

FEDERAL UNIVERSITY OF SÃO CARLOS
GRADUATE PROGRAM IN INDUSTRIAL ENGINEERING

**ENHANCING SERVICE CUSTOMER EXPERIENCE THROUGH GAMIFICATION:
A SERVICE DESIGN APPROACH**

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Thesis presented to the Graduate Program in Industrial Engineering at the Federal University of São Carlos as part of the requirements for obtaining the Doctor's degree in Industrial Engineering.

SÃO CARLOS-SP

2024

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A SERVICE DESIGN APPROACH**

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UNIVERSIDADE FEDERAL DE SÃO CARLOS

Centro de Ciências Exatas e de Tecnologia
Programa de Pós-Graduação em Engenharia de Produção

Folha de Aprovação

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O Relatório de Defesa assinado pelos membros da Comissão Julgadora encontra-se arquivado junto ao Programa de Pós-Graduação em Engenharia de Produção.

RESUMO

O setor de serviços é fundamental para o desenvolvimento econômico e social global, com a experiência do cliente (CX) tornando-se um foco central para a melhoria dos serviços. A gamificação emergiu como uma abordagem promissora para aprimorar a CX em serviços, oferecendo experiências semelhantes a jogos que promovem o engajamento do cliente e a criação de valor. No entanto, a gamificação ainda é um tópico emergente na pesquisa em serviços, e esforços futuros são necessários para ampliar o entendimento de seus processos, mecanismos e impactos na CX. Além disso, falta evidência que sustente a integração eficaz da gamificação com o design de serviços (DS), enfatizando a necessidade de metodologias para preencher essa lacuna, pois ela pode levar a oportunidades perdidas de otimização da inovação em serviços e da CX. Esta tese aborda essas lacunas de pesquisa ao investigar como a gamificação pode aprimorar a CX em serviços, em diferentes estágios da jornada do cliente, e apresentar um método que integra gamificação e DS. Para isso, a pesquisa é estruturada em três etapas: (1) mapeamento dos conceitos-chave da pesquisa sobre CX em serviços para estabelecer uma base teórica, (2) desenvolvimento de um modelo conceitual para aprimorar a CX em serviços por meio da gamificação ao longo da jornada do cliente, e (3) proposição e avaliação de um método prático para projetar experiências de serviço gamificadas. Os resultados são apresentados em três artigos. O Artigo I, *Customer Experience Research: Intellectual Structure and Future Research Opportunities*, integra conceitos-chave e a pesquisa atual em CX por meio de uma revisão bibliométrica. O Artigo II – *Gamification in the Customer Journey: A Conceptual Model and Future Research Opportunities*, explora conceitualmente como a gamificação pode ser utilizada em diferentes estágios da jornada do cliente para aprimorar a CX em serviços, empregando uma revisão sistemática da literatura. O Artigo III – *ServiceGameX: um método para projetar experiências de serviço gamificadas*, apresenta um método que integra gamificação e DS para criar experiências de serviço gamificadas focadas na melhoria da CX, aplicado em um cenário real. Esses estudos contribuem para avanços teóricos na pesquisa ao (i) desenvolver uma estrutura conceitual que integra a literatura de CX em serviços, (ii) apresentar um modelo conceitual para gamificação com foco na melhoria de CX na jornada do cliente, e (iii) introduzir o método ServiceGameX, que integra DS com gamificação para projetar experiências gamificadas focadas em CX. Esta tese também fornece insights para gestores e designers interessados em melhorar a CX por meio da gamificação, oferecendo uma base sólida para futuras pesquisas e aplicações práticas na interseção entre CX em serviços e gamificação.

PALAVRAS-CHAVE: serviços, experiência do cliente, cocriação de valor, gamificação, jornada do cliente, engajamento do cliente, design de serviços.

ABSTRACT

The service sector is a key driver of global economic and social development, with customer experience (CX) becoming a central focus for service improvement. Gamification has emerged as a promising approach to enhance service CX by delivering game-like experiences that foster customer engagement and value creation. However, gamification is still an emerging topic within service research, and future efforts are needed to broaden the understanding of its processes, mechanisms, and impacts on service CX. In addition, there is a lack of evidence supporting the effective integration of gamification and service design (SD), emphasizing the need for methodologies to bridge this gap since it can lead to missed opportunities for optimizing service innovation and CX. This thesis addresses these research gaps by investigating how gamification can enhance service CX across the customer journey and presenting a method that integrates gamification and SD to enhance CX in service contexts. To achieve this, the research is structured into three stages: (1) mapping key concepts in service CX research to establish a theoretical foundation, (2) developing a conceptual model for enhanced CX through gamification across the service customer journey, and (3) proposing and assessing a practical method to design gamified service experiences focusing on enhancing CX. Results are presented in three articles. Article I, *Customer Experience Research: Intellectual Structure and Future Research Opportunities*, integrates key concepts and current service CX research through a bibliometric review. Article II – *Gamification in the Customer Journey: A Conceptual Model and Future Research Opportunities*, conceptually explores how gamification can be structured and applied across different customer journey stages to enhance service CX by employing a systematic literature review. Article III – *ServiceGameX: a method for designing service gamified experiences*, presents a method integrating gamification and service design (SD) to create gamified service experiences focusing on enhancing service CX, which was applied in a real-world scenario. These studies contribute to theoretical advancements in research by (i) developing a conceptual framework that integrates service CX literature, (ii) presenting a conceptual model for gamification in the service customer journey, and (iii) introducing the ServiceGameX method, which integrates SD and gamification for designing gamified experiences focusing on enhancing service CX. This thesis also provides insights for managers and designers interested in enhancing CX through gamification. It offers a solid foundation for future research and practical applications in the intersection of service CX and gamification.

KEYWORDS: service, customer experience, value cocreation, gamification, customer journey, customer engagement, service design.

ACKNOWLEDGMENTS

I am grateful to the Federal University of São Carlos (UFSCar) and the Graduate Program in Industrial Engineering (PPGEP) for providing the academic environment and resources necessary to complete this work. The institutional support was fundamental to the development of this research.

I also thank the Federal Institute of Education, Science, and Technology of São Paulo (IFSP), where I work as a public servant, for the constant support and encouragement of my professional development. The trust and support offered were essential for me to achieve this result.

To my advisor, Prof. Dr. Glauco Mendes, whose exceptional guidance was crucial for realizing this thesis. His dedication and the excellence with which he conducts his work were pivotal in my journey. In moments of difficulty, I received the motivation and support to continue and complete this work.

I am also grateful to the Examination Committee members for the opportunity to share this thesis and for their insightful feedback and contributions. In particular, I would like to thank the members who accompanied me during key moments of the research process, enriching this journey with their collaboration.

Aos meus amigos, minha profunda gratidão. Sua amizade e apoio foram essenciais, trazendo leveza nos momentos de desafio e alegria nas conquistas. Cada gesto e palavra de incentivo tornaram esta jornada mais significativa.

Sou grato também aos meus familiares, por constituírem uma base sólida na qual sempre posso me apoiar com segurança. O amor e a força de vocês foram fundamentais para que eu seguisse com confiança ao longo de toda esta jornada.

Agradeço profundamente ao meu melhor amigo e marido, Ju, por todo amor, paciência e apoio incondicional. Por estar ao meu lado em todos os momentos, dos mais felizes aos mais desafiadores e por me fazer sorrir todos os dias. Amo você.

Por fim, agradeço especialmente à minha mãe, a quem dedico este trabalho. Cada conquista é fruto de tudo que você fez por mim. Você é minha maior inspiração e meu eterno amor. Seguiremos sempre juntos em novas conquistas e experiências!

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1 INTRODUCTION

The service sector is a crucial component of global economic and social development. In 2022, services represented 65% of the global gross domestic product (GDP), a significant increase from 51.79% in 1994 (World Bank, 2023a). The sector's value added exceeded \$60 trillion during this period (World Bank, 2023b), shaping the behavior and well-being of individuals and communities far beyond economic measures (Ostrom et al., 2021). The service sector plays a key role in employment creation and providing essential social functions—such as healthcare, finance, energy, transport, and telecommunications—vital for achieving the United Nations' Sustainable Development Goals (SDGs) (United Nations, 2023). Recently, the COVID-19 pandemic has accelerated the digital transformation within the services, reinforcing its importance in both developed and developing economies (Reuschl et al., 2022).

Services can be defined as a process and a type of offering and outcome distinct from goods, the view that initially formed the conceptual foundation of the service research discipline (Brown et al., 1994; Shostack, 1977). Vargo and Lusch (2004) critiqued this goods-centered view, proposing the service-dominant logic (SDL) as an alternative. SDL emphasizes that value is co-created by actors through resource integration, transcending the traditional distinction between goods and services (Vargo and Lusch, 2004, 2008). This approach has since become a new foundation for service research (Ostrom et al., 2021; Wilden et al., 2017).

Services have recently been conceptualized as bundles of value co-creation practices — shared templates guiding actors in value creation and exchange to achieve their objectives (Skålén, 2024; Echeverri and Skålén, 2021; Skålén and Gummerus, 2023). These practices involve three key elements: (a) understandings (knowledge, competencies, know-how); (b) procedures (formal and informal rules); and (c) engagements (emotionally-driven goals and outcomes) (Skålén, 2024; Echeverri and Skålén, 2021; Schatzki, 2019). How these practices are performed is crucial in shaping the service customer experience (CX).

CX stands out in research and practice as one of the top priorities for service development (Wetzels et al., 2023; Ostrom et al., 2021). The concept of CX refers to the customer's multidimensional response— affective, sensory, cognitive, emotional, and social—to all stimuli associated with a consumption offering throughout their journey, including pre-, core-, and post-consumption interactions (Becker and Jaakoola, 2020; Lemon and Verhoef, 2016). CX is

closely linked to value co-creation, as both are circular and interrelated phenomena (Kumar et al., 2023; Jaakkola et al., 2015). Significantly, CX co-creation is based on the premise that the customer is not a passive participant in their experience. Instead, CX emerges through interactions among various actors within and outside the service environment, shaping this customer's subjective and holistic response (Kumar et al., 2023; Silva et al., 2021; De Keyser et al., 2020).

Studies have recognized a positive CX as a competitive advantage for service organizations capable of leveraging services (Kumar et al., 2023; Gao et al., 2021). CX adds value to services (Wetzels et al., 2023; Becker and Jaakkola, 2020) and is considered a key factor in marketing outcomes such as customer satisfaction (e.g., Pei et al., 2020), loyalty (e.g., Stein and Ramaseshan, 2020), and engagement (e.g., Tuguinay et al., 2022). Therefore, CX is essential to ensure long-term business sustainability. According to a survey by Gartner (2023), 86% of customer service leaders across all major industries say that improving CX is the top priority in 2024. Thus, understanding how to achieve superior CXs has interested scholars and managers in the service field (e.g., Ostrom et al., 2021) and related ones such as marketing (e.g., Nuseir et al., 2023), business (e.g., Keiningham et al., 2020), and information management (e.g., Sykora et al., 2022).

Despite its relevance, conceptualizing and operationalizing CX remains challenging due to its reliance on subjective customer perceptions across all interactions with a service or brand, from pre- to post-consumption (Becker and Jaakkola, 2020; Lemon and Verhoef, 2016). Thus, CX comprises affective, emotional, and social dimensions related to the service or brand encounters, which implies that scholars and managers deal with issues that are not entirely controlled by organizations (Wetzels et al., 2023; Becker and Jaakkola, 2020). For example, studies have recognized that external factors (e.g., cultural, political, economic, and pandemics) significantly impact customer behavior and perceptions, directly affecting CX (Ostrom et al., 2021; De Keyser et al., 2020).

Moreover, the constant development of digital smart technologies and communication platforms (e.g., social media) has changed how customers interact in service encounters, revealing a new digital dimension of the CX (Meehan, 2024; Gonçalves et al., 2020; Bolton et al., 2018). For instance, on social media, customers can communicate with others to recommend or denigrate a brand or service, reaching vast numbers of people without

organizations being able to control these interactions (Kulikovskaja et al., 2023). In addition, customers actively integrate resources from multiple firms, organizations, and social actors during their service journeys (Kumar et al., 2023; Bidar et al., 2022). Thus, service ecosystems view services as broad networks of multi-level actors and resources (e.g., providers, technologies, brand communities), adding complexity to CX (Brodie et al., 2019; Storbacka et al., 2016; Patrício et al., 2011). Therefore, understanding, designing, and managing CX are not simple tasks since they involve multiple related subjects and practices that can influence it.

Since the 2000s, research in CX has grown exponentially to deal with these multiple CX-related themes (Silva et al., 2021; De Keyser et al., 2020; Kranzbühler et al., 2018). Among the main CX research themes, customer engagement refers to the multidimensional (cognitive, affective, and behavioral) customer's positive manifestation towards the brand, service, product, or firm, which results from motivational drivers (Hollebeek et al., 2019; Kumar et al., 2019; Heinonen, 2018). Companies can enhance the CX by promoting customer engagement and establishing an emotional and powerful brand-customer connection (Heinonen, 2018; Pansari and Kumar, 2017). Thus, companies and brands constantly seek new ways to enhance customer relationships to improve customer engagement and CX to achieve better business results (Kumar et al., 2019; Eigenraam et al., 2018). Given the increasing focus on enhancing customer engagement, gamification has emerged as a promising approach to significantly boost service CX (Ciuchita et al., 2023; Silva et al., 2023, 2021). Thus, investing in innovative strategies, such as gamification, becomes essential for businesses aiming to remain competitive in an increasingly dynamic market (Kumar et al., 2023; Wetzels et al., 2023). By leveraging these strategies, companies can enhance engagement, foster long-term customer loyalty, and drive sustainable growth (Meehan, 2024; Hollebeek et al., 2019).

Gamification is commonly defined as an approach to motivating and engaging users by applying game elements in non-gaming contexts (Deterding et al., 2011), such as points, badges, leaderboards, levels, and rewards (Koivisto and Hamari, 2019). The primary assumption is that transferring immersive and enjoyable mechanisms from games to other contexts can stimulate user behavior, such as voluntary engagement (Landers et al., 2019). Gamification is increasingly recognized as a key factor in shaping the 'smart consumer' of the future, a trend expected to accelerate over the next decade (Ernst and Young, 2018). The global gamification market is projected to grow significantly, from USD 10.19 million in 2020

to USD 38.42 million by 2026 (Mordor Intelligence, 2020). This growing influence extends beyond mere engagement, positioning gamification as a persuasive technology for shaping behaviors (Li et al., 2021).

As a persuasive technology, gamification is designed to influence attitudes or behaviors by simplifying user interactions and guiding actions, which can be more potent than monetary incentives (Li et al., 2021; Anagnostopoulou et al., 2018). Digital advancements have further amplified this persuasive potential, enabling gamification to effectively engage users and influence behaviors across both digital and physical environments (Patrício et al., 2020). While gamification is widely recognized as an engagement booster in non-gaming contexts, its application within service research offers a unique perspective, positioning it as a means for co-creating value and enhancing service CX (Ciuchita et al., 2023; Silva et al., 2023).

Huotari and Hamari (2017) characterize gamification as a process that enhances services by delivering game-like experiences that facilitate users' value creation. Similarly, Leclercq et al. (2020) describe gamification as a process where the principles of game design, such as rules and objectives, are applied to generate experiential value for customers in service environments. These definitions highlight the significant role of gamification in improving CX and driving value creation within the service domain (Ciuchita et al., 2023; Silva et al., 2023).

Thus, studies have dealt with the effectiveness of gamification in a range of services such as health (e.g., Tolks et al., 2024), retailing (e.g., Poncin et al., 2017), tourism (e.g., Sigala, 2015), banking (e.g., Baptista and Oliveira, 2017), business (Sharma et al., 2024), and FinTech economies (Lai and Langley, 2024), highlighting its versatility and impact in fostering active participation and sustained user involvement. Empirical results have demonstrated positive outcomes such as increased customer satisfaction (e.g., Bauer et al., 2020), brand engagement (e.g., Berger et al., 2018), and loyalty (e.g., Hwang and Choi, 2020). Like CX, gamification has become a relevant subject for service research and practice (Ciuchita et al., 2023; Silva et al., 2023).

However, gamification is still an emerging topic within service research, and future efforts are needed to broaden the understanding of its processes, mechanisms, and impacts on service CX (Silva et al., 2021; Leclercq et al., 2020). Notably, even though the customer journey is a central concept for CX research and management, studies are needed to explain how gamification can enhance CX through different customer journey stages (Silva et al., 2023;

Leclercq et al., 2020). This gap in knowledge presents a challenge, as it limits the ability of service providers to effectively implement gamification strategies tailored to each stage of the customer journey. Without this understanding, there is a risk of suboptimal or even counterproductive applications of gamification that fail to deliver the intended value or engagement across all touchpoints (Hammedi et al., 2024).

In addition, scholars have highlighted the lack of evidence supporting the effective integration of gamification and Service Design (SD), emphasizing the need for methodologies that can bridge this gap (Martín-Peña et al., 2024; Conejo et al., 2021). While designing service journeys and touchpoints to deliver meaningful gamification is crucial (Hammedi et al., 2024; Silva et al., 2023; Mele and Russo-Spena, 2022), the current literature lacks comprehensive frameworks to support this integration (Ciuchita et al., 2023). This deficiency may lead to missed opportunities to fully leverage the strengths of both methodologies, potentially resulting in suboptimal engagement, inefficiencies, and limited innovation in creating gamified service experiences (Silva et al., 2023; Conejo et al., 2021). Furthermore, an integrative method could mitigate gamification's negative and rebound effects by fostering a deep understanding of all service elements (Hammedi et al., 2024; Ciuchita et al., 2023; Silva et al., 2023). Nevertheless, to our knowledge, no existing multivalent methods in the academic literature synergistically combine SD and gamification to create gamified service experiences.

Therefore, this present thesis aims to contribute by addressing these research gaps. It deals with a general research question: ***How can gamification and SD be integrated to enhance service CX and support value creation at different customer journey stages?***

1.1 THESIS OBJECTIVES

This thesis aims ***to investigate how gamification can enhance the service CX at different customer journey stages and develop a method that integrates gamification and service design (SD) to foster value co-creation within the service context.*** In this way, it addresses three specific research questions (RQ) and associated specific objectives (SG):

RQ1: *What are the key concepts underpinning service CX research, and how can they be mapped to establish a solid theoretical foundation to integrate gamification strategies further to enhance service CX?*

SO1: *To map and understand the key concepts underpinning service CX research, establishing a solid theoretical foundation that enables the further integration of gamification strategies in creating a design method for improving CX.*

RQ2: *How can gamification be theoretically structured and applied to improve service CX at different customer journey stages, and what conceptual guidelines should be followed to create a design method further?*

SO2: *To develop a theoretical and conceptual understanding of how gamification can be structured and applied to improve service CX at different customer journey stages, providing the necessary conceptual guidelines for further creating a design method.*

RQ3: *How can a design method that integrates gamification and SD be developed to enhance service CX, and what is its effectiveness in value co-creation?*

SO3: *To develop a method for designing service gamified experiences that integrates gamification and SD to enhance CX, assessing its effectiveness in value co-creation.*

1.2 RESEARCH DESIGN

The research is divided into three stages to address the specific objectives (SO). Each stage contributes to achieving the overall research aim. Consequently, this thesis adopts a multi-method approach, with methods selected based on their appropriateness for achieving the specific objectives.

Stage 1. The aim of SO 1 is to map and understand the key concepts underpinning service CX research and to establish a solid theoretical foundation for further integrating gamification. To achieve this, a bibliometric literature review was conducted, which is well-suited for systematically identifying, selecting, and analyzing relevant articles within a research field (Sahni and Singh Kaurav, 2023; Zupic and Čater, 2015). The bibliometric literature review systematically mapped the key concepts within the service CX research field, establishing a

theoretical foundation that supports the effective integration of gamification strategies in subsequent research stages.

Following a systematic selection of articles, co-keyword analysis was employed as the primary bibliometric method. Co-keyword analysis is a text-mining and content-analysis technique that converts keywords from the literature into a structured overview, identifying co-occurrence patterns (Zupic and Čater, 2015). This method is widely used to map intellectual structures, identify research themes, and highlight future research trends (Bragge et al., 2019).

A thematic analysis was also conducted to enhance the understanding of the data, providing interpretative insights into the underlying themes and topics within the CX research field (Nowell et al., 2017; Braun and Clarke, 2006). This combination of methods was crucial in establishing a solid conceptual foundation in CX, supporting the subsequent integration of gamification in the following research stage.

Stage 2. Building on the theoretical foundation established in Stage 1, The aim of SO 2 is to develop a theoretical and conceptual understanding of how gamification can be structured and applied to enhance the service CX across different stages of the customer journey. To achieve this, a systematic literature review (Palmatier et al., 2018; Tranfield et al., 2003) focused on the intersection of gamification and CX within the customer journey. This method was chosen for its ability to systematically identify, categorize, and analyze existing research, thus allowing for developing of a comprehensive conceptual framework (Snyder, 2019; Palmatier et al., 2018).

The systematic review followed a rigorous selection and analysis process, ensuring that the most relevant studies were included. Thematic content analysis was then employed to uncover key themes and patterns within the literature (Nowell et al., 2017; Braun and Clarke, 2006). This approach was particularly effective in identifying how gamification can be integrated into the different stages of the customer journey—pre-service, core-service, and post-service—and in understanding the factors that influence the success of these gamified strategies.

Through this methodical approach, a conceptual model was developed, offering theoretical guidelines for applying gamification to improve service CX at the stages of the customer

journey. This research stage not only contributed to a deeper understanding of the theoretical underpinnings of gamification in service CX but also laid the groundwork for the practical method to be developed and assessed in the subsequent stage.

Stage 3. The aim of SO 3 is to develop a design method that integrates gamification and service design to enhance customer experience (CX), focusing on value co-creation. To achieve this, a methodological approach grounded in Design Science Research (DSR) was employed. This approach was chosen for its ability to develop and evaluate innovative methods that address practical challenges while contributing to theoretical advancements (Hevner et al., 2004; Peffers et al., 2007). DSR has been successfully applied in SD methods (e.g., Sierra-Pérez et al., 2021; Teixeira et al., 2019) and gamification design methods (e.g., Holzer et al., 2020; Morschheuser et al., 2018). DSR advances research by building and evaluating new artifacts, such as constructs, models, and methods, that address organizational and societal challenges (Hevner et al., 2004; Peffers et al., 2007). Given this focus, DSR was considered especially suitable for developing the proposed method and was employed using the following stages identified by Peffers et al. (2007).

The research process involved several key stages. Initially, the method was conceptualized and structured to integrate gamification and SD frameworks effectively. This involved outlining clear steps for exploring service contexts, visualizing service interactions, ideating gamification strategies, and prototyping solutions. Each stage was carefully designed to ensure that the method could be applied flexibly across different service environments while maintaining a focus on enhancing service CX.

The proposed method was then applied in a real-world service context to assess its practicality and effectiveness. This application incorporated iterative feedback and refinements, allowing the method to evolve in response to real-world challenges and opportunities. The evaluation process demonstrated the method's ability to improve CX by fostering stakeholder engagement and facilitating value co-creation. The results of this stage contribute to both the practical application of the method and the theoretical understanding of how gamification and SD can be synergistically combined to enhance service CX. **Table I** offers an overview of the methods used in each article that is part of this thesis.

Table I – Structure of the Research Development

	Research Question	Research Objective	Method
Stage 1	What are the key concepts underpinning service CX research, and how can they be mapped to establish a solid theoretical foundation to integrate gamification strategies further to enhance service CX?	To map and understand the key concepts underpinning service CX research, establishing a solid theoretical foundation that enables the further integration of gamification strategies in creating a design method for improving CX.	Bibliometric review Co-keyword analysis Thematic analysis
Stage 2	How can gamification be theoretically structured and applied to improve service CX at different customer journey stages, and what conceptual guidelines should be followed to create an effective design method?	To develop a theoretical and conceptual understanding of how gamification can be structured and applied to enhance service CX at different customer journey stages, providing the necessary conceptual guidelines for further creating a design method.	Conceptual review Thematic analysis
Stage 3	How can a design method that integrates gamification and SD be developed to enhance service CX, and what is its effectiveness in value co-creation?	To develop a design method that integrates gamification and SD to enhance service CX, assessing its effectiveness in value co-creation.	Design Science Research

This thesis has systematically addressed enhancing service CX using gamification, following a structured, multi-method research approach. **Stage 1** established a robust theoretical foundation by mapping key concepts within the CX research field through a bibliometric literature review, enabling the integration of further gamification strategies. Building on this foundation, **Stage 2** developed a conceptual model based on a systematic literature review, offering theoretical guidelines for structuring and applying gamification across different customer journey stages. Finally, **Stage 3** proposed and applied a practical method grounded in Design Science Research, demonstrating its effectiveness in improving CX and fostering value co-creation within a real-world service context. Collectively, these stages contribute to both theoretical advancements and practical applications, offering a framework for future research and practice in the intersection of gamification and service CX. More details on how each method was employed to achieve the objectives are provided in the following chapters.

1.3 THESIS OUTLINE

This thesis is structured by articles that result from the studies carried out in the three research stages presented above. It comprises five chapters. **Figure 1** summarizes the thesis structure. This **first chapter** introduces the research context, presenting the objectives, research relevance, and an initial overview of the applied methods.

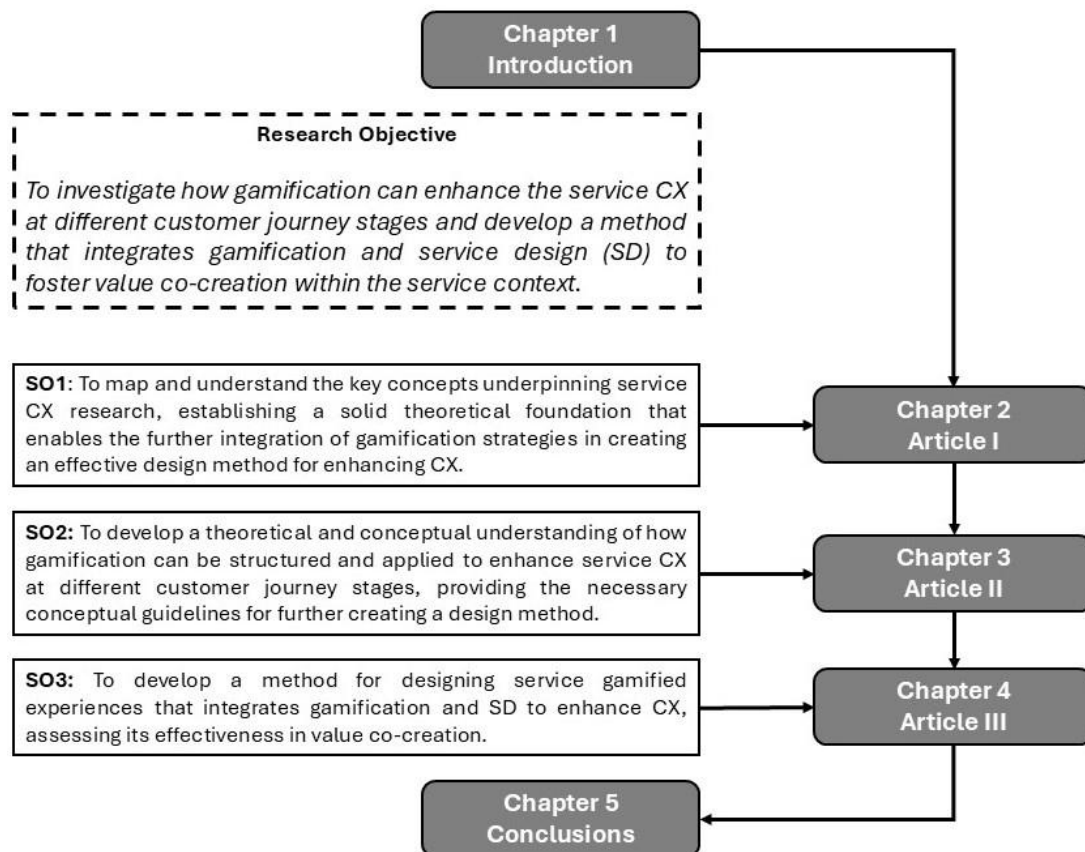


Figure 1. Thesis Structure

Following the foundational context and objectives laid out in Chapter 1, **Chapter 2** delves into the first stage of the research, presenting a bibliometric analysis of the service CX literature. Titled **Article I – Customer Experience Research: Intellectual Structure and Future Research Opportunities**, this article aims to integrate current research on service CX, identifying the intellectual structure of the field. It analyzes 629 articles published in peer-reviewed journals, employing bibliometric co-keyword analysis and thematic literature review. This article maps the CX literature by describing its intellectual structure across three

research domains (customer, organizational, and technological), along with their corresponding most relevant research themes and topics. Moreover, this study develops a conceptual framework and research propositions to summarize and integrate the service CX literature. Lastly, it provides future research opportunities to advance the field. This article was published in the *Journal of Service Theory and Practice*, Volume 31, Number 6, in 2021, pages 893-931. This chapter not only maps the current state of CX research but also lays the groundwork for developing a robust conceptual framework, which will guide the subsequent stages of this thesis.

Chapter 3 presents the second research stage and is titled **Article II – Gamification in the Customer Journey: A Conceptual Model and Future Research Opportunities**. This chapter builds on the theoretical foundation established in the previous chapter, exploring how gamification can be structured and applied across different stages of the customer journey to enhance service CX. The article conducts a systematic literature review, focusing on the intersection between gamification and CX. It analyzes 154 articles published between 2013 and 2022, employing thematic content analysis to uncover key themes and patterns within the literature. The findings are synthesized into a comprehensive conceptual model that outlines theoretical guidelines for applying gamification effectively across the customer journey's pre-service, core-service, and post-service stages. This model contributes to understanding the potential of gamification to improve service CX and provides practical insights that inform the design and implementation of gamified strategies within service environments. This article was published in the *Journal of Service Theory and Practice*, Volume 33, Number 3, on 28 February 2023, pages 352-386, and it was awarded “Highly Commended Paper” by the journal editorial board. This chapter is pivotal in laying the conceptual groundwork that will support further develop the proposed method in the final stage of this thesis.

Chapter 4 presents the third and final stage of the research and is titled **Article III – ServiceGameX: a method for designing service gamified experiences**.¹ This chapter builds on the conceptual framework developed in the previous chapters, focusing on the practical application of a method that integrates gamification and service design (SD) to enhance service CX. The article employs the Design Science Research (DSR) methodology, which is well-

¹ By the defense date, the article had not been submitted.

suited for developing and evaluating innovative methods in real-world contexts. The proposed method, ServiceGameX, was conceptualized and structured through a series of iterative stages, including service exploration, service visualization, gamification ideation, and idea evaluation and prototyping. This method was then applied and tested in a real-world service context, specifically within Brazil's public vocational education library. The application process involved iterative feedback and refinements, ensuring the method's adaptability and effectiveness in addressing practical challenges within the service environment. The evaluation of the ServiceGameX method demonstrated its capability to improve CX by fostering stakeholder engagement and facilitating value co-creation. This chapter confirms the practical applicability of the method and contributes to the broader theoretical understanding of how gamification and SD can be synergistically combined to enhance service CX. Additionally, a version of the method in e-book format is included in the **Appendix** of this thesis. The e-book format allows for broader dissemination and easier access to the method, making it more accessible to practitioners and researchers alike who can benefit from its practical applications.

