Value Co-Destruction in Digital Banking Transformation: Research Propositions

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Abstract: Digital Transformation imposes an invisible legacy on managers: the destruction of value. The ability of technology to disseminate services can lead to irreparable losses of value for companies, resulting in the decline of economic potential and imposing a dictatorship of gratuitousness. To research how this happens and propose solutions, I analyze the trend of value co-destruction (VCD) in the Digital Bank Transformation. The ability to understand and predict such changes is important to guide the processes of planning, implementing, and evaluating business decisions. Value creation is a central concept in the business literature, as companies create value through their operations and the delivery of services and products that meet the desires of their customers. However, value can also be destroyed, causing companies to fail and significant changes in the market. Through a semi-systematic literature review, I seek the theoretical guidelines of VCD in the context of online banking. We found 112 articles related to the topic and part of the systematic analysis of these articles is available in this work. The main objective of this theoretical essay is to highlight research propositions for the analysis of VCD in the context of Digital Banking Transformation. For the main delivery, it is necessary to: 1) delimit the concepts related to Digital Transformation and VCD; 2) understand how the VCD process is configured; 3) define the mechanisms related to the VCD; and 4) gather characteristics of the financial services segment in the context of Digital Transformation. Two proposals were proposed for future research.

Keywords: value co-creation, value co-destruction, dominant service logic, banking, digital transformation

1. Introduction

Digital Transformation has recognized the ability to generate opportunities, while, as a social and economic trend, it forces public and private companies to adapt to the changes imposed by the diffusion of emerging technologies (Alsafi & Fan, 2020). Its challenges affect individuals, organizations, ecosystems, and society. The ability to understand, drive and predict such changes is important to guide the processes of planning, implementing, and evaluating business decisions (Omar et al., 2017).

As an interdisciplinary topic, Digital Transformation has a broad definition according to the context of the study. In the work by Verhoef et al. (2021) Digital Transformation is understood as the process of using information technology (IT) to facilitate change, create value, restructure businesses to gain competitive advantage, create business opportunities, create new business models, interconnect products and link systems from production to global networks. The way in which IT contributes to or harms the creation of business value has aroused the interest of researchers (Bonina et al., 2021; C. Y. Chen et al., 2021; Sthapit & Björk, 2020). Investments in IT have intensified in recent times, growth not accompanied by empirical research on the effects of Digital Transformation through the insertion of online services and, consequently, the resulting potential loss of value (Malar et al., 2019).

Value creation is a central concept in the business literature (Järvi et al., 2018). Organizations create value through their operations that deliver services and products to meet the desires of their users (Bowman & Ambrosini, 2000). Digital Transformation helps companies create value, considering its contribution to personalization, capillarity, integration, and optimization (Left-handed & Clear, 2020). However, organizations have the task of considering the potential and limitations of technologies to generate adequate value propositions, which becomes a critical aspect for the business model (Molling & Zanela Klein, 2022).

The main objective of this theoretical essay is to highlight research propositions for the analysis of VCD in the context of Digital Banking Transformation. To enable the delivery of the general objective described, it is necessary: 1) to delimit the concepts related to Digital Transformation and VCD; 2) understand how the VCD process is configured; 3) define the mechanisms related to the VCD; and 4) gather characteristics of the financial services segment in the context of Digital Transformation.
2. Co-creation of value

Vargo and Lusch (2004) proposed a review of the logic in force at the time focused on tangible resources. The new perspective focused on intangible resources, co-creation of value and relationships, chose the provision of services as a fundamental form of exchange. The origin of the term co-creation of value (VCC) comes from Vargo and Lusch (2004, 2008) who considered all users as co-creators of value. The VCC gained prominence in management research, precisely because it proposes an alternative view to the concept of value embedded in the product and argues that providers co-create the value of services and products in collaboration with their users (Vargo & Lusch, 2008). This view was complemented by Grönroos (2011) who described user activities as agents of economic value creation, emphasizing, however, that VCC requires two or more economic factors, such as users, suppliers, employees and other resources. In this sense, it is pertinent to consider that the adoption of online services, such as financial services, places the user as a co-creator of value, reducing the company’s control over the business value proposition (Kahli & Grover, 2008).

