

**DOES DEFINITION FOR VALUE CREATION IN DIGITAL BANK EXIST? A
SYSTEMATIC LITERATURE REVIEW**

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ABSTRACT

This paper developed a systematic review of the literature on value creation in digital banks. The premise was to verify the academic studies on the subject, since there has been a significant increase in studies in the last five years. The PRISMA protocol was used. The search was carried out in the Web of Science and Scopus databases and started with 216 articles, of which 22 were chosen for the composition of this analysis, based on the verification if there is consensus among the authors on the process of value creation in digital banks and, if so, how it occurs. The International Journal of Bank Marketing was the journal with the highest number of published articles. The studies presented a theoretical-empirical predominance and used a quantitative approach in a larger sample. The concept of value co-creation was widely found in the studies and explored by the authors. New studies may include other concepts in the process of value creation and consumer behavior.

Keywords: Value Creation, Digital Bank, Co-creation of Value, Systematic Literature Review

1. INTRODUCTION

This study aims to develop a systematic review of the current literature on value creation in digital banking. The lack of theoretical development on value creation in digital financial activities has caused this field to become filled with seemingly unrelated research, and questions are raised about its maturity and long-term continuity. Thus, we believe that a systematic review aims to analyze the underlying structure of the field, its shortcomings, as well as future avenues of research.

Given the backdrop of digital disruption (Christensen & Bower, 1995 and Skog et al., 2018) in banking services after the 2008 financial crisis, in which customers experienced difficulties in accessing traditional financial services (Barbu et al. 2021), with restrictions on credit limits, has driven the growth of fintechs. Innovative digital financial activities are offered by both technology-mediated financial companies, fintechs, and the traditional financial sector, such as banks, brokerages, insurance companies, to enhance their services provided to their customers (Romanova, I.; Kudinska, 2016).

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With the advent of the Covid-19 pandemic, the digital transformation of financial services has accelerated, as due to the restrictions and the practice of lockdown of the world population to face the pandemic, customers have used banking and fintech applications on

smartphones to access financial services, such as making payments or transferring funds, (Seetharaman, 2020; Naeem and Ozuem, 2021), even as a practice of social distancing, necessary in facing the pandemic (Amanda et al, 2020; Giovanis et al., 2018; Mu & Lee, 2022). After the 2008 crisis and the Covid-19 pandemic, competition and the dispute for customers between banks and fintechs for financial services such as applications, money transfers, means of payment and credit cards have intensified, as a result of deregulation that allowed the arrival of new entrants (Guo and Liang, 2016; Ng and Kwok, 2017; Romanova and Kudinska, 2016; Zhu and Zhou, 2016). These customers who are migrating to digital channels are looking for and prefer digital banking services customized to their needs. The use of mobile banking, banks' application on smartphones, is transforming the experiences of customers who were in the face-to-face environment of bank branches, to centralize their financial transactions there to be mediated by technology (Laukkanen, 2016; Baabdulliah et al., 2019).

Banks are no longer only a means of carrying out financial transactions, such as means of payment, but also active participants in their customers' needs. This allows improving the customer experience and creating business models (Fitzgerald et al., 2014, Piccinini et al., 2015), as well as making these organizations increase their capabilities in the use of digital technologies to change their business model to meet changes in customer behavior and needs (Li et al., 2018). Given this scenario, we intend to analyze by systematic literature review whether there is consensus among authors on the process of value creation in digital banks or there is only an interchange. Such a study is important for academia, from the perspective of analyzing the value creation process in a sector peculiar to its particularities, which are banks, places where financial values are captured and lent (Muthaiyah et al., 2021; Peña-García et al., 2021; Zhai et al., 2023).

2. LITERATURE REVIEW

In this chapter we will briefly address the main contributions of the concepts of value creation, value co-creation and digital banks to relate to the articles selected in this systematic review.

2.1 Value creation

The concept of value can be considered as a central field of a company's strategy, but there is little consensus on its creation and definition (Bowman & Ambrosini, 2010; Lepak et al., 2007; Schneider & Sachs, 2017). In this same approach, the concept of value is subjective, multifaceted, not unique, and may represent different perceptions among stakeholders (Schneider & Sachs, 2017; Garrida, 2014; Bowman & Ambrosini, 2010). The approach on the concept of value and value creation exists in the fields of economics (classical and neoclassical economists), strategic management (theory of resources and distinctive activities of the company) and in marketing (market offers and consumer behavior) (Pitelis Dr., 2009; Schneider & Sachs, 2017).