Lastly, **Chapter 5 – Conclusions** – concludes this thesis by discussing the theoretical and managerial implications of the study, highlighting its contributions to the service CX and gamification field. This chapter also addresses the limitations of the research, reflecting on the challenges and the boundaries of the study's applicability. Additionally, it outlines future research opportunities, suggesting further exploration directions that could expand upon the findings and address gaps identified throughout the thesis. This final chapter encapsulates the study's impact and sets the stage for ongoing gamification and service CX inquiry.

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2 ARTICLE I – CUSTOMER EXPERIENCE RESEARCH: INTELLECTUAL STRUCTURE AND FUTURE RESEARCH OPPORTUNITIES

CITATION: Silva, J.H.O., Mendes, G.H.S., Cauchick Miguel, P.A., Amorim, M. and Teixeira, J.G. (2021), “Customer experience research: intellectual structure and future research opportunities”, *Journal of Service Theory and Practice*, Vol. 31 No. 6, pp. 893-931. <https://doi.org/10.1108/JSTP-08-2020-0193>

Abstract

Purpose – This article aims to synthesize and integrate current research on CX, identifying the intellectual structure of the field, systematizing a conceptual framework, and identifying future research opportunities.

Design/methodology/approach – To analyse 629 articles published in peer-reviewed journals in almost four decades, this study employs both bibliometric co-keyword and thematic literature analysis in a complementary way.

Findings – This article maps the CX literature by describing its intellectual structure in terms of three research domains (customer, organizational, and technological), their corresponding most relevant research themes, and topics. Moreover, this study develops a conceptual framework and research propositions to summarize and integrate the CX literature. This work recognizes technology as an important driver for the development of CX research. Lastly, this article provides future research opportunities for moving the field forward, considering an integrative view among domains.

Originality/value – This paper complements other reviews on CX by using a novel methodological approach (co-keyword and thematic analysis) that enables the identification and visualization of the CX intellectual structure. In addition, the study explores the increasing connection between technology and CX research, by raising evidence that technology, by continuously modifying services and consequently CX, has become a transversal component in the research field. These outcomes may be useful for academics and practitioners.

Keywords Customer Experience, Service Experience, Co-creation, Technology, Bibliometry.

2.1 INTRODUCTION

Scholars and practitioners have demonstrated a special interest in customer experience (CX). In academia, for instance, the number of CX-related publications has sharply increased over the years, attracting the attention of diverse research communities (Becker and Jaakkola, 2020; De Keyser et al., 2020; Kranzbühler et al., 2018). Similarly, companies have also invested in strategies, managing structures and practices to implement the concept of CX (Ponsignon et al., 2020; Keiningham et al., 2019). Thus, both practitioners and scholars agree that CX influences marketing outcomes such as customer satisfaction, loyalty, and word-of-mouth, ultimately strengthening the customer-brand relationships. Furthermore, CX also affects financial results and business competitive advantage (Bueno et al., 2019; Stein and Ramaseshan, 2019).

Despite the recognition of the importance of CX, its conceptualization and operationalization remain unclear and non-consensual (Becker and Jaakkola, 2020; Mahr et al., 2019; Kranzbühler et al., 2018). One key aspect involves the process of specifying the CX and, therefore, defining what CX means. For instance, while some researchers understand the CX as an economic offering per se that is distinct from products, brands, and services (e.g., Pine and Gilmore, 2016); others consider CX as customer response to multiple relationships with, for instance, a brand, which includes objective and subjective elements (e.g., Verhoef et al., 2009). Researchers do not agree whether CX can be or cannot be fully controlled by the companies (e.g., Heinonen et al., 2010). Moreover, CX can be limited to a specific encounter (e.g., Kumar et al. 2014), although it can be formed considering a comprehensive customer journey (e.g., Lemon and Verhoef 2016). Thus, the adoption of slightly different CX conceptualizations leads to different interpretations of the same phenomenon. In addition, the multiple conceptualizations of CX may also lead to difficulties in its operationalization, creating measurement, and validity concerns (Bueno et al., 2019; Jain et al., 2017).

To overcome, mainly, the conceptualization challenges, one of the most accepted definition, and the one that is followed in this paper is that CX is a multidimensional construct focusing on the customer's cognitive, emotional, behavioral, sensorial, and social responses to all direct or indirect interactions with the firm during the customer journey (Lemon and Verhoef, 2016). This definition is comprehensive and covers different scopes in which CX is applied, such as products (e.g., Schallehn et al., 2019), brands (e.g., Nguyen et al., 2015), and

services (e.g., Kandampully et al., 2018). Similarly, Becker and Jaakkola (2020, p. 638) defined CX as “customers’ non-deliberate, spontaneous responses, and reactions to offering-related stimuli embedded within a specific context”. This definition is also adopted in this present paper as it integrates different research traditions, scopes, and boundaries of the CX construct. However, it is a very broad definition and it is necessary to provide a refinement of CX content to help advance its research field (Becker and Jaakkola, 2020; De Keyser et al., 2020).

The lack of a precise view suggests CX as an ‘umbrella construct’, which means a broad construct used to encompass a diverse set of themes and elements (Kranzbühler et al., 2018). The idea of CX as an umbrella construct is evident when comparing the diversified nature of customer experience as a research phenomenon (Becker and Jaakkola, 2020). Indeed, the multidimensional nature of CX has attracted diverse CX-related themes and underlying theories that have influenced its research development. Consequently, the CX literature has evolved into a rich, diverse, but also fragmented body of knowledge, with a lack of common understanding of what constitutes the structure of the CX research field (Becker and Jaakkola, 2020; Kranzbühler et al., 2018). Thus, recognizing and organizing the main key attributes in the umbrella of the CX provides a greater granularity of the CX construct. In doing this, the elements, scope, and boundaries that encompass the CX construct are revealed. This contributes with a system view to conceptualize and operationalize the customer experience.

Considering these viewpoints, the goals of this article are threefold. First, this study aims to map the CX intellectual structure, which means the set of key attributes (e.g., research topics) of the knowledge-base that can provide a structured and holistic understanding of the CX research field (Bragge et al., 2019; Zupic and Čater, 2015). As a result, the CX intellectual structure comprises three research domains: (i) customer; (ii) organizational; and (iii) technological. Notably, the more recent domain is technology-related that has been expanded over time and influencing others. Second, this work aims to integrate the CX literature, by providing a framework that unifies the most frequent research themes within the mentioned research domains. Third, this study aims to offer avenues for future CX research to help advance the field. To tackle these three research goals, bibliometric, text-mining, and visualization analyses were developed, grounded primarily in a co-keyword analysis. To complement the interpretation, a thematic literature analysis was performed as well (Nowell

et al., 2017; Braun and Clarke, 2006). Six hundred twenty-nine CX articles ranging from 1982 to 2018 were interpreted with these methods, aiming at achieving a comprehensive CX literature review.

Other studies have offered contributions to advance the conceptual understanding of CX. Nevertheless, our study complements these previous reviews by addressing three main aspects. First, it does not focus on specific CX topics (e.g., Bueno et al., 2019 – customer experience measurement; De Keyser et al., 2020 – customer experience management). Instead, we attempt to identify the full array of themes present in the CX-related literature, which is essential to understand the domains, scope, elements, and boundaries of the CX construct. Second, it combines quantitative and qualitative methodological approaches to systematize the CX intellectual structure and proposes a conceptual framework that highlights the technological domain in CX research, along with the customer and organizational domains. The combination of quantitative and qualitative approaches can contribute towards a robust analysis of a research field (Nowell et al., 2017; Zupic and Čater, 2015; Braun and Clarke, 2006). In this sense, quantitative bibliometric, text-mining, and visualization approaches such as co-keyword analysis are especially useful to build an overview of complex and interdisciplinary topics (Bragge et al., 2019). A qualitative thematic analysis was also adopted to reading the CX-related papers, identifying themes that conveyed important data about the research topics under investigation. Third, we have developed a set of propositions that provide a springboard for future research in the growing research field of CX. In line with the CX intellectual structure, our propositions first outline the effects of internal and external stimuli on CX according to customers' perceptions; then, the impacts of organizational actions on the stimuli that affect the CX; and, finally, the effects of the use of technologies on both customer perceptions and organizational action, consequently impacting CX. Collectively, the propositions synthesize the domains of the CX research field and point to directions for advancing future research holistically.

This article is organized as follows. Firstly, we introduce a review of the CX concept and position the present work in relation to other literature reviews. Secondly, we present the research design. Thirdly, we identify and describe the intellectual structure of CX literature, discussing the research domains, themes, and topics that have emerged in CX intellectual structure. A conceptual framework that offers an integrative view of the CX phenomenon is

presented in the following. The subsequent section discusses future opportunities to advance CX research. Finally, we present the implications and limitations of this study.

2.2 CX CONCEPT AND LITERATURE REVIEW

The concept of CX was introduced in the early 1980s by Holbrook and Hirschman (1982), who proposed to broaden the understanding of consumer behavior considering “experiential aspects of consumption”, in contrast to the predominant approach based on a purely rational view of the purchasing process. In addition to including the prevailing cognitive-informational dimension, the new experiential view considered subjective customer inputs (such as personality characteristics, level of creativity, and even religion), as well as customers’ affective responses to environmental inputs (for example, symbolic benefits of products and services, sensory responses to non-verbal stimuli, and emotional responses to music during communication activities between customers and organizations). In this experiential view, during the consumption process, the customer not only makes a rational purchase decision but adopts a behavior in response to the objective and subjective inputs to which he/she is submitted. As a result, in addition to the usefulness of goods and services, the experiential view included another class (experiential) of output consequences for customers such as fun, joy, and pleasure. The work of Holbrook and Hirschman (1982) is considered a pioneer in the subject matter of CX and, together with the theories of service quality (e.g., Parasuraman et al., 1988) and customer satisfaction (e.g., Oliver, 1980) which developed in parallel in the 1980s, helped to found out the roots of the CX field (Silva et al., 2020; Lemon and Verhoef, 2016).

During the 1990s, under the influence of the service encounter theory (Bitner, 1990, 1992), other variables of impact on the CX were being incorporated into the concept, such as the interference of other customers (Hui and Bateson, 1991), frontline employees (Bitner, 1990), and physical surroundings (Bitner, 1992) where services are performed. In addition, the idea of “extraordinary experience” emerged to qualify certain types of services whose main characteristic is high levels of emotional intensity and hedonism (for example, adventure tourism) and, therefore, reinforcing the need for a theory of CX (Arnould and Price, 1993). Towards the end of the decade, Pine and Gilmore (1998) promoted CX in managerial practice,

conceptualizing it as an offering distinct from goods and services that resulted in “memorable experiences” for customers and additional revenue for organizations.

While in the 1990s, the concept of CX was more associated with the idea of extraordinary experience as presented by Arnould and Price (1993), in the 2000s the concept moved away to incorporate everyday experiences related to products and services, which also would result in positive or negative experiences for customers (Carù and Cova, 2003). This movement expanded the scope of the CX concept since it became appropriate to deal with all types of services, and not only those characterized by high levels of hedonism. In addition, the emergence of the service-dominant logic theory (Vargo and Lusch, 2004, 2008) integrated the concept of CX with the idea of value co-creation, emphasizing the customer role as co-producer of his/her own experience and bounding organizations as value proposers. The influence of the service-dominant logic on CX theory has been highlighted by previous work (e.g., Silva et al., 2020; Becker and Jaakkola, 2020). At the end of the decade, Verhoef et al. (2009) incorporated a dynamic-temporal dimension to the CX concept, recognizing the influence of customers’ past experiences on present and future experiences.

In the following years, this view would make the concepts of CX and customer journey converge, which would become two sides of the same story (Lemon and Verhoef, 2016). Moreover, in the early 2010s, the first literature reviews in CX appeared, many of which were responsible for integrating new dimensions to the concept and allowed to advance the field theoretically and empirically. The main contributions of these reviews are summarized in **Table II**, which also highlights the differences between them and the present study. Following, the research method adopted in this study is presented.

Table II – CX Literature Reviews

Study	Research Goal	Research Method	Key findings	Differences from the present study
Helkkula (2011)	Review of the concept of service experience	Systematic literature review (n=32)	Characterization of service experience in three categories: (a) phenomenological, (b) process-based, and (c) outcome-based.	<ul style="list-style-type: none"> • Distinct focus (i.e., service experience) • Distinct method • Narrower sample of literature
Rose <i>et al.</i> (2011)	Review of the antecedents and consequences of online CX	Systematic literature review (n=120)	Recognition of online CX antecedents and outcomes in the form of a verifiable holistic framework.	<ul style="list-style-type: none"> • Distinct focus (i.e., online CX) • Distinct method • Narrower sample of literature
Jaakkola <i>et al.</i> (2015)	Conceptualization of service experience co-creation and examination of its implications	Selected literature review and selected comments from prominent scholars	Identification of four literature fields that deal with service experience: (a) service-dominant logic and service logic, (b) consumer culture theory, (c) service management, and (d) service innovation and design.	<ul style="list-style-type: none"> • Distinct focus (i.e., service experience co-creation) • Distinct method
Vasconcelos <i>et al.</i> (2015)	Review of the concept of service experience	Bibliometric and content analysis (n=70)	Integration of the CX literature in a conceptual framework containing three dimensions: (a) predispositions, (b) interactions, and c) reactions.	<ul style="list-style-type: none"> • Distinct focus (i.e., service experience) • Narrower sample of literature
Lemon and Verhoef (2016)	Examination of the roots of CX research and customer journey	Selected literature review	Grouping of the CX literature in three key research areas: (a) CX and the customer journey, (b) CX measurement, and (c) CX management.	<ul style="list-style-type: none"> • Distinct focus (i.e., origins of CX research) • Distinct method
Lipkin (2016)	Review of CX formation and its theoretical bases	Systematic literature review (n=163)	Identification of three theoretical perspectives that explain customer experience formation at the individual level (a) stimulus-based, (b) interaction-based, and (c) sense-making-based.	<ul style="list-style-type: none"> • Distinct focus (i.e., restricted to service literature) • Distinct method • Narrower sample of literature
Hwang and Seo (2016)	Review of CX management literature	Selected literature review	Providing a conceptual framework of CX management research that identifies the antecedents and consequences of CX.	<ul style="list-style-type: none"> • Distinct focus (i.e., restricted to CX management literature) • Distinct method
Jain <i>et al.</i> (2017)	Review of CX literature	Systematic literature review (n=82)	An explanation for the similarities, differences, and relationships between service experience and CX.	<ul style="list-style-type: none"> • Distinct focus (i.e., differentiation of service experience and CX) • Distinct method • Narrower sample of literature
Kranzbühler <i>et al.</i> (2018)	Examination of CX research from an organizational and customer perspective	Systematic literature review (n=115)	Recognition of two levels (static vs. dynamic) and two theoretical perspectives (customer and organizational) for the CX studies.	<ul style="list-style-type: none"> • Distinct focus (i.e., differentiation of static vs. dynamic perspectives levels on CX) • Distinct method • Narrower sample of literature
Bueno <i>et al.</i> (2019)	Review of CX measurement literature	Systematic literature review (n=33)	Classification of the variables, scales, and constructs related to CX measurement.	<ul style="list-style-type: none"> • Distinct focus (i.e., CX measurement literature)

				<ul style="list-style-type: none"> • Distinct method • Narrower sample of literature
Mahr <i>et al.</i> (2019)	Review of concepts and theories that underpin the customer service experience across its dimensions (physical, social, cognitive, affective, and sensory)	Systematic literature review through text mining (n= 258)	Recognition of three focal CX research areas (service system architecture, servicescape, and outcome measures).	<ul style="list-style-type: none"> • Distinct focus (i.e., analysis of the literature across the CX dimensions) • Distinct method • Narrower sample of literature
Becker and Jaakkola (2020)	Development of foundational premises that underpin the CX	Systematic literature review and metatheoretical analysis (n=136)	Identification of eight study fields underlying CX in marketing and the development of four fundamental premises of CX. Providing an updated CX definition, based on previous research traditions.	<ul style="list-style-type: none"> • Distinct focus (i.e., restricted to marketing literature) • Distinct method • Narrower sample of literature
De Keyser <i>et al.</i> (2020)	Development of nomenclature to classify the CX management research	Systematic literature review (n = 143)	Providing a classification of the CX management literature in three key building blocks (a) touchpoints, (b) context, and (c) quality.	<ul style="list-style-type: none"> • Distinct focus (i.e., restricted to CX management literature) • Distinct method • Narrower sample of literature
Present study	Identification of the CX research intellectual structure in terms of research domains, themes, and topics	Systematic literature review through mixed methods: quantitative bibliometric co-keyword analysis and qualitative thematic literature analysis (n=629)	Recognition of three research domains: (a) customer, (b) organizational, and (c) technological, each with a respective set of themes and topics that together constitute the CX research intellectual structure. Providing research propositions to set a future research agenda	N/A

2.3 RESEARCH DESIGN

This study was developed in a systematic process that comprised (i) identifying and selecting relevant articles; (ii) performing literature analysis; and (iii) synthesizing relevant information in an organized and integrated way. In doing so, this research offers a framework for understanding the domains, themes, and topics of the CX research field, which represents its intellectual structure as recommended elsewhere (Bragge et al., 2019; Zupic and Čater, 2015), as well as provides insights for future research.

2.3.1 DATA COLLECTION AND SELECTION PROCEDURES

This study builds on data from articles available at the Social Science Citation Index accessible online through the Web of Science (WoS), which is the most frequently used database for bibliometric studies in management and organizational areas (Zupic and Čater, 2015). Moreover, WoS provides accurate metadata, which is essential for this type of work. Consequently, other scholars have also used the WoS database to perform bibliometric studies (e.g., Gurzki and Woisetschläger, 2017; Leung et al., 2017) and CX literature reviews (De Keyser et al., 2020; Mahr et al., 2019).

The sample is limited to articles written in English and published in peer-reviewed journals. The search string was inspired in prior CX studies (Kranzbühler et al., 2018; Jain et al., 2017). The search was performed in the titles, abstracts, and keywords (1945 to 2018) by using the following terms: customer experience OR service experience OR customer journey AND service; 'customer journey' was included due to its close link with CX (Følstad and Kvale, 2018; Kranzbühler et al., 2018). Noteworthy, "customer experience", "service experience", and "customer service experience" are terms interchangeably used in the literature (Jain et al., 2017; Jaakkola et al., 2015). Thereby, this study looks upon papers that use any of the terms to refer to customers' experiences in the service context. Nevertheless, for clarity purposes, this work adopts the term customer experience (CX) in line with relevant references in marketing (e.g., Lemon and Verhoef, 2016) and service disciplines (e.g., Ostrom et al., 2015). The first outcome (initial sample) comprised 1,112 articles.

To ensure that the final sample was aligned with the aim of addressing only articles in the service context, several steps were considered. Firstly, the full metadata (including the references) of the articles were extracted and imported to Mendeley™ software, which was

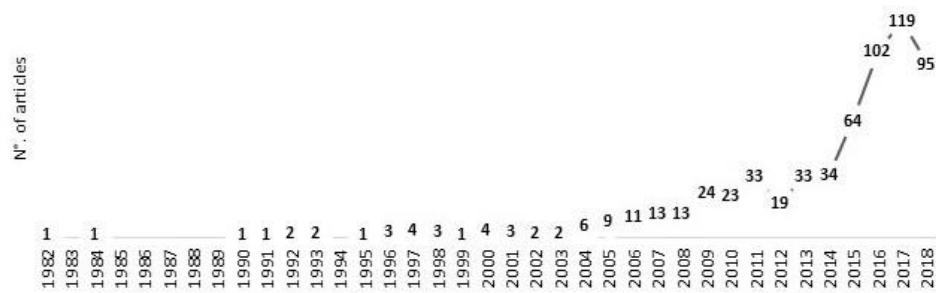
used for metadata management. Secondly, two of the authors checked all articles from the initial sample by reading articles' titles, keywords, and abstracts. Since decisions regarding inclusion and exclusion remained relatively subjective, when abstract content was ambiguous, the article was read in full to decide whether it should be included. After excluding 499 articles, the final sample comprised 613 articles (focal articles). Thirdly, an inclusion process was conducted based on the references cited by the focal articles, similarly to other studies (e.g., Becker and Jaakkola, 2020; Kranzbühler et al., 2018). Thus, a backward snowballing approach (Wohlin, 2014) was performed to capture the references cited by the focal articles, which resulted in 25,535 references. To select the most relevant references, a selection filter was applied considering those that had been cited at least 25 times, resulting in 175 references. A second screening was applied in this sub-dataset to include only seminal references (e.g. Bitner, 1990; Holbrook and Hirschman, 1982) and those that could provide new insights on the CX phenomena (e.g., Breidbach et al., 2018; Ballantyne and Nilsson, 2017), which excluded documents that not fulfill the basic criteria (e.g., language), that already were included in our initial sample and those that did not address CX (e.g. traditional quality service articles). This process added 16 articles, resulting in a final sample of 629 publications. Two members of the research team participated in this screening process. The final step consisted of interpreting and summarizing the findings. Thus, the bibliometry, text-mining, and visualization analysis were complemented with a qualitative thematic analysis to uncover the CX intellectual structure, described after. We briefly present some descriptive results of the sample as follows.

2.3.2 DESCRIPTIVE RESULTS

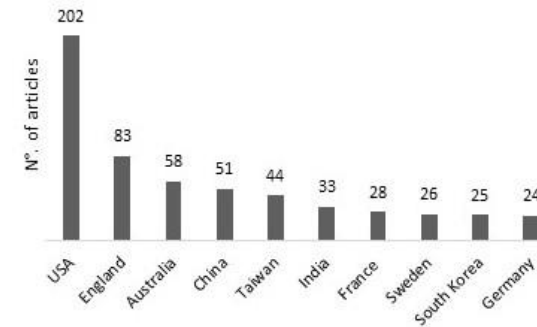
Figure 2 displays the descriptive summary of the sample. It shows that the number of articles published per year has increased during the review period. Although there were two isolated articles in the early 1980s and a few articles since the early 1990s, there has been a significant increase in the number of publications in the past 10 years observed (2009-2018). This growth represents the theoretical maturity phase of the CX field, as already observed by Kranzbühler et al. (2018), and the slight drop in the number of publications in the last year (2018) may reflect the initial speech of voices that have put the CX movement in question, interrupting

the exponential expansion of the field, even though it remains quite robust (De Keyser et al., 2020; Thompson, 2018).

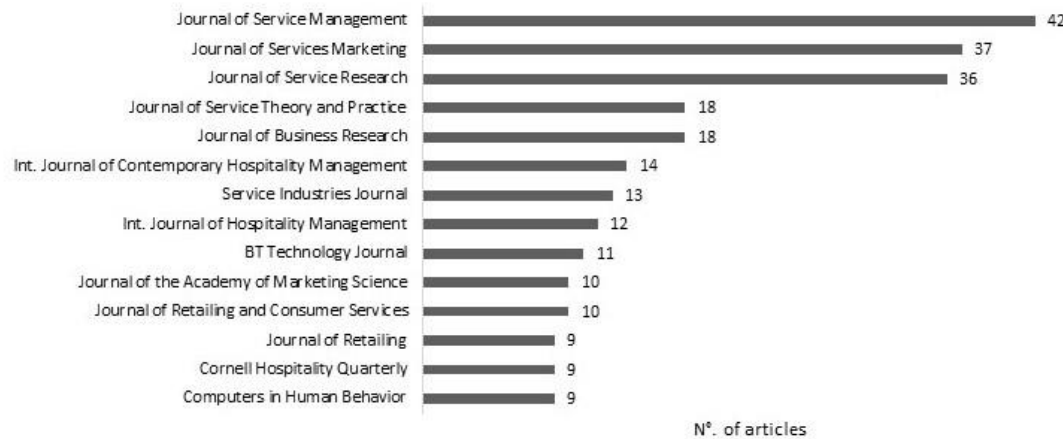
Evolution of publications over the years



Top 10 most prolific countries



Top 10 most publishing sources



Top 10 most cited authors

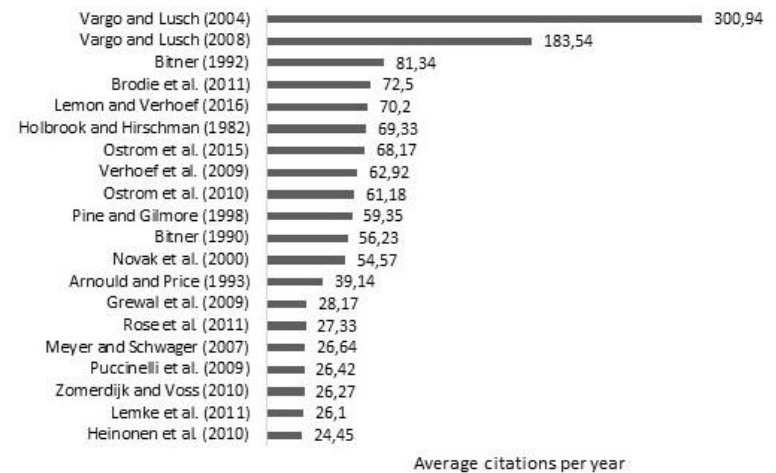


Figure 2. Descriptive Results

Among the most prolific countries are developed economies from North America, Oceania, and Europe, and emerging economies from Asia (China, Taiwan, India, and South Korea), but none from South America or Africa. Concerning the main sources, the 629 articles in the sample were published in 227 peer-reviewed journals. However, the 14 journals that occupy positions in the top 10 most-publishing accounts for 248 articles in total, concentrating approximately 39.5% of the sample, while the remaining 60% are distributed in 213 journals. Finally, among the most influential works in the CX field, the first four are significant not only for helping to support the literature on CX but also for contributing to base other solidary theories, respectively the service-dominant logic (Vargo and Lusch, 2004, 2008), service encounter (Bitner, 1992), and engagement (Brodie et al., 2011). The content of these and the other most-cited articles will be explored throughout the following sections. Next, we present the analysis method and how it supported the identification of the intellectual structure of the CX field.

2.3.3 DATA ANALYSIS

From macro to micro-level, a research field can be divided into domains, each one comprised of a set of related themes. A theme unifies a fragmented but conceptually related set of topics. A topic is the smallest unit under consideration and can be defined as the word or combination of words that represent a specific research line within a theme (Nowell et al., 2017; Braun and Clarke, 2006). Then, to identify the domains, themes, and topics within the CX intellectual structure, two methods were used in a complementary way: (i) bibliometry, mainly co-keyword analysis; and (ii) thematic analysis.

Bibliometry involves an analysis of publications to structure and bridge related-research within a field (Zupic and Čater, 2015). Co-keyword analysis was chosen as bibliometric method; it is a type of text-mining and content analysis technique that converts the textual corpus (keywords) into a structured overview and establishes their co-occurrence. It has been largely employed to map the intellectual structure and disclose future trends in research fields (Bragge et al., 2019). This study considers the author's keywords and WoS' keywords plus (i.e., terms that frequently appear in the titles or abstract of an article, but do not appear as the author's keywords). These two types of keywords, when used together, provide a more comprehensive analysis of the intellectual structure of a research field (Zhang et al., 2016).

VantagePoint™ and VOSviewer™ software were used to conduct the analyses. Vantage Point is a text-mining tool used in bibliometric analysis. Metadata from the focal articles were standardized using cleaning functionalities in Vantage Point. For instance, data that appears in multiple formats (e.g., cocreation and co-creation) must be identified and merged before producing any frequency-based statistics used in the co-keyword analysis. VOSviewer is a tool that allows us to build and view networks. It employs an algorithm to locate nodes (keywords) in such a way that the distance between any two nodes reflects the relationship between them. The software then assigns the nodes to clusters through a community detection process (van Eck and Waltman, 2010). In this process, each cluster of closely related keywords represents a leading thematic area within the research field. In the network, each node is assigned to only one cluster and the size of each node reflects its relevance (based on the number of connections). When interpreting the results, it is necessary to consider that many words from different clusters can be linked together, depending on the centrality they occupy in the network.

Co-keyword analysis contributed to allowing the identification of the most frequent keywords, clusters of these keywords, and connections among them, making relevant concepts explicit in the network (Zupic and Čater, 2015). It is a content analysis technique based on the assumption that authors summarize the content of their articles using a group of keywords (Zhang et al., 2016). The frequency of keywords' occurrence reflects the importance of a certain topic in a research field, and the keywords co-occurrence across articles demonstrates similarity among the articles (Dehdarirad et al., 2014). Several studies have been using this technique for these purposes (e.g., Zhang et al. 2016; Bragge et al. 2019). Co-keyword analysis has served as a first foundation for the identification and classification of the themes and topics of each CX domain. Then, this first design was complemented by the thematic analysis, which was employed to interpret the data and gain insights (Nowell et al., 2017; Braun and Clarke, 2006). In this process, two authors in the research team started the review process by individually reading the most cited articles associated with the most frequent keywords, targeting to achieve consensus on the dominant topic of each article. The coding process, which was initially based on the co-keyword, followed an iterative process, aiming to refine the interpretation of the literature through the goals of the study (Nowell et al., 2017). For example, the keyword "emotions" appeared in several papers, although it can

be employed in different contexts (e.g., customer emotions or employee emotions). Therefore, while co-keyword analysis provided a primary indication of topics and themes, it was refined based on the thematic analysis. In short, these two techniques were used in a complementary way to reveal the CX intellectual structure.

2.4 RESULTS ON CX INTELLECTUAL STRUCTURE

This section provides details on the CX intellectual structure, in order to assist scholars to understand and discuss CX literature in a structured manner. Considering that it was based primarily on co-keyword analysis, **Figure 3** provides a visualization of the network of keywords used in the CX field. The keywords that occurred at least 10 times were selected generating 90 keywords (see Appendix) that were clustered using the VOSviewer software. **Figure 3** shows that the co-keyword analysis led to the identification of four clusters, which were grouped into three research domains (described next): (i) customer (24 green and 15 yellow keywords), (ii) organizational (31 red keywords), and (iii) technological domain (20 blue keywords). From the results of the co-keyword and thematic analysis, the domains, themes, and topics within the CX intellectual structure are summarized in **Table III**.