3. Digital transformation in banks

The financial services segment is strongly marked by competition, knowledge intensity and technological vanguard (De Borba et al., 2022), a position that generates market pressures to offer online self-service services (Malar et al., 2019). Fintech companies are gaining space in the market, partly by counteracting the high prices of service operators by traditional banks (Mihet & Philippon, 2019), but also taking advantage of the lethargy of traditional institutions that, for not knowing the profound effects of involving users in value creation, promoting Digital Transformation with caution (Oladejo & Akanbi, 2012).

The shift towards disruptive technology adopted by fintechs is not unique to the financial services industry. However, due to the ability to act in gigantic user bases, predictability of the sector’s evolution and an already consolidated regulatory base, Digital Transformation in the sector lacks urgency in the dimensioning of damages and, mainly, in the survey of alternatives to mediate the effects of value co-destruction (Mihet & Philippon, 2019). The sudden loss of value in the financial services segment can generate losses, as they are structures that condense economic factors and balance the financial dynamics that sustain and give vent to economic assets. Thus, a massive deterioration of these economic agents can generate chain losses and profoundly compromise the economy of a society, as is the recent case of the Lehman Brothers bank (Iborra et al., 2020).

Despite this, research published in a recent McKinsey report (Martins et al., 2019) evaluated the level of digital maturity in several sectors in Brazil. The best positioned sectors in the study are financial services, retail and telecommunications and technology, which scored on average for the other sectors: advanced industries, basic industries, transport and infrastructure and consumer goods. The research adopted the following dimensions in the evaluation: strategy, capabilities, organization, and culture, and used a 100-point scale in which the financial sector obtained 75 points, the highest in the Brazilian context and the second highest in the world. Specifically, the financial services sector is the one that shows the highest degree of maturity in models and tools and presents greater regularity in all dimensions. The sector is made up of insurance companies, payment companies and banks.

The banking subsector has the highest digital maturity in Brazil, being second only to the strategic dimension, in which payment methods entities are superior. The perception of the potential for change identified in the financial services sector was highlighted in the survey, as well as the extensive experience in analytics, whose percentage of companies in the practice of models and tools was 82%, against 35% in other sectors. Specifically in the capabilities dimension, the financial services sector stood out for the dissemination of user experience themes, digitization of processes and implementation of the agile method (Martins et al., 2019). In this sense, it is relevant to understand how Digital Transformation can affect the financial services sector in a marketing way and what alternatives managers can use to avoid potential losses and co-destruction of value (Hamidi et al., 2020; Malar et al., 2019).

4. Co-destruction of value

The co-destruction of value (VCD) is a concept proposed by Plé and Cáceres (2010) in addition to the work of Vargo and Lusch (2008). The authors recognized that interactions between the parties can result in VCC, however, by the same logic, it is possible to consider that the value can also be co-destroyed. The fundamental premise of the concept is that it would not be possible to guarantee the absence of errors in services, so it was
possible to affirm that VCD results from the misuse of resources during interactions in service systems (Grönroos, 2011; Smith, 2013), or inappropriate relationship practices (Echeverri & Skålén, 2011a; Plé & Cáceres, 2010).

Both concepts, VCC and VCD, are linked to the theory of Service Dominant Logic (SDL) which, among other things, emerged as an alternative way of thinking about the creation and exchange of value. SDL initially proposed that value creation arise from the use of the service, something the authors called value in use (Vargo & Lusch, 2004). Value creation (Grönroos, 2011), the lack of recognition of the potential negative effects that the interaction can generate (Echeverri & Skålén, 2011a; Plé & Cáceres, 2010), the lack of consideration of other stakeholders (Hsieh & Chen, 2017; Hsu et al., 2021) and the participation of employees from supplier companies (Chen & Lin, 2018). In this sense, the construction of value is not linked to factors directly related to marketed products or services, the focus is on the user’s experiences, logic, and ability to extract value from the products and other resources used (Cabiddu et al., 2019).

4.1 Co-destruction of value in digital banking transformação

Society is increasingly digital, and it is evident that digitalization brings benefits to consumers, industries and service providers, in addition to enabling entrepreneurship in different social strata, generating opportunities through easier access to the business environment provided by technology (Derave et al., 2022; Moghadamzadeh et al., 2020; Pulkkinen et al., 2019). In the context of large companies, the digitization of society requires facing several challenges, such as greater control of the consumer market, which tends to take unexpected directions and increase concentration, especially in the service sector (Borokhovich et al., 2011; Malchenko et al., 2020; Shin et al., 2020). Leading companies in digital maturity in the world perform up to 5 times higher in EBITA compared to other companies (Martins et al., 2019).

