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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

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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).

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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).

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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.

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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

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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.

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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.

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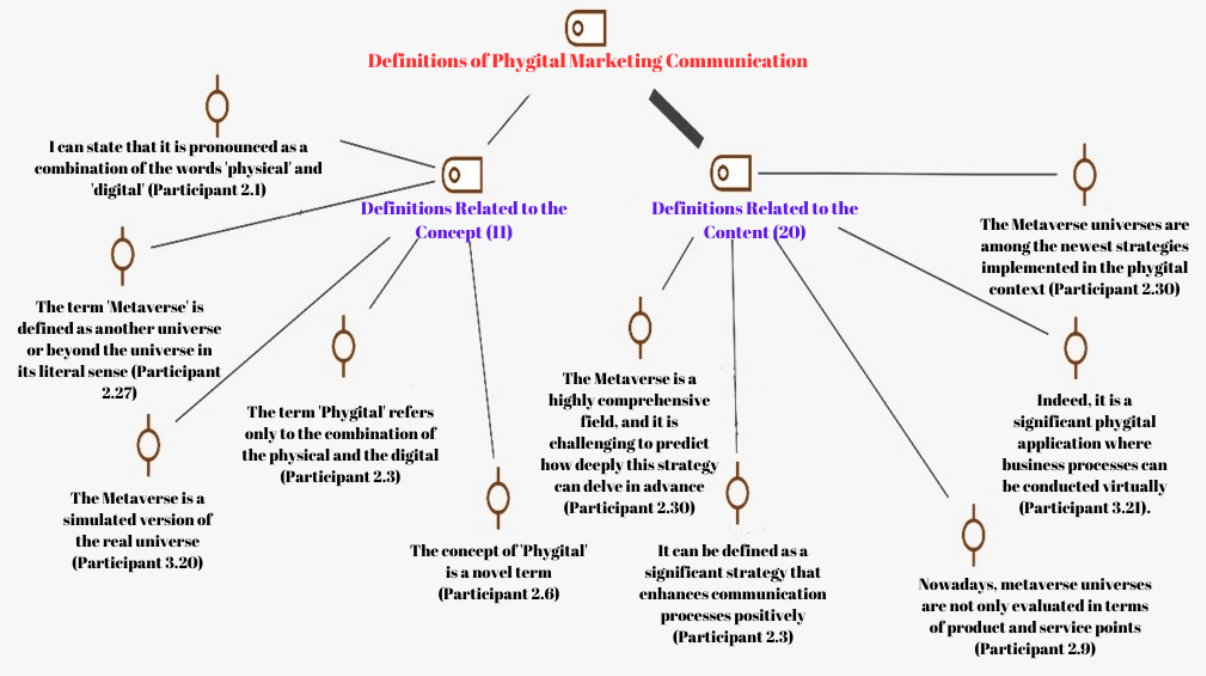

Fig. 1: Model of Code-Subcode Sections for Definitions of Phygital Marketing Communication (Source: Authors)

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%

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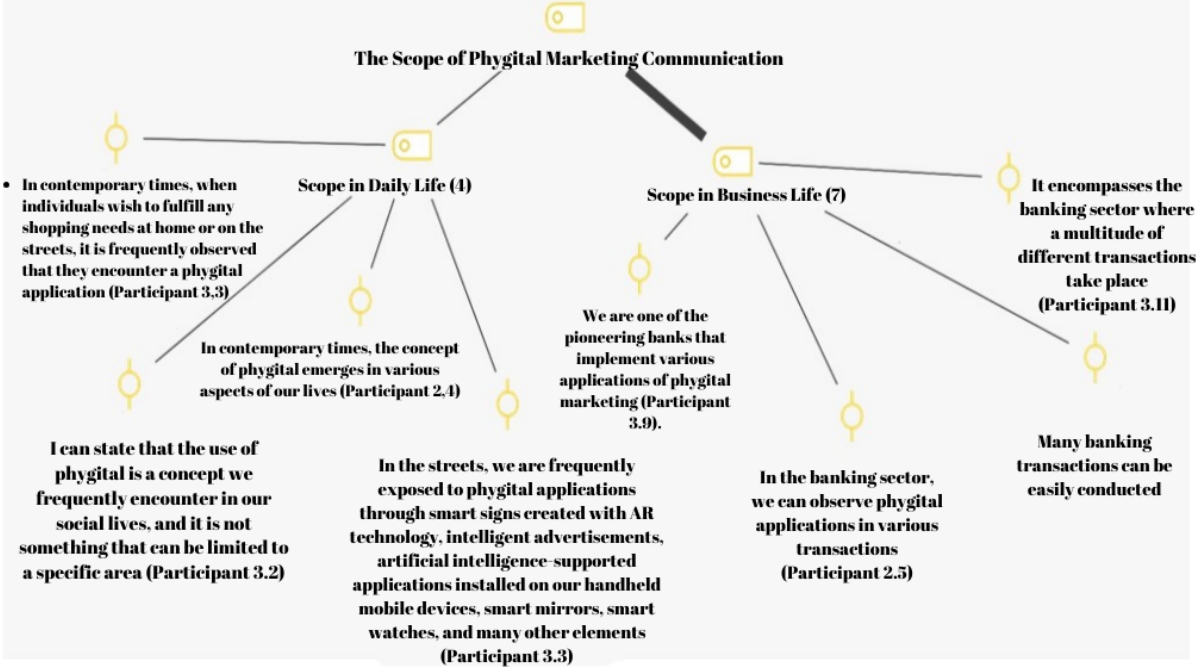