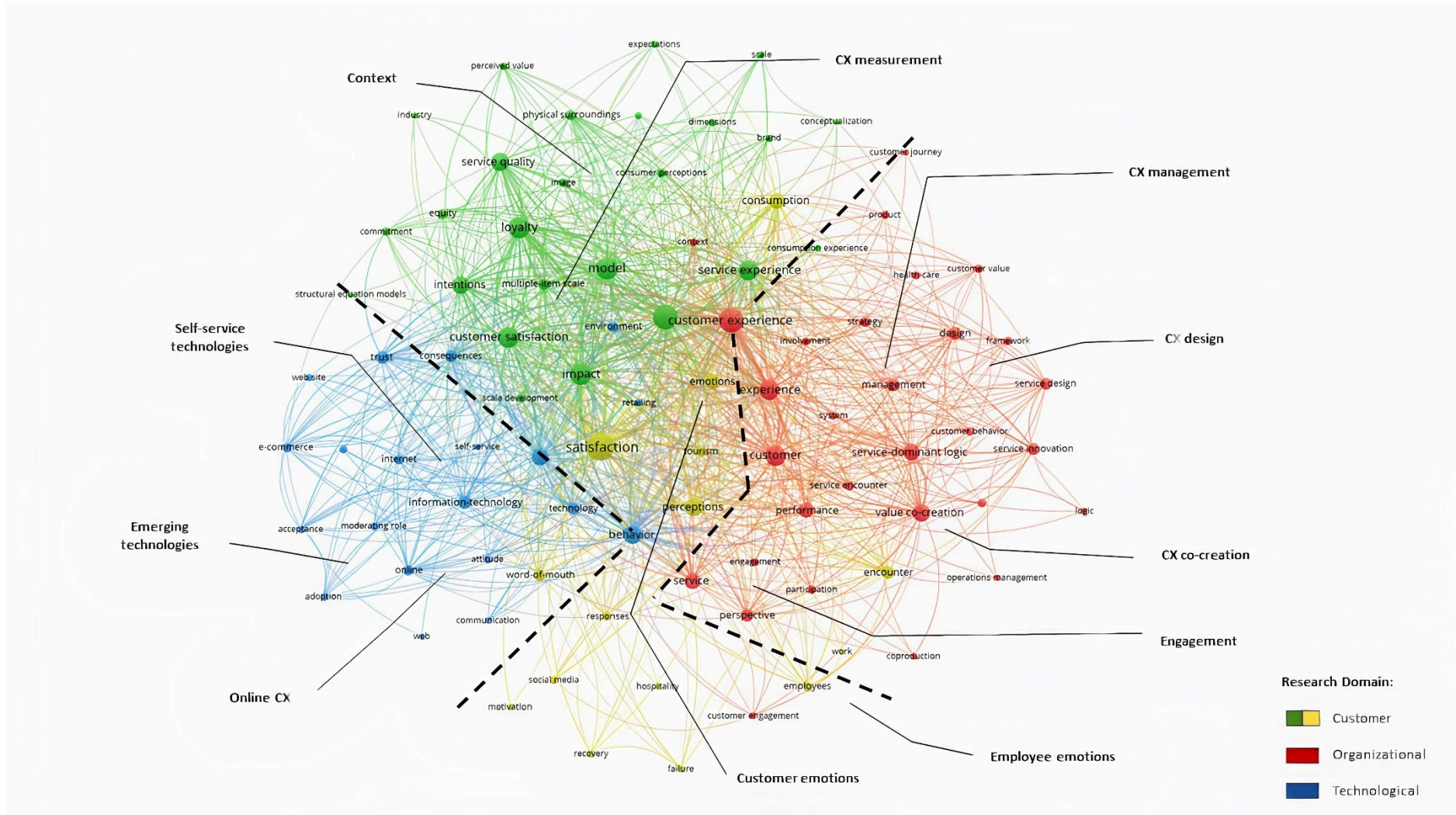


Figure 3. CX co-keyword network

Table III – CX Intellectual Structure

Domain	Keywords (occurrence)	Theme	Topic	Sample References
Customer	perceptions (79) emotions (52) responses (19)	Customer emotions	sources and consequences emotional contagion	Virabhakul and Huang (2018) Sviri <i>et al.</i> (2011) Zablah <i>et al.</i> (2017) Zomerdijsk and Voss (2010)
	employees (23) work (10) recovery (16)	Employee emotions	employee competences employee satisfaction/experience	Umasuthan <i>et al.</i> (2017) Delcourt <i>et al.</i> (2016) Bellou and Andronikidis (2017) Gazzoli <i>et al.</i> (2013)
	encounter (39) physical surroundings (28) context (17)	Context	physical context/servicescape social context	Dong and Siu (2013) Morrison <i>et al.</i> (2011) Nilsson and Ballantyne (2014) Rosenbaum and Massiah (2011)
	satisfaction (181) model (119) quality (141)	CX Measurement	CX outcomes CX models and scales	Brun <i>et al.</i> (2017) Keiningham <i>et al.</i> (2017) Bustamante and Rubio (2017) Klaus and Maklan (2012)
	management (37) strategy (28) performance (53)	CX Management	touchpoints service climate organizational culture HRM practices	Homburg <i>et al.</i> (2017) Hwang and Seo (2016) Bowen and Schneider (2014) Chang (2016) Kandampully <i>et al.</i> (2018) Homburg <i>et al.</i> (2017) Homburg <i>et al.</i> (2017) Gazzoli <i>et al.</i> (2013)
Organizational	design (40) service innovation (35) service design (33)	CX Design	customer journey CX design tools	Følstad and Kvale (2018) Zomerdijsk and Voss (2010) Teixeira <i>et al.</i> (2012) Patrício <i>et al.</i> (2011)
	value co-creation (73) system (16) coproduction (10)	CX Co-creation	value co-creation service ecosystem	Jaakkola <i>et al.</i> (2015) Vargo and Lusch (2004) Carù and Cova (2015) Akaka and Vargo (2014)
	participation (20) involvement (16) customer engagement (14)	Engagement	customer engagement employee engagement actor engagement	Heinonen (2018) Brodie <i>et al.</i> (2011) Chang (2016) Sony and Mekoth (2016) Li <i>et al.</i> (2017) Jaakkola and Alexander (2014)
Technological	information-technology (43) technology (36) online (28)	Online CX	websites mobile virtual communities/social media	Kang and Lee (2018) Bilgihan <i>et al.</i> (2015) McLean <i>et al.</i> (2018) Wozniak <i>et al.</i> (2018) Sorensen <i>et al.</i> (2017) Zhang <i>et al.</i> (2017)
	customer behavior (16) acceptance (15) self-service (11)	Self-service technologies	customer acceptance customer value perception	Demoulin and Djelassi (2016) Lin and Chang (2011) Kelly <i>et al.</i> (2017) Akeson <i>et al.</i> (2014)
	attitude (16) adoption (15) user acceptance (15)	Emerging digital technologies	service technology infusion organizational/ customer support	Breidbach <i>et al.</i> (2018) Larivière <i>et al.</i> (2017) Balaji and Roy (2017) McLean and Wilson (2016)

2.4.1 CUSTOMER DOMAIN

Customer domain comprises two clusters represented in **Figure 3** by the colours green – most frequent keywords are quality (141), model (119), and loyalty (111) – and yellow – satisfaction (181), perceptions (79), and consumption (60). These keywords indicate the influence of the service quality and customer satisfaction literature on this domain, which is supported by other studies that have pointed out them as traditional roots of the CX field (Silva et al., 2020; Lemon and Verhoef, 2016). As in these traditions, this domain represents the core of the service experience and it comprises studies focused on relating customers' perceptions of the service with behavioural consequences such as loyalty, especially through models linking these variables. Four main research themes were identified in this domain: (i) customer emotions; (ii) employee emotions; (iii) context (e.g., physical surroundings); and (iv) outcomes/measurement (e.g., satisfaction, loyalty, and word-of-mouth).

Customer emotions is one of the most frequent themes. In fact, since the seminal works, the emotional side of consumption is a distinctive feature of the CX concept, which differentiates it from others such as service quality (Pine and Gilmore, 1998; Holbrook and Hirschman, 1982). In general, studies have focused on topics as sources and effects of customer emotions, demonstrating that positive emotions such as joy, relaxation, security, friendship, and respect positively affect the perceived value and customer satisfaction during the experience, which results in greater loyalty (Virabhakul and Huang, 2018) and positive word-of-mouth (Dedeoglu et al., 2018). On the other hand, when the customer experiences negative emotions (such as shame, guilt, sadness, loneliness, irritation, discouragement, and frustration), the opposite is also true, implying that managers should constantly investigate the different sources of such emotions for better service recovery (Svari et al., 2011). Another research topic is emotional contagion, which occurs when customers are either directly or indirectly influenced by the emotions of other customers and/or employees (Kandampully et al., 2018; Zablah et al., 2017; Zomerdijk and Voss, 2010). Therefore, the importance of social interactions in customer emotions has been more recognized over time, which is particularly relevant in a current context where technologies have increasingly mediated or even replaced these interactions, as well as expanding how emotions can be adequately captured to provide academic and managerial insights. Based on this understanding, we provide the following proposition:

Proposition 1a: Customer emotions directly impact the CX and can act as a filter in the relationship between the offering-related stimuli that affect the customer and the CX.

Employee emotions appear as another investigated theme, reflecting the interest in understanding how employees' perceptions, feelings, and attitudes, especially from those at the service frontline, affect the CX (e.g., Umasuthan et al., 2017; Bowen, 2016; Delcourt et al. 2016). Studies have suggested that employees' social competences impact a wide range of customer and organizational outcomes. For instance, Delcourt et al. (2016) discuss employees' competences in perceiving, understanding, and regulating customer emotions during service encounters. Umasuthan et al. (2017) found that frontline employees' empathy impacts directly on customers' emotions. Thus, as a result of planned processes, service organizations should provide conditions for employees to transmit positive emotions during encounters and/or suppress negative emotions. In this sense, employee satisfaction appears as a key antecedent for employee responses, under the main assumption that, if employees are more satisfied, customers will get better services (Bellou and Andronikidis, 2017; Sony and Mekoth, 2016). More recently, research on employee emotions has evolved towards the concept of employee experience. Employee experience represents a holistic concept that helps organizations to recognize employees' feelings and perceptions, and consequently implementing better workplace practices, which results in greater CXs. From these considerations, we propose:

Proposition 1b: Employee emotions and, consequently, the employee experience, can affect CX, especially of those in the service frontline who are in direct interaction with the customer and therefore act as a key element in the process of emotional contagion.

Context is another widely explored theme, which reflects the interest in the physical and social environment where CXs are developed. Many studies have focused on the physical context (e.g., organizational physical design, signage, decoration, music, scent, and atmosphere), demonstrating that customers respond cognitively, emotionally, and physiologically to the physical environment stimuli, therefore influencing customer behaviours and attitudes such as coming in, staying, spending money, and loyalty (e.g.,

Dedeoglu et al., 2018; Dong and Siu, 2013; Morrison et al., 2011). The servicescape means the physical setting in which a service is performed, delivered, and consumed (Bitner, 1992). Interestingly, Arnould et al. (1993) complement the servicescape by adding that substantive (functional clues) and communicative (human clues) staging at the servicescape also influence customer emotions. Over the years, several studies have investigated the servicescape elements that trigger sensory effects (Dedeoglu et al., 2018; Dong and Siu, 2013; Morrison et al., 2011). Another interesting view in this CX theme involves social interactions between both customers and employees and among customers since such interactions affect the overall service environment (Nilsson and Ballantyne, 2014; Pareigis et al., 2012). In this regard, the service-dominant logic lens conceptualizes the servicescape not as a resource but as the context in which CX is co-created with other actors, for instance, employees and other stakeholders (Nilsson and Ballantyne, 2014; Pareigis et al., 2012). Thus, the context comprises not only objective stimuli but also social, symbolic, and natural stimuli that influence customer decisions and social interactions (Rosenbaum and Massiah, 2011). Advancing in the interpretation of the context, De Keyser et al. (2020) classified the CX context into four types: (i) individual context (emotional, cognitive, normative, physical, and economic factors); (ii) social context (social rules and norms); (iii) market context (comprising the market actors with whom the customer interacts); and (iv) environmental context (natural, economical and public factors). As such, research has evolved towards a richer and more comprehensive view of context that extends beyond the traditional physical servicescape. Thus, we posit:

Proposition 1c: The service context affects CX across several dimensions such as subjective, organizational, physical, social, cultural, environmental, and technological.

CX measurement emerges from the analysis as another frequent theme. In fact, the understanding of the customers' view on their experience is crucial to managing CX, and it has been related to CX outcomes such as trust, loyalty, positive word-of-mouth, and long-term customer-brand relationships, which ultimately represent one of the main strategic objectives of the firms (Brun et al., 2017; Lemon and Verhoef, 2016). Over the years, studies have proposed specific models and scales to properly assess the CX, since traditional service quality scales (e.g., SERVQUAL or SERVPERF) have received criticism, as they provide limited support for assessing the emotional aspects of CXs (Bueno et al., 2019; Kashif et al., 2016). In general,

these specific models and scales link antecedent and consequent dimensions of CX and are validated through surveys and statistical tests in different sectors. They are more abundant in marketing (e.g., Nguyen et al., 2015); hospitality/tourism (e.g., Khan and Rahman, 2017); and service literature (e.g., Bustamante and Rubio, 2017; Klaus and Maklan, 2012). Nevertheless, these scales have also been questioned regarding their effectiveness, under the argument that these metrics do not capture the complete CX, while, in corporate practice, customer satisfaction or single-item measure like the “Net Promoter Score” (Reichheld, 2003) are often used as a proxy to measure CX (Jain et al., 2017; Lemon and Verhoef, 2016). Hence, this topic is not fully developed, and such models and scales are still being evaluated and reviewed for their internal and external validity. Furthermore, how to properly capture the CX from a customer perspective is not a consensual issue in the literature. Then, we postulate:

Proposition 1d: CX measurement involves subjective elements that cannot be easily or fully measured, as such it should focus primarily on taking the customer perspective and monitoring the evaluative antecedents and outcomes of CX.

Lastly, CX also affects other specific brand-related outcomes such as brand engagement, brand equity, and purchase decision (Brakus et al., 2009; Brun et al., 2017). Thus, in a long-term perspective, CX contributes to developing the customer’s positive CX perceptions via all possible touchpoints in different realms (e.g., digital, social, and physical) and it is now accepted as a key driver for brand differentiation (Khan and Rahman, 2017; Bolton et al., 2018; Bueno et al., 2019).

Proposition 1e: Managing the CX across the three realms (digital, social, and physical) enhances customer-brand engagement.

2.4.2 ORGANIZATIONAL DOMAIN

The organizational domain comprises the red cluster in **Figure 3**. Among the most frequent keywords are value co-creation (73), performance (53), design (40), and management (37). Despite the organizational issues are often pointed out as a priority by CX researchers and practitioners, studies from different disciplines (e.g., marketing, management, service, and hospitality) have focused mainly on the customer domain. However, this organizational

domain differs from the first one since it encompasses a set of organizational actions to create and manage the experiences across one or more service encounters (Kranzbühler et al., 2018). In this sense, four main research themes were identified: (i) CX management; (ii) CX design; (iii) CX co-creation; and (iv) actors' engagement.

Firstly, CX management emerges as a relevant research theme. In general, studies refer to strategies, processes, and actions that companies implement to monitor and organize the touchpoints, i.e., customer-organization interactions across the customer journey, which serve a purpose such as a search, payment, and service delivery (Homburg et al., 2017; Hwang and Seo, 2016). Nevertheless, CX management is not a simple task (Kandampully et al., 2018) and it involves touchpoints that are not under the total control of organizations (Jain et al., 2017; Lemon and Verhoef, 2016). Thus, studies have focused mainly on topics over which companies have certain control. An instance would be the creation of an appropriate service climate, which means the subjective perception of organizational support that employees receive from the company toward a customer-focused or service-minded orientation (Kandampully et al., 2018; Chang, 2016; Bowen and Schneider, 2014). Another connected topic is the development of a cultural mindset or organizational culture focused on CX, which should include (Homburg et al., 2017): (i) an experiential response orientation; (ii) a touchpoint journey orientation; and (iii) an alliance orientation. The development of a customer-centric service climate and culture demand changes in the human resource management (HRM) practices such as employee recruitment, training, and reward system (Gazzoli et al., 2013). Moreover, there is an interest in improving capabilities related to the effective use of market data through the design, prioritization, monitoring, and proactive adaptation of CXs (Homburg et al., 2017). As such, CX management is not only encompassing increasingly complex customer journeys but also going deeper into the organization and including the organizational mindset and HRM practices. From these considerations, we theorize:

Proposition 2a: CX management can improve CX by focusing on touchpoints that are under the control of the organization but also by monitoring and responding to those that cannot be fully controlled.

CX design is another frequent theme in CX research. Since the 2000s, studies have presented specific CX design tools with the main goal of guiding organizations in the creation of an emotional connection with customers, through careful planning of tangible and intangible service elements such as touchpoints, customer journeys, employee roles, processes, and technologies (e.g., Trischler et al., 2018; Teixeira et al., 2017, 2012; Patrício et al., 2011; Zomerdijk and Voss, 2010). One of the bases of CX design is the service design, which is a creative, human-centred, and iterative approach to service innovation (Patricio et al., 2018; Wetter-Edman et al., 2014). Indeed, service design methods such as the blueprinting technique, experience clue management, critical incident technique, and servicescape design have provided insights to guide designers in creating the intended CX (Johnston and Kong, 2011; Bitner et al., 2008; Berry et al., 2006). However, these methods focus mainly on dyadic customer-organization exchanges and do not sufficiently consider other aspects of customer-led value co-creation (Jaakkola et al., 2015). Thus, the design has offered novel approaches to dealing with the CX in a holistic way such as personas, observations, and collaborative service mapping which merges methods from different design fields (Trischler et al., 2018). In this way, designing a CX requires a multilevel approach that goes beyond the prompt service delivery system and considers how customers co-create value in a systemic and complex context that includes social and cultural issues, technologies, and other influential actors (Ponsignon et al., 2017; Beltagui et al., 2016; Teixeira et al., 2012; Patrício et al. 2011). Teixeira et al. (2017) point the influence of two main perspectives in service design. The management perspective recognizes innovation as the outcome of a structured process (e.g., service blueprints and customer journeys) or network structure (e.g., value constellation). The interaction perspective foresees that innovation involves the environment, the engagement between actors and technologies, and the service atmosphere (Teixeira et al., 2017). Accordingly, CX design studies are developing increasingly more complex tools to deal with these procedural and interactional elements in designing the CX, covering a holistic view that includes a dynamic (customer journey), multilevel (co-creation), and omnichannel perspective (Trischler et al., 2018; Beltagui et al., 2016). In addition, more recently the design management literature has also investigated how the design approach can facilitate organizations to achieve a strategic direction focused on the CX, considering barriers and opportunities for its effective implementation (e.g., Frishberg and Convertino, 2020; Schanz and Lille, 2018). Thus, we posit:

Proposition 2b: CX design allows organizations to define the intended CX and guides the CX management. Therefore, design tools capable of covering the CX holistically should produce better CX results.

CX co-creation is a research theme that reflects studies grounded on service-dominant logic (Vargo and Lusch, 2004), which have dealt with the co-creative nature of CX (e.g., Carù and Cova, 2015; Jaakkola et al., 2015). It relates directly to value co-creation since both are circular and interrelated phenomena (Chandler and Lusch, 2015; Jaakkola et al., 2015). CX co-creation is based on the fundamental premise that customer is not a passive subject of their experience, and, more yet the CX occurs through the interaction among several actors inside or outside the service environment, which influence the customer subjective response (Jaakkola et al., 2015; Vargo and Akaka, 2012). In this view, experiences are co-created by multiple stakeholders (such as customers, employees, other customers, financial providers, and technological suppliers) within highly complex and dynamic service ecosystems, connected by several processes and technologies (Akaka and Vargo, 2015; Chandler and Lusch, 2015). In general, while the first studies focused on the customer as a co-creator of experiences, a more systemic vision that integrates multiple actors has been incorporated over time. Then, we postulate:

Proposition 2c: CX is co-created by the customer together with other actors within a service ecosystem, and the organization can assume the role of coordinator of the network of stakeholders by strategically influencing the performance of the multiple actors involved, although part of them is beyond the control of organizations.

Lastly, engagement emerges as another theme, which refers to the level of proactive involvement of the multiple actors who co-create CX (Li et al., 2017; Jaakkola and Alexander, 2014). The literature indicates the emergence of several engagement sub-forms. Customer engagement refers to the customer's behavioural positive manifestation towards the brand, product, or firm, which results from motivational drivers (Heinonen, 2018; Brodie et al., 2011). Studies have recognized that, by promoting strong customer engagement, companies can enhance the CX from a basic level (just creating great experiences for customers) to more

complex levels, i.e., establishing an emotional and powerful brand-customer connection, which results in more positive customer loyalty and corporate performance (Heinonen, 2018; Pansari and Kumar, 2017). Employee engagement refers to the feelings of satisfaction, responsibility for, and commitment of the employees to the brand performance domain, so that performance matters to the individual (Bellou and Andronikidis, 2017; Chang, 2016; Sony and Mekoth, 2016). Indeed, research has demonstrated that employee engagement is essential for positive CXs (Gazzoli et al., 2013; Britt et al., 2005). Actor engagement is a more recent topic, which extends the concept of engagement to all the actors within the service-ecosystem, including suppliers, partners, government, and even nonhumans (such as service robots), who co-create CX (Brodie et al., 2019; Li et al., 2017; Jaakkola and Alexander, 2014).

Ultimately, customer brand engagement can be considered as a final goal for many organizations. This concept refers to the level of an individual customer's motivational, brand-related and context-dependent state of mind characterized by specific levels of cognitive, emotional, and behavioural activity in brand interactions (Hollebeek et al., 2014). It is a result of a series of interactions occurred between the brand and the customers that leads primarily towards a cognitive or emotional (passionate) form of customer-brand engagement (Hollebeek et al., 2014). In this sense, several studies have been dedicated to investigating in detail the brand-related stimuli on the CX and its consequences, recognizing these brand stimuli as a major source of the subjective customer responses (sensations, feelings, and cognitions) and often referring to CX in a brand context as "brand experience" (e.g., Brakus et al., 2009; Schmitt, 2009). Therefore, organizations must focus on proposing a superior CX to fulfil the organization's brand experience and, hence, strengthening the positive customer behavioural attitudes towards the brand engagement and long-term customer-organization relationships (Seo et al., 2017). At this level, embedding experience as an entire organization can support different types of engagements. As such, CX engagement literature has evolved from a customer view, encompassing employee engagement, and then expanding towards the engagement of all the actors to promote a brand experience in a service ecosystem, giving rise to the following propositions:

Proposition 2d: The level of engagement of the multiple actors within a service ecosystem largely affects the CX.

Proposition 2e: The organization must focus on proposing a superior CX to fulfil the organization's brand experience and, hence, strengthening the brand engagement and long-term customer-organization relationships.

2.4.3 TECHNOLOGICAL DOMAIN

New information and communication technologies (ICTs) are continually transforming service organizations, by facilitating processes, personalizing experiences, improving service recovery, and spontaneously delighting customers throughout their journey (Kunz et al., 2019; Breidbach et al., 2018). Complementing other reviews (e.g., Becker and Jaakkola, 2020; Kranzbühler et al., 2018), this study identifies and emphasizes an interesting and growing connection between technology and CX research, represented by the 'technological domain', which comprises the blue cluster in **Figure 3** and whose most frequent keywords are: behaviour (82), antecedents (68), information-technology (43), trust (40), and technology (36).

Online CX emerges as one of the most frequent themes. Indeed, online servicescape and platforms (e.g., websites, apps, and social media) have become the primary service delivery channel for an increasing number of companies since the emergence of the Internet as both distribution and communication channel has created opportunities for a variety of online customer-organization interactions (Zhang et al., 2017; Bilgihan et al., 2016; Rose et al., 2011). Therefore, studies have dealt with the quality of website services, identifying a variety of factors that result in better customer acceptance, effective performance, and customer outcomes such as satisfaction and loyalty (Kang and Lee, 2018; Rose et al., 2011). Studies have focused on factors such as digital design (Reydet and Carsana, 2017); hedonic and utilitarian features (Bilgihan et al., 2015); wait time (McLean and Wilson, 2016); and customer support (McLean and Osei-Frimpong, 2017). In special, the quality of mobile services in driving effective CX has called the attention since mobile has characteristics that set it apart from websites, such as more interaction with other channels and more easy access in terms of time and place (McLean et al., 2018; Wozniak et al., 2018). Moreover, utilitarian and hedonic factors (Boakye et al., 2018; McLean et al., 2018); mobility (Boakye, 2015); and interactivity (Cano et al., 2017) have been addressed. In addition, as organizations and customers increasingly use digital ways to interact, a research stream has emerged to investigate how

the coexistence of multiple (online and offline) channels impacts the customer behaviour towards these channels, as well as what are the implications for the CX, service design, and management of multichannel systems (e.g., Brun et al., 2017; Banerjee, 2014; Sousa and Voss, 2006; Neslin et al., 2006). Since multichannel systems (i.e., service systems that combine digital and physical channels – Sousa and Voss, 2006) provide singular interactions choices for the customers, they can facilitate superior CXs by enhancing the value-in-use that customers seek from specific interactions along the customer journey - for instance, seeking information, making a purchase, or making a complaint about the delivery of a product are interactions of a different nature (Barwitz and Maas, 2018; Kumar and Venkatesan, 2005). However, it depends not only on the cross-channel synergy and channel integration quality but also on the type of customer and the circumstances of the interaction either at the touchpoint level or throughout the customer journey (Barwitz and Maas, 2018; Banerjee, 2014; Neslin et al., 2006). Therefore, studies have sought to identify the determinants of customer choice in multichannel journeys and segmenting customers to better accommodate the desired CX within and across channels (e.g., Barwitz and Maas, 2018; Verhoef et al., 2015; Banerjee, 2014; Neslim et al., 2006; Kumar and Venkatesan, 2005). More recently, the related concept of omnichannel has emerged to refer to integrated processes and decisions that support a unified view of the customer journey and consequently seamless CX, regardless of the channel in which the interaction occurs (e.g., in-store, online, mobile, call-centre, interactive TV, or social media) (Barwitz and Maas, 2018; Verhoef et al., 2015). Lastly, connectivity has created opportunities to strengthen virtual customer-to-customer interactions, as well as actors' engagement with the brand (Eigenraam et al., 2018; Zhang et al., 2017; Chow and Shi, 2015). Thus, virtual communities and social media appear as appropriate platforms for enhancing the efficiency and effectiveness of social interactions, providing customers and other actors with pleasure, feeling of belonging, and affective commitment, encouraging their brand engagement and positive word-of-mouth communication (Eigenraam et al., 2018; Sorensen et al., 2017; Zhang et al., 2017). From these considerations, we postulate:

Proposition 3a: Online CX takes place in virtual environments and depends on the quality of digital technologies, the appropriate use of technologies, the degree of integration of physical and digital channels, and social factors. Therefore, online CX is a key driver of CX in multichannel and omnichannel service systems.

Self-service technologies (SSTs) are another important theme in this domain. Early examples of SSTs include ATMs, check-in kiosks, and automated telephone menus. However, from recent advances in the fields of artificial intelligence and robotics, SSTs may also encompass chatbots (virtual conversational agents) and robots to perform services without immediate direction from people, expanding traditional notions about the concept (Kelly et al., 2017). Previous authors add that SSTs allow customers to personalize experiences, increases service options, and expands their interactions with organizations, helping service providers to increase operational efficiency and engagement in a more creative way (Kelly et al., 2017). Earlier assumptions emphasized that SSTs would replace the customer-employee by customer-technology interactions, which means that customers are the only humans involved in the experience (Meuter et al., 2003; Bitner et al., 2002). Nevertheless, in the service-dominant logic perspective, customers use SSTs to co-create value and self-customize their experiences, creating feelings of independence/enjoyment, which stems from the control over transactions and the perception of saving time and money (Kelly et al., 2017). In the CX literature, studies involving SSTs include the investigation of factors that affects customer acceptance, attitudes, and outcomes regarding these technologies, mainly for novel SSTs (Demoulin and Djelassi, 2016; Lin and Chang, 2011). Other research topics deal with the value perception and co-creation regarding SSTs (Kelly et al., 2017; Åkesson et al., 2014) and, how SSTs influence the overall CX (Collier et al., 2017). Then, we posit:

Proposition 3b: Self-service technologies influence the CX, according to the degree of acceptance, attitudes, results, and perception of value by the customer.

The last theme, but connected to the other two, deals with emerging digital technologies. Currently, the organizational frontline is facing an unprecedented evolution since technology becomes increasingly dominant in the service environment (De Keyser et al., 2019; Kunz et al., 2019). The concept of “service encounter 2.0” has recently emerged encompassing customer interactions that result from a service system comprised of interrelated technologies, human actors (employees and customers), physical/digital environments, and company/customer processes (Larivière et al., 2017). In this context, smart technologies play three fundamental roles (Larivière et al., 2017; Bowen, 2016): augmenting service employees, substituting service

employees, and network facilitating. Thus, considering these roles, more recent studies have focused on the implications on CX arising from the use of new technologies, such as artificial intelligence and service robots (Wirtz et al., 2018), investigating customer emotions and behavioural consequences. For instance, people are increasingly interacting with automated social presences both in the virtual environment (e.g., using AI-based virtual assistants, such as Siri or Alexa) and in the physical (e.g., when they are served by robots in restaurants and hotels). Therefore, researchers have especially investigated the “uncanny valley”, a term that refers to the feeling of discomfort associated with an incompatibility between an individual's expectations and the behaviour/appearance of a robot (Bolton et al., 2018; Van Doorn et al., 2017). Other studies have dealt with the organizational support by emerging technologies, including big data (Lim et al., 2018), internet of things (Balaji and Roy, 2017), and augmented reality (Hilken et al., 2017), by focusing on how these technologies can enhance the service delivery, the CX measurement, and CX management in different stages of the customer journey (Hoyer et al., 2020). Then, we theorize:

Proposition 3c: Emerging digital technologies can impact CX by (i) facilitating service processes for customers, organizations, and other actors involved in the CX-cocreation, as well as (ii) through customer emotions.

2.5 CONCEPTUAL FRAMEWORK

We developed the conceptual framework shown in **Figure 4** to summarize and integrate the findings of the literature analysis. Although the research domains are represented in different clusters in the CX intellectual structure (**Figure 3**), the CX domains and themes have not evolved in isolation, since there are many connections among them. Thus, this framework provides an overview of the CX domains and themes. Furthermore, it conceptually illustrates these relationships among them.

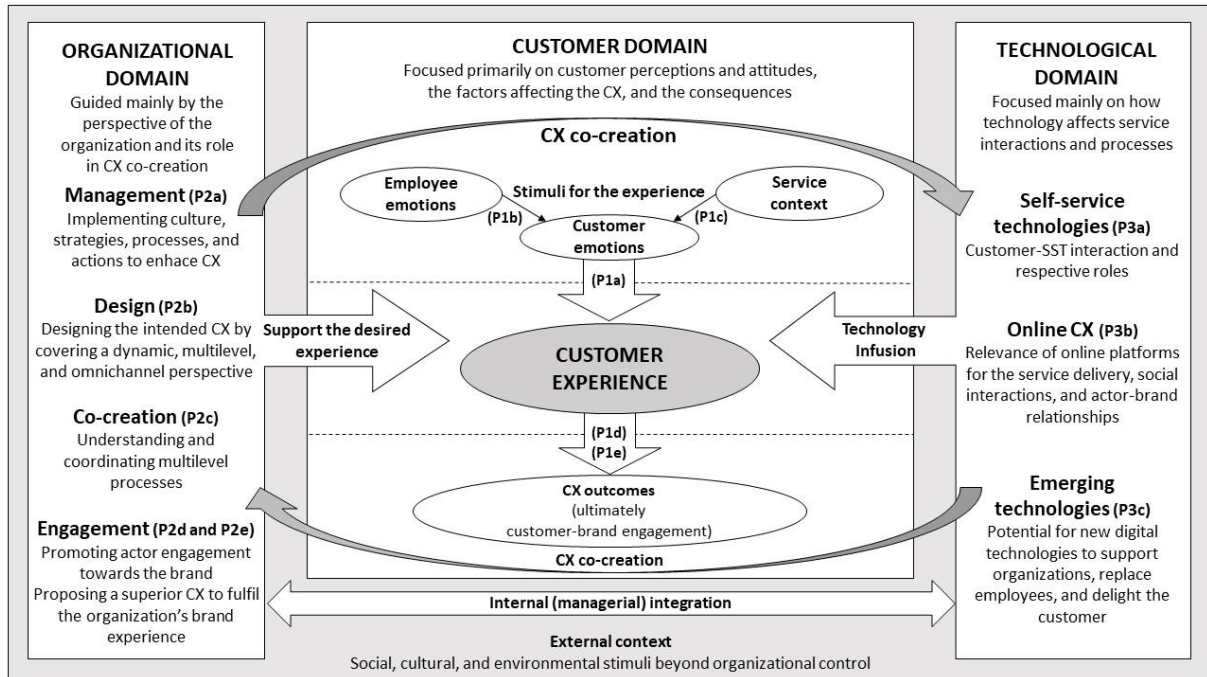


Figure 4. CX conceptual framework

At the core of the framework, the customer experience results from multiple stimuli arising from the three CX domains (customer, organizational, and technological), which are integrated by the CX co-creation process. It is represented at the base of the model as a circular process (grey arrow) in which all related domains produce effects on each other, constituting a feedback loop. The customer experience is also influenced by the external context, represented by the grey background that surrounds the three domains, and consequently produces stimuli in the CX, as labelled at the bottom of the framework.

