were of considerable scholarly and methodological rigor. In addition, the review's conclusions and the findings' applicability to different domains of CBT are further defended through the sole inclusion of peer-reviewed publications. This procedure is consistent with the other SLR studies' quality control measures within the domain of tourism and community development (Janjua et al., 2021; Sulistiono, 2024).

3. Results And Discussion

3.1. Results

This chapter outlines the outcomes of the comprehensive scrutiny of 99 selected studies pertaining to community-based tourism (CBT). The outcomes are categorized into two main sections: the descriptive attributes of the articles under review and an analysis of the distribution of articles over time and across various journals. This part serves to distill the findings of the research as it pertains to patterns of scholarly activity, time, and the relevant forums for publishing the outcomes of research in question.

3.1.1. Descriptive Characteristics of the Reviewed Articles

In order to grasp the relative context pertaining to CBT scholarship, the descriptive attributes of the analysed articles are investigated within two parameters: the publication year and the sourcing journals. They

also help to contemporise the research, breaking it down into different disciplines, thus shedding light on how community-based tourism scholarship has shifted over the years.

As presented in Figure 2, there were 99 articles that were published between the years 2014 to 2024. Most noteworthy is the continuous increase in the number of published articles which reached its peak between the years 2018 to 2021. The year 2018 and 2020 had the highest record, attaining 15 articles while 2022 and 2023 dropped to 13 articles and 2021 to 11 articles.

This shift in data shows an increased academic interest in the role and impact of the community in participatory sustainable tourism development during the global momentum on sustainability and community resilience. Balance the 2020-2024 data, it appears that CBT is an active area of scholarship reflecting global interest in inclusive and participatory development, and is a relevant topic of study.

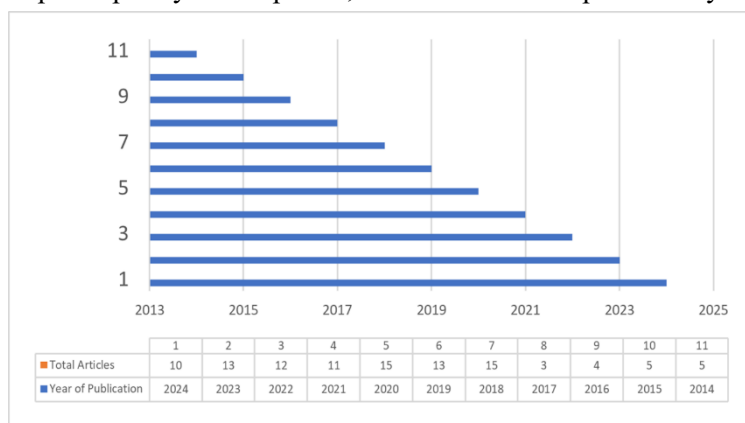


Fig. 2: Distribution of Reviewed Articles by Year of Publication.

The distribution of the articles under review on the various journal titles is shown in Figure 3. A total of 78 different journals has been captured, indicating the multidisciplinary nature of CBT research which cuts across tourism, development studies, sustainability, environmental science, and community development. The journal with the highest occurrence is the African Journal of Hospitality, Tourism and Leisure, with 10 articles, while the next in line, Sustainability, has 7 articles, and Development Southern Africa and the GeoJournal of Tourism and Geosites follow with 4 articles each.

The bulk of the literature pertaining to community-based tourism (CBT) appears to be focused on the Southeast Asian region, with Indonesia having the largest share of 17 articles, followed by Thailand (13) and Malaysia (10). The data suggests that community-based tourism is an integral part of the tourism development plans of those countries, frequently aligned with the more overarching goals of the countries regarding sustainable and inclusive tourism.

A total of 99 peer-reviewed studies published between 2014 and 2024 were reviewed. These studies were examined across diverse geographical contexts, methodological approaches, and theoretical frameworks to understand the roles of community participation and communication strategies in Community-Based Tourism (CBT). Instead of presenting them in a long table, this section synthesizes the findings into thematic clusters while still citing all reviewed works.

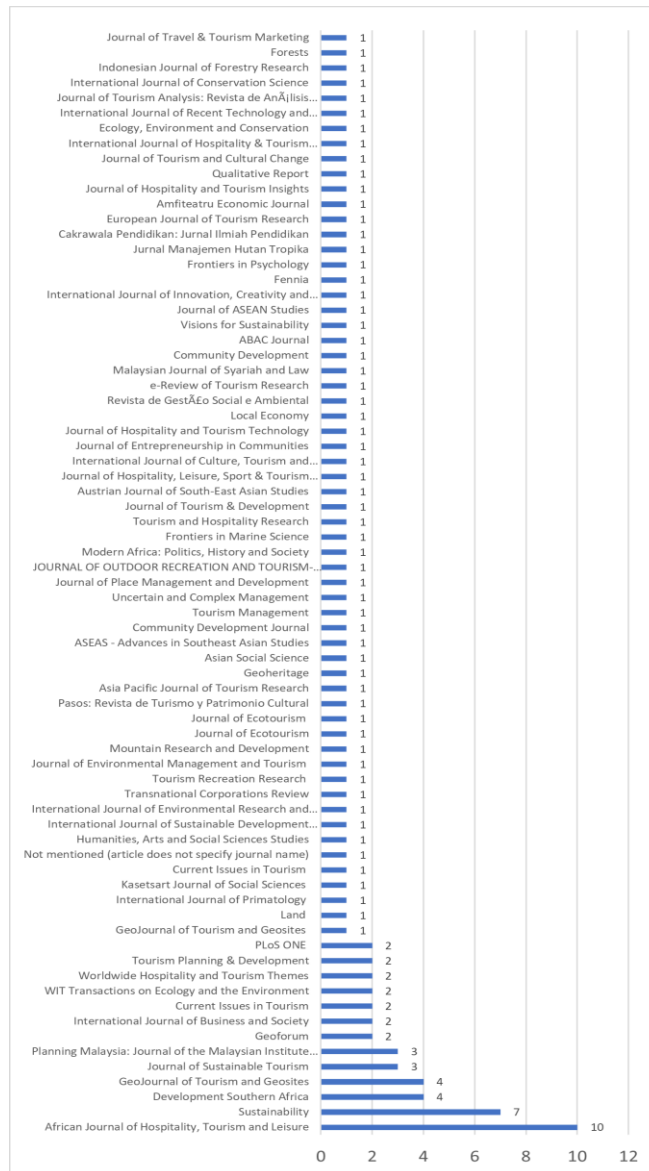


Fig. 3: Distribution of Reviewed Articles by Journal Source

3.1.2. Geographical Distribution of Studies

Literature on CBT scholarship is markedly clustered within the Global South, and it is the Global South specifically where Southeast Asia and Sub-Saharan Africa yield the broadest node of research. Within the Southeast Asian expanse, Indonesian contributions are pre-eminent (Veriasa et al., 2023; Junaid et al., 2021; Rembulan et al., 2020; Repelita et al., 2024; Kurniawan et al., 2022; Rini, 2019; Yasir et al., 2021; Oka et al., 2021; Fafurida et al., 2022; Anindhita et al., 2024; Priatmoko et al., 2021; Sugandini et al., 2018), whereas Thailand is notably represented (Nomnian et al., 2020; Ditta-Apichai et al., 2020; Kampetch & Jitpakdee, 2019; Sharafuddin & Madhavan, 2020; Phengkona, 2814; Songpornwanich et al., 2020; Pornprasit & Rurkkhum, 2019; Lo & Janta, 2020; Sann et al., 2023). Malaysia, albeit geographically peripheral to the other

two, likewise offers a robust and contemporary body of work (Azwar et al., 2023; Nordin et al., 2023; Murniati et al., 2024; Kunjuraman, 2022; Amir et al., 2017; Ebrahimi & Khalifah, 2014; Nor et al., 2021).

Beyond Asia, the evidence base for the present enquiry is considerably strengthened by the South African context, which is represented by Giampiccoli and Glassom, (2021), Ndlovu et al., (2018), Strydom et al., (2019), Setokoe and Ramukumba, (2020), and Musavengane, (2019). Comparable findings originate from Zimbabwe (Hlengwa & Maruta, 2020; Mudzengi et al., 2018; Gohori & vander Merwe, 2022; Hlengwa & Maruta, 2019), Botswana (Mmeko et al., 2023; Lenao, 2015; Stone & Stone, 2011), and Namibia (Kavita & Saarinen, 2016; Schnegg & Kiaka, 2018)).

Latin America, though furnishing a smaller corpus of case studies, nevertheless reveals a spectrum of innovative methodologies, notably those documented in Ecuador (Romero-Medina et al., 2024; Torres-Toukoumidis et al., 2022), Brazil (Bachi & Carvalho-Ribeiro, 2023, Lebrão et al., 2021), and Mexico ((Reyes-Santiago et al., 2022). Adjacent contributions derive from the Indian subcontinent (Chaudhary & Lama, 2014; Wani et al., 2024; Maheshwari, 2021), from Tanzania (Anderson, 2018; Mgonja et al., 2015; Ngilangwa et al., 2018), and from narrower contexts such as Laos (Park et al., 2018), Timor-Leste (Tolkach & King, 2015), Brunei Darussalam (Chin et al., 2024; Chin & Noorashid, 2022), and Cape Verde (Sánchez-Cañizares & Castillo-Canalejo, 2014; Bozzato & Pollice, 2022; Alfama et al., 2024).

3.1.3. Methodological Approaches

An examination of the corpus reveals a preponderance of qualitative methodologies—specifically, case studies, interviews, and ethnographic observations—thereby attesting to the discipline's orientation toward situated, community-specific inquiry. Illustrative inquiries from Indonesia (Junaid et al., 2021; Yasir et al., 2021), Thailand (Nomnian et al., 2020), Namibia (Kavita & Saarinen, 2016), and Mexico (Reyes-Santiago et al., 2022) corroborate this trend.

Quantitative investigations, although less numerous, furnish pertinent data on stakeholder perceptions and engagement, as evidenced in the works of Wani et al., (2024), Lamat et al., (2019), Ogucha et al., (2015), Eom and Han, (2019), Oka et al., (2021), and Thang et al., (2023). Meanwhile, mixed-methods inquiries synthesize statistical analysis and rich contextual interpretation, granting the field a multi-dimensional evidentiary foundation ((Veriasa et al., 2023; Đurkin & Perić, 2017; Gebreyesus et al., 2022; Ndlovu et al., 2018; Romero-Medina et al., 2024).

The methodological plurality fortifies the overall credibility of CBT literature; nevertheless, a discernible shortfall in longitudinal investigations remains, thereby constraining the field's capacity to observe the durability and transformative effects of interventions across protracted temporal scales.

3.1.4. Theoretical Frameworks

The theoretical repertoire of community-based tourism (CBT) research continually expands, thereby underscoring the approach's rootedness in multiple disciplines.

Community Participation Models serve as a foundational backbone in several recent studies (Đurkin & Perić, 2017; Kurniawan et al., 2022; Ndlovu et al., 2018) and demonstrate the enduring relevance of participatory doctrine. Social Exchange Theory, particularly pronounced in African and Asian contexts, frames perceived individual and collective benefits as antecedents of sustained stakeholder engagement (Wani et al., 2024; Ngilangwa et al., 2018; Maheshwari, 2021). Complementing these classical lenses, a number of innovative architectures have emerged, including frameworks derived from Maqāsid al-sharī'ah (Repelita et al., 2024), the Penta-Helix model of collaborative governance ((Azwar et al., 2023) and a reinterpretation of Freirean Empowerment Theory (Mmeko et al., 2023).

The literature is further deepened by the recent articulation of digital and marketing constructs, notably Integrated Marketing Communication (Phengkona, 2814) and the Technology Acceptance Model in tourism contexts (Thang et al., 2023). Collectively, these contributions affirm that the analytical scaffolding of CBT transcends tourism studies narrowly conceived; rather, it interweaves insights from sociology, international development, communication theory and religious jurisprudence, thereby endorsing a genuinely transdisciplinary epistemic horizon.