The introduction of online financial services presents risks and challenges that are not yet mastered by organizational managers. In addition to the lack of research covering VCC in the context of Digital Transformation in financial services (Malar et al., 2019). In the field of fintechs, there are difficulties in monetization, as users refuse to pay for digital financial services (Braido et al., 2021). This makes it difficult to develop business models and highlights the difficulty for organizations to create value for a digital service. Considering that the service was charged before being digital, we can infer that there was value destruction. It is important to note that the advent of web 3.0 places collaboration and value co-creation in a changing and decentralized environment (Hamidi et al., 2020). However, it lacks a clear definition of value and co-creation, its dimensions, and antecedents. Given the various assumptions proposed by researchers, the concept of co-creation is still complex and has gaps, making theoretical application difficult (Marco-Stefan Kleber & Volkova, 2017). The arguments presented illustrate the identified research problem.

The inconsistency in the SDL accused by Plé and Cáceres (2010) about the lack of consideration of the negative aspects in the VCC, denotes that such aspects are related to the misuse, accidental or intentional, of system resources, causing unexpected results that can destroy value. However, there are no specific frameworks that help in the treatment, prevention or modification of such conditions that can lead to VCD. Another aspect that was mentioned in the seminal work by Vargo and Lusch (2004) and was not included in the aspirations of the VCD or even better developed in later research, is the role of knowledge as an obstacle to value creation (Bonina et al., 2021; Smith, 2013).

Studies on VCC and VCD in SDL have focused on specific sectors, such as tourism (Arca et al., 2022; Bordian & Gil-saura, 2021; Freire & Veríssimo, 2021; Hamidi et al., 2020; Solakis et al., 2017; Sthapit & Björk, 2020), transport (Echeverri & Skålén, 2011a; Schulz et al., 2021; Trittin-Ulbrich et al., 2021), ecosystems (Chen & Lin, 2018; Fuentes et al., 2019; Hogg et al., 2019; Hogg et al. al. al., 2021) and social media (Bordian & Gil-saura, 2021; Kuppelwieser & Finsterwalder, 2016; Minina et al., 2022; Moghadamzadeh et al., 2020; Pulkkinen et al., 2019; Zuboff, 2015); in addition to other research spread across various sectors. However, few studies have been dedicated to the challenges of Digital Transformation, especially in the financial services segment, which has advanced in digitalization and its operations affect several other sectors (Martins et al., 2019).

The gap identified by this study is the lack of a deeper understanding of the structures that permeate the VCD and a framework that guides the treatment of issues related to the VCD in the situation of Digital Transformation. The choice of the financial services segment seeks to take advantage of the opportunity to
explore such structures in an industry with recognized digital maturity, many competitors and an extensive user base.

5. Method

The systematic review of the literature aims to demonstrate the state of the art of research related to Digital Transformation, VCC and VCD within the scope of the SDL. The evidence will serve as a basis for critical discussion, identification of gaps and research propositions. The research objective in this work is to explore VCD in the financial services segment in the context of Digital Transformation. However, as research on the subject is incipient, both in financial services and in Digital Transformation, research articles were sought in other contexts that could help in the broad understanding of the theoretical lens and its nuances.

5.1 Procedures of systematic review of the literature

The review implemented in this work is a semi-systematic review of the literature, as defined by Snyder (2019). The systematic review has a restricted focus, analyzes quantitative articles, and seeks to contribute to the evidence of the effects. The semi-systematic review has a broader focus, explores quantitative, qualitative, or theoretical research and contributes to the demonstration of the state of knowledge in the area. Research procedures take place in a standardized and schematized way, to promote a broad understanding of theoretical and empirical developments and, thus, identify patterns, gaps, and research trends. The research procedures are (Snyder, 2019): 1) design: definition of search terms, databases, inclusion and exclusion criteria; 2) conduction: systematic search of articles for sample construction, selection of articles by reading the title and abstract, selection of articles by reading in full and selection by the impact of the journal or document; 3) analysis: definition of research questions to guide the search for information, coding of excerpts, classification of findings and writing of analyses; and 4) structure and write the review: statement of the review’s objective, writing the report with the findings and manifestation of the review’s contribution.