From the customer domain, CX receives stimuli from the customer-employee interactions and the service context in its physical aspects (e.g., environment decoration, sounds, smells, etc.) and social (e.g., interaction among different customers). They affect the customer emotions, which act both as a filter for the stimuli and a customer subjective factor that impacts their own experience. This process results in consequences (CX outcomes) that can be measurable by the organizations such as customer satisfaction, loyalty, and word-of-mouth. From the organizational domain, organizations are responsible for support the desired experience, coordinating and monitoring the strategies and processes that impact different actors and stimuli that affect CX. Although the organizations do not have full control over CX, the organizations can plan and design the intended CX, thereby proposing value for the

customer. Additionally, organizations should continually analyze the network of the different processes and actors that configure the CX co-creation, as well as looking for ways to maximize actor engagement through communication strategies. From the technological domain, the technology infusion impacts the CX, by supporting managerial actions, delighting the customers, and facilitating the processes of social interaction. The relationship between the organizational and technological domains is represented by the process of internal integration of the service technologies, i.e., when their use is exclusively to support the organization's internal practices (Kunz et al., 2019). Due to the increasing use of information and communication technologies by customers and organizations, the technological dimension has gained more relevance in the evolution of the CX concept, and hence in the CX research.

Finally, each domain represented in this model is associated with specific research propositions, which collectively synthesize the intellectual structure of CX and provide guidelines for future research. Based on the conceptual framework (**Figure 4**) and CX intellectual structure (**Table III**), this study identifies several research opportunities that have recently emerged and gained prominence, mainly in the interplay among the research domains, as will be presented in the following section.

2.6 FUTURE RESEARCH AGENDA

If in the past scholars have looked at the CX domains predominantly in a separate way, nowadays it is necessary to understand how these domains come together to create great CX and how to design services accordingly. Bolton et al. (2018) have already recognized that the digital, physical, and social realms would become blurred and blended into holistic CX, bringing new challenges to service organizations. For instance, dynamic capabilities, changes in the service culture, new roles for customers and employees, and the development of an ecosystem for providing services (Bolton et al., 2018). Other studies also reinforce this convergence (e.g., Kunz et al., 2019; Lemon and Verhoef, 2016; Lu et al. 2020). In this context, this section presents future research opportunities identified in this work by taking a closer look at the research gaps mentioned by recent papers (thematic analysis). **Table IV** shows future opportunities that are promising for advance the research in each domain, but considering an integrative view among them, especially from the perspective that the technological domain can connect the others.

Table IV – Future Research Opportunities

Domain	Theme and propositions	Sample Research Questions	References
Customer	Customer emotions (P1a)	How to properly capture and measure customers' emotions? How mobile and new technologies (such as wearables) can assist in this purpose? What reasons and circumstances can lead the customers to overestimate their own emotions or the service performance outcomes? How can neuroscience tools (such as sensors on the forehead and shoulder) assist to understand customer emotions? Could using neuroscientific tools to investigate customer emotions decrease the validity of the investigation since customers might feel uncomfortable during the experiment?	McColl-Kennedy <i>et al.</i> (2019); Virabhakul and Huang (2018); Verhulst <i>et al.</i> (2020)
	Employee emotions (P1b)	How to properly represent the emotional dynamics that involve emotional interactions between customers and organizations? How the new employee roles resulting from technological advances can affect the CX? If frontline employees are largely responsible for emotional contagion to the customer, what kind of autonomy should the frontline employee be granted? Is it possible for emotional contagion to occur at the team level, with the frontline employee team and the customers?	Katz-Navon <i>et al.</i> (2019); De Keyser <i>et al.</i> (2019); Zablah <i>et al.</i> (2017)
	Context (P1c)	How to quantify the impacts of the context (social, cultural, physical, technological) on CX? How contextual factors that are less controllable by organizations (such as natural contingencies) affect the CX? How virtual service environments impact CX? What social and cultural factors does CX frame? How multiple institutions converge and diverge and how CX can emerge through the intersections of these structures? How interconnected systems of symbols, services, and technologies relate, and how they affect the CX?	Roy <i>et al.</i> (2019); Edvardsson <i>et al.</i> (2018); Akaka <i>et al.</i> (2015)
	CX Measurement (P1d and P1e)	How to develop CX measurement, considering a multi-method approach (e.g., narrative data collection), emerging techniques (e.g., neuroscience, social media tracking, real-time analytics), and new technologies (e.g., smart technologies and facial recognition)? How to qualitatively and quantitatively identify perceptions that constitute the CX in different socio-cultural environments? How digital customer brand engagement practices change over time?	Eigenraam <i>et al.</i> (2018); Stein <i>et al.</i> (2019); Verhulst <i>et al.</i> (2019); Kashif <i>et al.</i> (2016)
Organizational	CX Management (P2a)	How to properly measure and manage CX from an internal perspective of the organization? How to monitor and manage CX at different levels of aggregation (e.g., at the touchpoint and customer journey-level)? How can organizations recognize and affect touchpoints outside their control? How can new digital technologies support CX management? How to properly create and develop an internal culture focused on CX? How to properly represent CX-driven business model innovation? What variations exist between CX management in a B2C and B2B settings?	Sahhar <i>et al.</i> , (2021); Ponsignon <i>et al.</i> (2020); Keiningham <i>et al.</i> (2019); Lemon and Verhoef (2016)
	CX Design (P2b)	How can design methods help to conduct a holistic analysis of CX? How methodological approaches such as design science research can be useful for CX design? How to properly represent the customer journey at different levels of aggregation (e.g., touchpoints, customer journey, and consumer journey-level)? How do customer journeys unfold in new contexts, such as the sharing economy, wherein companies have far less control over touchpoints?	Siebert <i>et al.</i> (2020); Teixeira <i>et al.</i> (2019); Trichler <i>et al.</i> (2018)

	CX Co-creation (P2c)	How the increasing use of smart technologies impacts CX co-creation? How to properly manage CX co-creation processes within complex and smart service-ecosystems? How does the cultural and symbolic context affect the CX co-creation? How to strategically align the multiple actors around a purpose focused on improving CX, considering that part of them is beyond the organizational control?	Leroi-Werelds (2019); Roy <i>et al.</i> (2019); Akaka <i>et al.</i> (2015)
	Engagement (P2d and P2e)	How to manage processes and technologies to enhance the engagement of all actors within the service network to support better CXs? How the emergence of a collaborative and digital economy allows for the enhancement of the actors' brand engagement? How can engagement be stimulated by organizations considering that there are generational, cultural, and social differences between the actors? How can use gamification assist to engage customers and other stakeholders towards better CX?	Koskela-Huotari and Siltaloppi (2020); Brodie <i>et al.</i> (2019); Leclercq <i>et al.</i> (2018)
Technological	Online CX (P3a)	How to learn more about customers and continue to improve the development of meaningful omnichannel CX? How can organizations integrate the digital, physical, and social dimensions of CX? How small and medium-sized organizations could make the transition towards omnichannel customer journeys? How can organizations properly use digital social media to engage actors and as a data source to monitor and manage CX?	Shi <i>et al.</i> , (2020); Breidbach <i>et al.</i> (2018); Bolton <i>et al.</i> (2018)
	Self-service technologies (P3b)	In what ways does SST contribute to the co-creation of value in service settings? What is the short-term and long-term effect of SST usage on CX? How does SST impact customer loyalty and switching behaviors? What roles do customers play in SST encounters? How service providers can plan and monitor the customer's role in SST? What impacts do social factors have on SST acceptance and use?	Gummerus <i>et al.</i> (2019); Shin and Perdue (2019); Kelly <i>et al.</i> (2017)
	Emerging technologies (P3c)	What factors affect customer acceptance of emerging technologies that mimic human behavior, such as artificial intelligence and service robots, and what emotions are involved in this type of interaction? How emerging technologies (e.g., blockchain, 5G internet, 3D printing, and drones) can support CX measurement and management? To what extent can emerging technologies enchant or repel customers and, consequently, affect CX? How do factors related to data security and privacy affect CX in contexts of increasing technological innovation?	Lu <i>et al.</i> (2020); Lim <i>et al.</i> (2018); Larivière <i>et al.</i> (2018)

2.6.1 CUSTOMER DOMAIN: FUTURE OPPORTUNITIES

Regarding customer emotions, researchers increasingly recognize the challenge of how to properly capture emotions across the customer journey since they are processed subjectively (McCull-Kennedy et al., 2019; Virabhakul and Huang, 2018). Therefore, further research is needed aiming to investigate methods and techniques for assessing customer emotions. In this concern, the use of current and new technologies such as smartphones and wearables could assist in that assessment. In addition, studies should also include experiences that are partially or fully mediated by digital and smart technologies (Breidbach et al., 2018; Larivière et al., 2017). For instance, chatbots and virtual assistants can execute and enhance several tasks in customer journeys (Bolton et al., 2018). Consequently, these technologies have an impact on customers' emotions, as well as on what service organizations should do with the least possible emotional loss for the customers (Breidbach et al., 2018; Larivière et al., 2017). Thus, future research should deal with the customers' emotional impacts of using new digital technologies.

Concerning employee emotions, a research challenge that arises is the investigation of the dynamics involved in the customer-employee interactions, since employee emotions, attitudes, and behaviours can dynamically change as a result of customer behaviours, attitudes, and emotions, and vice versa (Katz-Navon et al., 2019). Besides, new digital technologies can either increase employee services or replace them, depending on the context, and this can have emotional consequences for employees and, consequently, for the customers (De Keyser et al., 2019; Kunz et al., 2019). For instance, recent studies have investigated the role of service employees in face of the possibility of them being replaced by SSTs or service robots (e.g., Lu et al., 2020; Wirtz et al., 2018). In this context, employees may take new roles as (i) enablers by helping both customers and technology to perform their respective roles; (ii) innovators since human capital remains a non-substitutable source of creativity; and (iii) coordinators, acting as a resource integrator who selects and brings together various related parties in the service encounter, including new technologies (Larivière et al., 2017; Bowen, 2016). Thus, the multiple roles of service employees face this new technological context might transform the CX nature, which led to avenues for future research.

About context, it seems quite appropriate to consider a paradigm shift driven by new digital technologies that have transformed the physical and social context in which CX occurs (Roy et al., 2019). Services will continue to be delivered in the 'real world', but omnichannel customer

journeys that combine digital and physical touchpoints have been increasingly common. Therefore, researchers should investigate how digital spaces may borrow aspects of physical spaces to recreate those positive customer experiences (Roy et al., 2019; Ballantyne and Nilsson, 2017). Moreover, future research should consider how it is possible to quantify and expand the study of contextual factors, as well as their impact on CX, considering contingencies that are less controllable by organizations (Edvardsson et al., 2018). For example, by investigating the impacts on CX of natural factors, such as the recent COVID-19 pandemic, or by understanding how institutions and institutional arrangements influence a CX.

Lastly, although there have been some advances regard CX measurement, new metrics are needed to better gauge aspects of the CX (Bueno et al., 2019). Considering recent advances in technology and associated new tools that offer significant opportunities to improve data collection and monitoring CX from the customer perspective (e.g., unstructured data analysis, voice and facial recognition of emotions, big data, business analytics), researchers should explore the benefits and limitations of these new tools (and the new metrics which derive from their use). Furthermore, future research focusing on CX measurement should consider analytical contributions from other fields of research such as neuroscience, in conducting its studies (Verhulst et al., 2019).

2.6.2 ORGANIZATIONAL DOMAIN: FUTURE OPPORTUNITIES

Regarding CX management, there is a lack of studies dealing with CX implementation from an organizational perspective. Therefore, scholars should consider that companies need to measure CX not only from the customers' viewpoint but also from an internal perspective, to continuously improve their routines and processes. In this way, the concept of "experience capability" has recently emerged, representing the organization's ability to manage CX based on its expertise in implementing a set of resources and routines oriented to understand, evaluate and improve the interactions between employees and customers in all touchpoints (Ponsignon et al., 2020). Another research gap is the relationship between CX and business model innovation since both are critical to a company's ability to achieve growth and long-term viability. Thus, future research could look at how CX influences the configuration of the value creation, value delivery, and value capture elements of the business model. In this sense, CX can be a key driver for a business model innovation (Keiningham et al., 2019).

Concerning CX design, scholars should consider methodological approaches capable of dealing with increase technology-enabled services and complex interactions. In this way, Teixeira et al. (2019) demonstrated that design science research (DSR), an established methodology from the information systems field, can be useful for the development of new artifacts, such as service design constructs, methods, and models. Therefore, further advances should consider a new methodological approach, such as DSR, to advance CX design with technology-enabled services. Additionally, new service contexts are arising such as digital platforms and sharing economy, wherein companies have so little control over the touchpoints in the customer journey (Siebert et al., 2020). Thus, future research should consider how customer journeys unfold in these new service contexts.

About CX co-creation, there is a challenge of dealing with a complex service ecosystem in which the CX takes place across multiple interactions (Chandler and Lusch, 2015). Therefore, scholars should investigate how companies can better play their CX coordinator role within a network comprising multiple actors and technologies often unmanageable. Furthermore, “smart CX co-creation” is a recent concept that refers to the increasing use of advanced technologies to facilitate CX co-creation (Roy et al., 2019). For that reason, future research should develop this emerging concept by dealing with the interplay between the CX co-creation processes and technologies. In addition, the negative effects of co-creation (or co-destruction) have been little explored in the service literature (Leroi-Werelds, 2019). Thus, future research should consider this.

Lastly, regarding engagement, scholars should consider that although research approaches to customer, employee, and actor engagement differ, they provide complementary perspectives to explore engagement (Brodie et al., 2019). Therefore, these perspectives can be merged to create a holistic view of engagement in future research. Moreover, future research should better investigate how digital engagement practices change over time (Eigenraam et al., 2018) and how the emergence of a collaborative and digital economy increases the connectivity among the different actors in the service-ecosystem, allowing to support organizational practices oriented to stimulate and improve the level of actors’ engagement towards an organization or a brand (Koskela-Huotari and Siltaloppi, 2020). In this theme, an emerging topic is the use of gamification to enhance actor engagement and generate experiential value. Broadly, gamification refers to the process of transferring elements from the game domain (e. g., challenges, points,

leaderboards, rewards, and a story) to other contexts to transmit the benefits often associated with the ludic universe of games (such as enjoyment and pleasure) to situations that require the great engagement of people (Deterding, 2019; Leclercq et al., 2018). Engaging customers and employees in a service or a brand by including game elements can transform the regular CX into a gameful experience and is part of a new trend in business research (Wolf et al., 2020).

2.6.3 TECHNOLOGICAL DOMAIN: FUTURE OPPORTUNITIES

Regarding online CX, it is recognized that, increasingly, the world moves towards omnichannel customer journeys which eliminate the distinctions between all available channels (Shi et al., 2020; Siqueira et al., 2020). However, they are more common in large companies, while small and medium-sized companies are still at earlier stages. Thus, future research needs to deal with the CX at small and medium-sized organizations interested in making the transition to the digital environment or even towards omnichannel customer journeys. In addition, further research should consider that the COVID-19 pandemic has significantly intensified the use of online services. Consequently, there is a need to investigate its impacts on CX, as well as the consequences in customer behaviours and organizational practices during and post-pandemic. About self-service technologies (SSTs), one way for future research concerns ethical issues related to data management and privacy when using SSTs. Researchers should think about issues such as data ownership and how data can be used both efficiently by organizations and safely for customers, and what are the consequences for CX (Gummerus et al., 2019). In addition, there is a need to better investigate in what ways SSTs contribute to the co-creation of value in service settings, as well as the short-term and long-term effects of SST usage on CX (Shin and Perdue, 2019).

Lastly, regarding emerging technologies, in general, they represent a fruitful theme for future research, since they are in their early stages of study and, consequently, need to be better understood concerning their effects on CX. For instance, scholars should consider how the large amount of data generated at different touchpoints throughout the customer journey can provide some guidance on CX management (Lim et al., 2018). Or yet, they may take into account the impacts on customer emotions of the increased use of emerging technologies. In this way, two distinct but largely interconnected prominent topics are artificial intelligence (AI) and robotics. Indeed, advances in AI research focused on building robust spoken dialogue systems to serve

customers (e.g., chatbots) combined with accelerated development in the field of robotics have driven research on service robots, generating implications for CX research (Lu et al., 2020; Ostrom et al., 2019; Huang and Rust, 2018). Service robots are system-based autonomous and task-based AI applications that can support, augment, or perform the service encounter by interacting, communicating, and delivering service to customers (Ostrom et al., 2019; Wirtz et al., 2018). Some characteristics of service robots can generate positive effects for CX, as they: (i) do not show heterogeneity over time, providing highly predictable and homogeneous system interactions and solutions; (ii) are free from error and fatigue, responding to their service environment in a highly reliable manner; (iii) can provide customized service on a scale since they can be connected to customer relationship management systems, and (iv) can mimic the expression of emotional responses (e.g., using facial expressions and body language) (Wirtz et al., 2018; Huang and Rust, 2018). Nevertheless, despite these positive consequences, service robots may also have negative CX consequences as a perceived loss of control and privacy (Lu et al., 2020; Ostrom et al., 2019). Thus, a proper understanding of the CX mechanisms and the consequences of using service robots is critical for scholars and practitioners. In addition, other new technologies empowered by AI such as the Internet of Things (IoT) and Augmented/Virtual/Mixed Reality (AR/VR) are likely to transform CX at different stages of the customer journey (Hoyer et al., 2020; Balaji and Roy, 2017; Hilken et al., 2017). Therefore, a better understanding of the effects of the perceptual dimensions of these technologies and the factors that determine CX in technology environments, as well as how to evaluate them properly, are promising avenues for future research (Hoyer et al., 2020).

2.7 CONCLUSION, CONTRIBUTIONS, AND LIMITATIONS

Employing the use of co-keyword and thematic analyses, this work reveals three main domains underlying CX intellectual structure. It also proposed a conceptual framework that supports scholars and managers to develop a better understanding of CX core elements and dynamics. Lastly, the future research section presented opportunities for CX researchers by considering, mainly, the integration among the three CX domains in an increasingly technological service context. Based on the results of this study, theoretical and managerial contributions are highlighted next.

2.7.1 THEORETICAL CONTRIBUTIONS

This study maps the CX literature, describing its intellectual structure in terms of three research domains: customer, organizational, and technological (**Table III**). The first one (customer domain) comprises studies that have adopted a customer perspective to conduct CX research. In this domain, four research themes were identified: (i) customer emotions, which emphasizes the emotional dimension of CX; (ii) employee emotions, which deals with the impacts of employee experience on the CX; (iii) context, which proposes an investigation into the contextual factors that affect customer responses; and (iv) CX measurement, which considers the customer's viewpoint as the main lens for creating and validating appropriate ways to evaluate CX. The second one (organizational domain) corresponds to studies that have adopted a firm perspective to investigate CX, and within this domain, four themes were recognized: (i) CX management, which deals with the organization's strategies, culture, practices, and processes towards better CX; (ii) CX design, which brings service design concepts, methods, and tools focused on improving CX; (iii) CX co-creation, which proposes a view grounded on the interaction of multiple actors that together create value and CX; and (iv) engagement, which considers the emotional and proactive involvement of the multiple actors who co-create CX towards a service or brand. The last domain (technological) includes studies that have taken into account the use of technologies as the main motto to investigate the CX phenomenon. In this domain, three research themes were identified: (i) online CX, which deals with CX by considering the increasing use of the internet by customers and service organizations; (ii) self-service technologies, which concerns issues related to the use, acceptance, perception of value, and consequences of these technologies by customers and firms; and (iii) emerging technologies, which explores the emergence of new and smart technologies capable of improving CX. In this work, it was identified that these three domains represent the three main perspectives on which CX research has been grounded and over the evolution of the field, the technological domain has been advancing and becoming a transversal perspective that connects the customer and organizational domains.

Furthermore, this paper complements other CX literature reviews, differing from them by the methods used to analyze the references found. In this work, the co-keyword and thematic analysis were used in a complementary way to address the objectives of this study, offering an original approach to review the CX literature. Moreover, this study integrates the CX literature by means of a conceptual framework and associated research propositions that assist scholars to

understand and visualize the main contributions of each research domain in a structured and integrated way (**Figure 4**). From this model we draw some conceptual conclusions: (i) CX is a phenomenon that takes place in the customer individual sphere from internal and external inputs, which ultimately are processed emotionally and result in behavioural attitudes such as loyalty and word-of-mouth (Becker and Jaakkola, 2020; Mahr et al., 2019); (ii) CX is co-created by the customer and other actors (human and technological), within a complex network connected by processes and technologies, whose management includes the measurement, design, and implementation of strategies that facilitate the engagement of all actors towards the co-creation of value (Brodie et al., 2019; Chandler and Lusch, 2015); (iii) the rapid development of technology continually transforms services and impacts CX both delighting customer and facilitating processes and interactions among actors (Kunz et al., 2019; Larivière et al., 2017). This is an important contribution to the CX research field since it is characterized by the fragmentation of the literature and by a wide variety of definitions, dimensions, and levels of analysis that hinder the advancement of the research field (Becker and Jaakkola, 2020; De Keyser et al., 2020).

Lastly, this study identifies future research opportunities for moving the field forward, considering an integrative view of the literature (**Table IV**). The future development of the CX research calls for greater knowledge accumulation within and across the domains. Although the co-keyword and thematic analysis have demonstrated that CX research can be organized into three main domains (customer, organizational, and technology), little research has been carried out at the intersection of these three domains, with most of the studies focusing on one domain, with occasional references to another one (Bolton et al., 2018). Therefore, future research needs to adopt an integrated and balanced view of the behavioural, organizational, and technological aspects of CX, to advance knowledge in a holistic, dynamic, and omnichannel perspective, more aligned to a context marked by new and smart technologies that increasingly modify customer journeys and CX co-creation processes.

2.7.2 MANAGERIAL IMPLICATIONS

Although this study is conceptual in nature, some practical insights can be drawn from it. Firstly, we highlight that the identified CX literature domains (customer, organizational, and technological) reflect and signal the main resource bases that should ground successful CX-oriented organizations in practice. This is evident when considering well-known prosperous

brands that have presented disruptive business models in diverse sectors such as transportation (e.g., Uber), hospitality (e.g., Airbnb), and entertainment (e.g., Netflix). Or even, exemplary fruitful fintechs such as Revolut, Payrailz, and Aint Financial, which focus on more engaging CXs by smarter, personalized services supported by AI-based technologies. Furthermore, the current context of digital transformation (strongly accelerated by the COVID-19 pandemic) has not only changed the customers' expectations and behaviors but also pressured traditional companies to innovate in their business model to stay competitive by considering an integrative customer-organizational-technological view (Verhoef et al., 2021). Essentially, this integrative view depends on the organizational mindset of the CX centrality, i.e., on the awareness that superior CXs can connect key actors and brands emotionally through people, processes, and technologies. This mindset should guide the design and management of operations, communication strategies, and organizational innovation. Therefore, managers and leaders can focus on the domains, topics, and boundaries that we have identified (see **Figure 4**) to strengthen the CX-oriented organizational mindset.

Secondly, the results of this study reinforce that CX is co-created collectively through a network of key actors, and organizations should mobilize all the stakeholders to build strong and engaged brand communities. Whereas the customer is the central actor in the process, it implies being close to them in order to recognize their expectations and behaviors to offer appropriated and viable brand promises. In this sense, it is essential to strengthening the voice of the customer program in all available interaction channels to improve and personalize experiences. Additionally, it is possible to count on the help of technology to collect huge volumes of data arising from the multiple digital interactions in which customers participate, which allows predicting trends and customer behaviors as well as building effective algorithms that support personalized CXs. In addition, organizations can adopt communicative strategies that empower their customers to make them "prosumers", i.e., active members of the brand community who not only consume products and services but also voluntarily use their resources (such as time and effort) to co-create experiences increasingly significant. On the other hand, organizations need to be close to their employees and partners to acquire proper support and consulting as well as coordinate outsourcing, crowdsourcing, and open innovation processes. This implies that managers need to be aware of what and how current and new technologies can assist organizations/brands in their journey towards integrate people and co-create superior CXs.

Thirdly, from the results in the customer domain, this study derives that: (i) firms should recognize the main sources and effects of their customers' emotions, as well the polarities of these emotions (positive, negative, or both), and act on those that have the greatest impacts on CX and/or are more controllable by them; (ii) managers could strategically improve their employees' experience, considering the great effects of the emotional contagion of employees (mainly those on the service frontline) in customers; (iii) managerial leaders are challenged to recognize the CX overall context and act on the more manageable factors; and (iv) companies should take a customer-centric view in assessing the overall CX, seeking to understand who current and new customers are, what they expect from their experience, what they have perceived from the current journey service, how they relate to the brand, and what they have to say. In practice, these considerations from the customer domain reaffirm the need to know the experience to drive organizational innovation, improve the CX, and promote loyalty. In this way, a strategic technology trend is the Internet of Behaviors which refers to the combination and processing of data from multiple sources (such as commercial data, social media, location tracking, citizen data from the public sector) to monitor and change customer and employee behavior, thereby strengthening business intelligence for insightful and effective data analysis (Gartner, 2020).

Fourthly, from the results in the organizational domain, this work suggests that: (i) firms should invest in strategies, processes, and practices in order to improve CX, specially by pondering the management of the multiple touchpoints (direct and indirect) across the customer journey, and the development of an organizational mindset oriented to CX; (ii) managers should use specific techniques and tools for design CX, which must integrate the multiple service actors, processes, and technologies towards better CX, for instance through web-based co-design platforms; (iii) managerial leaders could consider the entire supply chain in both physical and virtual context where the CX co-creation takes place, exploring the holistic network of structures and processes that connect all the actors, and taking into account that, although firms could not 'deliver' value or experiences to the customers, they could maximize the favourable conditions for the different actors co-create them, through coordination strategies; and (iv) firms should adopt a network view in designing and managing service processes and technologies in order to maximize positive interactions and the collective engagement of all actors involved in the service ecosystem through increasingly personalized and immersive experiences. In this way, a total

experience approach appears as a top strategic trend for organizations in the next years, which combines traditionally siloed areas (such as customer experience, employee experience, and user experience) and links them to create a better overall experience for all stakeholders (Gartner, 2020).

Finally, from the technological domain, this study derives that managers are demanded to continually consider the use of current and emerging technologies to improve the CX through the connection of process and people, taking into account that their effective adoption depends on objective and subjective factors related to the acceptance of these technologies by all the actors involved, mainly the customer. Thus, organizations should continually invest in processes and training for the appropriate use of the available technological resources as well as technological innovations that help to promote better CXs. In this way, a strategic trend that will be driven and democratized from the emergence of the 5G era is the hyper-automation, which refers to the process in that companies automate as many business and IT processes as possible, by using tools such as AI, IoT, machine learning, event-driven software, and robotic process automation (Gartner, 2020). Along with technologies such as virtual/augmented/mixed reality and 3D printing, hyper-automation has the potential to facilitate increasingly immersive and engaging CXs in digital, physical, and social realms. However, it is necessary to consider ethical and security/privacy implications, which can negatively affect the total experience and consequently the relationship of the key actors with brands.

2.7.3 LIMITATIONS

Similar to other articles, this study does suffer from four main limitations. First, bibliometric methodologies and, in special, co-keyword analysis assume that authors try to summarize the main topics of their articles selecting the right keywords. However, this approach probably restricts the findings of the study and future works could use other types of co-word techniques. Therefore, we applied a thematic analysis, which complemented the definitions of main themes and topics within each research domain. Second, although the research propositions are important to link the conversation that this paper offers, we have not explored in detail the relationships between all of them, which can be explored in future works, including empirical studies to test them as research hypotheses. Third, the large sample size (629 articles) concerning the length of this article implied an aggregate approach to describe the intellectual structure of

the CX literature, at the risk of not mentioning important studies in the development of the research field. To minimize this limitation, we selected the number of citations and the year of publication as the main criteria for a study to compose the references of this article, prioritizing the most cited and most recent articles published in relevant journals. However, we recognize that important references may not have appeared singly and only compose this paper at an aggregate level. Fourth, this study may suffer from limitations resulting from the decision to adopt strict criteria for the inclusion of articles (e.g., excluding chapters of books and restricting the sample to articles written in English). Therefore, it must be recognized that the adoption of more flexible criteria could produce different results. However, we believe that this approach allowed us to analyze the sample more rigorously. So, despite these limitations, we are confident that the analyzes performed and their implications will help researchers and practitioners to deal with the customer experience.