In classical economics, authors such as (Ricardo, 1817; Marx, 1867/1990) argued that value was established by the amount of labor to produce a good. For the neoclassicals, such as Jevons 1871, disagreed and criticized the concepts of classical economics, where they argued that value was not about the labor spent, but about utility, where that utility is in a person. (Jevons, 1871). As a contemporary concept, (Bowman & Ambrosini, 2000) state that value is divided into: use value, in which its specific qualities of a product are perceived by customers

in relation to their needs; exchange value, refers to price, in which the exchange of goods is carried out for a monetary value in a way that relates to a specific point in time (Bowman & Ambrosini, 2000).

In strategic management, value creation is seen as resources, in which organizations that are able to accumulate rare, valuable, non-substitutable and imperfectly imitable resources and capabilities will create more value than their competitors (Barney 1991). Other authors argue that value creation is considered because of the pooling of resources and capabilities of stakeholders affected by a socio-economic issue (Sachs and Rühli 2011; Priem et al. 2013; Savage et al. 2010; Svendsen et al. 2001). For Porter (1985, p. 3), the concept of value is "what buyers are willing to pay for what the firm offers them, i.e., each individual establishes the value of the product or service purchased as a function of the benefit added by this product or service." Marketing contributes extensive literature on the strategic orientations taken towards markets (Kohli and Jaworski, 1990; Slater and Narver, 1995), customers (Arnold et al., 2011) and interactions (Ramani and Kumar, 2008) describing the nature of marketing activities and their implications for value creation. To date, marketing has focused extensively on conceptualizations and categorizations of customer value in the form of utility or benefit versus sacrifice (Zeithaml et al., 2020). But bringing to the financial sector, digital banking, how does this process of value creation occur?

2.2 Value co-creation

Much research addressing the concept of value co-creation cites articles on the service dominant logic of Lusch et al. (2008). In their concept, service dominant logic sees the firm and the customer as co-creators of value in a collaborative and continuous process of service delivery (Lusch et al., 2008). However, value is created through a value-in-use process, in which the customer consumes the product or service in an exchange of intangible operational resources - such as skills, information and knowledge - with the firm (Vargo and Lusch, 2004; Grönroos, 2006; Gronroos, 2008). The expansion and widespread use of mobile banking applications (MPAs) is putting consumers front and center as an active participant in value co-creation (Manser Payne et al., 2018).

The very use of artificial intelligence in the co-creation process in AI service ecosystems is composed of a multi-actor network of integration of underlying resources, mechanisms and systems, with consumers as the focal point (Manser Payne et al., 2021), where it is being widely used in digital banking platforms. In this process of digital transformations, co-created value-in-use occurs when consumers access and interact with information technologies designed to bring businesses and customers closer together (Sandström et al., 2008; Souiden et al., 2019). Thus, financial institutions play a key role in value co-creation; that is, the financial institution offers value propositions by ascertaining customer behaviors and provides resources to customers in the form of applications and transactions (Vargo and Lusch, 2004; Sandström et al., 2008; Cambra-Fierro et al., 2017).

2.3 Digital bank

Banks are pioneering innovations that give meaning to "self-service technologies" in which anyone can access their accounts without any intervention from bank employees (Boonitt, 2015). These digital service channels are computer systems, laptops, cell phones, pads and other devices that enable digital banking services available for the convenience of

customers anywhere and anytime (Jamshidi et al., 2016; Del Giudice et al., 2016). Digital banking comprises internet and mobile banking channels (Garzaro et al., 2020; Boonitt, 2015). While M-banking makes use of mobile devices to perform banking transactions, "APP" (Sahoo and Pillai, 2017), E-banking provides access to the bank's web portal through computer systems (Pikkarainen et al., 2006).

Physical bank branches still remain in the role of facilitating retail banking contact and transactions for their customers. As technology improves, greater access and usage occur, customers shift in-person financial transactions to digital means through enhanced digital banking services and an improved experience of new digital access products, services and features (Gomber, et. al. 2018). Studies indicate that banking is about to move away from its traditional utility role based on functioning as a necessity uninteresting to other aspects of consumers' lives. Millennials will be attracted to challenger banks that make their services engaging and proactively recommend and provide personalized advice (Gomber et al 2018). To meet these new customer expectations, new incumbents, Fintechs, digitally mediated companies in financial services, have emerged, providing new evidence of how existing technologies and products are replaced by disruptive innovations (Bower and Christensen, 1995; Christensen et al., 2015). Fintechs have transformed business models, financial intermediation, and customer access by opening up consumer access outside of branches beyond traditional banking business hours; achieving higher levels of personalization based on digital sensing and big data analytics; and replacing traditional banks and their services in new ways (Gozman et al., 2018). As a focus of analysis in this systematic review we will understand as digital banking, banks and Fintechs that carry out the provision of services through the digital channels of M-banking or E-banking.