The search terms for phase 1 were defined by reading the main journals in the search field that were selected by searching Google Scholar based on the number of citations. Below is a list of terms and references: Co-creation (Echeverri & Skålén, 2011b; Malar et al., 2019; Pee & Kankanhalli, 2009; Plé & Cáceres, 2010; Wataya & Shaw, 2019); Co-destruction (Echeverri & Skålén, 2011b; Malar et al., 2019; Plé & Cáceres, 2010); Interactive value (Echeverri & Skålén, 2011b); Dominant Service Logic (Echeverri & Skålén, 2011b; Plé & Cáceres, 2010); Digital transformation (Carlos, 2020; Malar et al., 2019); and Destruction of value (Canhoto and Claro, 2020; Mahajan, 2019; Malar et al., 2019).

The chosen research bases were Scopus (SCO), Web of Science (WOS) and Proquest (PRO). The definition of the bases had as criteria: possibility of configuring filters, reduction of overlap and support for exporting the list of articles.

From the list of terms, several search strings were tested until finding the one that brought together the necessary diversity of material within the field delimitation, namely: (Co-creation OR Co-creation OR “Value Construction”) OR ”Value Destruction”) AND (”Interactive Value*” OR ”Dominant Logic”); resulting in 34 articles in SCO, 43 articles in WOS and 35 articles in THE PRO, totaling 112 articles.

In all cases, the filters used were the search by topic (title, abstract and keywords), only articles, with no date limit and English language. Thirty-one duplicate articles were removed from the sample, 19 that were considered out of scope after reading the abstract, 1 because of inappropriate material, 2 that were considered out of scope after reading the full article, and 1 because the article was not available. The articles considered most relevant, by the number of citations, are shown in Table 1. The content of the articles will be discussed throughout the literature review.

6. Presentation of data and discussion

The sample of articles was subjected to quantitative analysis to determine the degree of relevance of titles, sources, and authors. Figure 1 shows the number of articles over the publication interval of the sample documents, as well as the sum of the number of citations in each period. As for the number of citations, the years 2010 and 2011 stand out, the citations focus on two specific articles "Co-creation and co-destruction: a study based on the practical theory of interactive value formation" (Echeverri & Skålén, 2011a) and "Not always co-creation: introducing the interactional co-destruction of value in the logic of the dominant service"
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(Plé & Cáceres, 2010). The common point of the two studies is their treatment of VCD, which, at the time of publication, had not yet been explored in depth. The work of Plé and Cáceres (2010) is referred to as a pioneer in the introduction of VCD in the context of the SDL theory originally proposed by Vargo and Lusch (2004). The relevance given to these seminal works in the VCD demonstrates the interest that the topic arouses in the literature. As for bibliographic production, the highlight was 2021 with 14 articles. The period between 2019 and 2022 corresponds to 63.79% of the production of the period and, in 2022, there are already 7 articles published.

Table 1: Most relevant articles by the number of citations in Google Scholar

<table>
<thead>
<tr>
<th>Article title</th>
<th>Article reference</th>
<th>H Index *1</th>
<th>SJR*1</th>
<th>Cit. *2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Co-creation and co-destruction: A practice-theory based study of interactive value formation</td>
<td>(Echeverri &amp; Skålén, 2011a)</td>
<td>72</td>
<td>1,699</td>
<td>997</td>
</tr>
<tr>
<td>2. Not always co-creation: Introducing interactional co-destruction of value in service-dominant logic</td>
<td>(Plé &amp; Cáceres, 2010)</td>
<td>111</td>
<td>1,599</td>
<td>836</td>
</tr>
<tr>
<td>3. Value co-creation and co-destruction in the Airbnb sharing economy</td>
<td>(Camilleri &amp; Neuhofer, 2017)</td>
<td>100</td>
<td>2,288</td>
<td>280</td>
</tr>
<tr>
<td>4. The value co-destruction process: A customer resource perspective</td>
<td>(Smith, 2013)</td>
<td>110</td>
<td>1,483</td>
<td>273</td>
</tr>
<tr>
<td>5. Co-Production, Interdependence and Publicness Extending Public Service-dominant Logic</td>
<td>(Alford, 2016)</td>
<td>78</td>
<td>1,974</td>
<td>190</td>
</tr>
<tr>
<td>6. Studying customers’ resource integration by service employees in interactional value co-creation</td>
<td>(Plé, 2016)</td>
<td>111</td>
<td>1,599</td>
<td>158</td>
</tr>
<tr>
<td>7. Value co-destruction in interfirm relationships: The impact of actor engagement styles</td>
<td>(Prior &amp; Mark-Cuevas, 2016)</td>
<td>72</td>
<td>1,699</td>
<td>138</td>
</tr>
<tr>
<td>8. Consumer showrooiming: Value co-destruction</td>
<td>(Daunt &amp; Harris, 2017)</td>
<td>104</td>
<td>2,261</td>
<td>137</td>
</tr>
<tr>
<td>9. Antecedents to value diminution: A dyadic perspective</td>
<td>(Vafeas et al., 2016)</td>
<td>72</td>
<td>1,699</td>
<td>115</td>
</tr>
<tr>
<td>10. Transformative service research and service dominant logic: Quo Vanities?</td>
<td>(Kuppelwieser &amp; Finsterwalder, 2016)</td>
<td>104</td>
<td>2,261</td>
<td>115</td>
</tr>
</tbody>
</table>