Fig. 2: Model of Code-Subcode Sections Created with Participant Statements Regarding the Scope of Phygital Marketing Communication (Source: Authors)

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

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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.

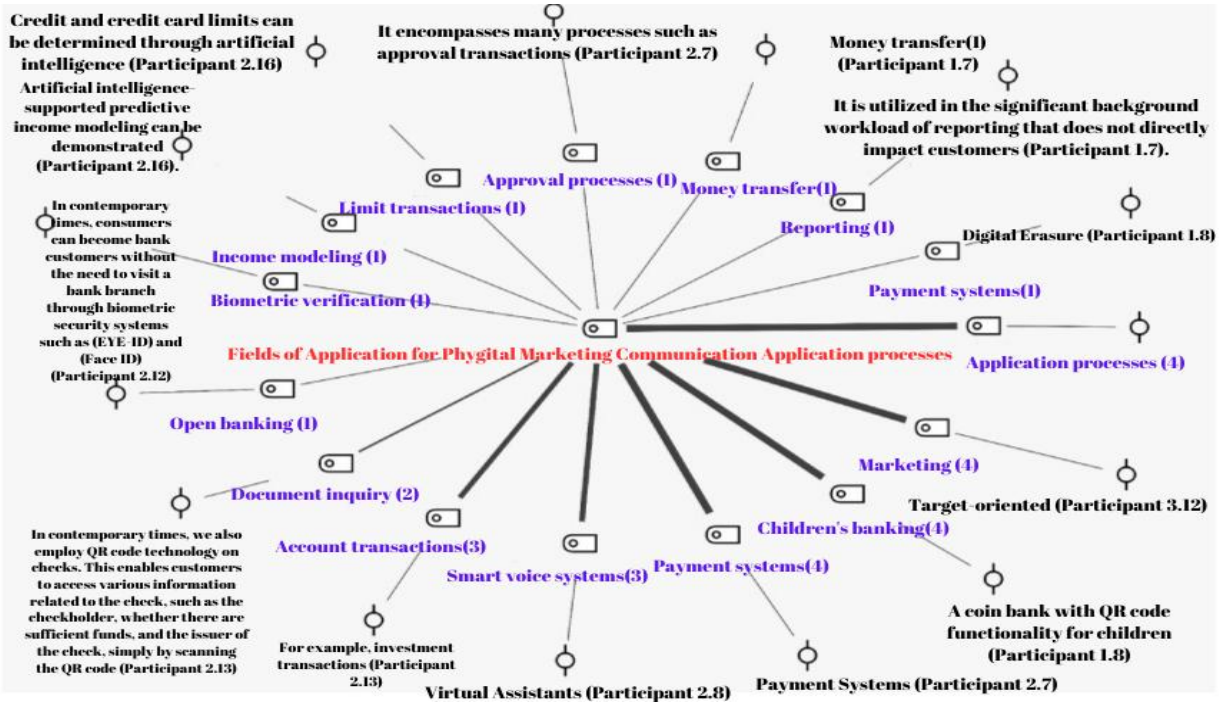

Fig. 3. Model of Code-Subcode Sections for the Areas Where Phygital Marketing Communication Is Implemented
(Source: Authors)

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.