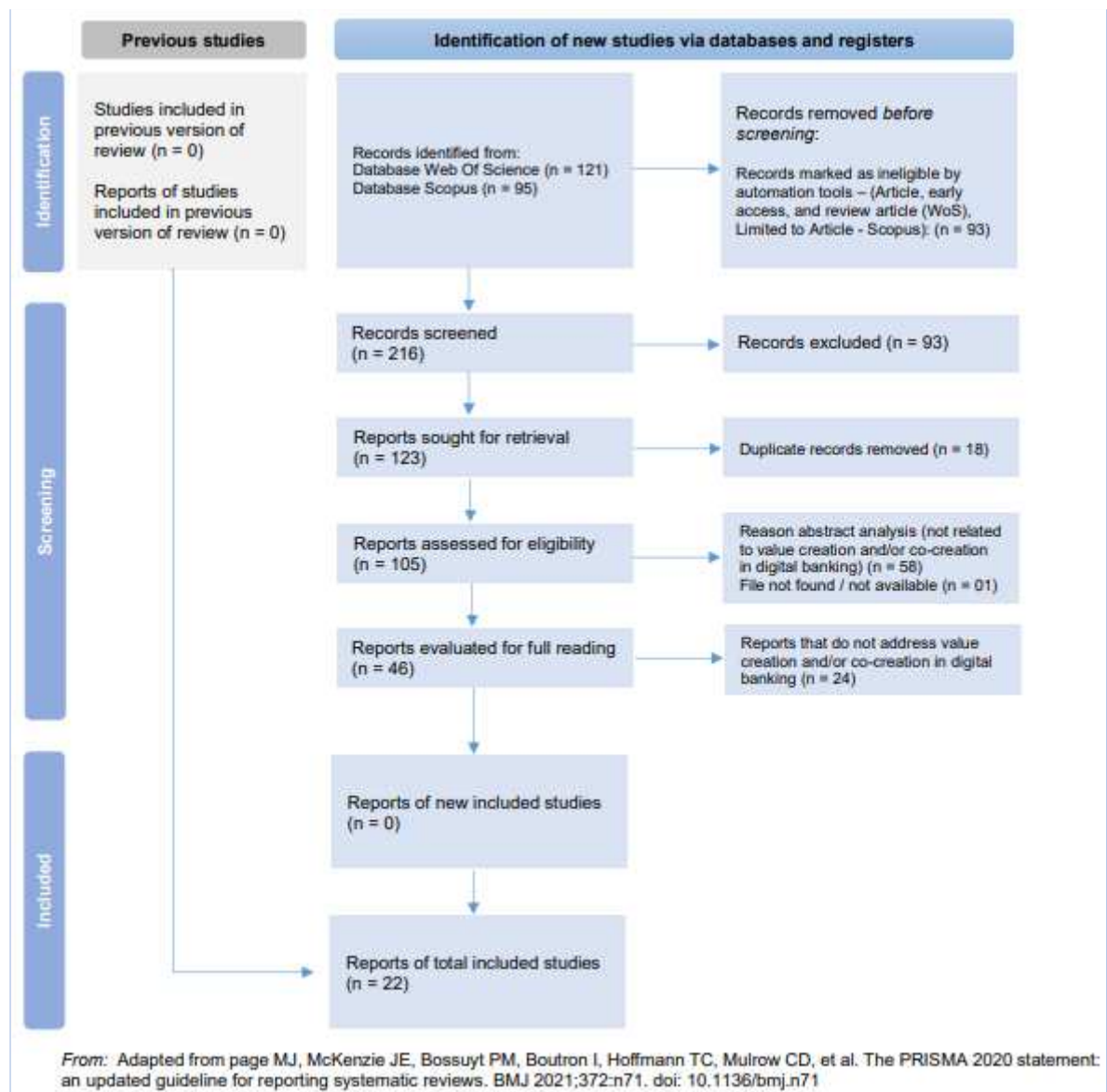
3. RESEARCH METHOD

There is no single method for developing a literature review (CRONIN, RYAN, COUGHLAN, 2008). We chose the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) recommendation for systematic reviews, which has been emerging as a contribution of research gaps and scientific evidence to new projects in the business area (MENDES-DA-SILVA, 2019). The PRISMA recommendation consists of a protocol with 27 items and a flowchart with three steps, being called identification, selection and inclusion (PAGE, Matthew J. et al, 2022). The item referring to previous studies was not met, since no systematic literature review was found with the same objective as the present study. The methodological approach adopted is illustrated in Figure 1. The question that guided this literature review was: is there a consensus for value creation in digital banking?