3.1.5. Forms and Levels of Participation

Overwhelming evidence from 99 studies indicates that in the cases of community-based tourism (CBT), the participants ranged from peripheral to devolved. In Lesotho and Botswana, peripheral engagement consisted of rotating manual labour under objectives determined externally (Lenao, 2017; Makwindi & Ndlovu, 2021). Wage-labor models in Cambodia and Uganda provide very little empowerment or oversight (Ellis & Sheridan, 2014; Schott & Nhem, 2018). In northern Thailand and coastal Indonesia, local participation was through the establishment of tourism committees and workshops. However, locals did not gain much strategic control, as the substantive power is settled in foreign agencies (Nomnian et al., 2020; Manaf et al., 2018). Compared to the other two forms, governed engagement allowed for real community power which was based on formal or customary land tenure. Some examples are Peru's marine projects (Cornelisse, 2020), community-led eco-tourism in the Philippines (Mercado et al., 2023), and Senegal's cooperative enterprises (Sène-Harper & Séye, 2019). Women and minorities were often excluded from participation (Phommavong & Sörensson, 2014), but reforms in Brunei and eastern Indonesia improved equity through quotas and informal councils (Chin & Noorashid, 2022; Anindhita et al., 2024).

3.1.6. Communication Strategies and Challenges

Communication structures operationalise Community-Based Tourism (CBT) yet also furnish sizable frictional constraints.

- **Traditional Communication:** In collectivist contexts, face-to-face assemblies and hands-on workshops retain ascendancy, shaping consensus and collective ownership (Mercado et al., 2023; Rini, 2019).
- **Digital Communication:** Interactions surged during the COVID-19 pandemic; e-commerce and social media underpinned promotional trajectories in Vietnam and Malaysia, democratizing access to prospective markets (Thang et al., 2023; Phengkona, 2814). Contrastingly, the digital divide observed in Ethiopia and Namibia curtailed the breadth and depth of stakeholder engagement, enacting a latent exclusion on the supply side (Gebreyesus et al., 2022; Schnegg & Kiaka, 2018).
- **Language Barriers:** Language-mediated disparities have consistently inhibited host-guest exchanges in Thailand, Indonesia and Cape Verde, precipitating misunderstandings that ultimately jeopardise the integrity of visitor experiences (Nomnian et al., 2020; Junaid et al., 2021; (Sánchez-Cañizares & Castillo-Canalejo, 2014).
- **Multi-Stakeholder Forums:** In the context of Brunei and Tanzania, penta-helix partnerships demonstrate that deliberately convened dialogues elevate reciprocal trust; yet, effectiveness remains contingent upon persistent institutional backing (Chin & Noorashid, 2022; Mgonja et al., 2015). More broadly, communication efficacy amplifies stakeholder participation, .marketing reach and constructive conflict management, while communication frailties, either feeble or exclusionary, forecast potential project derailment.

3.1.7. Determinants of Success and Failure

The analytic collage of determinative factors of community-based tourism (CBT) underscores both endogenous and exogenous drivers: Internal drivers comprise: pre-existing local capacities (Rini, 2019; Fafurida & Mulyaningsih, 2023), decisive leadership (Janjua et al., 2021; Chin & Noorashid, 2022), and educational attainment (Azwar et al., 2023). External drivers encompass: policies articulated by government (Phengkona, 2814; Thang et al., 2023), supplementary intervention by non-governmental organisations (Junaid et al., 2021) and the structuring of viable market linkages (Schott & Nhem, 2018). Common pathologies derive from among: elite capture, inadequate institutional capacity, and ineffective communication (Setokoe & Ramukumba, 2020; Makwindi & Ndlovu, 2021). Conversely, aptitude resides in: empowered forms of participation, inclusive leadership cultures, and disciplined, multi-directional communication (Cornelisse, 2020; Mercado et al., 2023; (Chin et al., 2024). The cumulative review of 99 reports substantiates the proposition that sustained CBT viability hinges upon genuine local agency and rigorous communicative practice. Albeit regional, methodological and contextual name-pattern variation appears, the overarching conclusion is that empowered local constituencies, buttressed by transparent, bidirectional communication, yield tourism outcomes of superior durability.

3.2. Discussions

3.2.1. Examining Community Involvement and Its Impact on CBT Project's Achievement and Sustenance.

Communities must actively participate in community-based tourism (CBT) for it to succeed and sustain itself. This was the conclusion of the analysis of the 'Local Community Participation' column of the SLR table. This is a summary of how this involvement impacts CBT.

3.2.1.1. Central Role in Tourism Management and Activities. Local touristic activities management and execution was self-initiated, quite noteworthy. activities ranging from the management of homestays, cultural presentations to ecotourism programmers. Local people are strongly motivated to assume the role as local participation is crucial for the success and sustainability of the CBT initiatives. Local communities claim ownership of this project and develop a sense of responsibility.

3.2.1.2. Economic empowerment and job opportunities. By involving local residents in Community-Based Tourism groups, taxpayers can help integrate experience, monetize profit and earn management skills for ecotourism. However, realized revenues still account for a limited share of household income. The future success of the business depends mainly on the long-term local governance of community enterprises and the local articulation of culture, which is frequently marginalised and under-represented. Studies show that this kind of model creates more economic windows without increasing community dependence on the region's more volatile economic engines.

3.2.1.3. Participation Constraints. Ongoing constraints to action in a variety of contexts are caused by barriers to effective local tourism participation by communities. Constant language differences, time availability restrictions and distance and institution distance barriers are roadblocks. This lack of participation is further aggravated in selected regions by low levels of formal education, a lack of financial capital and restricted understanding of the value of tourism. It is surprising to note that projects for community-based tourism often fail if the level of involvement is low or marginal. However, high sustained participation has continuous links to greater ecological and social sustainability.

3.2.1.4. Collaboration and Equality. Communities do not participate in ecotourism due to some barriers found in the local communities. This limits effective solutions in the study sites. Frequent structural obstacles are linguistic diversity, rigid time constraints, geographical isolation, and institutional isolation. In certain areas, a lack of formal education, little money, and low knowledge of tourism's benefits stop people from

getting involved. Community-based tourism projects often stagnate when local stakeholding is shallow or only peripheral. In contrast, deep, continuous local participation has been consistently positively correlated with ecological resilience and social justice, and these are also essential outcomes of tourism.

3.2.1.5. Local Initiatives and Project Ownership. Investigation shows that local people effectively manage tourist facilities through their village-owned enterprises (BUMDes) resulting in significant empowerment at village level. Active community participation in managerial activities facilitate the development of tailor-made sustainability indicators, thus inserting standards of acceptable behaviour in the social, environmental and economic domain into local institutions. By involving citizens and evaluating their performance, transparency increases and the sense of ownership towards tourism assets among residents becomes sustainable.

3.2.1.6. Formal and Informal Roles of Local Leaders. Often community involvement in tourism will work provided that locally existing leaders are active whether through formally given approval or through informal channels. When tourism activities are planned and executed by organizers, it fosters greater mutual involvement and formulation of collective will for continued community involvement.

3.2.1.7. A community's involvement is crucial for the success of CBT initiatives. Tourism practice and outcome is affected by community engagement which can take three forms – active, passive and sometimes not at all. In some cases, less attending makes initiatives fall apart while more attending improves material and reputation benefits in some cases. Residents are a key element that determines the effectiveness and sustainability of community-based tourism (CBT) projects in general. Getting involved in this way creates important psychological and social capital. It develops a collective sense of custodianship and ownership. These initiatives are anchored beyond the life spans of funders and market conditions.

3.2.2. How Communication Helps Foster Collaboration in CBT.

For Community-based tourism (CBT) project stakeholders, communication is essential for collaboration. It encourages the sharing of information, alignment of objectives, and engagement of members in the community, government institution, NGO and privat sector.

3.2.2.1. Facilitating Collaboration. When we communicate, we continue to cooperate with one another. Communication gives and shares information, creates common narratives, and generates reciprocal communication feedback. It organizes workshops, sensitization campaigns, joint planning meetings between state enterprises and host communities, as well as conducting history and commercial infrastructure studies according to existing standards.

3.2.2.2. Building Trust and Cooperation. A conversation that is consistent and focused builds trust and collaboration among stakeholders. Sharing knowledge and lessons learned through communication helps align strategies to solve problems. Well-organized communication avoid conflict. Promotes cooperation among individuals. Occasional communication is better than no communication. Unclear communication incites grievance. Misunderstandings lead to conflict. It weakens cooperation.

3.2.2.3. Promoting Tourism. Communication also supports destination promotion. Communities can use social media and other platforms to promote CBT offerings, raise their profile, and connect potential visitors with services. Digital tools help broaden outreach and enhance further engagement when travelers arrive.

3.2.2.4. Mediating Between Hosts and Guests. In CBT settings, communication bridges hosts and travelers. Local guides are often cultural interpreters in situations which present a language barrier. Performing a native ritual or cultural activity also symbolizes communication that strengthens the visitors' tie with the community while remaining authentic. Engaging External Stakeholders. Organized forum and stakeholder meetings are a good place to formulate local objectives and reconciliation of conflicting priorities. Most importantly, the

design of sustainable tourism strategies. These communication methods will strengthen cooperation between communities and local authorities as well as tourism agencies.

3.2.2.5. Overcoming Collaboration Challenges. It's common to come across communication barriers. Collaboration can be hindered by technology gaps, limited engagement, or cultural differences. It has been seen in several cases how the communication failures that remain unresolved lead to frustration. To overcome all of these barriers a targeted approach will be necessary involving inclusive dialogue, facilitate cross-culture and accessible technology. Overall, communication is central to CBT success. We say the citizen engagement can enhance global marketing, advocacy, dialogue and conflict resolution. It can also bolster community participation and multi-stakeholder partnerships. Communication is a tool that can transform CBT from being a project to becoming an inclusive and sustainable development model.

4. Conclusion

The success and sustainability of Community-Based Tourism (CBT) is attributed to local community involvement and effective communication. Community members who participate in the planning, management and execution of activities feel a sense of ownership and responsibility, which improves sustainability. Also, organized communication between stakeholders—local inhabitants, the state, civil society, and the tourism sector—builds trust, cooperation, and the exchange of ideas. These dynamics not only create economic prospects but also protect cultural and ecological heritages, responding to the integrated approach to the sustainable development of tourism.

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Factors influencing sustainable consumption in Tunisia: the role of influencer perceived credibility

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Abstract. *Sustainable consumption has become a central concern in both academic and managerial debates, particularly in light of Sustainable Development Goal 12, which emphasizes responsible consumption and production patterns. While previous research examined the drivers of sustainable consumer behaviour, limited attention has been given to the role of influencer marketing in shaping such practices. The aim of this study is to determine the impact of influencer perceived credibility on sustainable consumption. This study is also an opportunity to check the relationship between influencer-product congruence and customer experience on influencer perceived credibility. To test these relationships, a quantitative study was conducted among Tunisian social media users (n=192), and the model was tested using Smart PLS 4. The results showed that congruence and customer experience positively affect influencer perceived credibility, which in turn exerts a positive effect on the three dimensions of sustainable consumption: cognitive, affective and conative; thereby demonstrating its central role in fostering eco-conscious consumer behaviors.*

Keywords: influencer perceived credibility, congruence, customer experience, sustainable consumption.

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1. Introduction

Sustainable consumption is widely recognized as a key driver of sustainable development (Abdulrazak & Quoquab, 2018; Barth et al., 2014; Bulut et al., 2017; Quoquab et al., 2019). It is in line with Sustainable Development Goal (SDG) 12, which aims to promote sustainable consumption and production patterns. Some authors (Farr, 2018; Hess, 2013) suggest that the sustainable development of nations will be severely hampered if consumers do not adopt sustainable consumption behaviours. Indeed, in the face of ever-increasing consumer demand, the planet's essential resources are dwindling at a worrying rate (Alisat & Reimer, 2015; Bogueva et al., 2017). It is therefore becoming crucial for individuals to adopt sustainable consumption behaviour by making a conscious effort to avoid over- and irresponsible consumption, which has a negative impact on the environment.

Then, to promote a change in consumer behavior, influencers are being increasingly used (Johnstone, L. 2018). These influencers can effectively convey their views through a variety of channels, including social networks. Indeed, thanks to social media, influencers are able to disseminate information, inspire ideas and shape the perception of others, which can lead to changes in behaviour (Balaban, D., 2019; Palazzo, M., 2021; Sesar, V., 2022). Moreover, influencers have been the most important factor influencing purchasing behavior over the past decade.