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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
Blockchaın	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%.

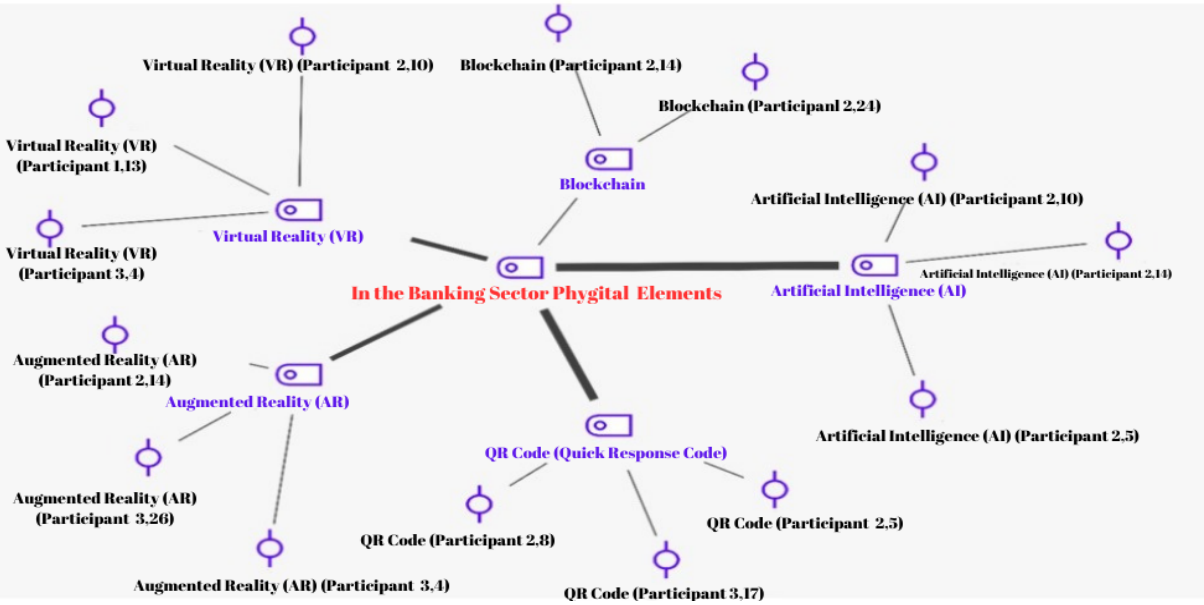

Fig. 4: Model of Code-Subcode Sections Created with Participant Statements Regarding Phygital Elements (Source: Authors)

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.

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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.

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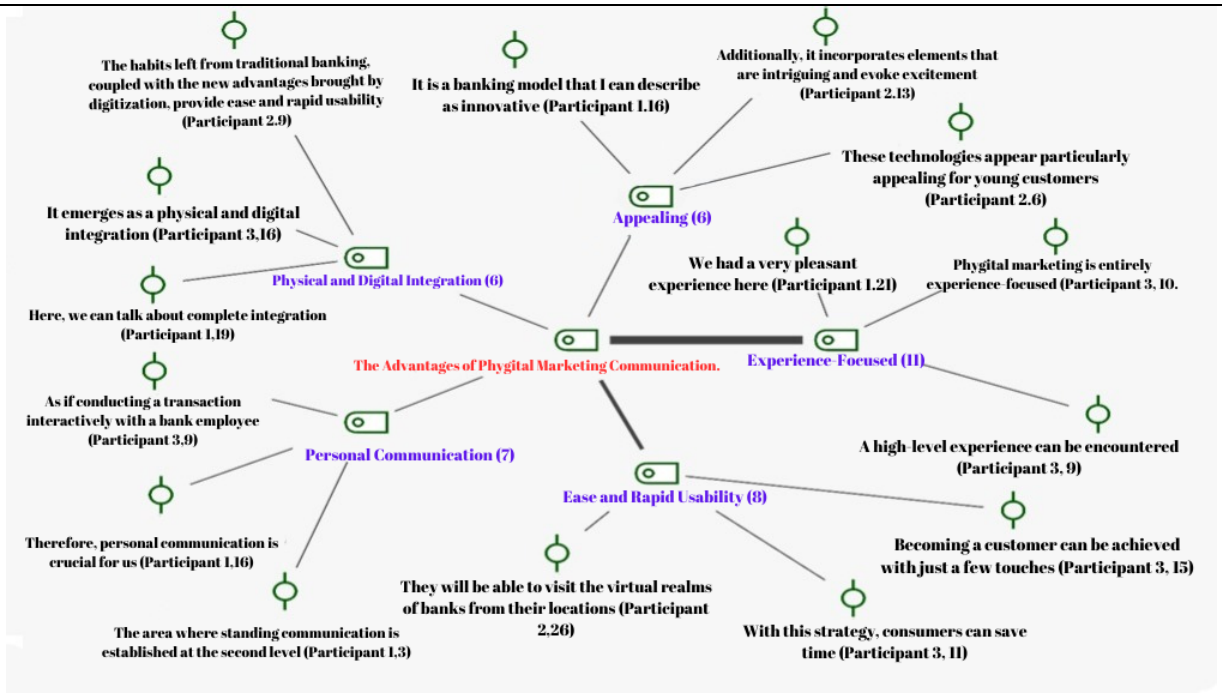