APPENDIX – CHAPTER 2

Appendix 1 - Top 90 CX keywords

#	Keywords	Freq	Domain	#	Keywords	Freq	Domain
1.	satisfaction	181	Customer	46	participation	20	Organizational
2.	customer experience	144	Organizational	47	image	19	Customer
3.	quality	141	Customer	48	scale development	19	Customer
4.	model	119	Customer	49	responses	19	Customer
5.	loyalty	111	Customer	50	customer value	19	Organizational
6.	impact	110	Customer	51	consumer perceptions	18	Customer
7.	customer satisfaction	100	Customer	52	product	18	Organizational
8.	customer	100	Organizational	53	value creation	18	Organizational
9.	service experience	92	Customer	54	dimensions	17	Customer
10.	experience	90	Organizational	55	perceived value	17	Customer
11.	behavior	82	Technological	56	context	17	Organizational
12.	perceptions	79	Customer	57	recovery	16	Customer
13.	service quality	78	Customer	58	brand	16	Organizational
14.	value co-creation	73	Organizational	59	consumer behavior	16	Organizational
15.	intentions	70	Customer	60	involvement	16	Organizational
16.	antecedents	68	Technological	61	system	16	Organizational
17.	service	61	Organizational	62	attitude	16	Technological
18.	consumption	60	Customer	63	social media	15	Customer
19.	performance	53	Organizational	64	health-care	15	Organizational
20.	emotions	52	Customer	65	acceptance	15	Technological
21.	information-technology	43	Technological	66	adoption	15	Technological
22.	design	40	Organizational	67	moderating role	15	Technological
23.	trust	40	Technological	68	user acceptance	15	Technological
24.	encounter	39	Customer	69	scale	14	Customer
25.	perspective	39	Organizational	70	failure	14	Customer
26.	management	37	Organizational	71	motivation	14	Customer

27.	technology	36	Technological	72	customer engagement	14	Organizational
28.	service innovation	35	Organizational	73	consump. experience	13	Customer
29.	service design	33	Organizational	74	logic	13	Organizational
30.	consequences	33	Technological	75	brand experience	12	Customer
31.	multiple-item scale	32	Customer	76	expectations	12	Customer
32.	word-of-mouth	32	Customer	77	communication	12	Technological
33.	physical surroundings	28	Customer	78	retailing	12	Technological
34.	strategy	28	Organizational	79	web site	12	Technological
35.	online	28	Technological	80	industry	11	Customer
36.	environment	26	Technological	81	customer journey	11	Organizational
37.	employees	23	Customer	82	self-service	11	Technological
38.	service encounter	23	Organizational	83	web	11	Technological
39.	service-dominant logic	23	Organizational	84	conceptualization	10	Customer
40.	tourism	22	Customer	85	structural eq.models	10	Customer
41.	e-commerce	22	Technological	86	hospitality	10	Customer
42.	internet	22	Technological	87	work	10	Customer
43.	equity	21	Customer	88	coproduction	10	Organizational
44.	commitment	20	Customer	89	engagement	10	Organizational
45.	framework	20	Organizational	90	operat. management	10	Organizational

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3 ARTICLE II – GAMIFICATION IN THE CUSTOMER JOURNEY: A CONCEPTUAL MODEL AND FUTURE RESEARCH OPPORTUNITIES

CITATION: Silva, J.H.O., Mendes, G.H.S., Teixeira, J.G. and Braatz, D. (2023), “Gamification in the customer journey: a conceptual model and future research opportunities”, *Journal of Service Theory and Practice*, Vol. 33 No. 3, pp. 352-386. <https://doi.org/10.1108/JSTP-07-2022-0142>

Abstract

Purpose – While academics and practitioners increasingly recognize the impacts of gamification on customer experience (CX), its role in the customer journey remains undeveloped. This article aims to identify how gamification can leverage each customer journey stage, integrate the findings into a conceptual model, and propose future research opportunities.

Design/methodology/approach – Since CX and customer journey are interrelated concepts, we rely on CX research to identify research themes that provide insights to propose our conceptual model. A systematic review of 154 articles on the interplay between gamification and CX research published from 2013 to 2022 was performed and analyzed by thematic content analysis. We interpreted the results according to the service customer journey stages and the taxonomy of digital engagement practices.

Findings – This article identified five main thematic categories that shape the conceptual model (design, customer journey stages, customer, technology, and context). Gamification design can support customer value creation at any customer journey stage. While gamification can leverage brand engagement at the pre-service stage by enhancing customer motivation and information search, it can leverage service and brand engagement at the core and post-service stages by enhancing customer participation and brand relationships. Moreover, customer-, technology-, and context-related factors influence the gamified service experience in the customer journey.

Originality/value – This article contributes to a conceptual integration between gamification and customer journey. Additionally, it provides opportunities for future research from a customer journey perspective.

Keywords gamification, customer journey, customer experience, gameful experience.

3.1 INTRODUCTION

Companies and brands are constantly looking for new ways to enhance their relationships with customers through different channels (i.e., online, offline, and omnichannel) to improve their engagement and customer experiences (CX) and, consequently, achieve better business results (Kumar et al., 2019; Eigenraam et al., 2018). Since the early 2000s, gamification has contributed to this purpose by supporting customer value creation, influencing behavior, and improving marketing outcomes (Leclercq et al., 2020; Huotari and Hamari, 2017). Indeed, boosted by digital technologies and the popularization of smartphones, the global gamification market is expanding significantly; it was valued at USD 10.19 million in 2020 and is expected to reach USD 38.42 million by 2026 (Mordor Intelligence, 2020). Leading companies such as Samsung, Nike, Coca-Cola, and Victoria's Secret embrace gamification to engage customers and foster customer-brand relationships (Burnett, 2019).

As a research phenomenon, gamification has received inputs from areas such as human-computer interaction (e.g., Deterding et al., 2015), marketing (e.g., Harwood and Garry, 2015), management (e.g., Robson et al., 2015), business (e.g., Wunderlich et al. 2020), and service research (e.g., Bauer et al., 2020). Moreover, it has been studied in different contexts, such as retailing (e.g., Poncin et al., 2017), healthcare (e.g., Hammedi et al., 2017), mobile banking (e.g., Baptista and Oliveira, 2017), physical exercises (e.g., Jang et al., 2018), and transformative services (e.g., Tanouri et al., 2019).

Gamification primarily refers to using game design elements (such as point systems, badges, rewards, leaderboards, and challenges) in non-game contexts (e.g., education, retailing, and healthcare) (Deterding et al., 2011). Service research recognizes that it enhances the CX by adding game-related features that support customers' value co-creation (Leclercq et al., 2020; Huotari and Hamari, 2017). The underlying assumption is to transfer games' immersive and engaging aspects to other domains to create positive experiences and drive desired behaviors (Landers et al., 2019). Thus, organizations can enhance their interactions with customers by stimulating psychological and affective states such as pleasure, fun, and enjoyment (Leclercq et al., 2020; Landers et al., 2019), consequently increasing marketing outcomes such as purchase intentions, loyalty, brand engagement, and word-of-mouth (Hollebeek et al., 2021; Bauer et al., 2020; Wolf et al., 2020).

Despite the growing interest in gamification, research investigating the interplay between gamification and CX is emergent, and, therefore, contributions are needed (Ciuchita et al., 2023; Leclercq et al., 2020; Wolf et al., 2020). Current research conceptualized CX as spontaneous customer responses to all stimuli and interactions with the firm during the customer journey (Silva et al., 2021; Becker and Jaakkola, 2020; Lemon and Verhoef, 2016). In this sense, service customer journeys divide customer-firm interactions into three main stages (i.e., pre-service, core-service, and post-service) that engage customers from the recognition of a need or desire, the decision to engage with service and beyond (Tueanrat et al., 2021; Følstad and Kvale, 2018). Throughout this journey, the CX takes place (Voorhees et al., 2017; Lemon and Verhoef, 2016).

Although gamification represents a strategy to enhance consumer engagement, experience, or loyalty in service settings, understanding how it can leverage customer journeys is still incipient (Leclercq et al., 2020; Klapztein and Cipolla, 2016). Moreover, the transformation of traditional customer journeys towards gamified journeys considering touchpoints in the three stages (i.e., involving pre-, core-, and post-service gamified interactions) has been less explored in the extant literature (Ciuchita et al., 2023). Therefore, addressing this gap can contribute to evolving gamification understanding and practice in the service context by improving the understanding of how it influences CX over the ongoing process and assisting service designers and managers in proposing superior CX through cohesive and coherent gamified journeys.

Considering these viewpoints, the goals of this article are threefold. First, this study aims to identify research themes in the interplay between gamification and CX research that can provide a holistic understanding of current knowledge. Second, this work aims to integrate the findings into a conceptual model by considering the three customer journey stages (pre-, core-, and post-service). Third, it aims to offer avenues for future research to assist advance the field. To tackle these research goals, this study adopts a systematic literature review approach to select relevant articles that study gamification and CX in the service context, according to strict guidelines (e.g., Palmatier et al., 2018; Tranfield et al., 2003). The performed review identified 154 focal papers (on the existing knowledge in gamification and CX research) published from 2013 to 2022. The papers were analyzed using thematic content analysis (Nowell et al., 2017).

Other studies have offered contributions to advance the understanding of gamification in service research (e.g., Ciuchita et al., 2023; Pasca et al., 2021; Shi et al., 2017). Nevertheless, our study differs from and complements these previous reviews by addressing three main aspects.

First, it contributes by bridging gamification and CX research areas to understand how gamification can be used along the customer journey and how it impacts CX. Despite the close relationship between gamification and experience, it has not necessarily been theorized from a service research perspective (e.g., user experience from human-computer interaction rather than CX or service experience) (Ciuchita et al., 2023). Thus, the present study combines gamification and CX from a service research view relying on the customer journey concept. Second, this study synthesizes relevant knowledge into a conceptual model that can support theoretical development and future research. In particular, it holds value for researchers and practitioners since it provides guidelines on transforming traditional service experiences into gamified service experiences. Third, it provides avenues for moving gamification research forward from a customer journey perspective.

The next section presents our conceptual background, followed by the research approach and results. Subsequently, we discuss the findings and develop the conceptual model. In sequence, we provide a research agenda. Lastly, we conclude by detailing this study's theoretical contributions, managerial implications, and limitations.

3.2 CONCEPTUAL BACKGROUND

3.2.1 LITERATURE REVIEWS ON GAMIFICATION

In a short time, academics and practitioners from different areas have embraced gamification with great interest. Hence, scholars in different disciplines have conducted literature reviews to synthesize and integrate extant knowledge, assuming different focuses and approaches. Many of these reviews address gamification in a specific domain (e.g., information systems, business and management, education, healthcare, and tourism). **Table V** provides an overview of previous literature reviews on gamification and their main differences compared to the present study. Despite their contributions, how gamification can improve the customer journey and, consequently, CX has been less explored (Ciuchita et al., 2023; Leclercq et al., 2020). For instance, in the business context, Shi et al. (2017) conducted a systematic review (n=88 articles) covering 2005-2015 to integrate frameworks related to the emotional mechanics of gamification in advanced services. Warmelink et al. (2020) systematically (n=18) reviewed studies (up to 2017) regarding how gamification impacts production and logistics operations, and their review identified that the studies were primarily concerned with the execution and control of production

and logistic processes. Tobon et al. (2020) performed a systematic review (n=36) covering 2010-2018 to establish whether gamification influences online consumer decisions, with an emphasis on customer engagement.

Table V – Gamification Review Studies

Study	Research Goal	Research Method	Key findings	Differences from the present study
De Vette <i>et al.</i> (2015)	Review theoretical frameworks and methods that specifically target elderly users	Narrative review	Recognition that an applied approach emerges from business practices, while academic frameworks incorporate theories about motivation	<ul style="list-style-type: none"> • Distinct focus (i.e., elderly and telemedicine) • Distinct method • Combine academic manuscripts and business reports
Johnson <i>et al.</i> (2016)	Assess the amount and quality of empirical support for the advantages and effectiveness of gamification applied to health and well-being	Systematic literature review (N=19)	Gamification can positively impact health and well-being, particularly in health behaviors.	<ul style="list-style-type: none"> • Distinct focus (i.e., health and well-being) • Narrower sample of literature
Martí-Parreño <i>et al.</i> (2016)	Review of gamification in education	Systematic literature review with bibliometrics, social network and text mining analyses (N=139)	Identification of a wide variety of constructs that were clustered in four main themes: (i) effectiveness, (ii) acceptance, (iii) engagement and (iv) social interactions	<ul style="list-style-type: none"> • Distinct focus (i.e., educational setting) • Distinct method • Narrower sample of literature
Perryer <i>et al.</i> (2016)	Review motivational responses to gamified systems	Narrative review	Explanation on how the concept of gamification may interact with various theories of motivation	<ul style="list-style-type: none"> • Distinct focus (i.e., students, customers, and employees) • Distinct method
Johnson <i>et al.</i> (2017)	Review literature and assess empirical support for the effectiveness of gamification and serious games in impacting domestic energy consumption.	Systematic literature review (N=26)	Within the domain of energy consumption, gamification influence behavior, cognitions, knowledge and learning, and the user experience	<ul style="list-style-type: none"> • Distinct focus (i.e., energy consumption) • Narrower sample of literature

Sardi <i>et al.</i> (2017)	Review knowledge regarding gamified e-Health applications	Systematic literature review (N=46)	Recognition of the primary contexts of gamification and serious games in e-health and well-being: rehabilitation of chronic diseases, physical activity, and mental health	<ul style="list-style-type: none"> • Distinct focus (i.e., e-health applications) • Narrower sample of literature
Shi <i>et al.</i> (2017)	Review established frameworks related to the emotional mechanics of gamification with the adoption of advanced services.	Systematic literature review (N=88)	Provision of research propositions that help practitioners and researchers apply the emotional mechanics of gamification when seeking to address advanced services	<ul style="list-style-type: none"> • Distinct focus (i.e., advanced services) • Narrower sample of literature
Dias <i>et al.</i> (2018)	Identify how gamification and serious games have been applied to support the treatment of depression	Systematic literature review (N=28)	Identification of the leading technologies for treating depression using gamification and serious game: mobile, computer wearables, and web applications	<ul style="list-style-type: none"> • Distinct focus (i.e., depression-related treatment) • Narrower sample of literature
Baptista and Oliveira (2019)	Review the most utilized factors mentioned in the gamification and serious game literature	Meta-analysis review (n=54)	Identification of the most relevant predictors of intention to use gamification and the most relevant predictors of the brand attitude toward gamification	<ul style="list-style-type: none"> • Distinct focus (i.e., gamification and serious game research field) • Distinct method • Narrower sample of literature
Koivisto and Hamari (2019)	Map the literature on the gamification field.	Systematic literature review (N=273)	Recognition of the most common contexts and ways of implementing gamification	<ul style="list-style-type: none"> • Distinct focus (i.e., information systems) • Include grey literature
Tobon <i>et al.</i> (2020)	Establish whether gamification influences online customer decisions and explain these effects	Systematic literature review and bibliometric analysis (N=36)	Evidence that the inclusion of game elements has a significant influence on consumer engagement and online consumer decisions	<ul style="list-style-type: none"> • Distinct focus (i.e., online customer decisions) • Distinct method • Narrower sample of literature
Warmelink <i>et al.</i> (2020)	Review which aspects of production and	Systematic literature review (N=18)	The execution and control of production and	<ul style="list-style-type: none"> • Distinct focus (i.e., restricted to

	logistics operations are addressed through gamification		logistics processes have been addressed more frequently in the literature	logistics and production) <ul style="list-style-type: none"> • Distinct method • Narrower sample of literature)
Chauhan <i>et al.</i> (2021)	Review literature on the use of gamification in banking	Systematic literature review (N=14)	Emphasize the use of social and psychological theory building in the banking industry	<ul style="list-style-type: none"> • Distinct focus (i.e., restricted to the banking sector) • Narrower sample of literature
Pasca <i>et al.</i> (2021)	Review gamification knowledge in the tourism and hospitality (T&H) sector	Systematic literature review (n=36)	Identification of five themes describing gamification's role in T&H	<ul style="list-style-type: none"> • Distinct focus (i.e., T&H) • Narrower sample of literature
Ciuchita <i>et al.</i> (2023)	Review gamification from the service research perspective	Systematic literature review (N=34)	Recognition of four higher-order functions of gamification: production, consumption, exchange, and distribution	<ul style="list-style-type: none"> • Distinct focus (i.e., conceptualize gamification and its functions from a service view) • Narrower sample of literature
Present study	Identify how gamification can leverage each customer journey stage	Systematic literature review and thematic content analysis (N=154)	Recognition of five main thematic categories (design, customer journey stages, customer, technology, and context) that assist in understanding how gamification can improve CX throughout the customer journey. Providing research propositions to set a future research agenda	N/A

In addition to the business context, researchers have conducted reviews on gamification in other contexts. For example, in education, Martí-Parreño *et al.* (2016) combined a systematic review (n=139) with bibliometrics, social network, and text mining analyses to describe the most frequent themes during the period 2011-2016. In the health context, Sardi *et al.* (2017) systematically (n=46) reviewed the literature on e-health from 2000-2015 to identify the main areas of applications of gamification, which are chronic diseases, physical activity, and mental health (Sardi *et al.*, 2017). In banking, Chauhan *et al.* (2021) conducted a systematic review (n=14)

covering up to 2020 to synthesize and integrate extant knowledge. In the tourism and hospitality context, Pasca et al. (2021) systematically (n=36) reviewed the literature from 2011 to 2019 and presented the main themes describing gamification's role in this industry. More recently, Ciuchita et al. (2023) conducted a systematic review (n=34) covering up to March 2021 with a focus on service research to achieve a holistic view and identify the gamification functions (i.e., production, consumption, exchange, and distribution) for this research field.

Although these reviews provide insights into how gamification is applied in different domains, the present research focuses on the interplay between customer experience and gamification, whose need has been pointed out by previous studies (e.g., Ciuchita et al., 2023; Leclercq et al., 2020). Furthermore, most literature reviews have focused primarily on enumerating game elements such as points, badges, and rewards or specific gamification outcomes such as purchase intentions, satisfaction, and perceived enjoyment (e.g., Tobon et al., 2020; Koivisto and Hamari, 2019). However, such approaches do not enable a broad conceptual understanding of gamification and its impacts on customer journey stages. Therefore, we address these shortcomings in our systematic review using qualitative thematic content analysis and framing our results from a service customer journey perspective. Through our analysis, we achieve findings that allow scholars and practitioners to understand how gamification can leverage each stage of the customer journey with service and, consequently, CX since they are complementary concepts (Lemon and Verhoef, 2016).

3.2.2 GAMIFICATION CONCEPT

A seminal definition of gamification refers to the use of game elements (such as point systems, badges, rewards, leaderboards, and challenges) in non-game contexts (e.g., education, retailing, and healthcare) (Deterding et al., 2011). It emphasizes game elements as the essential building blocks for gamification. However, there are various game elements and different taxonomies that attempt to classify them (e.g., Deterding et al., 2001; Robson et al., 2015; Hofacker et al., 2016). Werbach and Hunter (2015) classify the game elements into three categories according to their level of abstraction: (i) dynamics, (ii) mechanics, and (ii) components. Dynamics represent the general aspects of the gamified system that should be considered and managed (Werbach and Hunter, 2015). For example, managers can create desired dynamics by stimulating customer relationships within the brand community or arousing new customers' curiosity about a service.

Mechanics are the fundamental ways to achieve one or more desired dynamics (Werbach and Hunter, 2015). For instance, cooperation can stimulate relationships among customers, while a challenge that pops up without warning on a website may stimulate users' sense of curiosity and fun. Lastly, components are the practical instantiations of mechanics and dynamics (Werbach and Hunter, 2015). For instance, points are the typical way to record scores, provide customer feedback, and connect progression and rewards. **Table VI** describes game elements according to Werbach and Hunter's framework.

Table VI – Examples of game elements in Gamification

Game elements	Description	Example References	
Dynamics	Narrative	A consistent storyline	Hofacker <i>et al.</i> (2016)
	Constraints	Limitations or forced trade-offs	
	Progression	Users' growth and development	Saboia <i>et al.</i> (2018)
	Relationships	Social interactions and generation of related feelings (e.g., camaraderie, altruism)	Jang <i>et al.</i> (2018)
	Emotions	Affective mental states (e.g., curiosity, competitiveness, fun, happiness)	Robson <i>et al.</i> (2015)
Mechanics	Fantasy	Use of playful interfaces to immerse users in a virtual environment	Hammedi <i>et al.</i> (2017)
	Chance	Elements related to randomness	Hwang and Choi (2020)
	Competition	Experience of rivalry with others	Harwood and Garry (2015)
	Cooperation	Experience of working together with others	Leclercq <i>et al.</i> (2018)
	Challenge	A defy posed by a task	Jang <i>et al.</i> (2018)
	Feedback	Information about user performance	Bauer <i>et al.</i> (2020)
	Rewards	Benefits for some action or achievement	Hwang and Choi (2020)
	Social interaction	Experience in communicating with others	Jang <i>et al.</i> (2018)
Components	Points	Units that measure the user performance to specific tasks	Hsu and Chen (2018)
	Badges	Visual indicators that are awarded to users upon successful completion of a quest, task, or reaching a milestone	Wang <i>et al.</i> (2020)
	Leaderboard	Ranking of users based on their relative performance to conclude the activities	García-Jurado <i>et al.</i> (2019)
	Achievement	Predefined goals	Bittner and Shipper (2014)
	Avatars	Images of users, which represent them visually in the gamified activity	Xi and Hamari (2020)
	Social feedback	Indications that allow users to react to the activities of other users (e.g., heart meaning "like")	Wolf <i>et al.</i> (2020)

Besides the game elements, the gamification concept has evolved to include goals. In this regard, Robson et al. (2015, p.412) suggested that gamification is "the application of lessons from the gaming domain to change behaviors in non-game situations." However, this definition does not encompass how gamification operates to reach these goals. Therefore, processual definitions

of gamification appeared to fulfill this gap. In this sense, Hofacker et al. (2016, p. 26) defined gamification as the “use of game design elements to enhance non-game goods and services by increasing customer value and encouraging value-creating behaviors such as increased consumption, greater loyalty, engagement or product advocacy.” Huotari and Hamari (2017, p.25) defined gamification as “the process of enhancing a service with affordances for gameful experiences in order to support users’ overall value creation.” Leclercq et al. (2020, p.3-4) referred to “a process through which the rules and goals constituting a design that are commonly associated with games afford experiential value realization to users in non-game contexts.” These processual definitions emphasize the user’s role, considering gamification as a way for users to create experiential value actively. This perspective is appropriate for the service context, in which the customer is a co-creator of value (Vargo and Lusch, 2008).

Regarding the psychological mechanisms of gamification, Krath et al. (2021) identify three main theories that have been used to explain them: the goal-setting theory (Locke and Latham, 2002), self-determination theory (Ryan and Decy, 2017), and flow theory (Csikszentmihalyi and Larson, 2014). The goal-setting theory posits that the precise definition of goals (like those placed in a game’s rule) can motivate individuals psychologically (Locke and Latham, 2002). Thus, when people perceive gamification goals as non-trivial and achievable challenges, they feel intrinsically encouraged to pursue them as a player (Landers et al., 2019). The motivation for reaching goals can also be externally stimulated (e.g., through material or financial rewards), although extrinsic motivations have only short-term effects. Thus, studies have highlighted the superior effectiveness of intrinsic motivations (Bauer et al., 2020; Kim and Ahn, 2017).

The self-determination theory (Ryan and Decy, 2017) posits that intrinsic motivations relate to three basic psychological needs: (i) autonomy – the individuals’ feeling of being free to behave according to their will in a voluntary condition; (ii) competence – an individual's motivation to learn new skills and achieve the mastery; and (iii) relatedness – the social exchange and feeling of being part of a group or community (Ryan and Decy, 2017). Lastly, the flow theory (Csikszentmihalyi and Larson, 2014) states that the way to achieve intrinsic motivations is the flow, which corresponds to the user’s psychological state of complete enjoyment, immersion, and involvement in an interaction (Berger et al., 2018; Csikszentmihalyi and Larson, 2014). Therefore, gamification aims to achieve the user flow state and intrinsically motivate them to

pursue a series of goals that should converge with an organization's aspiration and result in behavioral outcomes (Robson et al., 2015).

3.2.3 CUSTOMER EXPERIENCE AND GAMIFICATION

CX is a fundamental concept in marketing and service research (Silva et al., 2021; Becker and Jaakkola, 2020; De Keyser et al., 2020). However, several studies (e.g., Mahr et al., 2019; Kranzbühler et al., 2018) have raised issues related to CX conceptualization. The extant CX literature has presented different interpretations for critical aspects of the CX construct. For instance, there is a lack of agreement over the CX definition since it can focus on products (e.g., Schallehn et al., 2019), brands (e.g., Prentice et al., 2019), and services (e.g., Kemppainen and Uusitalo, 2022). CX can address the firms' offerings (e.g., Pine and Gilmore 1998), but it can also refer to customer responses to firm-related contacts (e.g., Homburg et al. 2017). Moreover, CX can result from a specific touchpoint or encounter (e.g., Kumar et al. 2014), although it can be formed considering a comprehensive customer journey (e.g., Lemon and Verhoef 2016). Finally, there is no universally accepted conceptualization of the sensorial dimensions in CX research (e.g., Mahr et al., 2019). Nevertheless, more recent studies have combined the definitions of Becker and Jaakkola (2020) and Lemon and Verhoef (2016) to define CX as customer's responses to all direct and indirect stimuli in their interactions with a brand/firm within a context along the customer journey (e.g., Silva et al., 2021; De Keyser et al., 2020).

The lack of a clear view suggests CX is an "umbrella construct," meaning a broad construct encompassing a diverse set of themes and elements (Silva et al., 2021; Kranzbühler et al., 2018). Through a bibliometric review, Silva et al. (2021) analyzed 629 papers in the CX research field to identify the central themes and elements under this CX umbrella, including constructs such as satisfaction, value, and engagement. Thus, while CX can be related to other constructs, it is conceptually different from them. For instance, satisfaction, in general, refers to the sum of positive versus negative evaluations of the relationship partner, reaching a sense of fulfillment (Oliver and Burke, 1999), and perceived value encompasses dimensions such as quality, price, emotional value, and social value (Sweeney and Soutar, 2001); whereas engagement involves an emotional bonding between a brand and a consumer (Kumar and Pansari, 2016). In particular, CX involves a multidimensional construct representing customer reactions to a company or brand interactions, addressing cognitive, affective, sensorial, and relational dimensions (Becker and

Jaakkola, 2020; De Keyser et al., 2020). It is coherent with the integrated view of the CX at all customer points of contact with the retailer throughout the customer journey. The present work adopts this conceptualization, which differentiates it from studies on the relationship between gamification and other constructs (e.g., value – Mulcahy et al., 2021; satisfaction – Bauer et al., 2020).

Indeed, gamification is noted for having the potential to change service experiences. Ciuchita et al. (2023) found variations in how CX has been conceptualized in different domains (e.g., affective experience, flow experience, user experience), although they recognize the evidence regarding the relationship between gamification and CX (e.g., Wolf et al., 2020; Leclercq et al., 2018). In this sense, the concept of gameful experience somehow overlaps the themes of gamification and CX. This concept has emerged to complement the understanding of the mechanisms of gamification, which is suitable for a service approach since it considers the customer as a co-creator of value (e.g., Leclercq et al., 2020; Landers et al., 2019; Huotari and Hamari, 2017). In particular, it considers that gamification can increase customer engagement toward a gamified service experience by taking advantage of the psychological mechanisms, promoting an alignment between the customer's and the firm's goals. Noteworthy, this alignment is only completed when customers legitimize the experiential value proposition made by the service organization (Leclercq et al., 2020). Therefore, the gameful experience occurs, defined as the customer's psychological state resulting from gamification (Eppman et al., 2018). For Huotari and Hamari (2017, p.26), gameful experience is "voluntary, autotelic and intrinsically motivated" and "supports the value-in-use of the core service as experienced by the customer." In addition, Leclercq et al. (2020, p.6) postulate that it combines the experiential value of gamification design and the gamified service. Ultimately, to measure the gameful experience construct, Eppman et al. (2018) and Högberg et al. (2019a) operationalized it from a multidimensional approach comprising dimensions such as enjoyment, immersion, absorption, playfulness, and social experience.

The customer journey is a central element in achieving CX, as it encompasses all touchpoints related to service delivery from the customer's perspective (Lemon and Verhoef, 2016). Additionally, service researchers have recognized the importance of approaching the customer journey holistically, considering the interconnection among subsequent touchpoints that contribute to the overall CX (Voorhees et al., 2017). Nevertheless, gamification research has not

explored the customer journey, even though it is a CX-interrelated concept. Indeed, it is recognized that the CX occurs throughout the customer journey (Lemon and Verhoef, 2016).

Although there is a common understanding of the concept, its structure and representation allow different interpretations, such as linear (e.g., Lemon and Verhoef, 2016), multi-level (e.g., Tax et al., 2013), and social (e.g., Hamilton et al., 2020). Thus, this paper embraces Voorhees et al. (2017) customer journey framework, which builds on the well-accepted Lemon and Verhoef' (2016) structure, but differs in that it focuses on the service perspective while its predecessor adopts a more general marketing view, therefore, more adequate to the present purpose. Thus, the present study contributes by framing gamification along the customer journey.

3.2.4 GAMIFICATION AND CUSTOMER ENGAGEMENT

Customer engagement (CE) can occur with different focal objects such as brands, firms, and services (Hollebeek et al., 2022). Regardless of the object, there is no consensus on the CE definition, and it has been defined mainly from two perspectives: the behavioral perspective (Van Doorn et al., 2010) and the customer's psychological state perspective (Brodie et al., 2011; Hollebeek, 2011). In common, these perspectives point to the ultimate goal of persuading the customer to achieve desired behaviors (e.g., positive brand attitudes, purchase intentions, and loyalty) in response to the interactions with the brand/firm (Lim et al., 2022). Therefore, CE has become a key brand management metric for driving sales growth, referrals, competitive advantage, and stock returns (Hollebeek et al., 2022).

Customers can engage with brands/firms in various ways, especially since the development of digital environments, including visiting websites, accessing mobile apps, reading (and writing) customer reviews, liking, commenting, and sharing content on social media (Eigenraam et al., 2018). These engagement practices are behavioral manifestations that go beyond the trivial purchase of products and services (Van Doorn et al., 2010). Indeed, when considering the customer journey, there are different degrees of CE, ranging from the purchase of a product or service (lowest level) to the degree to which the customer advocates and promotes a brand at every opportunity (highest level) (Roberts and Alpert, 2010). According to Eigenraam et al. (2018), engagement practices can be classified as 'for fun,' 'learn about the brand,' 'work for the brand,' 'customer feedback,' and 'talk about the brand.' They can be initiated by the brand/firm,

the customer, or other customers and can impact cognitive, emotional, physical, and social customer responses (Eigenraam et al., 2018). Therefore, CE also represents a means to influence the CX along the customer journey, involving different actors that co-create customer value and experience (Lim et al., 2022).

CE is approached both as a process and an outcome of gamification (Ciuchita et al., 2023). On the one hand, gamification design encourages users to apply their resources, including cognitive, emotional, behavioral, and social knowledge, within the gamified activity to achieve a specific goal (Leclercq et al., 2020). On the other hand, CE results from a gameful experience and is reflected in better customer-brand relationships (Ciuchita et al., 2023). Since the literature provides varied evidence of how gamification affects CE practices, recognizing them is critical to understanding the impacts on CX along the customer journey.

3.3 RESEARCH DESIGN

3.3.1 SYSTEMATIC LITERATURE REVIEW

This study adopts a systematic literature review approach, an effective means of locating and comprehensively synthesizing a body of literature in an objective, transparent, and rigorous manner (Palmatier et al., 2018; Tranfield et al., 2003). A systematic review involves using organized, transparent, and replicable procedures during the selection and critical evaluation of existing knowledge (Snyder, 2019). It increases the validity of the literature reviews in contrast to a "narrative" approach, which does not specify the criteria for article inclusion or exclusion (Palmatier et al., 2018). Thus, a systematic process minimizes possible biases in the literature review (Snyder, 2019; Tranfield et al., 2003), mainly when dealing with the growing volume of gamification and CX research fragmented into different service areas (e.g., retailing, computing, healthcare, banking, and hospitality). Furthermore, a systematic approach allows for analyzing results qualitatively, in contrast to a meta-analytical that combines results from different studies to compare and identify quantitative patterns (Snyder, 2019). Thus, considering our objective of identifying the main themes in the interplay between gamification and CX to integrate the findings conceptually and contribute to advancing research, qualitative thematic analysis and, consequently, a systematic approach is more appropriate than the meta-analytic review.