However, the previous literature has yet to provide a comprehensive answer to the question of whether influencers have a significant impact on sustainable consumption and, if so, how consumer perceptions of influencer affect different types of sustainable consumption. In order to address this research gap, this study

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aims to answer the following research question: How do congruence and customer experience influence influencer perceived credibility, and what effect does this perceived credibility have on sustainable consumption?

Study objective

The main objective of the study is to understand the factors that influence influencer perceived credibility, as well as the impact of this credibility on sustainable consumption.

2. Literature review

Sustainable consumption

Sustainable consumption is defined at the Oslo Symposium (1994) as "the use of goods and services that meet basic needs and improve quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants throughout the life cycle, so as not to compromise the needs of future generations." Epstein (2008) approached sustainable consumption as the consumer's long-term awareness of the consequences for the natural or social environment, often expressed by terms such as ecologically or socially responsible consumption behavior (Carrington, M.J et al. 2010). For Vilkaite-Vaitone, N. (2024), sustainable consumption is a multidimensional variable consisting of cognitive, affective and conative aspects.

Influencer marketing

Influencer marketing is evolving and changing the way goods and services are marketed and used. It is marked by strategic partnerships between companies and individuals with large audiences on social media (Ancillai et al., 2019; Bala & Verma, 2018). The rise of social networks has strengthened the influence of opinions, both expert and non-expert, considerably extending their reach (Hu et al., 2020; Jacobson et al., 2020). Some individuals have thus chosen to share their views professionally, semi-professionally or voluntarily, becoming so-called influencers: independent third parties able to shape the attitudes of their online audience (Freberg et al., 2011).

To build strong communities, influencers seek to establish lasting relationships with their subscribers (Tafesse & Wood, 2021). By addressing shared topics and encouraging interaction, they create a closeness reminiscent of friendship (Casaló et al., 2020; Sokolova & Perez, 2021). According to Chae (2017), influencers are frequently seen as being in a middle ground between intimate friends and far-off superstars. Through social media, people offer material and advice about their shared interests, values, or lifestyles with their audience in language they are acquainted with (Casaló et al., 2020; Sokolova & Perez, 2021). For De Veirman et al. (2017), Jin and Ryu (2020), and Tafesse and Wood (2021), their goal is to establish enduring partnerships through proximity. Furthermore, influencers strategically develop their personal image for business objectives, much like superstars do when rallying their fan base.

Influencer Credibility

Credibility is a major concern for influencers (Sokolova and Kefi, 2020; Stubb et al., 2019). Influencers' opinions have a bigger impact on their followers since they are seen as more trustworthy than celebrities because of their knowledge and connection to their interests (Djafarova and Rushworth, 2017; Stubb et al., 2019). Therefore, marketers work with influencers as a successful means of promoting their products because of their capacity to affect their followers' responses to the items they recommend (Casaló et al., 2020) (Jiménez-Castillo and Sánchez-Fernández, 2019).

Influencers draw on their authenticity and credibility to engage and convince consumers by creating and sharing content designed to promote products and services to them. This collaborative approach is gaining in popularity in a variety of sectors. Influencers now play a key role as intermediaries between brands and customers, initiating trends and offering stylistic inspiration (Hariyanti and Wirapraja, 2018; Zhou et al., 2021).

Influencer credibility is one of the key elements of successful influencer marketing, with influencers acting as trusted intermediaries between brands and consumers. By relying on their authenticity, expertise and reliability, they are able to mobilize their community while promoting products and services. This trust capital, essential to persuasion, differentiates influencer marketing from traditional advertising methods and explains its growing adoption in a variety of sectors, such as fashion and technology.

Theoretical background: The SOR (Stimulus-Organism-Response) Theory

Source credibility theory, rooted in communication and marketing psychology, is frequently applied to explain influencer marketing. It posits that the persuasiveness of a message hinges on how credible the audience perceives its source to be. According to Maming and Ardhiyansyah (2022) and Eriyanti and Ardhiyansyah (2023), an influencer's credibility plays a crucial role in fostering customer loyalty and trust. When consumers view influencers as trustworthy, they are more likely to confidently act on their recommendations (Fratesa, 2019).

Moreover, many consumers develop parasocial relationships with influencers, perceiving them as friends or even confidants (Maming & Ardhiyansyah, 2022). This emotional connection amplifies the impact of influencers' suggestions on purchasing decisions. Research consistently supports this assumption, emphasizing that consumers tend more to engage with and buy products or services endorsed by influencers they trust (Ardhiyansyah & Jaman, 2023; Lopez-Sanz et al., 2021; Safeer & Liu, 2023).

As previously noted, influencers aiming to cultivate lasting relationships with their followers must carefully consider each point of engagement (Tafesse & Wood, 2021). Every post matters—especially sponsored content, which may diverge from an influencer's typical style (Kim & Kim, 2020; Phua et al., 2018). Each message has the potential to shape followers' attitudes, perceptions, and future behaviors toward the influencer, ultimately affecting the sustainability of their connection.

The study uses the Stimulus-Organism-Response (S-O-R) framework as it is the commonly used model in influencer marketing research (e.g., Djafarova & Bowes, 2021). This theory holds that the individuals who are exposed to stimuli are subjected to cognitive and emotional responses, which in turn becomes a behavioral response to such exposures (Donovan & Rossiter, 1982; Mehrabian & Russell, 1974).

In this respect, stimuli are the individual elements that provoke mental and psychological responses (Eroglu et al., 2001). These stimuli, in the case of social media, have one thing in common: they are material about which an influencer posts audiovisuals. The consumption of this content by a follower (the organism) provides cognitive and affective assessments (Loureiro & Ribeiro, 2011) and, ultimately, influences the engagement interest and purchase actions.

Cognitive states are the mental activities involved in acquiring, processing, storing and recalling stimuli by the user (Eroglu et al., 2001). The emotional responses elicited by exposure to such stimuli, on the other hand, are known as affective states (Loureiro & Ribeiro, 2011).

Finally, responses represent the behavioral outcomes resulting from these internal reactions—specifically, whether an individual engages in approach or avoidance behaviors (Eroglu et al., 2001).

Approach behaviour revolves around desirable outcomes of a given stimulus, such as liking, sharing, or buying, whereas avoidance behaviour is the negation of positive outcomes: engaging in no action.

Perceived Credibility of Influencer: A Driving Factor to Sustainable Consumption

Perceived credibility in an influencer is the perceived trustworthiness and believability of a respective influencer by his/her audience (AlFarraj et al., 2021). The literature shows that both credibility dimensions, namely, reliability (including the perceptions of honesty, integrity, and trustworthiness), and expertise (the relevant skills, knowledge, or experience of the influencer that is being perceived) play an important role (Sesar et al., 2022; Belanche et al., 2021).

AlFarraj et al. (2021) expanded this framework by introducing a third dimension—attractiveness—as another component of influencer credibility.

As Sánchez-Fernández et al. (2021) argue, credibility develops through the formation of affective and relational bonds between influencers and their followers.

This implies that the perceived importance of an influencer to the minds of their followers is imperative. Therefore, the high profile of the influencer on social media can perfectly boost their credibility.

The research findings available on a constant basis indicate that the credibility of an influencer is one of the key factors that enhance customer loyalty and trust (Maming & Ardhiyansyah, 2022; Eriyanti & Ardhiyansyah, 2023). Customers will trustingly follow the instructions of such influencers more when they consider them to be reliable sources of information (Battaglia et al., 2014; Fratea, 2019).

More than credibility, most consumers develop parasocial interactions with the influencers because they perceive them as true peers, or even confidants (Maming & Ardhiyansyah, 2022). These emotional relations go a long way towards putting the powers of influencers to the test in the form of consumer behaviour. As many studies attest, consumers are more likely to respond to the influence of influencers they trust, and to buy products they recommend (Ardhiyansyah & Jaman, 2023; Lopez-Sanz et al., 2021; Safeer & Liu, 2023). Perceived credibility is the extent to which a source is considered to be an expert that one can hold responsible in its field (Goldsmith et al., 2000; Ohanian, 1990). The source credibility model argues the persuasive nature of a message is more founded on the message-transmitter within the perceptions of success and trustworthiness (Hovland & Weiss, 1951; Ohanian, 1990, 1991). Expertise provides a speciality based on specialised knowledge that an individual is considered to have on a particular topic (Erdogan, 1999), whereas trustworthiness is considered to be the trust according to perceived good-character beliefs, integrity, and reliability on the part of the communicator (Erdogan, 1999).

To successfully build and retain credibility with people in their social media, influencers have to demonstrate levels of expertise in their communication and levels of trustworthiness consistently (Schouten et al., 2020). This is a dual need to emphasize that influencers need to develop both in the field of specific knowledge and in the development of genuine relationships with subscribers.

The connection between the normal posts and product suggestions ensures that followers ascertain that this consistency is genuine when the influencers uphold a similar stance. This uniformity leads to an increased image of credibility that the influencer has with his or her masses.

Influencer credibility can be recognized as a crucial factor in the sustainable consumption conduct. Worth noting, the specificity of the role of influencer recommendations is that this technique can be highly effective in situations where customers display a certain degree of trust towards the legitimacy and authenticity of the influencer (Gadekar et al., 2024). Credible influencers serve as the instigators between the sustainability values and their followers, making them insisted into responsible consumption through the availability of multiple perspectives: cognitive, conative, and affections (Samala & Rawas, 2024).

On the cognitive level, credible influencers help consumers be more effective at processing and valuing product information that relates to sustainability. When influencers honestly discuss the positive environmental, social, or ethical attributes of a product, it will be taken into consideration during a purchase process. This transformation process displays how the credibility of influencers changes sustainability ## POVs into action.

On the level of conation, credibility goes beyond the thought process by informing actionable change in behavior (Annabathuni et al., 2024). When people trust that their role models are experts who want to lead a healthier lifestyle, these suggestions propagate and consumers will find themselves becoming more environmentally-conscious as users recycle responsibly or consciously cut consumption of certain goods, products or services that are technically harmful to the planet.

Affective dimension demonstrates the ability of credibility to create powerful emotional attachments. Individuals with strong ecological values can influence their community to feel a sense of collective responsibility and social awareness when they portray their values well enough (Afianto et al., 2024). This type of emotional connection enhances the effectiveness of sustainability messaging and project followers are more likely to be influenced and adopt environmentally-friendly consumption behaviors.

The foregoing suggestions prompt us to suggest the following hypothesis:

H1: Influencer perceived credibility positively affects sustainable consumption.

H1.1: Influencer perceived credibility has a positive effect on cognitive sustainable consumption.

H1.2: Influencer perceived credibility positively affects affective sustainable consumption.

H1.3: Influencer perceived credibility positively affects conative sustainable consumption.

Congruence: Supporting the influencer's perceived credibility

The notion of congruence means the subjective correspondence between two objects or processes (Olson & Thjommo, 2011). It has been highlighted to be a crucial element in numerous fields, such as communication studies (Kuo & Rice, 2015) or distribution channel management (Wang & Zhang, 2017) and tourism marketing (Xu & Pratt, 2018).

Being based on congruence theory (Osgood & Tannenbaum, 1955), it means that people tend to prefer such features that do not contradict each other cognitively. In online contexts, acceptance of the purchase decision by audiences when products are promoted by the perceived influencers (the sources) compels the audience to equilibrate towards both the influencer and the object (Osgood and Tannenbaum, 1955).

This happens when the followers test the seeming natural congruence that exists between the influencers and what they are promoting. Upon being exposed to the promotional material, users form a perception regarding the compatibility of this source-object, and it, in turn, influences their behavioural models (Reinikainen et al., 2020; Schouten et al., 2020). To the extent of such perceived congruence, the better audiences rate both the credibility of the influencer and the advertised product.

That being said, the key to the success of influencers on social media is their willingness to build significant connections with their followers (Dhanesh & Duthler, 2019). These connections are formed under the influence of common interests in particular points and influencers become advisors with authority due to their regular flow of product suggestions (Zhang et al., 2020). Adherents form specific expectations in the form of perceptions of the kinds of materials and issues that each possessor is likely to cover (Casaló et al., 2020). Evidence supports the idea that the overall effectiveness of a marketing campaign immensely increases when there is congruity between the ones delivering the messages and the products that they support (Kim & Kim, 2020; Phua et al., 2018).

Theoretical thinking refers to congruence as consistency between personal brand in terms of personal values, aesthetic appeal and perceived expertise of an influencer with the qualities of promoted messages or products. High scores or high compatibility in these dimensions makes audiences believe that influencers are genuine and credible as well as experts (Belanche et al., 2021). Based on this established correlation between congruence and perceived credibility, we shall propose the following hypothesis, which aims at establishing the correlation between congruence and the perceived credibility of individuals.