The keywords (value creation) and (bank*) and (digital) were used to identify the studies. The search took place in the following databases: Web of Science and Scopus, in March 2023, without establishing a time frame. A total of 216 articles were identified, however, we performed a first selection filter of the type of document, being in the Web of Science limited to article, early access and review article and in Scopus limited to article, 93 articles were excluded. Soon after, duplicity between the bases was verified, resulting in the exclusion of 18 articles. With the result of 105 articles, we applied a new filter by reading the abstracts, in which we defined as entry into the studies the abstracts that addressed the following themes: i. digital banks; ii. value creation (digital banks) and iii. value co-creation (digital banks). 58 articles did not meet the previous prerequisite and were excluded, as they were outside the theme proposed

in this review, since they addressed value creation in the area of medicine, engineering or even smart cities. There were 47 articles left to read the full text, but it was not possible to find an article because it did not locate its reading file and the authors did not return with their availability of the text. Thus, 46 full-text readings were made to verify if they presented: i. value creation approach in digital banks; ii. value co-creation approach and iii. if the target audience of the study were end-consumer customers. 34 articles were excluded because they did not present the assumptions of this review, since they dealt with digital platforms of telephone operators, other texts were about companies that provided some financial services, but were not banks. In the end, 22 articles were elected for the analysis of this systematic review and its contributions.

Figure 01 – Methodological course (PRISMA)



Source: Prepared by the authors

The complete reading of each of the 22 articles subsidized a quantitative and qualitative evaluation, presented in topic 04 (presentation and discussion of results). The quantitative approach resulted in descriptive statistics data on the following variables: (a) Scientific

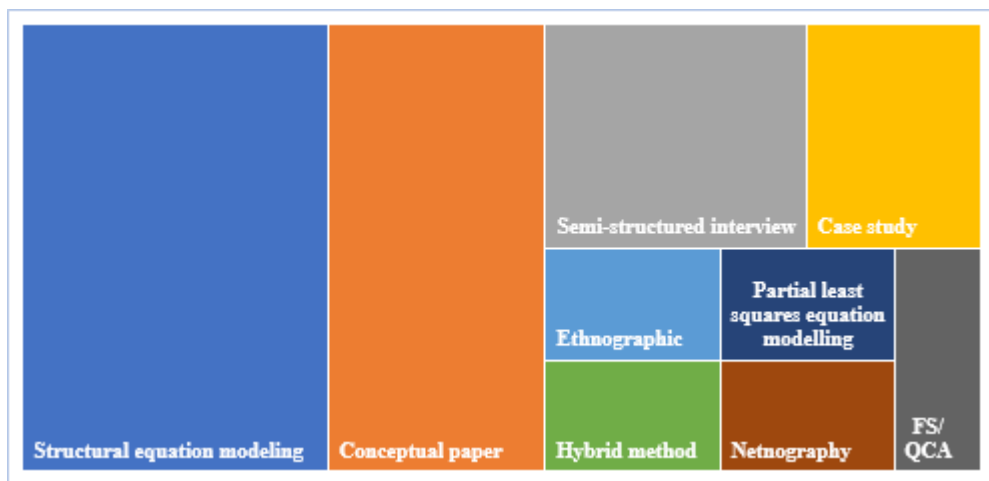
production per year, (b) Publication journals, (c) Research method (d) Map of scientific production and (e) Analysis method. The qualitative analysis, which relied on NVivo Release and VOSViewer (2023) software, was developed following Bardin's (2011) proposal, and therefore followed the stages of pre-analysis, material exploration and treatment of results. For the exploration of the material, the recommendations of Saldaña (2015) were considered in a complementary way. Dialogues were also held between the authors researched during this review.

4. PRESENTATION AND DISCUSSION OF RESULTS

This section deals initially with descriptive statistics and then a qualitative analysis. The largest sample of article production is in the years 2021 (32%), 2022 (18%) and 2018 (18%), indicating a trend of increasing production of articles on the topic of value creation in digital banking. There is a higher publication in the International Journal of Bank Marketing (23%), due to its prestige and high impact factor. The Journal of Research in Interactive Marketing (9%) is the second most published. Many articles are in marketing journals, which explain one of the possibilities of the value creation approach, where 42% of the total selected articles are in this theme. The predominant research methodology in the articles was theoretical-empirical, with quantitative approach in 56% of the articles, qualitative approach in 38% of the articles and mixed method in 06%. This shows a search by the authors to better understand consumer behavior in the digital banking environment.