3.3.2 SAMPLE SELECTION

We carried out a systematic process represented in **Figure 5**. Initially, we identified keywords from recent literature reviews in gamification (Koivisto and Hamari, 2019) and CX studies (De Keyser et al., 2020) to generate our search string. The selected string (see **Figure 5**) was applied in the title, abstract, and keywords of articles from Web of Science and Scopus because these are two world-leading databases and provide a comprehensive portfolio of service, business, and management journals (Zhu and Liu, 2020). Furthermore, we only considered articles in the English language published in journals. An initial search was done in July 2021, updated in Jan 2021, and did not set any temporal limits. The last search resulted in an initial sample of 374 articles. Then, we excluded 109 duplicated articles, which resulted in 265 articles. In the screening phase, we read the titles and abstracts of the articles and excluded those (n=143) that were out of scope or had a tangential approach to the key themes. Two authors from the research team participated in this process. In cases of divergence, the articles were read in total, and the authors reached a consensus on their inclusion or exclusion for later stages. This process resulted in 122 articles. Finally, a backward snowballing approach led to 32 additional articles based on cross-references (e.g., Hammedi et al., 2017). The final sample resulted in 154 focal articles dated from 2013 to 2022. **Figure 6** displays a descriptive summary of the sample.

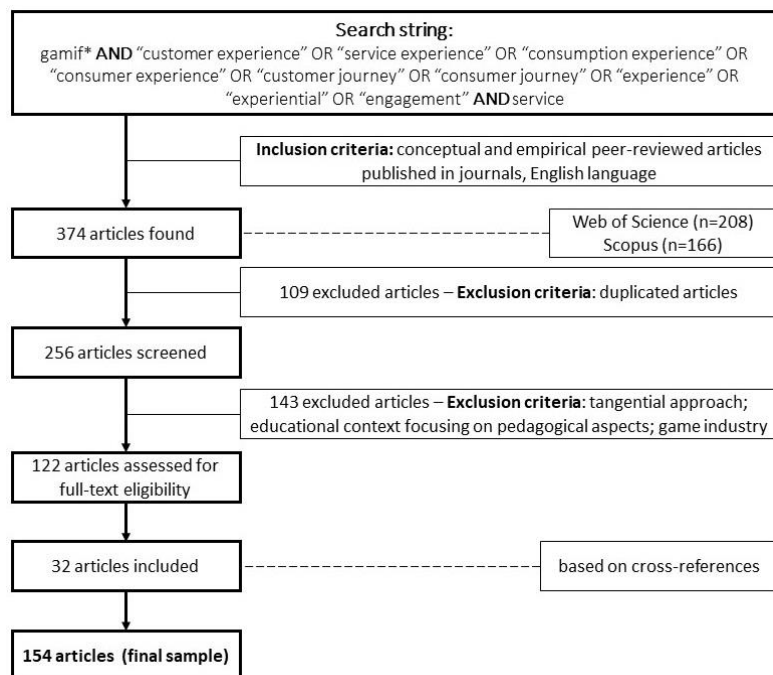
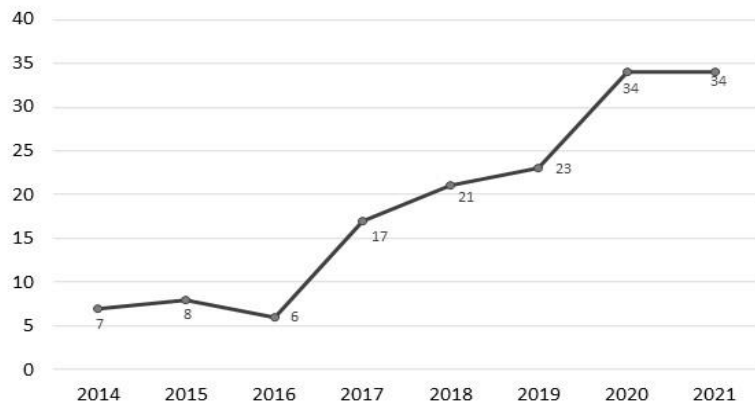


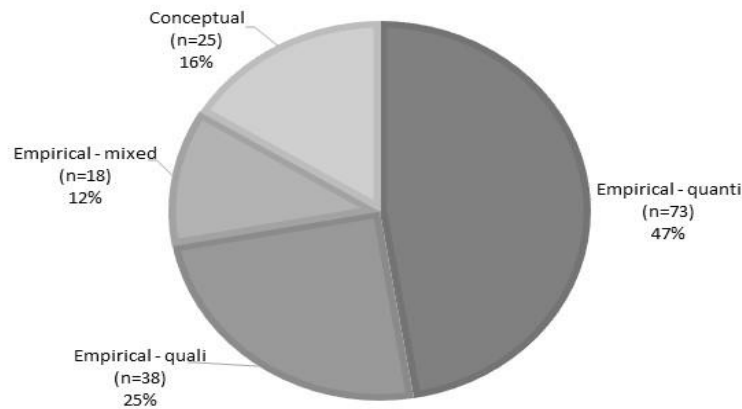
Figure 5. Search strategy and sampling process



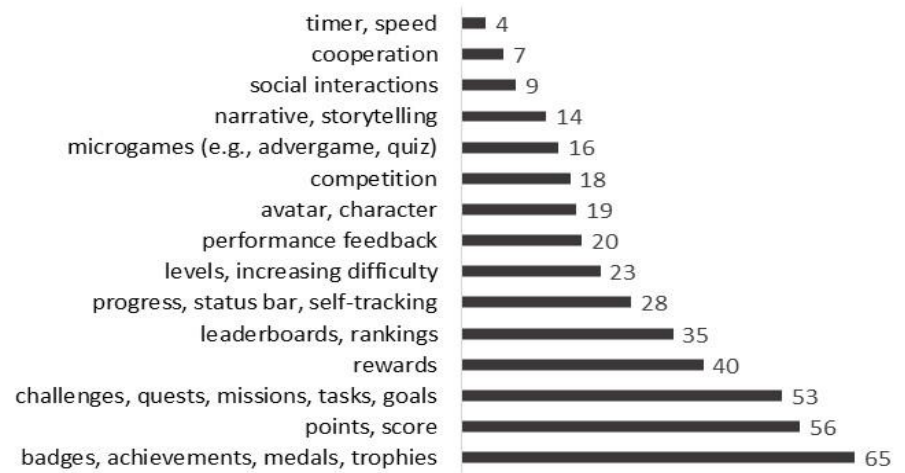
(a) Evolution of publications over years



(b) Most prolific sources



(c) Methodological approach



(c) Game elements studied in the empirical papers

Figure 6. Descriptive results

3.3.3 ANALYSIS

This study adopted the thematic analysis approach to analyze the focal articles, a suitable method for identifying, organizing, describing, and reporting themes found in a data set (Nowell et al., 2017). We adopted the analytical procedures described by Gioia et al. (2013) to structure the data. After importing all 154 articles to NVivo software, two research team members familiarized themselves with the sample by reading them in chronological order. Initially, the articles were analyzed, focusing on identifying fragments that indicated (i) changes in the CX and (ii) internal and external factors or processes that altered the impacts of gamification on the CX. Then, first-order themes emerged inductively, i.e., without any pre-established framework (Nowell et al., 2017). Iteratively, we look for similarities and differences among the many themes that emerged to reduce the categories to a manageable number (Gioia et al., 2013). Subsequently, these themes were revised and inductively organized into higher second-order categories related to elements (e.g., game elements, customers, technology, outcomes), processes (e.g., psychological mechanisms), and functions (e.g., improving information search, customer engagement, and customer brand relationships). It allowed us to glimpse concepts and suggest an initial narrative to explain gamification in the customer journey. Finally, the second-order codes were grouped into higher abstract categories (third-order) using a deductive approach (i.e., applying a pre-established framework) according to Voorhees et al.'s customer journey framework (2017) and Eigenraam et al.'s engagement practices taxonomy (2018). The themes that did not fit into these frameworks were also analyzed and inductively classified. All inconsistencies were resolved through discussions involving a third research team member. After coding all the articles, we built the data structure presented in **Table VII**.

Table VII – Thematic Analysis Results

Third-order themes	Second-order themes	First-order themes	Illustrative evidence
Gamification Design	Game elements	<ul style="list-style-type: none"> - types - effectiveness - actors of the gamification process 	<p>“identify and organize different game design elements” (Hofacker <i>et al.</i>, 2016)</p> <p>“game elements may differ in their effectiveness” (Feng <i>et al.</i>, 2020)</p> <p>“There are four types of people involved in gamified experiences—players, designers, spectators, and observers” (Robson <i>et al.</i>, 2015)</p>
	Psychological mechanisms	<ul style="list-style-type: none"> - goal achievement - extrinsic motivations - intrinsic motivations - flow - gameful experience - adverse effects - ethical implications 	<p>“successful goal achievement affects future base levels of effort to attain the next goal in a recurring goal framework” (Gutt <i>et al.</i>, 2020)</p> <p>“intrinsic and extrinsic motivation can be combined to make it truly enjoyable to the individual” (Insley and Nunan, 2014)</p> <p>“sole provision of extrinsic points/rewards is not an appropriate way” (Sigala, 2015)</p> <p>“to induce flow and foster intrinsic motivation (i.e. game enjoyment)” (Bauer <i>et al.</i>, 2020)</p> <p>“we defined gameful experience as a psychological state” (Landers <i>et al.</i>, 2019)</p> <p>“subversion of the gamified environment” (Harwood and Garry, 2015)</p> <p>“appropriation of user-generated data and content, while claiming to provide “more fun” along “life’s journey” (Dymek, 2018)</p>
Pre-service stage: reinforcing “for fun” and “learning about the brand” practices	Customer motivation	<ul style="list-style-type: none"> - advertising - online shopping experience - in-store shopping experience 	<p>“the domain of gamification of advertising” (Sreejesh <i>et al.</i>, 2021)</p> <p>“online fashion retailers regularly gamifies the online shopping experience with competitions” (Insley and Nunan, 2014)</p> <p>“gamification can create value in a retail store context” (Högberg <i>et al.</i>, 2019b)</p>
	Information search	<ul style="list-style-type: none"> - playful information search - gamified online platforms - perceptions of reviewers 	<p>“a way of making such information seeking a type of entertainment” (Insley and Nunan, 2014)</p> <p>“gamified websites are encouraging the user to adopt the application” (Noorbehahani <i>et al.</i>, 2019)</p> <p>“gamification elements signal the review contributor’s past actions and achievements and, therefore, they are conjectured to help consumers form an opinion of the review contributor” (Wang <i>et al.</i>, 2020)</p>
	Outcomes	<ul style="list-style-type: none"> - increased brand engagement - increased self-brand connections - positive shopping experience - increased purchase intentions 	<p>“gamification could be used to create hedonic value – through an enjoyable experience – that leads to brand engagement” (Högberg <i>et al.</i>, 2019b).</p> <p>“the greater enjoyment of playing the game creates a more pleasurable overall shopping experience” (Bauer <i>et al.</i>, 2020)</p> <p>“can render consumers more playful in a shopping context, which in turn significantly affects their purchase behavior” (Müller-Stewens <i>et al.</i>, 2017)</p>
Core-service	Customer	- value-in-use	“the focus is more on the value of using a gamified service, often referred to as value-in-use” (Mulcahy

stage: reinforcing “work for the brand” practices	participation	- value co-creation - behavioral motivation	<i>et al.</i> , 2021) “to support the customer’s experienced value-in-use of the core service process” (Huotari and Hamari, 2017) “recognizes the customer as a value co-creator and applies game mechanics for motivating customer participation in value co-creation” (Sigala, 2015) “the goal of gamifying is to intrinsically motivate a behavior” (Högberg <i>et al.</i> , 2019a) “motivating people to continue their exercises and purchase products” (Jang <i>et al.</i> , 2018)
	Outcomes	- engagement with the service - cognitive and behavioral changes - customer perceptions	“Based on the experiential value patients derive from their interactions with gamified care, they become engaged with the healthcare process” (Hammedi <i>et al.</i> , 2017) “user behavior is assumed to result from value co-creation processes between gamified services and users” (Wolf <i>et al.</i> , 2020) “gamification as a crucial tool to increase user’s perceptions” (Hsu and Chen, 2018)
Post-service stage: reinforcing “customer feedback” and “talk for the brand” practices	Customer-brand relationships	- loyalty programs - online brand communities - customer feedback - new service development	“we advocate the adoption of gamified loyalty programs (vs. traditional loyalty programs), given their capacity to cater to a broader range of user motivations” (Hollebeek <i>et al.</i> , 2021) “in the context of online communities, gamification is used in order to activate user contribution behavior and encourage the social interaction between users” (Gutt <i>et al.</i> , 2020) “give feedback and ideas for new service development” (Sigala, 2015)
	Outcomes	- brand engagement - loyalty	“branding tool that facilitates the understanding of consumer behavior and offers a platform for brand interactions conducive to brand engagement” (Nobre and Ferreira, 2017) “our studies confirmed that gamified loyalty programs engender significantly greater consumer loyalty to loyalty programs than do conventional loyalty programs” (Hwang and Choi, 2020)
Influencing factors not fully controllable by the organization	Customer	- types of users/players - personal attributes	“Understanding different players is key to creating successful gamification experiences” (Robson <i>et al.</i> , 2015) “Patient age and disease severity are individual factors that influence the effectiveness of the gamified care process in engaging patients” (Hammedi <i>et al.</i> , 2017)
	Technology	- online platforms - emerging technologies	“analyzing user engagement in the context of gamified mobile apps” (Bitrián <i>et al.</i> , 2021) “this study leverages advantages and advances from IoT, context-awareness, and gamification” (Lu, 2018) “an AR quiz game designed to increase the time museum visitors interact with artefacts” (Paliokas <i>et al.</i> , 2020)
	Context	- service context - socio-economic context	“A vital aspect of gamification design is the context of application” (Nacke and Deterding, 2017) “critical insights about the effects of important contextual factors such as access platform and gaming device” (Sreejesh <i>et al.</i> , 2021) “these aspects stemmed from various contexts, including contexts beyond the service per se” (Högberg <i>et al.</i> , 2019a)

From this data structure, we started a cycle of additional readings and debates seeking to recognize and establish theoretical and conceptual relationships among the themes (Gioia et al., 2013), guided by our objective to identify how gamification can leverage the different stages of the customer journey. Finally, we formulated a narrative considering the data structure's identified relationships among second and third-order themes. This narrative is visually represented in the conceptual model and discussed in the following sections.

3.4 FINDINGS

This section presents the five themes (role of the gamification design, gamification in the customer journey, roles of the customer, technology, and context) identified in our analysis of the extant literature, providing the conceptual model shown in **Figure 7**. It describes how gamification can leverage the service customer journey stages leading to superior CX (Voorhees et al., 2017). The model's center represents the customer journey stages (pre-, core- and post-service). At each stage, gamification has a specific focus. Under the influence of the psychological mechanisms acting through gamification, the gameful experience occurs when customers legitimate the value proposition made (Leclercq et al., 2020). Hence, leading to increased customer engagement outcomes and, consequently, enhanced CX. Besides, four dimensions influence the process: The first is gamification design (at the top of **Figure 7**), which corresponds to the organizational proposal of drawing the gamified journey by applying game elements to the service interactions. The second is the customer (a grey area) since CX is a subjective response (De Keyser et al., 2020), and successful gamification depends on customer value co-creation (Leclercq et al., 2020). The third is the technology (at the bottom of **Figure 7**), which actively supports the gamified experience and connects CX's digital, physical, and social aspects (Bolton et al., 2018). Lastly, since CX is context-dependent (De Keyser et al., 2020), the context is represented by the dotted box that frames all conceptual model elements.

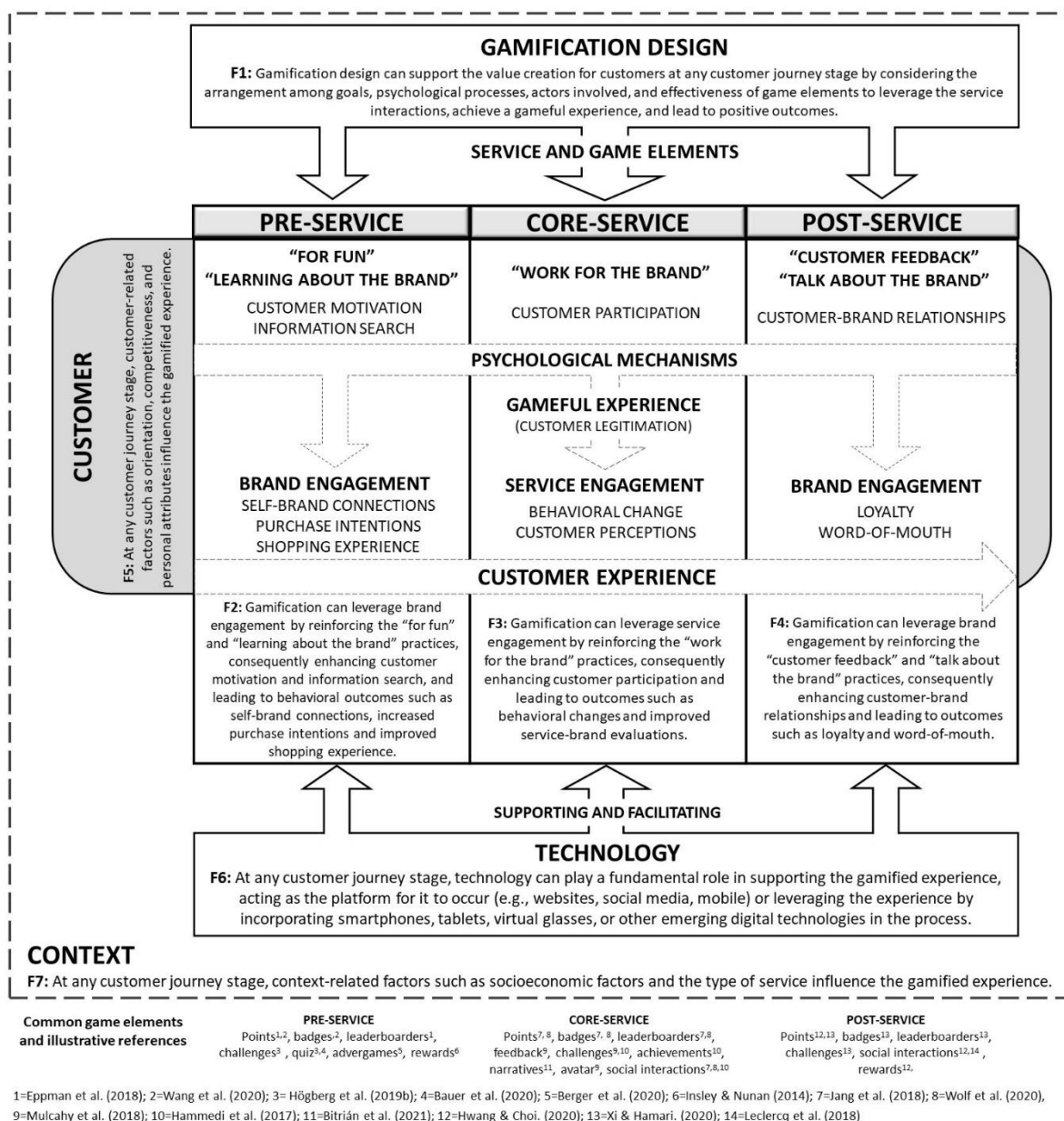


Figure 7. Conceptual model of gamification in the customer journey

3.4.1 THEME ONE: THE ROLE OF THE GAMIFICATION DESIGN

In the service context, gamification design defines the service elements and game elements that establish the gamified service interactions' setting and the customers' goals (Leclercq et al., 2020; Mulcahy et al., 2018; Hofacker et al., 2016). In this sense, successful gamification requires a design process involving multidisciplinary work by service designers, managers, psychologists, computer interaction designers, and programmers to understand how best to take advantage of

the conjunction between game elements and service elements (Morschheuser et al., 2018). Therefore, gamification design implies a holistic view of the gamified service experience by recognizing its influencing factors, including the psychological processes, actors involved, and game elements that adequately meet the goals from the customer and organizational perspective and optimize the gamification process (Bitrián et al., 2021; Gutt et al., 2020; Klapztein and Cipolla, 2016).

A critical aspect of gamification design emphasized in the literature is the psychological mechanisms underlying the gamified service experience. Gamification operates through psychological mechanisms (e.g., goal achievement, intrinsic and extrinsic motivations, and flow) to transfer game-related benefits (e.g., joy, pleasure, and fun) to the service context and change customer behavior (Eisingerich et al., 2019; Koivisto and Hamari, 2019). Thus, gamification design should consider these psychological mechanisms to achieve a gameful experience since neglecting them can lead to flaws in the gamification process (e.g., subversion, disinterest) and adverse emotions (e.g., frustration, anger), negatively impacting CX (Leclerc et al., 2020b; Harwood and Garry, 2015). Additionally, in defining psychological mechanisms to achieve, designers have to consider issues related to ethics and the dark side of gamification since it can be viewed as a current form of exploitation of information and invisible work and a practice that can encourage compulsive/addictive behaviors (Charitsis et al., 2019; Dymek, 2018).

Another aspect of gamification design is understanding the types of people involved in gamified experiences (Huotari and Hamari, 2017; Robson et al., 2015). Thus, studies have dealt with the role of gamification actors, namely customers/players/users (e.g., Santos et al., 2021; Tondello et al., 2019), providers (e.g., Huotari and Hamari, 2017), spectators, and observers (e.g., Robson et al., 2015). According to Robson et al. (2015), players are those individuals who actively participate in the gamified experience; providers are the decision-makers who develop the gamified experience; spectators (including the service frontline employees) do not directly compete in the gamified experience but are part of the environment and indirectly impact the experience by contributing to the atmosphere; and observers are outsiders individuals who influence the experience's popularity and are potential players or spectators. Therefore, it is necessary to consider the needs of these actors when proposing a gamified experience, especially the customers (Weretecki et al., 2021; Seiffert-Brockmann, 2018).

Considering the arrangement among goals, psychological processes, and actors involved, gamification design should define the game elements, i.e., intended dynamics (e.g., progression, relationship, narrative), mechanics that lead to these dynamics (e.g., rewards, cooperation, fantasy), and components that enable to instantiate these mechanics (e.g., points, social-feedback, avatar) (Werbach and Hunter, 2015). However, the literature contributes little to concluding the best game elements for each customer journey stage. For instance, several studies use points to characterize gamification at the pre-service (e.g., Windasari and Visita, 2019), core-service (e.g., Hsu and Chen, 2021), and post-service (e.g., Hwang and Choi, 2020). Nevertheless, since points are components that can instantiate different mechanics (e.g., indicating customer/player progress, establishing ranks, or rewards) (Werbach and Hunter, 2015), it is necessary to go beyond and recognize more abstract levels. Lastly, gamification design should consider the other dimensions and elements that can influence the gamified service experience, detailed in the following sections.

Based on the discussion above, we posit:

Finding 1: Gamification design can support the value creation for customers at any customer journey stage by considering the arrangement among goals, psychological processes, actors involved, and effectiveness of game elements to leverage the service interactions, achieve a gameful experience, and lead to positive outcomes.

3.4.2 THEME TWO: GAMIFICATION IN THE CUSTOMER JOURNEY STAGES

3.4.2.1 *Pre-service stage*

At this stage, gamification can leverage customer-brand engagement by reinforcing the “for fun” and “learning about the brand” practices (Eigenraam et al., 2018). While the former refers to inherently hedonic engagement practices characterized by a strong emotional appeal among customers, the latter is inherently utilitarian and concerns consuming brand-related content (e.g., searching for information on websites or watching a video) (Eigenraam et al., 2018). In doing so, gamification enhances customer motivation and information search in the pre-service stage (e.g., Leenaraj et al., 2021; Tseng et al., 2021; Bauer et al., 2020; Berger et al., 2018).

Customer motivation is related to the idea that consumers attempt to achieve some goals by choosing a service, for instance, fulfilling a specific utility need, desire for entertainment, and

social interactions (Hamilton et al., 2020; Puccinelli et al., 2009). These goals are not always clear to customers, and consequently, they need to be stimulated by marketing initiatives (Böttger et al., 2017). Thus, gamification can increase brand engagement by making these initiatives more immersive and fun, mainly in the domains of advertising (e.g., Vashisht et al., 2019; Bittner and Shipper, 2014) and shopping experiences both online (e.g., Bauer et al., 2020) and offline (e.g., Poncin et al., 2017).

The most common use of gamification in advertising is through advergames, i.e., micro-games designed explicitly for advertising a service or brand (Sreejesh et al., 2021; Vashisht et al., 2019; Terlutter and Capella, 2013). Through positive stimuli associated with games, advergames can increase customer brand recognition, self-brand connections, enjoyment, and purchase intentions (Berger et al., 2018; Bittner and Shipper, 2014). Moreover, gamification can also enhance the shopping experience online (e.g., Bauer et al., 2020; Terlutter and Capella, 2013) and offline (e.g., Högberg et al., 2019a; Pratap et al., 2016). Gamified activities such as treasure hunting, quiz, and co-design practices in offline environments have shown positive results associated with the shopping experience (e.g., Högberg et al. 2019b; Poncin et al., 2017).

Furthermore, as customers progress in this stage, they go to information search, which involves accessing past consumption experiences and external sources to gather relevant information that helps them advance (Weretecki et al., 2021; Singh and Jang, 2020). Accordingly, customers actively seek organizational/brand communications from institutional websites, mobile apps, or official profiles on social media platforms (Tseng et al., 2021; Singh and Jang, 2020; Jang et al., 2017). Then, when incorporated into these platforms, gamification can boost the enjoyment generated by them, stimulating their customer acceptance and use (e.g., Hsu and Chen, 2018). In addition, gamification can add value to the search for information. For instance, Bauer et al. (2020) illustrated how information could be presented more consumer-friendly through an online quiz on an e-commerce website. This gamified approach intrinsically motivates customers without any monetary incentives, leading to an enhanced shopping experience (Bauer et al., 2020). Finally, gamification in online platforms can stimulate consumers to read other customers' reviews about service, for instance, by using badges that rank the status of reviewers and indicate their reputation and perceived competence (e.g., Wang et al., 2020; García-Jurado et al., 2019; Sigala et al., 2015).

Thereby we posit:

Finding 2: Gamification at the pre-service stage can leverage customer engagement with the brand by reinforcing the “for fun” and “learning about the brand” practices, consequently enhancing customer motivation and information search, and leading to behavioral outcomes such as self-brand connections, increased purchase intentions and improved shopping experience.

3.4.2.2 Core-service stage

At the core-service stage, gamification can leverage customer-service engagement by reinforcing the “work for the brand” practices, which refers to the employment of customer resources (e.g., time and effort) for assisting a brand (Eigenraam et al., 2018). In doing so, gamification enhances customer participation, which relates to the motivating interactions between a company and a customer during the touchpoints that impact service performance (Menguc et al., 2020; Dong and Sivakumar, 2017). It involves activities and resources that can only be performed by customers and are essential for service delivery (e.g., complying with the nutritionist-oriented diet) (Dong and Sivakumar, 2017). Therefore, considering that gamification in services is primarily aimed at modifying customer behavior and stimulating attitudes (Högberg et al., 2019a; Huotari and Hamari, 2017; Robson et al., 2015), by employing it in core interactions, organizations can optimize the customer resource integration, i.e., customer’s incorporation, assimilation, and application of their resources (e.g., time, effort, knowledge, skills) into the service processes (Marley et al., 2022; Hsu and Chen, 2021; Linder et al., 2021; Whittaker et al., 2021).

The value for customers relates to the benefits derived from the effective value-in-use, whether of a utilitarian, hedonic or social nature, collectively co-created by a customer-centric network of social actors (Vargo and Lusch, 2008). In that regard, gamification can enhance value-in-use and support customer value co-creation in core-service interactions (Huotari and Hamari, 2017). Therefore, services employing gamification in this stage are those requiring a significant level of customer participation in the activities, such as sports and exercise (e.g., Hamari and Koivisto, 2015), nutrition (e.g., Wolf et al., 2020), health (e.g., Hammedi et al., 2017), tourism (e.g., Sigala, 2015), transformative services (e.g., Mulcahy et al., 2018). However, gamification can benefit other service experiences to increase customer participation (e.g., banking services – Baptista and Oliveira, 2017).

In addition to influencing the co-production of the services, gamification can influence the outcomes of the service experience (Kunkel et al., 2021). By strengthening customer engagement toward the service process, gamification promotes customer's cognitive and behavioral changes (e.g., improving skills, habits, behaviors, and learning) (e.g., Mulcahy et al., 2018), which can lead to positive customer evaluations of the service (Kunkel et al., 2021; Sisson and Whalen, 2021). In this sense, several studies have demonstrated that gamification improves customers' responses, such as satisfaction and brand evaluations (e.g., Mulcahy et al., 2021; Hsu and Chen, 2018).

Thus, we posit:

Finding 3: Gamification at the core-service stage can leverage customer engagement with the service by reinforcing the “work for the brand” practices, consequently enhancing customer co-creation and participation, leading to outcomes such as behavioral changes and improved service-brand evaluations.

3.4.2.3 Post-service stage

At the post-service stage, gamification can leverage brand engagement by reinforcing the “customer feedback” and “talk about the brand” practices (Eigenraam et al., 2018). While the former relates to providing information about the service/brand (e.g., making suggestions or writing a review), the latter refers to interacting with other customers (e.g., recommending, engaging in conversations, helping) (Eigenraam et al., 2018). The customer feedback practices focus more on the customer while talking about the brand is a broad category of referral practices in which customers talk to others. (Eigenraam et al., 2018).

Gamification also enhances customer engagement with the brand by fostering customer-brand relationships (Xi and Hamari, 2020; Sigala, 2015). Among them, loyalty programs have been widely used as marketing strategies to increase brand loyalty (Kim et al., 2021). They have expanded into multiple businesses, especially from the emergence of information, mobile communication, and social media technologies (Jang et al., 2021; Kim et al., 2021). From joining a loyalty program, customers can derive reward attractiveness, knowledge benefit, experiential benefit, comfort, group belongingness, and customer engagement value (Jang et al., 2021). In that regard, gamification can boost customer engagement and perceived benefits in loyalty programs, contributing directly (i.e., purchase) and indirectly (e.g., advocating) to enhancing the

customer brand engagement value (Hollebeek et al., 2021; Tobon et al., 2020). Studies have shown that gamification increases customer loyalty compared to conventional loyalty programs (Hwang and Choi, 2020; Sigala, 2015).

Additionally, gamification contributes to increasing customer suggestions for service improvements, allowing managers to understand the changes in consumer behavior patterns (Moro et al., 2019) and new service development activities (Sigala, 2015). Moreover, the emergence of social networks and blogs fostered a new generation of consumers eager to write their opinions, thus influencing others on a global scale only conceivable due to the massification of Internet access (Eigenraam et al., 2018). In this context, game elements such as points and badges encourage customer reviews and affect its length more than non-gamified interaction counters, for example, in tourism and hospitality settings (Moro et al., 2019; Sigala, 2015) and e-commerce platforms such as Amazon (Insley and Nunan, 2014).