H2: Product-influencer congruence positively affects influencer perceived credibility

Customer experience: a factor boosting the influencer's perceived credibility

Current social media networks encompass advanced functionality, which is utilised to support communication, sharing, and interaction with users. These technological functions prompt humans to become more dependent on social networking services to conduct different communication activities (Wibowo et al., 2021). When used in marketing, these functionality aspects of the platform and the content shared on them play a pivotal role in defining customer experiences. This aspect of experience is a key contributor to fulfilling the desired goals of marketing, especially when it comes to creating and maintaining credibility of the influencer in the minds of those who follow him/her.

Customer experience entails the cognitive, emotional, sensory, behavioral and social reaction of consumers as they progress in their buying process (Lemon & Verhoef, 2016). To develop trust and loyalty companies need to invest in quality digital communication and a smooth refined processing system that improves the overall experience of the customer. Researchers have defined a number of different dimensions of the customer experience that can guide strategy. The first dimension is connected with sensory involvement. Although the physical aspects of a product, such as its looks, texture, and taste, have a major impact on purchase behaviour, social marketing sites are unproductive where consumers will not have a chance of interacting with the products first before they make their purchases. The second dimension incorporates the sense of touch. Adler refers to touch as tactile experience. One other pain point that is most likely to remain absent within the social buying environment. People also cannot see products or physically review the

quality of services on digital platforms, which limits their possibilities. Reflection is another important element of customer experience that allows one to think in a more innovative way, promote a positive perception of marketing interactions, and lead people to engage in them more genuinely. The experiential aspect of action consists of behavioral patterns which include the physical activities we engage in, lifestyles we endorse or follow and our social affiliations, which all make up acts that influence how users respond to marketing stimuli. Constructing relationships is another crucial dimension, as many humans inevitably feel a need to maintain relationships with other people and institutions (Wibowo et al., 2021).

All these experiential factors work collectively to influence the perceived credibility of an influencer, where good interactions build up credibility and negative interactions never do.

This reciprocal nature of the relationship draws on a number of established theoretical premises (Häregård, Edvardsson, & Boestam, 2018).

- Demonstrations of positive consumer experiences. Trading on positive experiences: When a consumer has positive experiences with a promoted product, they directly create credibility over the influencer. Beulah and Chitrakala (2024) report the positive correlation between customer satisfaction and engagement measures and measures of credibility. Authentic credibility is a form of true and correct sharing of product experiences (Thomas, 2024).
- Transparency and responsibility: Openly acknowledge and support brand partnerships and maintain integrity in representing sustainable products, and it will add tremendous value to the influencers. This is especially strong in the case of socially and environmentally conscious consumers (Arun, 2024). Ethical transparency has proved to be a major credibility-setter in influencer marketing nowadays.

Thus, customer experience plays a fundamental role in maintaining and reinforcing the influencer's perceived credibility, which leads us to conclude to a positive link between customer experience and the influencer's perceived credibility (Lie Ao et al., 2023). Then, our third hypothesis is formulated as follows:

H3: Customer experience positively affects the influencer's perceived credibility.

Bearing on the above hypotheses, our research model is as follows:

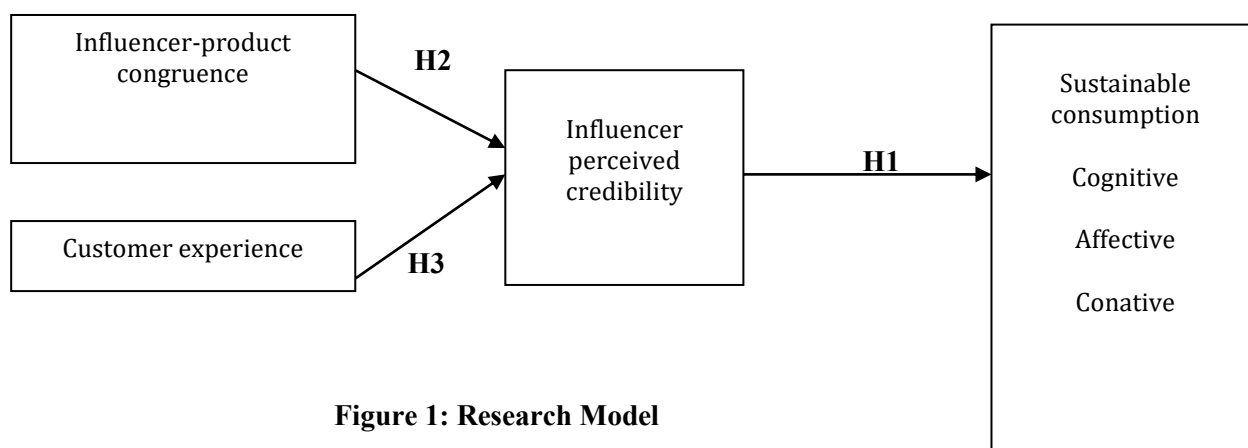


Figure 1: Research Model

3. Research Methodology

The methodological approach taken to evaluate the two measurement instruments and the structural relationships is equipped in this section. This study uses PLS-SEM in the validation of the model based on prior analyses (Hair et al., 2019).

3.1 Measures and Design of Questionnaire

All the construct measurements were based on symmetric 5-point Likert scales (1 = strongly disagree, 5 = strongly agree). The method allows the key categorical distinction of the attitudes of respondents and

preserving the reliability of the scale of measurement. All 34 measurement items of the scales are presented in Table 1, which indicates the authors of the original scales and their adaptation to the current study.

Table 1 : Measurement scales used in our study

Authors	Variables	Number of items	Dimensions
adapted from Xu and Pratt, 2018	Congruence	4	Unidimensional
Wibowo et al., 2021	Customer experience	10	Unidimensional
Adapted from Müller et al., 2018; Ohanian 1990	Influencer's perceived credibility	4	Unidimensional
Quaquab and Mohammad	Sustainable consumption	21	Three-dimensional

Source : Author

Data collection method and sample

The questionnaire was administered to Tunisian social media users. A total of 192 usable questionnaires were retained out of the 225 administered.

Table 2 : Description of sample

Variable		Frequency	%	% cumulative
Age	15-25	72	37,5	37,5
	25-35	45	28,1	65,6
	35-45	46	24	89,6
	45-55	10	5,2	94,8
	>55	10	5,2	100
Gender	Male	122	63,5	
	Female	70	36,5	

The final sample (n = 192) consisted of 70 males (36.5%) and 122 females (63.5%). Respondents' ages ranged from 15 to over 55, with an average of 40.

Data Analysis

One of the most commonly accepted ways of verifying influencer marketing studies is to use quantitative approaches. The current research also adopted an in-depth analytical process, which included scale validation via exploratory factor analysis (EFA) to test underlying factor structures and confirmatory factor analysis (CFA) to test the measurement models. In order to test and measure the structural model of our research, we used the partial least squares path modelling method (PLS-PM) via the SmartPLS 4 software, in accordance with the current methodological recommendations (Hair et al., 2019). Such a two-fold analysis will enable the reliability of the measurement instruments and path relationships in the presented theoretical framework to hold up.

4. Results

Assessment of measurement models

To check convergent validity, three indices are commonly used: factor loadings, average variance extracted (AVE), and composite reliability (CR). The results of convergent validity are presented in Table 3 below.

Table 3: Convergent validity results

Variable	Items	Outer loading (>0.7)	Cronbach's alpha (>0.7)	Rho-A (>0.7)	Composite reliability (>0.7)	Ave (>0.5)
Congruence	Cong1	0,739	0,838	0,872	0,846	0,586
	Cong2	0,915				
	Cong3	0,874				
	Cong4	0,680				
Customer experience	CX1	0,706	0,919	0,926	0,919	0,536
	CX 2	0,702				
	CX 3	0,867				
	CX 4	0,885				
	CX 5	0,775				
	CX 6	0,755				
	CX 7	0,720				
	CX 8	0,760				
	CX 9	0,735				
	CX 10	0,704				
Credibility	Cred1	0,872	0,894	0,902	0,893	0,679
	Cred2	0,835				
	Cred3	0,902				
	Cred4	0,882				
Affective	Aff1	0,935	0,973	0,978	0,972	0,834
	Aff2	0,936				
	Aff3	0,934				
	Aff4	0,846				
	Aff5	0,939				
	Aff6	0,951				
	Aff7	0,948				
Cognitive	Cog1	0,851	0,964	0,975	0,959	0,798
	Cog2	0,947				
	Cog3	0,921				
	Cog4	0,943				
	Cog5	0,931				
	Cog6	0,921				
Conative	Con1	0,881	0,969	0,975	0,968	0,792
	Con2	0,834				
	Con3	0,936				
	Con4	0,936				
	Con5	0,899				

	Con6	0,922				
	Con7	0,953				
	Con8	0,877				

The convergent validity results show that all variables have factor loadings between 0.702 and 0.951, indicating good convergent validity. Furthermore, AVE coefficients for all variables are greater than 0.5, showing that the variables meet the criteria for discriminant validity. Table 3 also reports the results for reliability using two methods: Cronbach's alpha and composite reliability (CR). Hair et al. (2017) indicate that composite reliability and Cronbach's alpha coefficients should be examined, along with the average variance extracted (AVE), to check the reliability of a model. Consequently, all Cronbach's alpha coefficients must be greater than 0.7. Moreover, our results show that composite reliability coefficients range from 0.846 to 0.972, respectively (>0.70), to meet composite reliability criteria (Hair et al., 2017). Similarly, Cronbach's alpha (α) ranges from 0.838 to 0.973, respectively (>0.70), indicating that the composite reliability criterion is met (Hair et al., 2017).

Discriminant validity of constructs

The "Fornell-Larcker" criterion (1981) sheds light on the correlation of constructs and their differences (from each other). The coefficient of the variable with itself must be higher than that with the other constructs. This allows us to conclude that it is exclusive and that there is no correlation problem between the variables.

Table 4: Discriminant validity for all constructs of the measurement model ("Fornell-Larcker")

	Affective	Cognitive	Conative	Congruence	Customer Experience	Influencer's perceived credibility
Affective	0,913					
Cognitive	0,214	0,893				
Conative	0,565	0,572	0,890			
Congruence	0,327	0,312	0,410	0,766		
Customer Experience	0,292	0,361	0,409	0,650	0,732	
Influencer's perceived credibility	0,315	0,231	0,367	0,795	0,581	0,824

The results in this table show that, for each variable, the loadings of the indicator on one construct are greater than all its loadings crossed with the other constructs. The square root of AVE is greater than the inter-construct correlations. These results allow us to conclude that the discriminant validity of the measurement models is well justified.

Structural model goodness of fit

Several coefficients are generally used to test and ensure the structural validity of the conceptual model, including the coefficient of determination (R^2 value), structural coefficients, the "T" test and the Stone-Geisser Q^2 goodness-of-fit index.

The coefficient of determination of the model “R²”

Recall that, according to Hair et al. (2017), “the coefficient of determination (R² value) is a measure of the predictive accuracy of the model and is calculated as the squared correlation between the actual and predicted values of a specific endogenous construct”. Moreover, for Chin (1998), the effect is substantial for a coefficient greater than 0.67, moderate for a coefficient between 0.33 and 0.67 and low for a coefficient between 0.19 and 0.33.

The table shows that all endogenous latent variables have either moderate or substantial effects, since R² and adjusted R² coefficients are all greater than 0.25.

Table 5: Model coefficients of determination R²

	R²	Adjusted R²
Affective	0,49	0,45
Cognitive	0,43	0,38
Conative	0,195	0,19
Influencer's perceived credibility	0,64	0,636

Cohen's *f*² coefficient

Cohen's *f*² indicator is important insofar as, when a variable is explained by several determinants, this indicator makes it possible to assess the predictive contribution of endogenous variables. According to Cohen (1988), the *f*² coefficient indicates a low effect when it does not exceed 0.02, a medium effect when it is less than 0.15 and a strong effect when it is greater than 0.35.