European countries such as Finland and Spain dominate the share (14% each), followed by countries in the Americas and Asia. In all, there are 15 study countries from different regions with developed and emerging countries, contributing to a better perception of the impact of value creation and co-creation in digital banking. The presence of populous countries such as the United States, Brazil, China and India stands out. In Figure 02, in the analysis method, even by a larger sample of quantitative articles, structural equation modeling represented 32% of the articles, followed by the conceptual article (23%) and the semi-structured interview (14%). The research presents a diversification of analysis methods by the authors, which contribute to a more critical look at the study of the field of value creation.

Figure 02 - Analysis Method



Source: Research data (2023)

Next, we started the content analysis of the selected articles, in which in the separation of the theme we realized the approach of two main concepts: value creation and value co-creation. In this way, we exemplify in two tables separated by the two concepts, which theories were used and their research objectives, in addition to the description of their results.

Table 01 - Summary table of the theory and objectives (Value Creation)

Authors	Theory\concept	Objective
Levy, S; Levy, Shalom;	Attachment theory, loyalty and psychological consumer engagement	Examine the dynamics of the emotional customer experience generated during digital banking and investigate the effect of psychological customer engagement with various types of digital platforms in creating banking brand loyalty.
dos Santos, AA; Ponchio, MC; dosSantos, Alexandre Alves; Ponchio,Mateus Canniatti;	Talke & Heidenreich (2014) showed that resistance to innovation results from functional and psychological barriers, also known as cognitive factors; So et al. (2015) and Castro, Zambaldi, & Ponchio (2020) indicate the need to incorporate the influence of consumer emotions into these models.	Examine the influence of functional, psychological, and emotional barriers that increase resistance to using digital banking services, as well as whether user experience contributes to decreased resistance.
Komulainen, H; Saraniemi, S; Ulkuniemi, P; Ylilehto, M; Komulainen, Hanna; Saraniemi, Saila; Ulkuniemi, Pauliina; Ylilehto, Marianne;	value in experience (Helkkula et al. 2012)	Verify how the customer value experience conveys the restructuring of the service network in the banking sector.
Riikkinen, M; Saarijarvi, H; Sarlin, P; Lahteenmaki, I; Riikkinen, Mikko; Saarijarvi, Hannu; Sarlin, Peter; Lahteenmaki, Ilkka;	AI, service logic, and the reverse use of customer data	Discover how insurance chatbots support value creation for customers on digital platforms.
Fall, NAM; Diop-Sall, F; Poncin, I; Fall, Ndeye Astou Manel; Diop-Sall, Fatou; Poncin, Ingrid;	Customer Experience, (McCull-Kennedy et al., 2015; De Keyser et al., 2020) and Value in Experience (Helkkula et al., 2012)	To verify the factors that drive the use of the telephone money transfer service in Senegal by analyzing the perspective of the individual and the local culture from the value of experience.
Visconti-Caparrós, JM; Campos-Blázquez, JR; María Visconti-Caparrós, Jose; Ramon Campos-Blázquez, Juan;	Modularity Theory	Understand the motivations, characteristics and main factors of a digital business ecosystem. Analyze the success of implementing a digital business ecosystem and what defensive strategies established companies have to lead mobile instant payment ecosystems in Spain.
Barbu, CM; Florea, DL; Dabija, DC; Barbu, MCR; Barbu, Catalin Mihail; Florea, Dorian Laurentiu; Dabija, Dan-Cristian; Barbu, Mihai Constantin Razvan;	The S-O-R model and customer experience	Analyse customer experience (CX) in the fintech sector
Clemente-Ricolfe, J.-S.;	consumer perceptions	Using netnography to verify how consumers perceive the use of Internet banking transaction tools by traditional bank customers, by posting their opinions in forums or social networks.
Yang, X.; Yang, J.; Hou, Y.; Li, S.; Sun, S.;	Theory of Acceptance and Use of Technology (UTAUT2) and gamification	Examine the configurational effects of technology acceptance features and gamification design features on users' behavioral intention to constantly engage with gamification in financial services.
Jain, R.;	value creation through BMI in e-business and LIS in emerging economies	Understand business model innovations using information and communication technology-based services in India. Identifies the dimensions of differences between developed countries and emerging economies with respect to (1) factors that contribute to business model based information and communication technology innovations for low- income segments and (2) the role of startups in this situation.