Lastly, gamification encourages engagement practices where customers talk about the brand (Eigenraam et al., 2018). For instance, in the online brand communities (e.g., Gutt et al., 2020), under the stimuli of game elements, customers employ their resources (e.g., time and knowledge) to recommend the service, help other customers, and provide abetment to brands (Xi and Hamari, 2020; Hsu and Chen, 2018; Leclercq et al., 2018; Nobre and Ferreira, 2017; Poncin et al., 2017; Harwood and Gary, 2015).

Thereby we posit:

Finding 4: Gamification at the post-service stage can leverage customer engagement with the brand by reinforcing the “customer feedback” and “talk about the brand” practices, consequently enhancing customer-brand relationships and leading to outcomes such as loyalty and word-of-mouth.

3.4.3 THEME THREE: THE ROLE OF THE CUSTOMER

Customers are critical players in the gamified experience, i.e., those individuals who participate in the experience itself (Robson et al., 2015). Some studies have shown how customer-related factors influence the gamification process and its outcomes (e.g., Zhang et al., 2021; García-Jurado et al., 2019). For instance, understanding the different types of customers and behavioral variations is essential for gamification designers. Robson et al. (2015) recognized different types

of customers (players) based on two main dimensions: (i) orientation and (ii) competitiveness. While the former describes whether the customer is predominantly oriented towards others (social orientation) or themselves (self-orientation), the latter describes the extent (low to high) to which the individual engages in competitive behaviors (Robson et al., 2015). More recently, Santos et al. (2021) recognized that points, progression, level, stats, and acknowledgment are the most recommended game elements for all types of customers, considering a broader category based on user orientation (Philanthropist, Achiever, Socializer, Free Spirit, Player, and Disruptor) (Santos et al., 2021).

Personal customer attributes also affect how gamification impacts the customer's intrinsic motivations and, consequently, their engagement in gamified service experience. For instance, studies pointed out that younger consumers are more likely to experience benefits from gamification (e.g., Wolf et al., 2020; Jang et al., 2018). Many of these studies (e.g., García-Jurado et al., 2019) address this aspect in generational terms by demonstrating that the generation of Millennials and later (people born from 1982) are more attuned to gamification than previous generations. Other studies deal with the moderating effects of gender yet show varied and inconclusive results (e.g., Zhang et al., 2021).

Since customers determine the value of a gamified service experience by their subjective perception (Leclercq et al., 2020; Huotari and Hamari, 2017), it implies the need to consider the customer perspective and related factors that influence gamification, namely the type of players and customer personal characteristics. Based on this, we posit the following finding:

Finding 5: At any customer journey stage, customer-related factors such as orientation, competitiveness, and personal attributes influence the gamified experience.

3.4.4 THEME FOUR: THE ROLE OF TECHNOLOGY

Gamification can be considered primarily a technology phenomenon that expands into other domains such as service management and service design (Koivisto and Hamari, 2019). Moreover, the advance in digital platforms such as websites, social media, and smartphones allowed gamification on a large scale and at affordable costs, attracting the attention of digital designers and marketing managers (Deterding et al., 2011). Thus, gamification can connect the CX's

physical, digital, and social aspects by supporting favorable emotional, social, and sensory customer responses (Bolton et al., 2018).

The literature shows that most studies refer to online environments, where the role of technology is vital since it acts as the platform for gamification. Some focus on explaining the gamification process through causal relationships between game elements and outcomes in websites (e.g., Hsu and Chen, 2021; Bauer et al., 2020; Windasari and Visita, 2019; Nobre and Ferreira, 2017) or mobile applications (e.g., Bitrián et al., 2021; Wolf et al., 2020; Jang et al., 2018). Others focus on investigating customer acceptance drivers of gamification such as user perceived usefulness, perceived ease of use, social motivation, hedonic motivation, and personal innovation (e.g., García-Jurado et al., 2019; Baptista and Oliveira, 2017; Hamari and Koivisto, 2015).

Furthermore, studies have used embedded technologies such as tablets or smartphones in offline environments (e.g., in-store retail, healthcare clinics) to facilitate gamification (e.g., Hammedi et al., 2017; Poncin et al., 2017). In this context, the role of technology is to support and enhance the experience lived in the physical and sensory space. Additionally, more recently, studies have dealt with the integration between gamification and emerging technologies such as haptic technology (Mulcahy and Riedel, 2022), virtual reality (Hollebeek et al., 2020), augmented reality (Paliokas et al., 2020); Internet of things (Lu, 2018), and service robots (Donnermann et al., 2021). Integrating these technologies with gamification can delight customers, enhance immersion, and contribute to a seamless CX.

Thus, we postulate:

Finding 6: At any customer journey stage, technology can play a fundamental role in supporting the gamified experience, acting as the platform for it to occur (e.g., websites, social media, mobile) or leveraging the experience by incorporating smartphones, tablets, virtual glasses, or other emerging digital technologies in the process.

3.4.5 THEME FIVE: THE ROLE OF THE CONTEXT

Finally, the context is critical to understanding the CX (Silva et al., 2021; De Keyser et al., 2020) and how gamification impacts the customer journey (Sreejesh et al., 2021; Nacke and Deterding,

2017; Richards et al., 2014). The context comprises all situational factors (i.e., particular to a specific time and place) considering the individual, social, market, and environmental dimensions (De Keyser et al., 2020). In this sense, besides customer-related factors (previously discussed), the socio-economic context, including cultural aspects, can influence the success of gamification. For instance, access to different platforms can increase gamification effectiveness in advertising situations (Sreejesh et al., 2021). The culture of the people involved can influence the practice of games or social interactions (Richards et al., 2014). In addition, despite evidence of successful gamification in different markets (e.g., healthcare, retail, e-commerce, mobile payments, banking), according to Nacke and Deterding (2017), not all activities and contexts can be equally gamified and lead to the same results. However, future research needs to explore better how different contexts impact gamification's success (Nacke and Deterding, 2017).

Thereby, we propose:

Finding 7: At any customer journey stage, context-related factors such as socio-economic factors and the type of service influence the gamified experience.

3.5 FUTURE RESEARCH OPPORTUNITIES

This section focuses on future research opportunities to advance the literature based on the previous conceptual discussion. Insights came from the analyzed literature and the author's interpretations of the gaps and future research directions. Although we do not intend to be exhaustive, our research agenda covers the five thematic areas that constitute the conceptual model and findings. **Table VIII** presents examples of research questions.

Table VIII – Future Research Opportunities

Theme		Research questions	References
Gamification Design (F1)		How does research develop service design methods or adapt existing ones to guide the gamification implementation in the service context? What is known (in literature and practice), and what is needed to standardize the game elements?	Conejo <i>et al.</i> (2021) Koivisto and Hamari (2019)
Customer Journey (P1)	Pre-service stage (F2)	How can gamification be applied at the pre-service stage to train customers and support better subsequent value-in-use of products and services? How can gamification improve the initial contact in the service context?	Cassidy <i>et al.</i> (2015) Voorhees <i>et al.</i> (2017)

Core-service stage (F3)	Which actors make up the actor-network in gamified experiences, and what are their roles in the value-co-creation? How to measure the value of gamification at the core-service stage considering the service experience dimensions?	Robson <i>et al.</i> (2015) Leclercq <i>et al.</i> (2020)
Post-service stage (F4)	How can gamification enhance customer feedback and online reviewer engagement? What is the relative impact of customer intrinsic and extrinsic motivations on gamified loyalty programs?	Mathwick and Mosteller (2017) Hollebeek <i>et al.</i> (2021)
Customer (F5)	What are the customer goals, and how do they influence the effectiveness of gamification? What types of gamification initiatives might be best suited depending on the customer goals? What is the negative potential of gamification for the customer, and how to mitigate it?	Koivisto and Hamari (2019) Santos <i>et al.</i> (2021) Dymek <i>et al.</i> (2018)
Technology (F6)	How has artificial intelligence contributed to the development of gamification so far, and how can it contribute in the future? How can other emerging technologies (e.g., virtual reality, blockchain, internet of things, augmented reality) be integrated into gamification processes?	Paliokas <i>et al.</i> (2020) Hollebeek <i>et al.</i> (2020)
Context (F7)	Which contextual factors are most relevant in the gamification process and outcomes? How can research contribute to selecting and analyzing relevant contextual information? What are the dynamics of the customer journey from the perspective of internal customers and internal branding?	Du Preez <i>et al.</i> (2017) Nacke and Deterding (2017) Sreejesh <i>et al.</i> (2021)

Our first finding (F1) indicates that gamification design can add value to service interactions at any customer journey stage (Leclercq *et al.*, 2020; Huotari and Hamari, 2017). Thus, scholars still need to explore the multiple decisions and factors that shape the gamification design in the service context by considering how internal (brand/firm), external (cultural context, social context, other providers), customer/user, and technological factors impact the way customers perceive gamification (Morschheuser *et al.*, 2019). However, few studies combine gamification and service design methodologies, representing a gap in current research (Conejo *et al.*, 2021). Moreover, while a central point for gamification design is the game elements, we identified a lack of diversity in our review. According to Koivisto and Hamari (2019), most works have focused on using points, badges, and leaderboards (PBL) to explore gamification design. However, a wide range of game elements has been less explored to enhance the CX (Koivisto and Hamari, 2019). Therefore, future research needs to consider literature and practice to systematize the different game elements and establish a standardization that allows them to be recognized and compared.

By enhancing customer motivation and information search, gamification can strengthen customer engagement toward the brand at the pre-service stage, as suggested by our second finding (F2). However, gamification can also contribute to the pre-service stage in other ways. For instance, since service quality can depend on consumers' willingness to learn the procedures or interact cooperatively with other consumers (Cassidy et al., 2015), it is possible to use gamification to engage customers in necessary training/preparations (e.g., reading the instruction manual) in order to enhance the subsequent value-in-use of products and services. Additionally, the quality of initial contact between customers and service providers, which can be face-to-face, voice-to-voice, or computer-to-computer meetings, can retain or drive away customers (Voorhees et al., 2017). However, no studies address ways to improve initial contact in services through gamification, representing a research gap.

As proposed in our third finding (F3), gamification can leverage engagement at the core-service stage by enhancing the value-in-use and supporting behavioral changes. However, considering that the CX is collectively co-created in a complex network of stakeholders (Silva et al., 2021; Tax et al., 2013), it is necessary to identify who these stakeholders are in gamified services and what is the role of each of them. Additionally, since the increased research interest (e.g., Bitrián et al., 2021; Mulcahy et al., 2020) and wide practical application of gamification in transformative services (e.g., mobile apps to encourage healthy behaviors and educational websites), a proper understanding of the collective and social value of gamification is needed, as well as of the resulting economic gains (e.g., healthier behaviors may lower health care costs). Furthermore, the current scales used to measure gameful experience (Högberg 2019a; Landers et al., 2019) emphasize the gaming dimensions instead of the service attributes. Thus, new scales need to emerge, emphasizing service experience dimensions in the gameful experience (Leclercq et al., 2020).

At the post-service stage, the focus of the gamification process is to increase customer engagement with the brand, as stated in our fourth finding (F4). Thus, research has focused on loyalty programs and customer participation in brand communities. However, customer brand engagement can take other forms (Eigenraam et al., 2018). For instance, while customer feedback is essential for improving services and informing other customers (Eigenraam et al., 2018), how it can be fostered has been little explored. Given that many customers do online reviewing as a hobby and therefore attribute hedonic value to reviews (Mathwick and Mosteller,

2017), gamification seems to engage customers in these activities potentially. Future research is needed to ascertain this potential. Furthermore, there is still much to investigate about brand communities and loyalty programs. For instance, it is necessary to investigate better the relative impact of extrinsic and intrinsic motivations in gamified loyalty programs (Hollebeek et al., 2021).

Our fifth finding (F5) establishes that customer-related factors impact gamification at any point in the customer journey. In this sense, a key factor is recognizing the customer goals and their impacts on gamification (Koivisto and Hamari, 2019). Becker et al. (2020) provided a customer journey model centered on customer goals at multiple hierarchy levels, adding complexity and grounding the advancement of gamification research from this perspective. Additionally, other customer-related factors such as the harmful effects of gamification, privacy, and data security issues also need to be further investigated in the future by adopting a critical view that points not only to the benefits but also the harms of gamification (e.g., stimulating the addiction to games, exploitation of the customer work) (Dymek, 2018).

According to our sixth finding (F6), technology can support and enhance gamification processes at any customer journey stage. Moreover, some authors consider gamification primarily a technological process (e.g., Högberg et al., 2019a). Thus, integrating different emerging technologies (e.g., artificial intelligence, augmented reality, virtual reality, mixed realities, service robots, the internet of things, blockchain) can leverage the co-creation of value in gamified interactions by adding functional and hedonic elements to the processes. Although research has taken initial steps to understand the role of emerging technologies (e.g., Paliokas et al., 2020; Lu, 2018), more research is needed to address the integration of different technologies in gamification, as well as to identify and classify these technologies by considering the distinct stages of the customer journey.

Lastly, our seventh finding (F7) suggests that context-related determinants influence gamified interactions. However, the various contextual factors (e.g., personal, social, national, market, environmental) are not equally important in consumption situations (De Keyser et al., 2020). Much remains unknown when they come to gamified experiences about how the different contextual aspects interfere in the gamification process (Sreejesh et al., 2021). Therefore, given the abundance of contextual data available, future research needs to identify, classify, and select critical contextual information that may be most relevant in understanding the gamification processes and outcomes. Additionally, future research is needed on the dynamic of gamification

in an intra-organizational context, from the perspective of internal customers, to support internal branding actions (Du Preez et al., 2017).

3.6 CONCLUSIONS

This article discusses how gamification can enhance the service CX throughout the customer journey. In summary, we developed a conceptual model and findings that discuss the gamification process considering the different stages of the customer journey (pre-, core-, and post-service), as well as exploring the role of the main factors that influence this journey (design-, customer- technology-, and context-related). Next, we highlight the theoretical and managerial contributions of this research.

3.6.1 THEORETICAL CONTRIBUTIONS

Although previous literature reviews have contributed to advancing the understanding of gamification in service research and other domains (e.g., Ciuchita et al., 2023; Pasca et al., 2021; Shi et al., 2017), our study differs from and complements these previous studies by offering three main theoretical contributions. First, it advances the integration between gamification and CX research areas based on the concept of the customer journey. Despite the importance of the customer journey concept for CX and service experience literature (Tueanrat et al., 2021; Følstad and Kvale, 2018) and the growing interest in gamification (e.g., Hollebeek et al., 2021; Wolf et al., 2020), there is a lack of studies explicitly integrating them into a conceptual approach. Thus, the present study addresses a research gap (Ciuchita et al., 2023; Leclercq et al., 2020) by integrating these concepts. It contributes to a better understanding of gamification design and implementation in the service context, which can assist scholars interested in developing superior CXs using gamification. Furthermore, it contributes to research on the effectiveness of the customer journey design (Kuehnl et al., 2019) by adding insights related to gamification. Besides, it contributes to the extant discussion regarding the gamification scope and boundaries. In short, it contributes to introducing the concept of the customer journey into research on gamification.

Second, it presents a conceptual model of gamification in the customer journey (**Figure 7**), contributing to theoretical development and supporting future studies. The model synthesizes

relevant knowledge in gamification and CX research, enabling an integrated view of the processes that can increase customer engagement and positive CX outcomes, considering the customer journey stages. It represents how gamification can leverage the different stages of the customer journey by summarizing the main variations in the focal object of customer engagement and applications that lead to more relevant results for each phase of the customer journey. Therefore, it contributes to the literature on engagement practices by pointing out the ways toward a seamless CX along the gamified customer journey. Moreover, the conceptual model considers the influence of elements not under the organization's complete control (customer, technology, and context). Therefore, it assists researchers from different areas (e.g., service, management, marketing, human-computer interactions, and information systems) take a more holistic view of gamification, especially supporting customer-, technology-, and context-oriented research.

Third, this study provides guidelines and implications for continued research on gamification from a customer journey perspective (**Table VIII**). It fosters research by encouraging future opportunities and research questions in five thematic areas (design, customer journey stages, customer, technology, and context). Future gamification research development in the service context calls for more significant knowledge accumulation within these themes to advance research from a holistic perspective.

3.6.2 MANAGERIAL CONTRIBUTIONS

This study also offers managerial contributions. First, the proposed conceptual model can help managers make better decisions by understanding the most critical variations in the mechanisms that involve the gamification of service interactions along the customer journey. With this, managers can define an appropriate gamification strategy, creating opportunities based on specific needs related to each customer journey phase. In addition, thinking of gamification from a customer journey perspective assists managers in viewing it as a tool capable of collaborating in long-term strategies rather than a one-off communication action. It becomes advantageous, considering that in digital settings, gamification can provide firms with data on customer behavior that can generate insights, helping companies improve operational processes and drive customer engagement. Second, this study recognizes the importance of factors that are not under the organization's complete control (related to the customer, context, and technology)

but that affect the effectiveness of gamification. Hence, it implies that managers adopt a strategic view in gamification management. It should include understanding and segmenting customers, analyzing contextual contingencies, and adequately managing the technological resources that can contribute to gamification effectiveness. It also implies the need to ensure a multidisciplinary team to assist in the gamification design, including members of the different sectors that shape the service organization, instead of confining it to the IT Department. Third, this work presents the effects of gamification on the customer journey by focusing on customer behavior. It emphasizes the impacts of gamified interactions on customer engagement and brand relationships, which lead to better CXs and jointly constitute business priorities in the service context. Since the expansion of the service sector and the consequent increase in competitiveness, gamification can be a differential in communication strategy and service delivery. Therefore, it can help managers concerned with improving CX by offering ways to consider whether gamification is the proper strategy for their needs.

3.6.3 LIMITATIONS

There are some limitations in this study that we can highlight. First, due to the main objective of offering a conceptual contribution on how gamification can enhance the customer journey, this review focused on thematic content analysis and did not present meta-analytic data. Therefore, future works can complement it, for example, by describing the main game elements used in the studies. Second, it cannot fully address the complexities of the customer journey phenomenon since customers can change the path, iterating between stages or giving up at any stage to restart the journey later (Hamilton et al., 2020; Lemon and Verhoef, 2016). Thus, while the present paper represents a starting point to integrate gamification into the customer journey, future work could explore different customer journey frameworks. Third, the proposed conceptual model is entirely based on the literature review. However, future research can focus on gathering and analyzing empirical evidence to complement and enrich the current view by potentially revealing other relevant dynamics. Fourth, we considered only research at the intersection of gamification and CX when reviewing the literature. However, while this approach brought gains related to the relevance of these topics, on the other hand, it could have limited the research findings. Therefore, a more comprehensive view of gamification could help generate other insights for understanding gamification in the customer journey. However, despite these limitations, the

proposed conceptual model and implications can help researchers and practitioners understand the gamification process by considering a customer journey perspective.

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4 ARTICLE III – SERVICEGAMEX: A METHOD FOR DESIGNING SERVICE GAMIFIED EXPERIENCES

Abstract

This article introduces the ServiceGameX method, which integrates gamification and service design (SD) to enhance customer experience (CX) through gamified service experiences. The method is organized into four stages: (i) service exploration, (ii) service visualization, (iii) gamification ideation, and (iv) idea evaluation and prototyping. ServiceGameX combines SD tools like personas and customer journeys with gamification frameworks like DMC and Hexad to support value co-creation among stakeholders, focusing on enhancing CX. The method, developed using the Design Science Research (DSR) methodology, was tested in a Brazilian public vocational education library, proving its effectiveness in increasing stakeholder engagement and driving service innovation. This study contributes to gamification and SD research by providing an integrated and synergistic approach to designing gamified service solutions. ServiceGameX offers practical guidance for service designers and practitioners in delivering meaningful gamified service experiences.

Keywords Gamification, Service Design, Customer Experience (CX), Value Co-creation, Service Innovation.

4.1. INTRODUCTION

Delivering customer experience (CX) is critical to overall business performance since enhanced CX leads to increased customer satisfaction, loyalty, and other marketing outcomes (Wetzels et al., 2023; Silva et al., 2021; De Keyser et al., 2020). As a result, academics and practitioners have tried increasing CX by infusing new technologies (e.g., Ranieri et al., 2024) or applying a modularity approach (e.g., Zha et al., 2023). Studies have also shown that gamification, commonly defined as “the use of game elements in non-game contexts” (Deterding et al., 2011), can significantly improve CX, increasing customer engagement throughout the entire customer journey (Silva et al., 2023; Leclercq et al., 2020). Indeed, gamification can influence customer behavior, boost innovation in customer journeys, influence marketing outcomes, and drive value (Ciuchita et al., 2023; Leclercq et al., 2020).

Service design (SD) has emerged as a key discipline for improving value (Trischler et al., 2018; Zomerdijk and Voss, 2010). In service research, value is a central concept (Silva et al., 2021; De Keyser et al., 2020; Heinonen et al., 2019; Gentile et al., 2007). Traditionally, value was seen as something the company delivered to the customer (transactional value) (Grönroos, 1997). However, contemporary views based on Service-Dominant Logic see value as co-created through interactions between customers and service organizations (Vargo and Lusch, 2008). In particular, SD has also evolved into a multidisciplinary, co-creative, and human-centered approach (Sudbury-Riley et al., 2020; Teixeira et al., 2019) to foster the involvement of various stakeholders, facilitating value co-creation and ensuring diverse perspectives are considered throughout the design process (Patrício et al., 2018).

For this purpose, service designers aim to employ comprehensive principles, tools, and techniques to gain deep insights into customer needs and preferences, enabling innovative and experience-centered solutions (Patrício et al., 2018; Zomerdijk and Voss, 2010; Holmlid and Evenson, 2008). Ultimately, SD empowers organizations to deliver functional, emotional, and meaningful solutions to users, improving their experiences (Sudbury-Riley et al., 2020). Integrating gamification into the SD process can further enhance these outcomes by adding layers of engagement and interactivity (Martín-Peña et al., 2024). Noteworthy, gamification facilitates value co-creation by providing interactive and exciting gameful experiences that engage customers more deeply (Ciuchita et al., 2023; Leclercq et al., 2020; Huotari and Hamari,

2017). Through active customer participation in service interactions, game elements help shape CX and contribute to value co-creation (Silva et al., 2023; Huotari and Hamari, 2017).

There are several practical examples of service solutions that apply SD and gamification to enhance CX. For instance, in healthcare, the Mango Health app uses points and rewards to encourage patients to take their medications on time, ensuring that the service is user-friendly and tailored to each patient (Codex, 2024). Duolingo also utilizes a gamified approach to language learning, employing rewards, levels, and challenges to engage students while adopting SD principles to create an intuitive and practical learning experience (Adams, 2019). Thus, while gamification adds a layer of emotional engagement and interactivity to services, SD ensures these gamified solutions are CX-centric. In addition, gamification also engages actors more deeply in a co-creative way in the SD process (Patrício et al., 2020; Leclercq et al., 2017).

However, the literature addressing the interplay between services and gamification is still in its early stages (Ciuchita et al., 2023; Silva et al., 2023; Conejo et al., 2021). In general, the extant literature has focused on the positive outcomes of gamification in different service settings, such as retail (e.g., Bauer et al., 2020; Poncin et al., 2017;), healthcare (e.g., Hammedi et al., 2017), banks (e.g., Çera et al., 2020), tourism (e.g., Sever et al., 2015) and others. On the contrary, recent studies have also questioned gamification's effectiveness and long-term sustainability concerning outcomes, value creation, and return on investment (e.g., Hammedi et al., 2024; Leclercq et al., 2020; Raftopoulos, 2020). These studies have highlighted the need to address these challenges critically through a better alignment between gamification and SD. In particular, Martín-Peña et al. (2024) highlight the lack of evidence on the effective integration of gamification into SD, claiming for methodologies that can bridge them.

Designing service journeys and touchpoints to offer a meaningful gamified experience to customers is a key ingredient for service providers (Hammedi et al., 2024; Silva et al., 2023; Mele and Russo-Spena, 2022). Nevertheless, the extant service literature lacks methodologies and frameworks that support gamification and SD integration (Martín-Peña et al., 2024; Ciuchita et al., 2023). The lack of this comprehensive integration can lead to missed opportunities for fully leveraging the strengths of both methodologies, resulting in suboptimal engagement, inefficiencies, and limited innovation in creating gamified service experiences (Silva et al., 2023; Conejo et al., 2021). In addition, an integrative method can also mitigate gamification's negative and rebound effects by stimulating a deep understanding of all service elements (Hammedi et

al., 2024; Ciuchita et al., 2023; Silva et al., 2023). However, to the best of our knowledge, no existing multivalent methods in the academic literature synergistically combine SD and gamification to create gamified service experiences.

To address this research gap, this article proposes a method (ServiceGameX) that ensures that both methodologies complement each other to enhance value co-creation and improve customers' service experiences. The ServiceGameX method comprises four stages: service exploration, service visualization, gamification ideation, and idea evaluation and prototyping. By integrating them, ServiceGameX fosters stakeholder engagement in early-stage innovation towards sustainable, experience-centric, and gamified solutions. Additionally, each stage combines SD tools (such as workshops, personas, and customer journey maps) and gamification tools (such as the HEXAD Framework, DMC Framework, a deck of cards, and a table), leveraging the synergistic benefits of both methodologies.

The development of the ServiceGameX method followed design science research (DSR), which is appropriate for creating and evaluating innovative artifacts to solve practical problems and contribute to theoretical knowledge (Peppers et al., 2007; Hevner et al., 2004). Additionally, DSR has been applied in the development of novel SD methods (e.g., Sierra-Pérez et al., 2021; Teixeira et al., 2017) and gamification design methods (e.g., Holzer et al., 2020; Morschheuser et al., 2018). Thus, DSR was particularly well-suited for the present purpose. Although the proposed method can be applied to general services, in line with DSR, the research was empirically conducted in a federal public professional education library in Brazil, where the method was tested in an actual situation to evaluate its effectiveness.

This article contributes to gamification and service design research in three main ways. Firstly, it proposes the ServiceGameX method, a novel interdisciplinary method for designing gamified service experiences that integrates SD and gamification strategically and synergistically. Thus, it answers the calls for more structured methodologies and frameworks that integrate these two areas (Martín-Peña et al., 2024; Conejo et al., 2021). Second, it also provides a set of CX and gamification tools to support the implementation of the ServiceGameX stages. This set of elements supports and enhances stakeholder engagement, facilitates co-creation, and ensures the development of experience-centric solutions. Thirdly, it provides an illustrative application in an educational service, which demonstrates its practical applicability and effectiveness in real-world contexts, further solidifying its value as a robust and adaptable tool for service innovation.

Lastly, the article contributes to service designers and managers by offering guidance in creating engaging, meaningful, and sustainable gamified service experiences.

The article is organized as follows. The next section presents the conceptual background of the article. The Research Design Section discusses how DSR supported the development of ServiceGameX, which is also described in detail. Results Section presents the case study in which the method was applied and the evaluation results. Finally, the Research Contributions and Conclusions sections highlight the theoretical and practical contributions, research limitations, and future opportunities.

4.2. CONCEPTUAL BACKGROUND

4.2.1 GAMIFICATION

Since the early 2010s, gamification research has grown significantly (Sharma et al., 2024; Koivisto and Hamari, 2019), evolving into a multidisciplinary field that draws from various disciplines such as computer science, informatics, human-computer interaction, game studies, business, and psychology (Nacke and Deterding, 2017). This interdisciplinary approach has enriched the understanding and application of gamification across multiple domains, particularly in service research (Hammedi et al., 2024; Ciuchita et al., 2023; Silva et al., 2023).

From a service research perspective, gamification has been conceptualized by emphasizing the CX and value creation (Ciuchita et al., 2023; Silva et al., 2023). Huotari and Hamari (2017) describe gamification as a process that enhances service by providing gameful experiences that support users' value creation. Similarly, Leclercq et al. (2020) define gamification as a process in which the rules and goals characteristic of game design enable the realization of experiential value for customers in non-game contexts. These definitions underscore the role of gamification in enhancing CX and fostering innovative value creation in the service context (Ciuchita et al., 2023; Silva et al., 2023).

Building on these conceptual foundations, Leclercq et al. (2020) further explain how gamification influences customers' motivations, leading to value creation and an enhanced service customer experience. The gamification design provides predictability and meaning, helping users realize experiential value. When intrinsically motivated, users engage more deeply, investing cognitive, emotional, behavioral, and social resources (Leclercq et al., 2020). Thus,

providers should tap into these motivations to optimize the gamified service experience, ensuring the design offers sufficient predictability and meaning (Leclercq et al., 2020; Huotari and Hamari, 2017). Achieving this requires a holistic view of the customer journey, encompassing design, customer, technology, and context characteristics (Silva et al., 2023).

To address these challenges, recent advancements in gamification research have focused on formalizing design approaches that go beyond the traditional reliance on points, badges, and leaderboards (PBL) as primary game elements (Hallifax et al., 2023; Koivisto and Hamari, 2019). This shift reflects a growing recognition of the importance of aligning gamification strategies with users' needs and motivations, supported by evidence that cultural, demographic, technological, and contextual factors significantly influence how game elements are perceived (Bassanelli et al., 2024; Silva et al., 2023). Consequently, by integrating more nuanced elements such as narratives, quests, challenges, rewards, feedback systems, and social interactions, gamification design now aims to create deeper, more personalized, and engaging experiences that resonate more effectively with users (Hallifax et al., 2023; Nacke and Deterding, 2017).

Review studies (e.g., Bassanelli et al., 2024; Mora et al., 2017) have highlighted various frameworks and methods covering diverse gamification design perspectives. For example, Werbach and Hunter (2012, 2015) introduced the DMC framework, which categorizes game elements into three levels: Dynamics (participants' behaviors), Mechanics (such as setup, rules, progression, and rewards), and Components (such as points, badges, and leaderboards), emphasizing user inclusion throughout the process. Similarly, the MDA (Mechanics-Dynamics-Aesthetics) framework offers a complementary approach by focusing on how Mechanics (rules and systems), Dynamics (emergent behavior), and Aesthetics (emotional responses) interact to create engaging gamified experiences (Hunicke et al., 2004). Both frameworks underscore the importance of understanding these interactions in gamification design.

Other frameworks, such as Kumar and Herger's (2013) Player-Centered Design (PCD) focus on user engagement by understanding user goals and the business context. Chou's (2015) Octalysis framework addresses human motivations in gamification design, while Deterding's (2015) Lens of Intrinsic Skill Atoms breaks down complex challenges into manageable components known as "skill atoms." Tondello et al. (2016) developed the Hexad framework, allowing designers to tailor gamification to six distinct user types—Philanthropists, Socializers, Free Spirits, Achievers, Disruptors, and Players—each motivated by different factors. Morschheuser et al. (2018) also

developed a gamification design method for engineering gamified software, focusing on centering users in the design process. These frameworks share a user-centered approach, aiming to adapt gamification experiences to user profiles' specific needs and motivations to optimize effectiveness and engagement (Bassanelli et al., 2024; Mora et al., 2017).

While these frameworks offer tools and starting points for applying gamification in various contexts, there remains a need for a design method that integrates the specific nuances of the service customer experience (Ciuchita et al., 2023; Silva et al., 2023). Despite the existing theoretical work emphasizing the importance of customer experience in service design (e.g., Ponsignon, 2023; Teixeira et al., 2012; Zomerdijk and Voss, 2010), a unified approach that effectively integrates gamification and service design is still needed (Martín-Peña et al., 2024; Ciuchita et al., 2023; Silva et al., 2023).