All coefficients are summarized in the following table:

*Table 6: *f*² coefficients*

	Congruence	Customer Experience	Influencer's perceived credibility	Affective	Cognitive	Conative
Congruence			0,492			
Customer Experience			0,045			
Influencer's perceived credibility				0,096	0,049	0,135

Model Predictivity Index Stone-Geisser Q²

We test the Stone-Geisser Q², also known as the redundancy index in cross-validation, to assess the predictive relevance of our model. Its purpose is to measure the quality of each structural equation. It is calculated using the blindfolding procedure. If it is positive, then the model has predictive validity. If it is close to 1, then the model has perfect predictive validity.

Table 7: Model predictivity index Q^2

	Q^2
Influencer's perceived credibility	0,496
Affective	0,086
Cognitive	0,065
Conative	0,136

Overall, all coefficients are positive, so the model has perfect predictive validity.

Overall model quality: Goodness-of-Fit (GoF) index

In the PLS approach, there is no single model validation index. In this context, Tenenhaus et al (2005) introduced a Goodness-of-fit (GoF) index as an operational solution to this issue. The index takes into account both the measurement model and the structural model. The calculation formula is the geometric mean of the community mean (Mean Variance Extracted) and the mean of the coefficients of determination (calculated for each endogenous variable): $GOF = \sqrt{R^2 \cdot AVE}$

Applying the above formula, we obtain ($GOF = \sqrt{0.438 \cdot 0.757} = 0.57$) a coefficient of 0.53 (greater than 0.36). Thus, referring to Wetzels et al. (2009), we can deduce that the estimated model is highly valid.

Testing the hypotheses of the structural model

1. MES enabled us to model the causal relationships between the different variables. Our model was evaluated using the MES and we obtained highly significant results, explaining the causal relationships between the different variables.
2. Bootstrapping analysis gives us the correlation between the constructs, using an estimate of the t-value (standard deviation), which must be greater than 1.96, which is Student's t-value, and the significance of the correlation links (P-value), which must be less than the 5% risk.
3. The table below (Table 63) presents the direct effects of all the relationships linking our different variables and the causal effects of the structural model as a whole.

Table 8: Coefficient of direct effects

	β	Adjusted β	STDEV	t-value ($O/STDEV$)	p-value
Congruence -> Influencer's perceived credibility	0,600	0,600	0,094	6,362	0,000
Customer experience-> Influencer's perceived credibility	0,180	0,183	0,077	2,339	0,019
Influencer's perceived credibility -> Affective	0,297	0,299	0,068	4,378	0,000
Influencer's perceived credibility -> Cognitive	0,216	0,220	0,082	2,631	0,009
Influencer's perceived credibility ->	0,345	0,348	0,070	4,914	0,000

Conative					
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These results confirm all our hypotheses (H1, H2, H3.1, H3.2, H3.3). These results are presented in the following table:

Table 9: Summary of hypotheses

HYPOTHESES	RESULTS
H1: Congruence favours the influencer's perceived credibility.	Confirmed
H2: Customer experience has a positive effect on the influencer's perceived credibility.	Confirmed
H3: Influencer's perceived credibility enhances sustainable consumption	
H3.1: Influencer perceived credibility improves sustainable consumption	Confirmed
H3.2: Influencer perceived credibility improves sustainable consumption	Confirmed
H3.3: Influencer perceived credibility improves sustainable consumption	Confirmed

After empirical verification, our conceptual model is as follows:

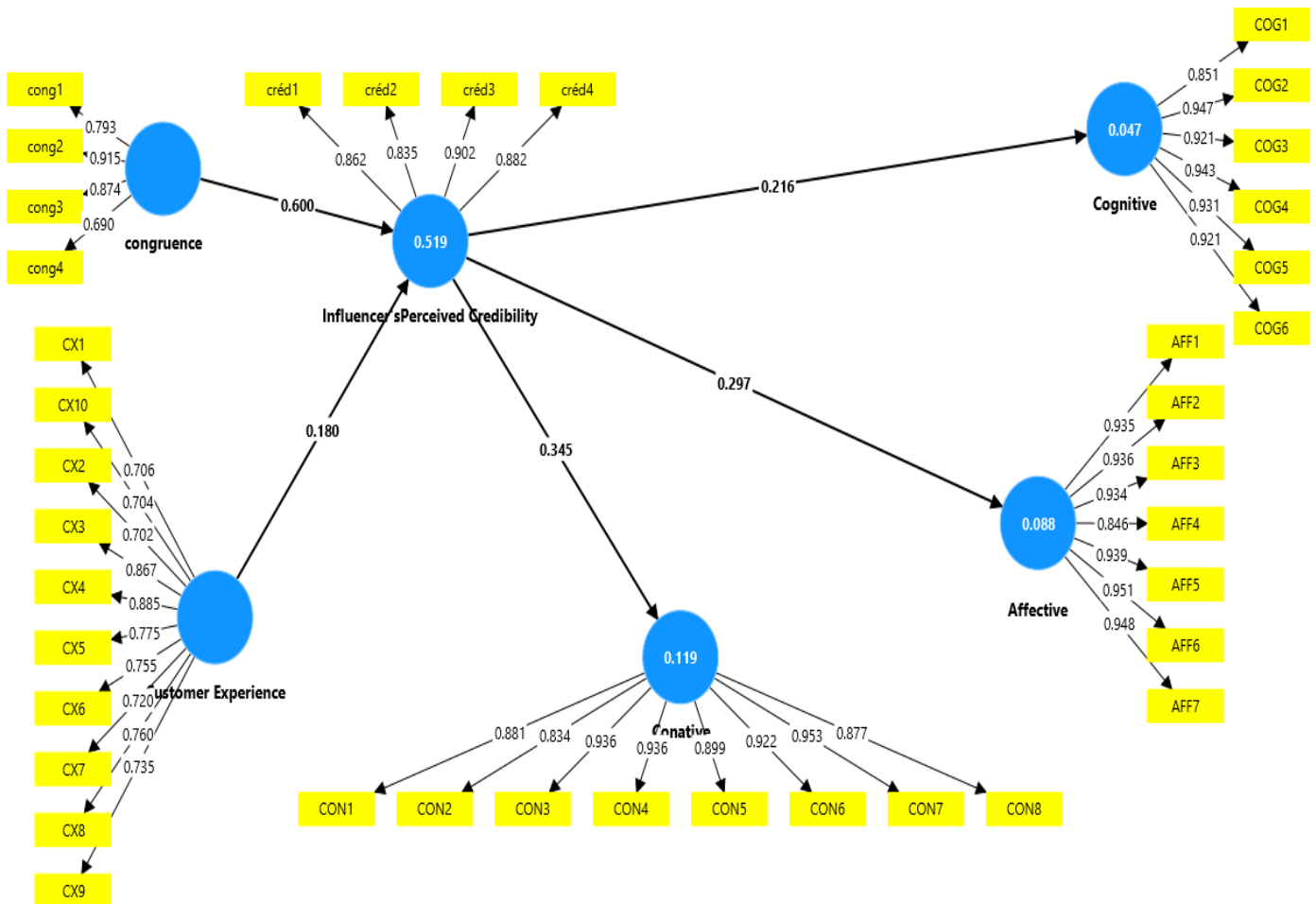


Figure 2: Representation of the PLS measurement model

5. Discussion

In this study, we have focused on sustainable consumption and its determinants. The choice of this topic was motivated by our desire to contribute to overcoming a number of shortcomings in the literature on sustainable consumption and to the development of research on this very important subject.

Hypothesis H1 suggests a positive relationship between congruence and the influencer's perceived credibility. The results show that this hypothesis is well verified, since the relationship between these two variables is significant, with a positive non-standardized regression coefficient ($\beta=0.600$; $t= 6,362$; $p\text{-value}=0.000$). This result supports those of Reinikainen et al, (2020), and Schouten et al, (2020), who all suggest a positive link between congruence and the influencer's perceived credibility. These authors confirmed that congruence between the influencer and the product/brand plays a crucial role in perceived credibility. If the audience perceives a mismatch between the influencer and what they are promoting, this reduces their credibility.

This study was able to identify the factors leading to better sustainable consumption in the Tunisian context. These are: Affective, Conative and Cognitive. We can report a positive relationship between the influencer's perceived credibility and the three dimensions of sustainable consumption. This finding is in line with those

of Gadekar et al (2024), Annabathuni et al (2024) and Afianto et al (2024), who have clearly demonstrated the role of influencer perceived credibility and the three dimensions of sustainable consumption.

According to the literature, there is a positive relationship between the customer's experience and the influencer's perceived credibility. Our results enabled us to validate this relationship. The literature explains this by the fact that positive customer experience positively affects the influencer's credibility, which in turn increases purchase intention (Lie Ao et al., 2023).

Hypothesis H1 suggests a positive relationship between influencer perceived credibility and the three dimensions of sustainable consumption: cognitive, affective and conative. This result is in line with those of Gadekar et al, (2024), Annabathuni et al, (2024) and Afianto et al, (2024) who have demonstrated these relationships. This study shows that credibility is an important factor in influencing customers' sustainable consumption behavior and underlines the importance of considering the role of credibility when seeking to run effective influencer marketing campaigns to promote sustainable consumption. Thus, we can conclude that credible influencers have the power to influence not only product choices, but also overall sustainable behavior, leading to significant and lasting changes in everyday consumption habits. Then, to meet sustainability expectations, organizations are well advised to choose influential and reputable influencers for their sustainable consumption campaigns.

Hypothesis H2 assumes a positive influence of congruence on influencer perceived credibility. This hypothesis is well verified, since the relationship between these two variables is significant. This result supports those of Reinikainen et al, (2020), and Schouten et al, (2020), who suggest a positive link between congruence and influencer perceived credibility. These authors confirmed that congruence between the influencer and the product/brand plays a crucial role in perceived credibility. If the audience perceives a mismatch between the influencer and what they are promoting, this reduces their credibility. On the other hand, when customers perceive consistency in campaign content, they tend to develop positive evaluations of their influencers. Thus, in their promotional actions, influencers need to be consistent with their usual content to avoid damaging their own reputation (Breves et al., 2019).

Finally, we proposed a positive relationship between customer experience and the influencer's perceived credibility. Our findings enabled us to validate that previous purchasing experiences influence the perceived credibility of the online influencer (Izogo et al., 2023).

A closer look at the connection between social media customer experience and influencer credibility highlights several key dimensions that shape consumer perceptions. When it comes to the cognitive aspect, audiences value the clear and straightforward information shared by trustworthy influencers, though some express a desire for more detailed or nuanced content. On an emotional level, credible influencers tend to evoke positive reactions, such as trust and enjoyment, particularly when their values align with those of their followers.

Behaviorally speaking, when good customer experience is supported by a credible influencer, better engagement and the probability of purchase decisions is more likely. Followers will find such recommendations more realistic and therefore more swaying and implementable. Besides personal responses, the social and relational aspect is important as well and each interaction between member and the audience makes a community, which will promote brand loyalty in the long term. In this manner, the influencers usher in a form of trust and the sense of connection with brands they are promoting.

6. Strengths, weaknesses and future research places

Theoretical implications

The theoretical implications of the study can be seen as the connection between the theoretical perspective of multiculturalism and the multiculturalism of the present time.

This paper can be a beneficial contribution not only to scientists but also to the people engaged in marketing. It throws light on the theoretical implications in influencer marketing campaigning, whereby influencers and brands collaborate in sending messages on social networks. As our results demonstrate, perceived credibility of the influencer is vital in eliciting positive behavioral responses by the audience. This indicates that

influencer marketing is not only used to construct a favorable brand perception; influencer marketing directly influences the perception held by their followers towards the influencer him/herself. Influencers must be careful not to jeopardize their personal brand by betraying their typical style of content, but they must look to insert some form of promotional activity in a seamless, natural manner so that they do not risk damaging their own brand. In this way, they will be able to maintain the needs of their audience, such as the provision of useful information, entertainment, or inspiration (Ki et al., 2020).

Influencer marketing has emerged as an effective alternative as the conventional media are losing its effectiveness (Fransen et al., 2015). Considering that influencers tend to create and manage their effect through social media, our results can be seen as a strong testament to the authenticity that they should only endorse products relevant to their personal brand, values, and the topic of their regular content (Kim & Kim, 2020; Phua et al., 2018).

The strategy serves to erase blatancy of the advertisement, as well as cements the faith in the influencer and give a general perspective about them. Subsequently, this promotes even better interactions, which enables the influencers to create successful online communities (Stubb et al., 2019). Moreover, successful influencers will attract the attention of brands, and both sides might establish a partnership, which will be beneficial to the creators, the companies, and the audiences (De Veirman & Hudders, 2020).