Laukkanen, T.; Lauronen, J.;	perceived value	Explore three different mobile banking services, how customer value is created, and what kind of value customers perceive in each service. The services included in the study are mobile funds transfer, mobile account balance request, and mobile brokerage.
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Source: Research data (2023)

In their theoretical-empirical work, (Levy, 2022 et al.), present on the dynamics of the customer's emotional state in their experience of using banks' digital platforms and its relationship with loyalty. It was found in this study that customer loyalty is not dependent on the digital activity or their psychological engagement with the digital platform but rather that their loyalty is formed during interactions and long-term relationships with the bank and its brand, creating value. Meanwhile, (Santos & Ponchio, 2021), found statistical evidence that psychological, emotional, and user experience barriers positively influence resistance to use digital banking services, but there is no empirical evidence that the influence of functional barriers impacts the resistance to use these platforms.

In their work, (Komulainen et al., 2018), argue that the focus should be on value to the customer from what they experience. Banks must understand that their services are not enough, as customers see it only as a bank and do not have a holistic value that is needed from the customer's point of view. The goals of the bank's services must support the customer's daily life through the value they experience.

However, (Riikinen et al, 2018) explored the potential for value creation with the use of chatbots (use of artificial intelligence, to communicate with the customer in chat conversation instead of human service) through a perspective to efficiently convert data into conversational type information (with the help of chatbots), service logic as a perspective to support customer value creation processes through additional features (with the help of chatbots), and reverse use of customer data as a perspective to use customer data for the benefit of the customer (with the help of chatbots).

While in the work of (Fall et al., 2021), he found that the value of experience in developing countries needs to take into consideration local ethical and cultural aspects, as these people live in communities, unlike in developed economies, where the value of experience considers only economic and utilitarian aspects.

However, in their article, (Visconti-Caparrós & Campos-Blázquez, 2022) studied the successful deployment of a Digital Business Ecosystems (Bizum), which allowed several traditional banking entities to compete in a rapidly changing market through an innovative and disruptive solution. The understanding of the network effect, with Bizum's value proposition that favored a deep and rapid transformation of payment habits among Spanish users belonging to different generations (Boomers, Gen X, Millennials/Y and Centenials/Z).

In the study by (Barbu et al., 2021), analyzed customer experience in the Fintechs industry, it is a complex and multidimensional concept, which includes cognitive experience, affective experience, and social experience. Customer experience models should consider the perceived value, customer support, warranty, speed, and perceived innovation of the company.

However, in the research of (Clemente-Ricolfe, 2017), an analysis was done through customer messages and it was perceived the practice of the compensatory model, in which customers who pay commissions on banking services are more favorable to this charge if they

have higher interest returns on their investments. On the other hand, customers who want lower commission costs accept lower returns on their bank deposits, since these amounts can be used for other purposes. Furthermore, according to the authors, in this environment various forms of value can be created, be it through perceived security, ease of use, site speed and connectivity, and convenience.

As studied by (Yang et al., 2023), they suggest that the combination of effort expectation, facilitating conditions, and expected value is the highest priority issue that needs to be considered and addressed by companies when developing relevant gamification. If companies and mobile payment designers pay attention to satisfying some specific combinations of impact factors when designing a gamified mobile payment, they can directly improve the user's intention to use it.

However, the research by (Jain, 2014), identifies the characteristics of an ecosystem, finding the balance between formal and informal governance mechanisms, exploiting opportunities created by institutional voids, and developing products specifically for target segments in digital platforms of banks and fintechs. Moreover, this study postulates a key role of start-ups as intermediaries in linking the weak institutional and infrastructure environment on the one hand to the ICT-based service delivery model on the other, thus creating value for all ecosystem partners.

And finally, the study by (Laukkanen & Lauronen, 2005), showed results that in mobile money transfer service, security and convenience were perceived by the respondents as the most important values. A location-free access seems to create a positive value in the consumption of this service. More generally, in mobile banking consumption, spatial elements seem to be some of the main key elements in value creation.

It is noticed that there is no consensus among the authors on the theme of value creation in digital banks, agreeing with the criticisms already presented by authors (Bowman & Ambrosini, 2010; Lepak et al., 2007; Schneider & Sachs, 2017), that is, the researches do not define or present a consensus on value creation in digital banks, but use it as a way to link one theme to another, without a definition proposal. When using the VOSViewer software (2023) from the abstracts of the authors of the articles selected in the research, the concept of value creation begins in the oldest articles, being surpassed in time by the theme of value co-creation, only in the 2017-2022 interval. In it, value and customer are centralized in the connections of the authors' constructs and concepts.