Fig.5: Model of Code-Subcode Sections Encompassing the Advantages of Phygital Marketing Communication (Source: Authors)

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%.

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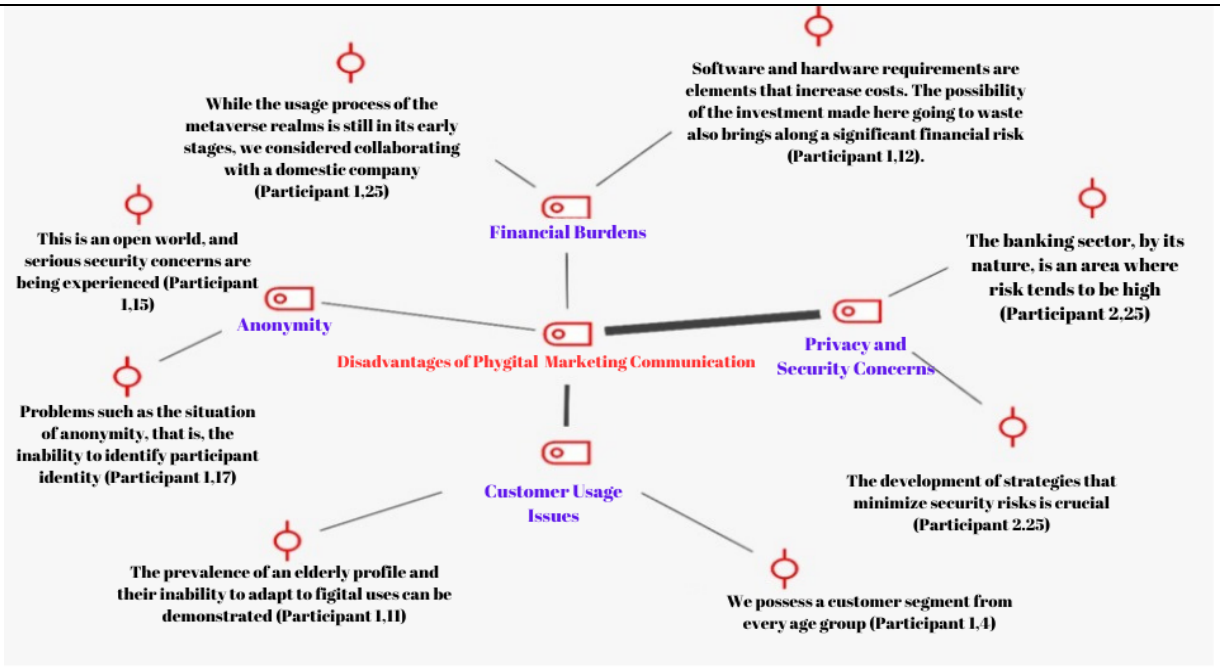

Fig. 6: Model of Code-Subcode Sections Encompassing the Disadvantages of Phygital Marketing Communication
(Source: Authors)

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

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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 Yalçin & 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 (Odabaşi, 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.

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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

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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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