The credibility of an influencer can be attributed to the alignment of their content with the products they market, as well as the general customer experience they create. This credibility can be one reason that spurs off on sustainable purchasing decisions.

The implications of our findings can make a significant contribution to the awareness about the eco- and pro-consumption effects of social media. The research highlights that consumers are increasingly appreciating- and being influenced by credible sources when making a purchase, especially of sustainable products and practices. Such attentiveness is an important change in how individuals assess their usage patterns in the era of digitalization.

When these are combined together harmoniously, they can present a tremendous kick to success in business. Brands can benefit most by strategic selection of influencers who have a personal brand that is aligned with the personal brand of the company. Such a combination of strategic fit to the delivery of genuine customer experiences, and straightforward, honest sustainability communications, has shown itself to guide consumers toward more mindful buying choices. The outcome is a welfare-to-welfare situation whereby businesses succeed whilst positively impacting the social arena through their influence.

Limitations and future research directions

Although this study has great value, the authors focus on Tunisian consumers and thus the findings cannot be applied generally. Also, since our research is based on a cross-sectional survey, we cannot trace the way in which perceptions of influencer credibility- and their impact on sustainable consumption- are changing over time. In order to overcome such weaknesses, future research may follow a longitudinal panel-based research design or include other variables, such as environmental consciousness or socio-demographic variables, such as age.

The next potential focus of inquiry should be understanding the effect of inconsistent content of influencers on the perceptions of the followers, varying by their levels of engagement and length of exposure. Such as, do committed or long-term followers respond to incongruent posts any differently to casual followers? An examination of this relationship had the potential to create further insight into the resistance of the audience to the misalignment between influencers and brands.

The small size of the sample could also be considered a limitation, specifying how generally the results could be used. To increase reliability and broader applicability of future studies, it would be worth extending the scope of participants considerably, with their diversity maximized. The sampling was narrow both in terms of socio-demographic background and online engagements; therefore, expanding the sample by including more socio-demographically diverse participants and those with diverse online engagement patterns would be useful in order to validate the obtained results.

7. Conclusions

The paper sheds light on the complex interrelations between brand-influencer fit and customer perceived credibility and customer experience in promoting sustainable consumption behavioral trends. This study portrays that business organisations that view influencer marketing as a strategic instrument to achieve business competitiveness, as well as service environmental responsibility, are highly effective. The results strongly point to the fact that, when influencers are genuine and true to the brands and produce meaningful customer experiences, they produce a great deal of credibility, which directly translates to sustainable buying decisions.

The research model used here tested 5 key hypotheses that were all approved empirically. The results of our analysis provide two important, insightful facts: congruence and customer experience are both valid measures of the perceived credibility of an influencer, and the latter acts as a driver of more sustainable consumption behaviour. These insights give real-world advice to both marketers and influencers on how to authentically engage their audience and establish trust to drive real consumer behaviour change.

In business terms, the implications of these findings are that it is essential to choose carefully the influencers that you collaborate with as their values and the content they produce should be in tune with what the brand stands for and its sustainability aspirations. This alignment and positive customer experiences then form a virtuous cycle that is beneficial to everyone- the influencer, the brand, and the consumers who are getting more and more mindful about sustainability. Future studies can be based on these results by examining the same processes in other cultures or through other social media platforms.

In conclusion, it is desirable that businesses and researchers engage in a holistic approach that draws together authentic marketing measures, customer experience, and an elevated awareness of sustainability to optimize the possibilities of influencing consumption patterns using influencers.

The study has valuable managerial implications for marketing practitioners in any developing country like Tunisia. These practitioners ought to consider influencer marketing as an effective approach that can be used to improve the performance of the business. Although our findings are useful, it is necessary to admit that they have certain limitations, which define the prospects of the future research.

The major weakness is associated with sample size. Future research ought to use a larger number of social media users to prove and validate our findings. Further extension of the study would assist in establishing the solidity behind our results and offer more viable insights into marketing practices in new markets.

It is an objective view of the power of influencer marketing and the necessity of a broader level of verification that is especially needed in the environment of the developing economy, where digital consumption habits might be less familiar than in the established markets. Further studies on the topic would be able to provide this domain with an even more subtle perspective of the functioning of influencer credibility in various cultural and economic conditions.

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Developing Financial Culture Management and the Sustainability of Workplaces in an Emerging Economy

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Abstract. *The quest for the sustainability of workplaces poses critical challenges, and studies have addressed the subject from several angles. This present research addresses this challenge from the angle of financial culture management (FCM). It has grown to become a particularly constraining issue for most businesses; regardless of workplaces experiencing higher profitability, it is more likely to be unsustainable due to a lack of proper financial culture. In order to accomplish this, the study used a descriptive survey approach. Based on factors like staff size, years of financial operations, and the locations of their offices both domestically and abroad, five (5) microfinance institutions in Lagos State, Nigeria, were selected as research participants. Findings revealed that financial culture management has a positive impact on the sustainability of workplaces, as evidenced by the results of the tested hypotheses using regression analysis. Leading to the conclusion that FCM supports and achieves workplaces' quest for sustained performance and viability.*

Keywords: Behaviour, Emerging economy, Financial culture management, Microfinance institutions, Sustainability

JEL Codes: E62, P23, D4, M5, O3, O25

1. Introduction

Businesses' performance may be hampered by a weak financial culture. According to Tidor, Gelmereanu, Baru, and Morar (2012), this necessitates the intervention of financial culture management in order to give workplaces access to available financial management services, boosting their profitability, cutting expenses associated with business operations, and attaining long-term financial viability. The etymology of the word culture is from the Latin word 'cultura', which originates from the verb 'colere', denoting in English to cultivate, or plough. Culture connotes the ideas, customs, and social behaviour of a particular people or society (Csorba, 2020; Central Bank of Hungary, 2014). The understanding of money and financial products that organisations and individuals may use to make well-informed financial decisions is, thus, referred to as the management of financial culture (Freiling & Harima, 2019). Definitions of financial culture management that are specific to managers and entrepreneurs exist concurrently. A financially educated individual can confidently negotiate with suppliers of goods and services, knows where to get the finest products and services, and is aware of the best financing choices for the company's success at different stages of its development (Blackburn, Hart, & Wainwright, 2013). Entrepreneurs have to navigate the intricacies of the business environment and make tough financial choices in order to turn their companies around. Their financial choices include retirement planning, investments, and savings, which makes financial culture management essential to the firm's financing choices and long-term viability. Any strategic decisions made by business enterprises, particularly SMEs, require a certain level of expertise, according to Monyei et al (2023). This includes knowledge of financial culture, a sustainability mindset, and behaviours and attitudes that will improve the company's long-term financial

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performance. In contemporary market economies, it has long been known that the smooth operation of the business environment is a prerequisite for economic growth and development (Stiglitz, 1989). In any economy, businesses must constantly improve their operations and develop new strategies in order to positively influence the development of the business environment. The other economic sectors do coexist with the business environment, and none of them can sustainably dominate the others. Any business environment must be able to support stakeholders' and entities' economic viability in the most flexible ways while also sustainably utilising its lucrativeness in order to function as best it can in terms of economic growth and development (Caouette, Altman, Narayanan & Nimmo, 2011). However, a business climate might not be favourable or appropriate to give enterprises operating there a sufficient competitive edge and/or profitability. A company's incapacity to manage its financial operations in accordance with the intricacies of the business environment is one of the reasons why this can occur. A company's poor financial culture management or strategies that steer it in accordance with accepted norms of its operating environment is another (OECD, 2018). Financial culture management plays a crucial role in business by giving organisations the operational methods they need to achieve sustainability. Insufficient bias in the financial culture will lead to poor company choices on the use of resources, the management of human capital, and the provision of goods or services (Vass, 2017; Brown, Henchoz & Spycher, 2018). According to Karadag (2016), workplaces are crucial in promoting and maintaining economic growth and development in both developed and developing nations. These commercial organisations have demonstrated a significant contribution to wealth, productivity, development, and job creation—all of which are essential for any economy. If they are to play a significant role in any given economy, they must enhance the management of their financial culture and competitive capabilities. They are viewed as a tool of economic sustainability and can adjust to the conditions of the business environment (Matejun, 2014). However, the economic and social environment in which workplaces make financial decisions is changing due to the increasing levels of globalisation and new technologies. This change is being supported by a continuous evolution of strategies that result in the business environment and financial systems becoming more sophisticated and growing rapidly (Lusardi & Mitchell, 2011). It's no secret that one of the challenges facing workplaces in their pursuit of sustainability is the absence of sound financial behaviour, knowledge, competencies, frameworks, and responsiveness required to manage their organisation's non-financial and financial resources (Chang, 2016). Joo and Grable (2004) claimed that the lack of corporate financial knowledge, the inability to learn and be creative in navigating the complexities of the financial environment, and the vast array of financial products and services available are the main causes of businesses' frequent inability to make appropriate, inadequate, and ineffective financial decisions. Several academics and professionals have, in fact, emphasised the necessity for businesses to implement appropriate and traditional financial culture management. Financial culture management is crucial for workplace profitability and sustainability, as demonstrated by Schmidt, Niwaha, and Tumuramye (2016), who also note that poor financial behaviour makes businesses unsustainable on a worldwide scale. According to Kofi, Nunoo, Asamoah, Yaw, and Osei-Asare's (2012) analysis of the impact of financial culture management in businesses, managing financial culture is crucial to boosting its performance. They also claimed that financial culture improves an organisation's financial skills, which include more investment savings and risk management. In another context, financial education is one of the elements that contribute to the expansion of enterprises since entrepreneurs who possess a strong financial culture are better equipped to adjust their companies to shifting market conditions. Likewise, a number of studies have started to advocate for additional empirical research on financial culture management and its effects on businesses' pursuit of sustainability (King & McGrath, 2002; Csorba, 2020; Brown et al., 2018; Schmidt et al., 2016). Furthermore, existing research has not adequately addressed the overall impact of implementing a strong financial culture management system on workplace viability, particularly in emerging economies, despite the fact that this lack of management has led to business failures all over the world due to unsustainable operations.

2. Understanding the Related Literature

Equity Theory by Adams and Freedman (1976)

The social comparison principle serves as the foundation for the equity theory, which is an incentive theory. According to the notion, companies are driven by objectivity and would modify their operations to remove any perceived disparities in their input-output ratios when compared to their competitors. Outputs are what businesses get in return, such as profitability, market share, and customer loyalty, whereas inputs are what businesses believe they bring to a task, including resources, capital, time, skills, and education. The idea states that organisations evaluate equity by contrasting their own input-output ratio with others', and that any apparent disparity inspires remedial action due to cognitive dissonance (Adams & Freedman, 1976; Monyei et al, 2020). The core presumptions of equity theory are that people and organisations prioritise fairness in their interactions and are sensitive to the equity of social exchanges. One of the main ideas is that psychological discomfort or paranoia brought on by perceived unfairness—whether it be excessive or insufficient reward—can lead to attempts to make behavioural or cognitive adjustments to restore equity. According to Bourdage et al. (2018) and Bolton et al. (2010), this can entail changing inputs (e.g., lowering resources/effort), aiming for higher outputs, or cognitively modifying one's assessment of the situation's fairness. It explains why all firms aim to achieve sustainability through the alignment of competent financial culture management with their operations when the principles of this theory are applied to the study of financial culture management and workplace sustainability. In order to restore equity, microfinance institutions start reengineering their strategies through the management of their financial culture when they believe that unsustainable processes or efforts are endangering their operations and functions and not fairly producing the desired results (inputs), particularly in terms of increased market shares, profitability, and patronage. Their objective is to balance the unfavourably imbalanced input-output ratio by practising financial literacy, making well-informed business and financial decisions, and enhancing customer services and engagement tactics to rekindle ongoing client patronage. Stated differently, holding several jobs may have unforeseen consequences for academic production even while it may assist in restoring perceived justice. The likelihood of sustainability is decreased when businesses' financial resources and efforts are mismanaged. When attempting to regulate financial culture, this trade-off balances inputs and outputs, resulting in continued viability (Davlembayeva et al, 2021; Adams & Freedman, 1976). This is a behavioural consequence of the equity-restoration process.