Table 02 – Summary table of the theory and objectives (Value Co-Creation)

Authors	Theory/concept	Objective
Malar, DA; Arvidsson, V; Holmstrom, J; Malar, Dhanalakshmi Arumugam; Arvidsson, Viktor; Holmstrom, Jonny;	The co-creation of value from the perspective of the Dominant Logic of Service (Vargo e Lusch (2008)	Examine the processes by which the use of IT can create or damage business value with customers in the creation and co-creation of value
Payne, EHM; Peltier, J; Barger, VA; Payne, Elizabeth H. Manser; Peltier, James; Barger, Victor A.;	The co-creation of value from the perspective of the Dominant Logic of Service (Vargo e Lusch (2008)	Investigate the relationships that influence the valueco-creation process and lead to consumer comfort with artificial intelligence (AI) and mobile banking platforms.
Liyanaarachchi, G; Deshpande, S; Weaven, S; Liyanaarachchi, Gajendra; Deshpande, Sameer; Weaven, Scott;	Consumer vulnerability (Baker et al. (2005)	Study on banks' privacy protection practices and howbanks integrate market-driven approaches into their corporate digital responsibility initiatives to minimize the vulnerability of consumer data.

van Klyton, A; Tavera-Mesias, JF; Castano-Munoz, W; van Klyton, Aaron; Tavera-Mesias, Juan-Fernando; Castano-Munoz, Wilson;	The co-creation of value from the perspective of the Dominant Logic of Service (Vargo e Lusch (2008)	The research examines the simultaneous processes of value co-creation and codestruction in the implementation of a mobile banking app in rural Colombia, from an effort to create the first cashless society in Colombia, in which a bank engaged the entire town and the local government to create an ecosystem of services, consisting of operational resources.
Payne, EHM; Dahl, AJ; Peltier, J; Payne, Elizabeth H. Manser; Dahl, Andrew J.; Peltier, James;	The co-creation of value from the perspective of the Dominant Logic of Service (Vargo e Lusch (2008)	Offer a digital servitization framework to understand how AI services affect value perceptions, consumer engagement, and firm performance measures. The authors use the financial services ecosystem to explore this topic.
Moliner-Tena, MA; Monferrer-Tirado, D; Estrada-Guillen, M; Angel Moliner-Tena, Miguel; Monferrer-Tirado, Diego; Estrada-Guillen, Marta;	customer engagement, non-transactional behavior, and customer experience	Highlight the central role of bank customer engagement as a mediating variable between customer experience and two non-transactional customer behaviors (advocacy and attitude loyalty).
Dwipayana, C; Prijadi, R; Hamsal, M; Dwipayana, Chandra; Prijadi, Ruslan; Hamsal, Mohammad;	The co-creation of value from the perspective of the Dominant Logic of Service and RBV	To propose an integrative model of Dynamic Dominant Logic with exploration and exploitation as an action pattern for firm performance. This study also aimed to explain the various patterns of Dynamic Dominant Logic in the simultaneous creation of technical and evolutionary fitness.
Gomber, P; Kauffman, RJ; Parker, C; Weber, BW; Gomber, Peter; Kauffman, Robert J.; Parker, Chris; Weber, Bruce W.;	customer experience, innovation, digital transformation	Discuss on: (1) operations management in financial services and the changes that are occurring; (2) technological innovations that have begun to leverage execution and stakeholder value associated with payment settlement, cryptocurrencies, blockchain technologies, and international payment services; (3) various fintech innovations that have impacted lending and deposit services, peer-to-peer (P2P) lending, and the use of social media; (4) issues related to investments, financial markets, trading, risk management, robo-advisory, and related services that are influenced by blockchain and fintech innovations.
Peña-García, N.; Losada-Otálora, M.; Juliao-Rossi, J.; Rodríguez-Orejuela, A.;	customer experience and Dominant Logic of Service	Understand which customer-owned features that influence the value co-creation process and their impact on the customer experience in order to provide meaningful business implications that lead to successful business outcomes.
Omarini, A.E.;	Business Ecosystems (Moore)	Study the impact of Fintechs and non-banking companies on mobile payment services versus traditional banks.
de Villiers, M.V.; Chuchu, T.; Chavarika, G.V.;	Self-Determination Theory (SDT) and Diffusion of Innovation Theory.	To verify the consumer's motivation regarding attitudes and intention to adopt co-creative banking activities. And whether the consumer is motivated to adopt co-creational banking activities.

Source: Research data (2023)

In the article by (Malar et al., 2019), it was contacted that the studied bank needs to track the transactions of the users of the digital platform, since the negative experience can influence the degradation of co-creation. For example, not locating on the platform the possibility to change the cell phone number, as it is mandatory to receive a text message to perform transactions.