Notes: *1 The h index and SJR values were obtained in consultation with the Scimago website (https://www.scimagojr.com/) on 06/05/2022. *2 The number of citations was obtained in a consultation conducted on the Google Scholar website (https://scholar.google.com.br/) on 05/25/2022.

The financial services segment is recognized for its high level of maturity in the development of technologies (Martins et al., 2019). Digital Transformation plays a relevant role in the context of financial services, much of this recognition is due to the opportunities it can generate through information technology (Alsafi & Fan, 2020). The technology lays the foundations for emerging business models, proposing a redesigned value creation and capture logic. The point is that technology is not just a business tool, it has the potential to modify relationships, raise standards and change market rules (Omar et al., 2017). The myopic perception of this process focuses only on the possibilities of gaining competitive advantage to create and add more value to users, to convert the supposed increase in the perception of value into profits (Verhoef et al., 2021).

In Brazil, financial institutions already recognize the opportunities that Digital Transformation can offer in terms of developing new business models and conquering new user networks, the question remains whether they are also prepared to deal with the risks of VCD that arise in the process (Carlos, 2020). In this study we need to consider that the financial services segment has specific distinctions in relation to other service clusters, the characteristics that can influence the VCD in Digital Transformation will be discussed in this chapter.

The accelerated shift to digital channels in the banking industry is likely to continue and this changes the way traditional financial institutions engage with customers, but also the options available to customers. Fintechs and large tech organizations are creating solutions aimed at the growing audience of digital banking, and this raises the challenge to different levels (Holotiuk et al., 2018; McDaniel & Gates, 2018.) Digital transformation efforts vary widely based on in an organization’s business objectives.
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Figure 1: Number of articles and number of citations per year of publication

The graphs in Figure 2 tell you about font characteristics. More than 60% of the articles were published in UK journals, whose two articles with the highest sample citation, and already listed in Table 1, are concentrated in the magazines "Marketing Theory" and "Journal of Services Marketing". Another 19% of the articles were published in Swedish journals, all distributed in the journals "Sustainability" and "Administrative Sciences".

Figure 2: Number of articles per country of the journal and quartile of the SJR

Regarding quartiles, most of the sample (77.59%) is concentrated in journals at level Q1 that has an H Index between 24 and 153. Quartile Q2 has H Index between 23 and 106. Thus, the graph in Figure 2 attests to the relevance of the sample by the degree of impact of the sources. This information was searched on the Scimago (https://www.scimagojr.com) website.

Some authors discuss other characteristic elements of the financial services segment that may aggravate the effects of VCD. In the work of Gilliam et al. (2021) they found information asymmetry as partially responsible for the apparent difficulty of banks in creating co-creative services. On the one hand, bankers cannot understand the attributions of consumers, and on the other, users have difficulty understanding financial services with breadth and depth. This is particularly interesting if we consider that the banking industry is one of the oldest and most highly used, but still needs to confront bilateral asymmetries.

7. Conclusion

SDL has classified resources into operational and operational. In the logic of goods, you are a resource operating alongside other tangible resources. Users are triggered to create transactions with resources. In the SDL logic, the user is an active player, therefore, knowledge, motivation and skills are valued as value creation inputs (Vargo & Lusch, 2004). Operational resources such as products and revenue are tangible and static and need actions to generate value. Operational resources, including actors' knowledge and skills, are intangible and dynamic, so they generate value through interactions (Chen & Lin, 2018).

The present literature review identified that research on VCD in digital banking transformation has the potential to be explored for two purposes: 1) one highlights the role of resources and service systems