Financial Culture Management

In certain nations, financial culture management is a governmental priority and a crucial life skill. Demographic shifts, the sophistication and growth of financial services, and tighter social protection systems all emphasise how crucial it is to manage a financial culture (Kimiyaqhalam & Safari, 2015). The mission and vision statements of a company establish the foundation for how its culture will impact all aspects of its operations. Furthermore, it is suggested that financial decisions that impact a company's financial viability require an awareness of culture, especially financial cultures. This includes having the capacity to make sound financial decisions and behave accordingly. Makdissi, Nehme, and Chahine (2020) emphasise that knowledge acquired over time becomes an adopted guiding principle and claim that financial culture, conduct, and literacy can be utilised interchangeably. Therefore, depending on any financial or economic setting, financial education directs how individuals, groups, and their motivations should handle their financial resources. Given the slump in many Western economies, this is pertinent in the modern era (Monyei & Ukpere, 2024). The majority of individuals may never have heard of it or learnt the skills necessary to manage funds, though, because the educational system does not emphasise the latter kind of education (Aren & Aydemir, 2014). The Council of the Organisation for Co-operation and Development (OECD) defined financial literacy and culture as the process by which investors and consumers who want to increase their understanding and ability to manage financial concepts, products, and risks obtain unbiased instruction, data, and guidance. This develops the self-assurance and skill set required to learn about financial dangers and opportunities so that one can make wise decisions and understand the consequences of seeking financial aid. In financial culture management, literacy tends to encourage financial matters based on relevant financial facts and teaching rather than merely offering financial advice and information. As such, it ought to be offered in a fair and impartial way, with platforms

that are well-planned and executed (Stolper & Walter, 2017). According to Csorba (2020), despite the widespread belief that globalisation would create a more cohesive global economic environment, it has instead led to a more diverse one. It is suggested that this apparent unification stems from the merging of operational costs as well as the various ways that workplace cultures handle business complexity and uncertainties. In addition to expenses, Herger, Hodler, and Lobsiger (2008) contend that the operation of the company environment is the primary determinant of the establishment of financial culture management. It has been demonstrated that the financial culture has a significant influence on the structure and functioning of almost every aspect of organisational operations. This influence extends to the business's inclination to take on risk (Ashraf, Zheng, Arshad, 2016), finance corporate objectives externally (Boubakri, Saffar, 2016), demand for guaranteed sustainability, and even reinvestment. Similar to the percentage of investment flow (Liewellyn, 2016), the financial culture management of the corporate entity greatly influences its character and degree of progress (McFall, 2014). The degree to which financial culture influences a company's investment portfolios was examined by Breuer and Salzmann (2012). They discovered that a company's financial culture has a significant influence on the percentage of its resources that are allocated to each area of its business. Like any other culture, financial culture may be learnt through socialisation. However, school-based education makes up a large portion of it, and academic success is also achievable in this field (Németh et al., 2016). Since adults might not profit from this socialisation setting, adult education should be offered to satisfy their needs and help them build a financial culture. International professional discourse has achieved a consensus that financial culture management is a subfield of culture, even though there is currently no single, agreed-upon definition of the term (Reuter, 2011). Therefore, it is crucial to analyse traits like values, beliefs, norms, and attitudes to manage financial culture. According to a 2018 publication on financial institutions and culture published by the Bank of England's Prudential Regulation Authority, companies should have a culture that encourages prudent management; if there isn't a "right culture," they should think about their executives and subordinates to fully comprehend the situations in which their viability would be in doubt; and finally, their adopted financial practices and the difficulties they face. According to Lo (2016), a company's goals are a component of its corporate culture. Nonetheless, Lo (2016) identifies additional potential values for managing financial culture, with a focus on financial institutions, including loyalty, elitism, adaptability, solidarity, dedication, commitment, and the capacity to withstand uncertainty. Therefore, the management of a company's financial culture, including its recognised values or lack thereof, has a significant impact on its sustainability-oriented actions (Kaplow, 2018).

The Rationale for Financial Culture Management

The foundation of financial culture management extends beyond criticising consumer decisions or removing any financial issues that may fall outside the purview of workplace accountability. Instead, financial culture management aims to provide individuals and organisations with the skills and information necessary to make wise financial decisions. Finding the appropriate credits and investments is the only way to do this (Makdissi et al., 2020). Nonetheless, the benefits of financial culture are numerous for the individual, the company, and society at large. Everyone will find it simpler to anticipate the unexpected and maximise their financial management in this way. Therefore, strengthening the integration of the poorest groups will undoubtedly be aided by lowering the dangers of financial exclusion (Lo, 2016). Financial culture management is now more important than ever before for any advising or sales of financial products due to the steady growth of financial innovation. Therefore, an objective financial culture management seeks to provide everyone a foundational understanding of their capabilities so they may make well-informed financial decisions, i.e., be able to assess the kinds of credits and investments that are most suitable for them. However, the primary objective is to make the basic financial instrument accessible to anyone, which is often an account's banking information (Lusardi, 2019). Managing the financial culture tends to benefit society as a whole later on. People will therefore find it easier to manage their resources optimally and to foresee unforeseen financial circumstances.

The Significance of Financial Culture Management

Financial culture management, which aims to inculcate sound financial practices in the daily stewardship of all individuals who make financial decisions, is thought to need an understanding of fundamental financial concepts.

The Benefits of Financial Culture Management to the Economy

Regardless of age or wealth, all customers generally gain from financial education. It gives businesses and people just starting in the workforce the fundamental skills they need to manage their budgets and investments, which helps them keep tabs on their debts and spending. Young people with a strong financial culture can also assist others with modest incomes in maximising their savings. According to Makdissi et al. (2020), education can also assist people in avoiding the exorbitant fees associated with financial transactions through non-financial organisations, such as check-cashing services. Customers who have the funds to invest may find it easier to comprehend fundamental financial ideas like the necessity of balancing risk, return, and compound interest, as well as the necessity of outlining the advantages and disadvantages of particular investment kinds. The economy may also benefit from the presence of knowledgeable financial customers. These customers drive financial providers to create new services and products by placing orders for goods that better suit their needs. This boosts capital market competition while also enhancing quality and innovation. Customers with greater financial literacy will be able to save even more than those with less education. Csiszarik-Kocsir et al (2016) posit that the economic growth and investment levels would benefit from the rise in savings linked to the formation of a financial culture. Educating and teaching consumers on the functioning of markets and the role of market participants can help emerging economies gain more from the growth of their markets. Financially literate consumers will also be better able to protect their rights and alert authorities to any issues with financial intermediation. By doing this, they make it easier for the supervisory authorities to carry out their duties, which should allow them to intervene less frequently. Individual businesses will be subject to less regulatory burden as a result.

Creating the Need for Financial Culture in Emerging Economies

Few nations have carried out systematic surveys, according to an OECD report from 2005 as part of the Financial Education Project. As a result, the survey came to the unified conclusion that corporate and individual financial culture management is lacking globally. What is most concerning is that neither is the only ones who lack knowledge of the financial sector, or at least does not fully get it; in fact, governments of various countries frequently think they know it better than the current situation. Their capacity to make comprehensive financial decisions for the general public is hampered by the new advancements and complexity in financial culture management (OECD, 2005).

Factors Responsible for Financial Culture Management's Drawbacks

Economic Uncertainties - the complicated financial landscape is causing financial issues for both individuals and businesses. Global performance and sustainability can be significantly impacted by poor financial decisions brought on by ignorance and inaccurate financial data. According to research, people with poor incomes exhibit the same attitudes, prejudices, and behaviours as people who experience unexpected, stressful personal circumstances. In a similar vein, businesses that are having trouble staying in business find it challenging to develop the skills necessary to improve their financial situation. This implies that the degree of economic uncertainty and the condition of the business environment have an impact on making an effective financial decision, in addition to the firm's lack of skills and talents (Reuter, 2011).

Value Systems - people and businesses can become financially literate by adhering to specific cultures, but this does not dictate how one's decisions influence other people. According to Salazar, Soto, and Espinosa (2012), the definition of financial culture encompasses value systems, socioeconomic status, life stages,

professional associations, educational attainment, and the media. It is crucial to emphasise the impact of these factors on others and the influences of financial decision-making.

Prerequisite Qualification - consumers must be financially educated to engage in informed negotiations with their business advisors. Additionally, it enables them to benefit from the information requirements that businesses are increasingly being subjected to. However, the qualifications of financial counsellors must also be guaranteed. Regulations that progressively combine and control the information and advisory responsibilities that financial institutions have to people must be created in order to prevent this hazard (Direr & Visser, 2013).

Sustainability

According to Naudé (2012), 75% of CEOs stated that they incorporate sustainability practices and tactics to increase revenue, safeguard the company's brand, and possibly reduce operational expenses. According to a global survey published by the Boston Consulting Group and MIT Sloan Management Review (2011), businesses were implementing sustainability strategies more quickly than anticipated. The majority of participating businesses consider sustainability to be a fundamental business function that is just as significant as marketing, logistics, and the development of human capital (Yeganegi & Azar, 2012). Due to the pressures of corporate responsibility and accountability to the global society, as well as the growing global awareness of sustainability issues, the study made it clear that banks and investors are more likely to fund businesses that use sustainability strategies in the current business environment. Sustainability-related initiatives are becoming increasingly important for CEOs to retain or become competitive, according to 88% of CEOs (MIT Sloan Management Review and Boston Consulting Group, 2011). To survive and thrive in the fiercely competitive business world of today, workplaces need to have unique qualities. Sustainability is a crucial metric for attributing organisations' attainment of viability. This trait gives businesses the ability to improve the goods and services they provide, which in turn makes it possible to react quickly to changes in the business environment over time. According to Sherehiy (2008) and Bangura and Lourens (2024), achieving sustainability is important both inside and outside of an organisation because it gives the company and its employees access to industry and operations insights, skill development, business process re-engineering, and smooth technology adoption. Research by Kamplade, Mareva-Forsell, and Steele (2021) suggests that sustainability can have a big impact on how businesses operate. The report recommends that organisations should enhance their ability to innovate and closely align their corporate culture and production with other components of their value chain in order to attain sustainability. Sustainability is not a new concept in the corporate world of today. Social, economic, and environmental aspects were all considered in the definition of sustainability proposed by the Brundtland Commission in its 1987 report (WCED, 1987). Sustainability strategies, which take into account issues related to the economy, society, and environment, progressed further at the 1992 United Nations Conference on Environment and Development (UNCED). Addressing the pressing concerns of socioeconomic development and environmental preservation was the goal, and the Rio Declaration (Agenda 21, chapter 8.7) that came after this meeting promoted a National Strategy for Sustainable Development. Monitoring and reporting on implementation was the goal of the Commission on Sustainable Development (Naudé, 2012; UN, 1997). It is widely acknowledged that there is no one definition or method that will achieve sustainability, despite the fact that there are numerous definitions and interpretations (Wals & Schwarzin, 2012). Sustainability, according to some writers, is a value judgement. Depending on their knowledge, background, perspective, traditions, and values, various people have varied ideas on what sustainability implies (Becker, 2010; Velazquez, Esquer, Munguõa & Moure-Eraso, 2011). There are various interpretations from a theoretical standpoint. According to economic theory, sustainability entails a change from an economy focused solely on growth and profit to one that is more steady-state. An environmental perspective emphasises both reducing human effect on ecosystems and ensuring the long-term viability and utilisation of resources. From a socio-biological perspective, sustainability must incorporate respect for nature and preserve social and cultural structures (Velazquez et al., 2011). Along with a variety of viewpoints, sustainability evolved into an intuitive idea that may be characterised as a company's overarching objective,

independent of its primary business (Jabbour & Santos, 2009; Prugh & Assadourian, 2003). Although there is no clear definition of sustainability, there is broad agreement that treating the planet like a company going through liquidation is immoral, unethical, and unprofitable (Velazquez et al., 2011). Sustainability is commonly understood to encompass a number of generations and to concentrate on longer-term results. One important realisation that follows from this is that modern businesses must collaborate with and meet the objectives, goals, and commitments of present generations without sacrificing those of future generations (Jabbour & Santos, 2009; Garvare & Johansson, 2010). According to Valezquez et al. (2011) and Laughland & Bansal (2011), there is a growing consensus that a definition and understanding of sustainability must include economic, social, and environmental dimensions, despite the fact that there is no complete agreement regarding its definition due to various and occasionally incompatible interpretations. According to Smith and Sharicz (2011), this strategy calls for the adoption of a tri-dimensional triple-bottom-line approach, which indicates that the business must exhibit appropriate financial viability and prosperity while simultaneously managing the social and environmental systems constructively.