While in the study by (Manser Payne, Peltier, et al., 2021), suggests that consumers of digital banking platforms seek the value of service delivery and overall data security, suggesting that they view service delivery holistically in an omni-channel environment. As digital technologies continue to transform the value co-creation process, it is critical that we have a better understanding of the role of AI in service delivery.

On the other hand, research by (Liyanarachchi et al., 2020), reveals that due to the continued growth of online banking, the industry must ensure cost management and limit

exposure to data breaches that could devalue the bank's brand value and require costly investments in new consumer protection mechanisms. The authors suggest that data vulnerabilities can be minimized by maintaining an open dialogue with consumers and ensuring that current and future privacy strategies are closely aligned with consumers' privacy "postures."

However, the research of (van Klyton et al., 2022), The study found that the simultaneous manifestations of value co-creation and codestruction present in different layers ultimately diminished the value proposition of a digital money system. The authors argue that actor involvement transitions between different layers of the ecosystem and that negative interactions in the meta-layer of the ecosystem can affect perceptions of value in the micro-layer.

For this reason, the study by (Manser Payne et al., 2021), suggest that the links between consumers, financial institutions, and fintech companies using AI in a service ecosystem should be identified; how value is created among the various actors in this network.

Meanwhile, the research of (Moliner-Tena et al., 2019), present results that confirm banking customer engagement as the mediating variable between customer experience outcomes and non-transactional behaviors.

The study by (Dwipayana et al., 2022), on the other hand, showed that the direct impact of the dominant service logic on preserving beliefs, behavior, and rules for achieving performance through administrative, operational, and governance procedures may have lost its dominance. However, as a lesson for the banking industry, it is necessary to acquire completely new knowledge and learn from the disruption caused by Fintech companies, because it can completely change the traditional business model of banks. However in the study by (Gomber et al., 2018), it says that it will be difficult for large established companies to match small entrepreneurial startups in producing fintech applications that create value with high innovation, without large expenditures to acquire human capital with knowledge, which is so scarce in the market. As a result, it will be appropriate for large companies to outsource the apps, rather than trying to create them in-house.

Nevertheless, the study by (Peña-García et al., 2021), concluded that consumers who participate in value co-creation have a positive experience with the brand. Thus, the variables analyzed (connectivity, creativity and knowledge) allow users to be highly correlated with brands, either when consumers interact with them, when they acquire brand knowledge when they are connected (in the many-to-many relationship) or when they socialize with other consumers for other consumers to gain knowledge about the products and services. To be sure, the research of (Omarini, 2018) through case studies shows the tendency for banks to combine the development and marketing of their own mobile wallet with participation in third-party wallets, especially device manufacturers (e.g. Apple Pay). This is probably a consequence of the large customer base of these participants, as well as their interest in controlling mobile hardware, which is an important network hub within the ecosystem.

However the study by (de Villiers et al., 2020), reports that if consumers have a positive attitude towards cocreational innovation, they will perceive a higher level of relative advantage towards engaging in cocreational activities. This indicates that the more positive their attitude towards cocreation, the less complex their perception of the activity will be.

In the articles that addressed value co-creation, they mostly converged on the service-dominant logic theory (Vargo and Lusch, 2004), in the prominent role in which the company and the customer as co-creators of value in a collaborative and continuous process of service delivery (Lusch et al., 2008), not using this concept interchangeably.

5. FINAL CONSIDERATIONS

Through this systematic literature review we found a lack of consensus among authors on how value creation occurs in digital banks as already pointed out by (Bowman & Ambrosini, 2010; Lepak et al., 2007; Schneider & Sachs, 2017) who study value creation in several areas. As shown in Table 01, the authors used several theories and concepts as a theoretical basis without having a reference theory or author. The same does not occur when it comes to the value co-creation approach, since 06 studies of the total of 11 on this topic used the theory of the Dominant Logic of Service of the authors Vargo and Lusch (2008) as a theoretical basis.

With the help of the VOSViewer software (2023), we understood that the selected articles presented a variation of approach between the concepts of value creation, value and value co-creation according to time. In the time scale from 2017 to 2022, the value creation approach began, moving on to value construction and ending with the focus on value co-creation. This demonstrates the effort to change course that occurs in this market with the customer as the center of the value process.

We emphasize that there must be new studies in order to elucidate or have a consensus on how the value creation process occurs, which is absent in digital banks, to avoid using this term interchangeably, as a kind of escape and fitting of several constructs in the way of trying to explain consumer behavior.

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