Empirical Insight into the Sustainability and Financial Culture Management of Firms

An investigation conducted by Doz and Kosonen (2010) revealed that a firm's fiscal culture is important for business development in Finnish tech companies. In their 2013 study, DeGroote and Marx looked at the industrial sector in the US and discovered that organisational culture improved business performance. Administering a quantitative survey using a cross-sectional survey methodology to 564 owner-managers of small and medium-sized businesses (SMEs) who were chosen using a multi-method approach. The relationship between organisational agility, business best practices, and the sustainability of SMEs in South Africa was examined by Govuzela and Mafini (2019). Findings indicate that these variables and factors contribute to the overall viability of the organisation. Other factors indicated in their findings included technological capability, collaborative innovativeness, organisational literacy, and strategic alignment. Usman (2023) used a cross-sectional survey to examine the variables in keeping with the current debate on the relationship between financial culture and sustainability. to look into this link with an emphasis on SMEs in Nigeria's Bauchi state. The financial culture that these SMEs in Bauchi State, Nigeria, practise and their overall business sustainability are strongly and favourably correlated, according to the findings. In order to acknowledge the importance of financial culture and sustainability methods that facilitate its application for increased efficiency across firm departments, they used bibliometric analysis in their study. In their study results, Franco, Guimarães, and Rodrigues (2022) distinguished four categories. These groups found that a number of business characteristics, including technological innovation and financial culture, are linked to a company's ability to be sustainable. These factors also help the company achieve its objectives and are associated with responsiveness and flexibility in its operations. In order to evaluate a financial culture model empirically, 313 government employees in various departments participated in a survey study. A consistent fiscal culture enhances the department's dynamic capacities, and the test results of Zhang, Ding, and Xiao (2023) showed that financial culture has a substantial impact on the department's systematic change. Using a satellite model, Dalvi, Shekarchizadeh, and Baghsorkhi (2013) used descriptive survey data to examine how culture affects company performance. The results indicate that there is a positive relationship between total business performance and culture. Additionally, in order to obtain a competitive advantage in any corporate setting, Saha, Gregar, and Saha (2017) assert that implementing an objective financial culture or strategy can be a useful instrument to improve team and individual competences, literacy, and general innovativeness. By cultivating strategic and methodical understanding, this useful instrument enables the workplace to achieve sustainability. Moreover, the incorporation of elements connected to financial culture and prioritising the need to achieve sustainability serves to enhance the workplace's coordination and resource integration.

3. Materials and Methods

In the investigation, the descriptive survey method was applied. Therefore, participants in the study were staff members of five (5) microfinance organisations in Lagos State, Nigeria, who met the requirements. After considering the capital base of the institution, transactional/operational convenience, and the length of time

that they have offered financial services, the following firms were chosen: LAPO Microfinance Bank, Mutual Trust Microfinance Bank, Davodani Microfinance Bank, KUDA Microfinance Bank, and Sparkle Microfinance Bank. Using Bill Godden's (2004) sample size calculation, 359 employees were selected as the sample size, whereas 3126 employees comprised the study's population. The respondents were given the questionnaire in person, and it was designed using a 5-point Likert scale. Academics confirmed the validity of the questionnaire in terms of both its face validity and its substance. This was done to guarantee the correctness and applicability of the instrument in answering the research questions. To make sure the instrument was reliable and consistent, a test-retest strategy was employed, which entails giving the questionnaire twice in two weeks. The consistency of the survey items was also indicated by the Cronbach's Alpha reliability result, which had a value of 0.83. To assess the study's hypotheses, the regression approach of data analytics was applied. This statistical tool was considered appropriate since it demonstrates the interrelationship between the latent and observable variables and synthesises data from the ordinal scale. If, at a 5% significance level with the proper degree of freedom, the computed value exceeds the table value, the null hypothesis is rejected. If not, we agree.

4. Analyses and Results

Table 1. The Survey's Distribution and Retrieval.

Microfinance Institutions	Distributed No.	Returned No.	No. Not Returned
<i>LAPO</i>	125	100	25
<i>Mutual Trust</i>	48	45	3
<i>Sparkle</i>	54	46	8
<i>Davodani</i>	29	23	6
<i>KUDA</i>	103	93	10
Total	359	307	52

Source: Field Survey, 2025.

As indicated in Table 1 above, a total of 359 questionnaires were distributed. These microfinance organisations were sent questionnaires: 48 were sent to Mutual Trust, and 54 were sent to Sparkle. 125 questions were sent to LAPO. Of these surveys, Davodani received 29. However, KUDA received 103.

Descriptive Statistics about the Research Objective

Research Objective: Assess the impact of financial culture management on the sustainability of workplaces.

Table 2. Financial literacy platforms like the help desk and customer service are part of the customer engagement strategies in the workplace.

	LAPO	Mutual Trust	Sparkle	Davodani	KUDA	Total	(%)
SA	24	15	12	7	46	104	33.8
A	34	30	24	13	36	137	44.6
U	21		5	2	5	33	10.7
SD	8					8	2.6
D	13		5	1	6	25	8.1
Total	100	45	46	23	93	307	100

Source: Field Survey, 2025.

Table 2 shows that 8 (3%) strongly disagree with the proposition, and 25 (8%) disagree with the proposition. The percentage of respondents who concur that financial knowledge platforms like the help desk and customer

service are part of their microfinance institution's customer engagement strategies was 104 (34%) and 137 (45%), respectively. 33 respondents, in 11% of the total responses, indicated uncertainty.

Table 3. Business/financial decisions do not form a key cultural component that avails your microfinance institution with continued patronage by clients.

	LAPO	Mutual Trust	Sparkle	Davodani	KUDA	Total	(%)
SA	12	12	12	6	11	53	17.3
A	25	15	13	11	33	7	31.6
U	10	10	2	2	10	34	11.1
SD	33	3	9	3	29	77	25.1
D	20	5	10	1	10	46	14.9
Total	100	45	44	23	93	307	100

Source: Field Survey, 2025.

Table 3 shows that of the 307 respondents, 53 (17%) and 7 (32%) agreed that business/financial decisions do not form a key cultural component that avails their microfinance institution with continued patronage by clients, whereas 34 (11%) were uncertain and 77 (25%) disagreed with this statement, and 46 (15%) strongly disagreed.

Restating the Hypotheses

H₀: Financial culture management does not significantly impact the sustainability of workplaces.

H₁: Financial culture management significantly impacts the sustainability of workplaces.

Table 4. Model Summary^b.

	R	R²	Adjusted R²	Std. The error in the Estimate	Durbin-Watson
1	0.767^a	0.588	0.578	0.32795	0.241

a. Independent Variable: (Constant), Fin. culture mgt.

b. Dependent Variable: Sustainability

Table 5. Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.662	0.119		30.813	0.000
	Fin. culture mgt.	0.254	0.032	0.767	7.920	0.000

Table 6. Coefficients^a

		95.0% Confidence Interval for B	
		Lower Bound	Upper Bound
1	(Constant)	3.422	3.901
	Financial culture	0.189	0.318

a. Dependent Variable: Sustainability

R = 0.767
 R^2 = 0.588
 F = 62.720
 T = 7.920
 DW = 0.241

Regression sum of squares = 6.746
 Residual sum of squares = 4.732
 Std. Error of the Estimate = 0.32795

Interpretation and Discussion of Results

The difference between the residual sum of squares (4.732) and the regression sum of squares (6.746) shows that more variance in the dependent variable is not taken into consideration. R indicates the degree of correlation between the dependent variable, sustainability, and the independent variable, financial culture management. The explained variance is not random, as indicated by the F-statistic's significant value of (0.000), which is less than 0.05. The achievement of sustainability and stability in financial culture management is strongly correlated, according to the correlation coefficient, which has a value of 0.767. 58.8% of the variation in sustainability may be explained by the coefficient of determination, or R-squared. This illustrates the intimate relationship between financial culture management and sustainability. The low estimate of the predicted error from the regression is approximately 0.33. When autocorrelation was calculated using Durbin-Watson statistics, the result was 0.24, which is not greater than 2. The implementation of financial culture management has a statistically significant and usually good effect on the sustainability of microfinance organisations ($t = 7.920$; Financial culture management = 0.588). The null hypothesis must be disproved to accept the alternative hypothesis. Thus, it is evident that management of financial culture has a major and favourable impact on sustainability.

In light of the outcomes of this study's objective, which investigates the management of financial culture's impact on the sustainability of workplaces, the regression analysis tool was utilised to evaluate the hypotheses. The results show that workplace sustainability is greatly impacted by financial culture management ($F = 62.720$; $r = 0.767$; $t = 7.920$; $p = 0.05$). The findings support those of Doz and Kosonen (2010) by showing that a company's financial culture has a significant role in the growth of Finnish IT startups. Additionally, DeGroote and Marx's (2013) study, which examined the manufacturing sector in the US, discovered that organisational culture had a beneficial effect on business performance. It is also disclosed in Usman's (2023) inquiry, which used a cross-sectional survey to ascertain the financial culture of SMEs and the general viability of their businesses in Nigeria's Bauchi State. The financial culture that these SMEs practised and the overall sustainability of their businesses were shown to be strongly and positively correlated. The systematic transformation of an organisation's business units and departments is greatly influenced by its financial culture, according to Zhang, Ding, and Xiao (2023), who also suggested that a consistent fiscal culture enhances an organisation's dynamic capacities. In their 2013 study, Dalvi, Shekarchizadeh, and Bagsorkhi employed descriptive survey research to investigate how culture affects business performance. The results show that overall business performance and culture are positively correlated. Also, Saha, Gregar, and Saha (2017) discovered that putting into practice an objective financial principle or strategy will provide businesses with a practical tool to enhance team and individual competencies, financial literacy, and overall innovativeness in order to gain a long-term competitive advantage in any business setting. Additionally, in examining how organisational agility, business best practices, and the viability of SMEs in South Africa are related. The entire viability of the organisation is influenced by these variables and aspects, according to Govuzela and Mafini (2019), who also highlight other elements, including technological competency, collaborative innovativeness, fiscal literacy, and strategic alignment. In their study, Franco, Guimarães, and Rodrigues (2022) found that a number of business factors, including technological advancement and financial culture, are related to the

sustainability of firms. These factors influence the responsiveness and flexibility of operations while also helping to achieve organisational goals.

5. Conclusions

The majority of workplaces' mission and vision statements state that the company's or its employees' initiatives must be focused on improving the management of their financial culture. Through the creation of pertinent teams and strategies within the company, a portion of its earnings will be used to improve its understanding of the business environment and to reinforce and spread sound financial practices. The pursuit of workplace sustainability presents significant obstacles, and research has tackled the topic from various perspectives. The current study tackles this issue from the perspective of managing financial culture. Regardless of workplaces enjoying more profitability, it is more likely to be unsustainable due to a lack of proper financial culture, which has become a particularly restricting issue for most organisations. In the modern era, financial culture management has emerged as a crucial tactic and skill that has gained managerial and administrative attention. The importance of financial culture among businesses, employees, and their customers is highlighted by tightening financial protection measures, company procedures, or shifting consumer demands brought on by the development and spread of financial services. In a similar vein, financial culture management is crucial for boosting all facets of a company's people and the country's budget. Better management of the financial culture can have several advantages. By acquiring insurance, microfinance organisations and their clients can increase their savings, improve their investment strategies, and minimise risk. Even general equilibrium effects could occur, whereby microbusinesses' increased demand for financial services enhances risk sharing, lessens the impact of economic instability, enhances intermediation, and speeds up their total financial development. In any economy, but particularly in the financial services sector, this in turn promotes competition within the economy and among industry players. As a result, resources are allocated more strategically and effectively, ensuring the long-term viability of business operations.

Policy Implications of the Study

In order to guarantee that their operations and functions are integrated with the adopted management of their financial culture, workplaces often need to be strategically aligned with the implemented business requirements and processes. They can profit from sustainability, viability, and great financial management experiences as a result. Additionally, as the workforce's level of relevant financial culture management influences workplace corporate cultures, it should be further improved through required training to support the sustainability of corporate cultures and, indirectly, a general financial culture that promotes a more effective operation of the workplace and business environment as a whole.

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