4.2.2 SERVICE DESIGN (SD)

SD has increasingly become a central discipline, evolving from its early role within the new service development process to a fundamental aspect of service innovation (Yu and Sangiorgi, 2018). Initially rooted in a constructivist approach that emphasized form as the primary outcome of design (Alexander, 1971), it has evolved into a human-centered, multidisciplinary, co-creative, and holistic practice (Prestes Joly et al., 2019; Yu and Sangiorgi, 2018). It prioritizes enhancing existing services or creating new ones, focusing on CX as a key element of SD (Prestes Joly et al., 2019; Yu and Sangiorgi, 2018).

SD, once traditionally seen as a stage in the new service development process focused on idea specification (Edvardsson et al., 2000; Goldstein et al., 2002), has increasingly evolved into a cross-cutting approach to innovation (Evenson, 2008; Patrício et al., 2011). As Teixeira et al. (2017) suggested, this approach encompasses two main perspectives. The management perspective views SD as a structured process that includes activities (e.g., exploration, ideation, prototyping, and implementation), tools (e.g., service blueprints and customer journeys), and network structure like a value constellation to create service innovation (Teixeira et al., 2017; Patrício et al., 2011). On the contrary, the interaction perspective emphasizes the role of the environment, actor engagement, technologies, and service atmosphere in driving innovation (Truong et al., 2006; Newman and Landay, 2000). By integrating these perspectives, SD promotes

a holistic approach that drives innovation and enhances the overall service experience by considering both process and interaction dynamics (Teixeira et al., 2017).

While traditional SD tools such as blueprinting, experience clue management, critical incident technique, and servicescape design have provided valuable insights for creating the desired CX (Johnston and Kong, 2011; Bitner et al., 2008; Berry et al., 2006), more complex models have integrated these tools into a multilevel approach. This approach transcends the immediate service delivery system by considering how customers co-create value within a systemic and complex context that includes social, cultural, and technological factors, as well as other influential actors (Ponsignon et al., 2017; Beltagui et al., 2016; Teixeira et al., 2012; Patrício et al., 2011). This process involves careful planning of both tangible and intangible service elements, such as touchpoints, customer journeys, employee roles, people, processes, and technologies (Trischler et al., 2018; Teixeira et al., 2017, 2012; Patrício et al., 2011; Zomerdijk and Voss, 2010).

Additionally, over the past decade, SD has been recognized as extending beyond the design of services to become an approach for fostering new forms of value co-creation in broader contexts (Alkire et al., 2022; Kimbell, 2011). SD is now seen as a means of unlocking creativity and supporting social innovation within organizations and communities (Alkire et al., 2022; Akama, 2015). SD has shifted from a supportive role in service development to a key driver of innovation. By embedding CX and value co-creation, SD plays a crucial role in the ongoing evolution of services (Prestes Joly et al., 2019; Yu and Sangiorgi, 2018). Incorporating gamification into SD further strengthens this potential by creating more engaging experiences, showing how these approaches can work together to deliver more effective service solutions (Martín-Peña et al., 2024; Conejo et al., 2021).

4.2.2 GAMIFICATION AND SERVICE DESIGN INTEGRATION

Although promising, the integration between SD and gamification is still in its early stages (Ciuchita et al., 2023; Silva et al., 2023; Conejo et al., 2021). An overview of articles addressing the interplay between both is shown in the **Appendix**.

Gamification can intersect with SD in two primary ways: by enhancing the CX with services (outcome) or as a tool that assists and motivates designers during the SD (process) (Conejo et al., 2021). Firstly, gamification incorporates game elements into various touchpoints and

interactions throughout the service journey, significantly boosting user engagement, satisfaction, and loyalty by making the experience more enjoyable, immersive, and rewarding (Ciuchita et al., 2023; Silva et al., 2023; Leclercq et al., 2020; Klapztein, and Cipolla, 2016).

Secondly, gamification can be a powerful tool for service designers, using game principles and mechanics to inspire and energize the design process (Patrício et al., 2020; Leclercq et al., 2017). Thus, service designers can foster a more dynamic and collaborative environment by incorporating gamified methods into brainstorming sessions, prototyping activities, and iterative design cycles (Nivedhitha and Manzoor, 2019). These gamified approaches can stimulate creativity, enhance team collaboration, and maintain high motivation throughout the design process, ultimately leading to more innovative and user-centered service solutions (Patrício et al., 2020; Nivedhitha and Manzoor, 2019).

In summary, while gamification and SD integration is still developing, its potential to enhance the customer experience and SD process is considerable. This dual application benefits customers by creating more engaging and satisfying experiences and empowers designers to produce more innovative and effective service outcomes (Martín-Peña et al., 2024; Conejo et al., 2021). However, to the best of our knowledge, no multivalent methods in the academic literature synergistically use SD and gamification for designing service-gamified experiences. As a result, the present article proposes the ServiceGameX method to fill this research gap.

4.3. RESEARCH DESIGN

Design Science Research (DSR) supported the development of the ServiceGameX method, ensuring it addresses our research gap and provides potential solutions to real-world challenges involving service design and gamification. In the following sections, we present the DSR methodology, the ServiceGameX conceptual framework, and, lastly, the development process of the ServiceGameX method.

4.3.1. DESIGN SCIENCE RESEARCH (DSR) METHODOLOGY

DSR has been successfully applied in SD methods (e.g., Sierra-Pérez et al., 2021; Teixeira et al., 2019) and gamification design methods (e.g., Holzer et al., 2020; Morschheuser et al., 2018). DSR advances research by building and evaluating new artifacts, such as constructs, models, and

methods, that address organizational and societal challenges (Hevner et al., 2004; Peffers et al., 2007). Given this focus, DSR was considered especially suitable for developing the ServiceGameX method and was employed using the following stages identified by Peffers et al. (2007):

(1) Identify Problems and Motivation: Although gamification and SD are recognized approaches to enhancing CX, the literature review revealed a lack of integrated methods that combine both to co-create value effectively (Martín-Peña et al., 2024; Conejo et al., 2021). This gap represents a missed opportunity to fully leverage the benefits of both disciplines in service innovation.

(2) Define Solution Objectives: The ServiceGameX method was developed to integrate gamification's interactive and motivational aspects with the human-centered and collaborative principles of SD. The objective was to create a method that enhances CX by facilitating value co-creation, stakeholder engagement, and the development of experience-centric gamified solutions.

(3) Design and Develop: Building upon the conceptual foundations from both gamification and SD, the ServiceGameX method was structured into four stages: (i) Service Exploration, (ii) Service Visualization, (iii) Gamification Ideation, and (iv) Gamification Idea Evaluation and Prototyping. These stages were implemented through interviews and workshops involving different stakeholders. In addition, the stages incorporated tools and techniques from both areas, such as personas, journey mapping (from SD), and gamification frameworks like the HEXAD model, to ensure a comprehensive approach to service innovation.

(4) Demonstration: The ServiceGameX method was applied in a real-world context, specifically in a Brazilian federal public vocational education library. The method was used to address challenges in student experience, focusing on designing gamified service experiences to increase student engagement with the library and book borrowing rates. Different stakeholders were involved (students, teachers, managers, and library staff). The application of the method in this setting demonstrated its practicality and potential impact.

(5) Evaluate: The ServiceGameX evaluations were conducted with the workshop participants at the end of each development section. These workshops allowed participants to validate the personas, journey maps, and gamified ideas generated during the process. Feedback from the

workshops highlighted the method's strengths and areas for further refinements, ensuring its alignment with the goals of enhancing CX and engagement.

4.3.2 CONCEPTUAL FRAMEWORK OF THE SERVICEGAMEX METHOD

The ServiceGameX Method offers a comprehensive framework for designing gamified service experiences by leveraging the strengths of both SD and gamification disciplines. By combining the CX-centered focus of SD with the engagement-enhancing potentialities of gamification, ServiceGameX seeks to create more immersive, motivating, and effective service interactions.

Figure 8 summarizes the conceptual structure of the ServiceGameX Method.

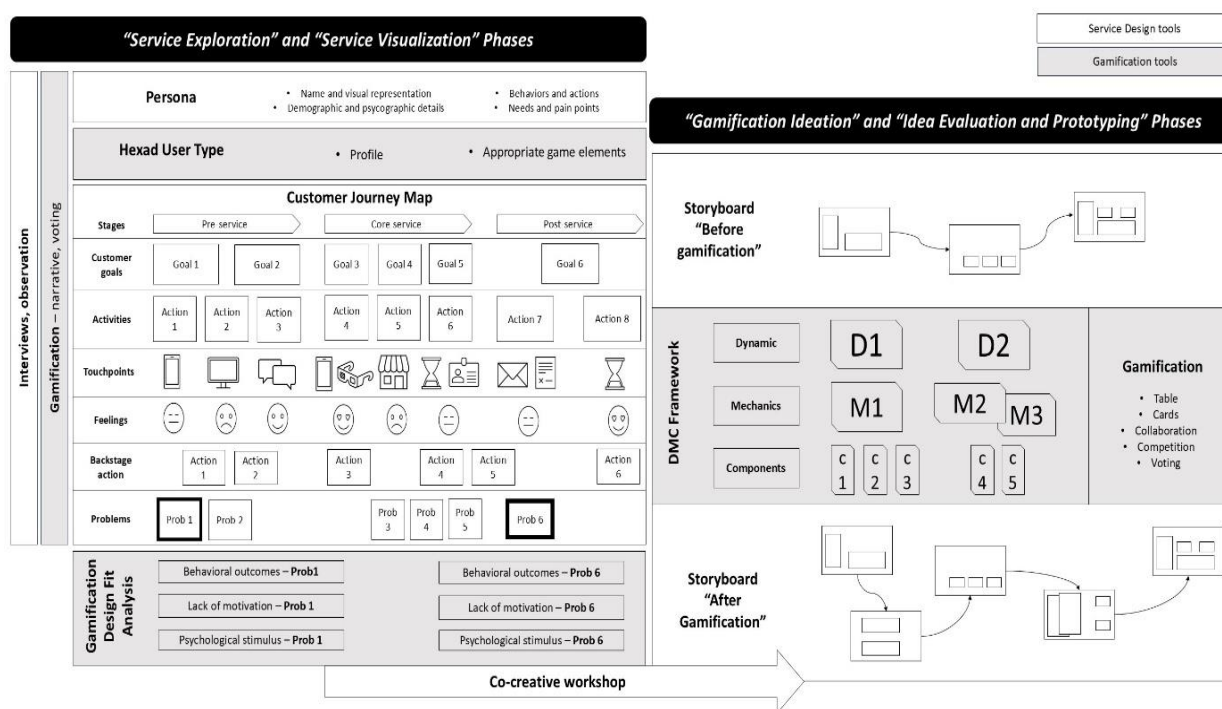


Figure 8. Conceptual Structure of the ServiceGameX Method

As shown in **Figure 8**, the ServiceGameX Method is implemented by executing four stages (Service Exploration, Service Visualization, Gamification Ideation, and Gamification Idea Evaluation and Prototyping), which are operationalized through individual activities and co-creation workshops. Moreover, it encompasses gamification and SD tools that complement each other because each fulfills a specific need within the design and gamification process (e.g., information gathering, visualization, prototyping). Together, these approaches contribute to the

potential of SD and the motivational effects of gamification. Based on previous literature on SD and gamification, the tools that support the ServiceGameX method are:

Service Design Tools:

(1) Data Collection (Interviews and Observation): These tools provide the foundation for understanding context and customers' needs, behaviors, and expectations. Interviews capture direct perceptions and motivations (Trischler et al., 2018; Stickdorn et al., 2018), while observation reveals contextual and behavioral aspects that may not be explicitly mentioned in interviews (Trischler et al., 2018; Stickdorn et al., 2018). Together, these tools ensure a comprehensive understanding of the context and target audience, essential for developing customer-centered solutions.

(2) Customer Experience (Personas and Customer Journey Maps): Personas and customer journey maps transform this information into visual and tangible representations based on the collected data. Personas bring the data to life, allowing designers and stakeholders to visualize the real users they are designing for (Blomkvist and Segelström, 2014; Idoughi et al., 2012). Customer Journey maps detail the service's touchpoints and experiences, highlighting critical intervention areas (Rosenbaum et al., 2017; Voorhees et al., 2017). These tools help maintain a customer-centered focus throughout the design process, ensuring that the proposed solutions effectively improve the CX.

(3) Collaboration (Workshops): Workshops create a collaborative space where diverse stakeholders can co-create (Stickdorn et al., 2018; Polaine et al., 2013). Participants generate innovative solutions that might not arise in isolation by sharing ideas and insights. These sessions encourage active engagement, allowing stakeholders to contribute meaningfully to the design process (Stickdorn et al., 2018). Through discussions and hands-on activities, workshops help develop solutions that better align with the needs and expectations of all involved (Polaine et al., 2013).

(4) Prototyping (Storyboard): Storyboarding comes into play after initial ideas are generated in workshops. It allows teams to visualize how these ideas translate into fundamental interactions, simulating the user experience in the gamified service (Stickdorn et al., 2018; Segelström and Holmlid, 2011). It enables adjustments before implementation, ensuring the

solutions are practical and aligned with stakeholder expectations (Segelström and Holmlid, 2011).

Gamification tools:

(5) Gamification Suitability (Gamification Design Fit Analysis): The Gamification Design Fit Analysis (Deterding et al., 2015) assesses whether gamification is effective for a solution by evaluating if it supports user goals, identifies unmotivated activities, and aligns with psychological motives like mastery and autonomy. It helps ensure that gamification targets activities where users lack motivation, avoiding ineffective or counterproductive outcomes (Vilarinho et al., 2019; Deterding et al., 2015).

(6) Gamification Personalization (HEXAD Model): The HEXAD model (Tondello et al., 2019, 2016) allows gamification to be tailored to six different user types, ensuring the developed solutions are relevant and engaging for all. Philanthropists, Socializers, Free Spirits, and Achievers are primarily motivated by intrinsic factors: purpose, interpersonal connections, autonomy, and competence, respectively. Disruptors and Players, on the other hand, are driven by extrinsic factors like innovation and external rewards. Specific game elements are suggested for each user type, considering their motivations. It personalizes the experience according to user motivations, which increases the effectiveness of gamified elements and makes the experience more satisfying for each user profile (Tondello et al., 2019, 2016).

(7) Gamification Structuring (DMC Framework): The DMC framework (Werbach and Hunter, 2012, 2015) organizes gamification ideas hierarchically, bringing structure and focus to the design process. It categorizes elements into Dynamics (participants' behaviors), Mechanics (which support these dynamics, including rules, progression, and feedback), and Components (which underpin the mechanics, such as points, badges, and leaderboards). This approach enables clear definition and application of these elements, creating a cohesive system that is straightforward to implement and adjust (Werbach and Hunter, 2012, 2015)

(8) Participant Engagement (Gamification Elements): During workshops, gamification elements such as narratives, voting, and boards/cards engage participants, making the ideation process more dynamic and interactive (Patrício et al., 2020; Leclercq et al., 2017). These elements keep participants involved and promote creativity and collaboration, which are essential for generating innovative ideas.

4.3.3. THE DEVELOPMENT OF THE SERVICEGAMEX METHOD

As depicted in **Figure 9**, ServiceGameX is structured into four stages: Service Exploration, Service Visualization, Gamification Ideation, and Gamification Idea Evaluation and Prototyping. Thus, the method begins with exploring the service context and visualizing key insights through collaborative tools. The ideation stage leverages gamification frameworks to generate creative solutions that are evaluated and refined through prototyping in the final stage. Furthermore, each stage encompasses key steps to ensure a thorough understanding of the service environment, stakeholder engagement, and co-creating meaningful, experience-centric solutions. It is important to note that the method currently extends only to the prototyping stage without covering subsequent stages such as full-scale implementation and long-term evaluation. This focus on early-stage development provides a strong foundation for generating and testing ideas. However, advancements would be required to explore the effectiveness of these solutions in later stages of the service design process.

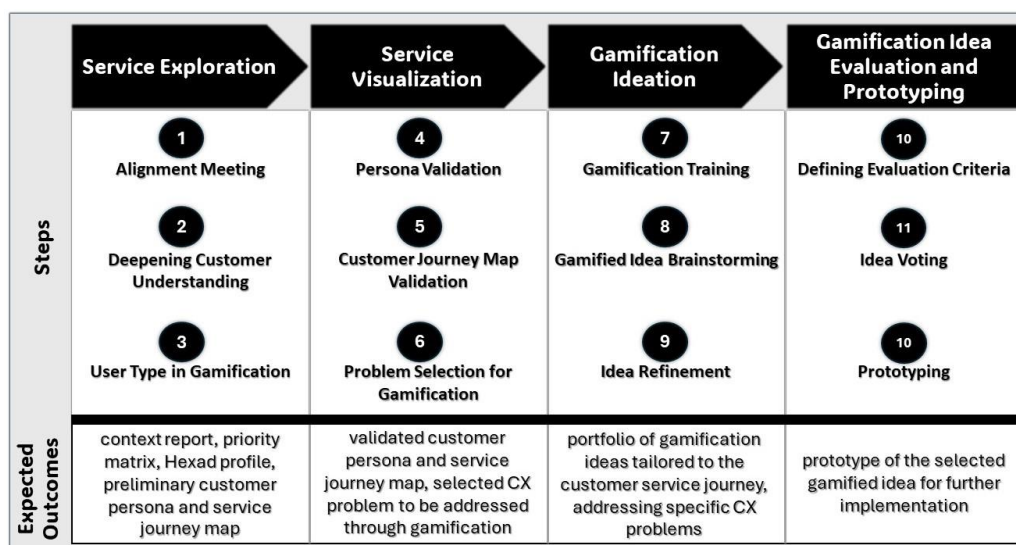


Figure 9. The ServiceGameX method structure.

4.3.3.1. Service Exploration

The first stage is the Service Exploration, where the design team (e.g., service designers, game designers, and representatives from the service providers) gathers information to form an

understanding of the service provider, service elements, customers, and desired experiences. This stage comprises three main steps:

(1) Alignment Meetings: These initial meetings between service managers and the design team allow the team to understand the service context and operations, explore opportunities to improve customer engagement through gamification, and discuss project priorities and limitations with service leaders. This step ensures a balance of information and expectations between the design team and service representatives, enabling them to align with the organization's priorities.

To conduct the meetings, the design team should prepare a script guiding service leaders to provide information about the company, service, its customers, and the critical engagement challenges to be addressed through gamification. The meetings should be recorded to assist the team in conducting a debrief and generating a context report and a priority matrix. These documents are the outcomes of this step and can be referenced as needed.

(2) Deepening Customer Understanding: With an understanding of the service context established through the alignment meetings, the design team deepens their exploration by gathering detailed information about customer needs and the service journey, ensuring comprehensive insights into the CX. The primary sources of information are different stakeholders (e.g., interviews), providing diverse perspectives that allow the design team to form a complete view of the CX. Additional sources, such as websites, social media, documents, and available customer data, should also be considered.

To conduct this step effectively, the design team should prepare an interview script for customers and internal stakeholders to guide them in providing relevant information about customers and their experience with the service. These interviews should also be recorded, enabling the design team to analyze their content to create a preliminary version of the customer persona and service journey map, which are the outcomes of this step and will be further validated by the stakeholders. While a persona visually represents a set of customers, including their needs, expectations, and behavioral characteristics, a service journey map visually represents customers' main interactions with the service and their responses. These tools facilitate a common understanding of the service CX among stakeholders (Voorhees et al., 2017; Blomkvist and Segelström, 2014).

In addition to interviews, the design team should consider using observation (Stickdorn et al., 2018) to closely watch and note customer interactions and behaviors in real-time within the service environment. This approach helps identify unspoken needs and pain points, providing a richer, more nuanced understanding of the CX.

(3) User Type in Gamification: In this step, the research team should identify the gamification profile (type of gamer) of the service customers in order to align better game elements (dynamics, mechanics, and components), customer characteristics, and motivations, resulting in a personalized and engaging experience. For this, ServiceGameX's gamification user profile is based on the HEXAD Model (Tondello et al., 2019, 2016), which defines six user types: Socializer, Free Spirit, Achiever, Philanthropist, Player, and Disruptor, as seen previously.

Applying the validated HEXAD 24-item scale (Santos et al., 2022; Tondello et al., 2019, 2016) allows the design team to gain insights into intrinsic user motivations and appropriate game elements. This information is crucial for tailoring the gamification design to match customer preferences better, enhancing overall engagement and effectiveness. The quantitative results are analyzed statistically (Tondello et al., 2019, 2016), providing data that helps guide the gamification design. Characteristics associated with the identified predominant profile should be integrated into the customer persona, offering the design team and stakeholders a comprehensive view of the customer.

The Service Exploration stage provides a comprehensive foundation for the subsequent stages (see **Figure 9**). The insights gathered from the alignment meetings, in-depth customer understanding, and identification of gamification user types through the HEXAD Model collectively offer a clear and detailed picture of the service context, customer, and CX. Therefore, the initial stage ensures that the design team is well-informed about the key challenges and opportunities for gamification that are aligned with the organization's priorities and customer needs. The resulting context report, priority matrix, preliminary customer persona and service journey map equip the team with the information they need to move to the next stage of the process, establishing a solid groundwork for designing personalized, engaging, and CX-centric gamification solutions.

4.3.3.2. Service Visualization

The Service Visualization stage translates the information gathered during the previous stage into visual tools that facilitate a common understanding of the customer and CX among stakeholders. Its goal is to promote dialogue and collaborative construction of an aligned vision among all stakeholders. This stage occurs through a workshop with stakeholder representatives facilitated by the design team. The duration of the workshop and the number of sessions may depend on the type of service being designed. The Service Visualization Stage consists of three main steps:

(4) Persona Validation: In this step, workshop participants review and validate the persona created by the design team in the previous stage. The persona should include the customer's general characteristics and integrate the Hexad gamification user type. For example, if the identified user type is a 'Socializer,' the persona may highlight social interaction preferences and motivations. In addition, stakeholders then discuss and adjust the persona to ensure it accurately reflects the customers' characteristics in a unified view.

To conduct this step, the design team should craft a compelling narrative to present the persona during the workshop, ensuring it resonates with and engages participants in dialogue. This narrative should illustrate (e.g., templates, draws, videos, storytelling) the persona's characteristics, behaviors, and motivations, effectively combining these elements with the identified gamification user type. This approach fosters shared understanding among stakeholders, encouraging their participation and feedback. The outcome is a persona validated by all stakeholders, accurately reflecting the customer's needs and preferences and aligned with the Hexad gamification user profile.

(5) Customer Journey Map Validation: This step involves validating the customer journey map, which visually details the main touchpoints, customer actions, objectives, emotions, and pain points throughout the customer's interaction with the service (Rosenbaum et al., 2017; Voorhees et al., 2017). Stakeholders should refine the preliminary journey map developed by the design team to ensure it accurately represents the CX and identifies opportunities for enhancing it.

The design team should continue the compelling narrative that builds on the previously presented persona to conduct this step, mentioning that it follows a similar validation process as the persona. The journey map serves as a tool for identifying the most prominent problems and

challenges in the CX, laying the groundwork for further activities to resolve these issues. The outcome is a customer journey map validated by all stakeholders, accurately reflecting the CX and aligned with the persona.

(6) Problem Selection for Gamification: In the final step of this stage, stakeholders identify and prioritize specific CX problems (e.g., touchpoints with long waiting times, stressful situations in dealing with frontline employees, problems in tangible evidence) that could be addressed through gamification, which means using the game element to stimulate or change to alter customer service behavior. Based on the previous discussion, participants select a priority problem to be resolved. To conduct this activity, designers should promote a vote (or other type of selection) among participants on the problem they consider most important to solve. Using templates and stickers (physical or online) facilitates the collaborative selection of the problem.

In the following, the design team should apply the Gamification Design Fit analysis (Deterding et al., 2015) to ensure that gamification can be applied appropriately to the problem. This tool establishes that interactions must meet three criteria to be gamified: (i) they should involve customer behavioral outcomes, (ii) exhibit a lack of motivation, and (iii) be susceptible to psychological stimuli. The next stage can proceed once all participants agree that the selected problem meets these criteria. If not, a new round of voting should be held until a suitable problem is identified. The result of this step is a clearly defined CX problem to be gamified, collectively agreed upon by the stakeholders. Therefore, this step ensures that the focus of gamified innovation is aligned with actual customer needs. At the same time, it ensures that gamification can adequately address it.

Completing the Service Visualization stage provides a validated visual foundation of the service CX, including the selected problem to be addressed through gamification. This foundation is essential for the gamification ideation stage. Workshops and visual tools promote co-creation and alignment among stakeholders, setting the stage for developing effective, CX-centered, gamified solutions. This stage provides a visual foundation and fosters collaboration and a shared understanding among stakeholders, setting the stage for a more cohesive and targeted ideation process.

4.3.3.3. Gamification Ideation

The Gamification Ideation stage is critical as it transitions from theoretical exploration achieved in previous stages to the practical development of strategies to enhance the service experience. This stage is conducted through a specific co-creation workshop and consists of three main steps:

(7) Gamification Training: This stage begins with a focused training session that equips participants with essential gamification concepts and their direct application to the identified problem. Positioned strategically after understanding the customer and service experience challenges, the training emphasizes game elements tied to Hexad profiles, ensuring participants grasp how user motivations shape gamified solutions. Unlike SD and CX, which may be more intuitive, gamification requires specialized knowledge, making this training crucial for bridging gaps and aligning solutions with customer profiles.

The training should include case studies from similar contexts, like education or healthcare, to further inspire participants, showcasing effective real-world gamification applications. These examples serve as practical references, helping participants envision how gamification can address specific service challenges during the ideation phase, ultimately leading to personalized and engaging solutions.

(8) Gamified Idea Brainstorming: In this step, participants engage in brainstorming sessions to develop gamified solutions that address the identified CX problems. The activity is designed to be highly interactive, encouraging creativity and the integration of diverse perspectives. The process uses specially designed boards and cards integrating the DMC and Hexad frameworks, which include dynamics, mechanics, and components tailored to the identified user profiles (**Figures 10, 11**).

The participants, divided into multidisciplinary teams, use these tools to brainstorm ideas—up to eight per team—combining CX problems with relevant game elements. For example, if the CX problem involves low customer engagement, teams might use dynamics that encourage social interaction and mechanics that reward participation, tailored to the Socializer Hexad profile. The outcome is a set of ideas and a range of gamified solutions that strategically align CX challenges with appropriate gamification strategies, ready for further refinement.

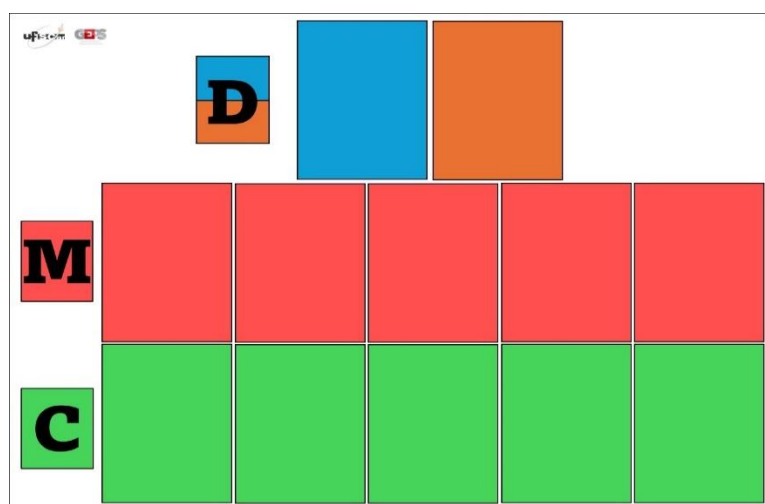


Figure 10. Gamification Board

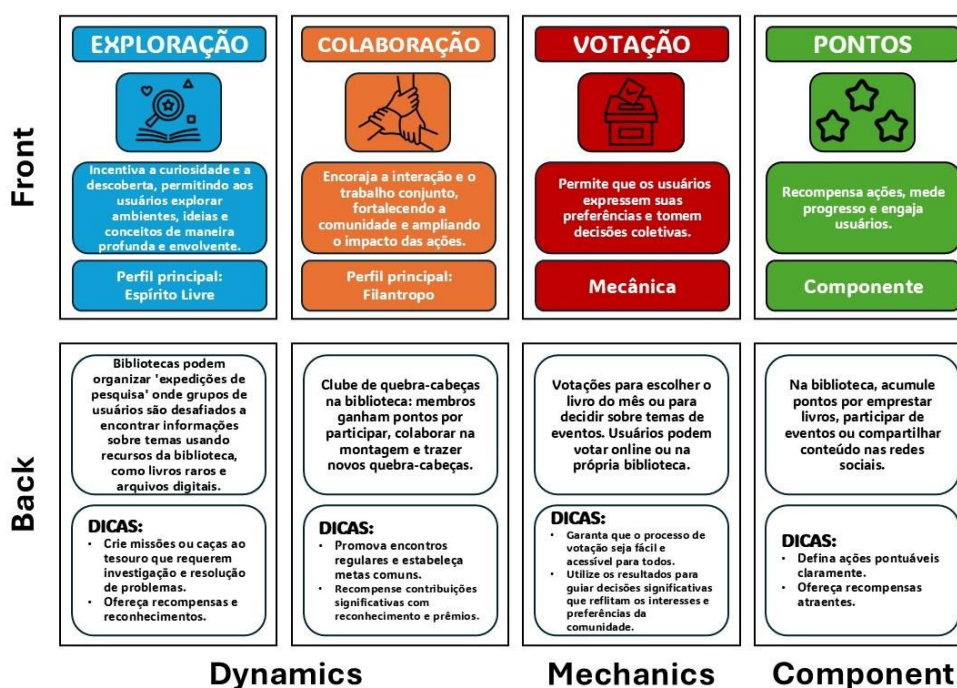


Figure 11. Examples of Game Element Cards

(9) Idea Refinement: After the initial brainstorming session, teams engage in a process to refine their most promising ideas into well-defined, actionable solutions. “Dynamic Ideas” are core concepts or strategies grounded in specific game dynamics, such as competition, collaboration, or exploration, tailored to the Hexad user profiles identified earlier. Each team selects two dynamic ideas from their initial pool, focusing on how these dynamics can effectively address the selected CX problems.

To develop these ideas, teams incorporate mechanics (the rules and processes that drive player actions) and components (the tools and elements that players interact with) that enhance the feasibility and depth of each idea. For instance, a team working with a dynamic idea based on collaboration might incorporate mechanics such as shared goals or collective challenges and components like leaderboards or cooperative tasks.

This iterative process involves teams visualizing the complete gamified experience, allowing them to identify and address potential challenges or gaps in the design early on. The refinement process is not just about selecting the best ideas but about expanding and deepening them, ensuring they are practical and engaging.

Finally, each team presents its two most refined gamified ideas to the broader group, explaining how the dynamics, mechanics, and components work together to solve the CX problem and enhance user engagement. This results in four well-developed concepts, each offering a unique approach to improving CX through gamification.

By the conclusion of the Gamification Ideation stage, stakeholders are equipped with a comprehensive portfolio of well-rounded, thoroughly vetted gamification ideas tailored to the customer service journey. This portfolio includes concepts that address specific CX problems, align with the Hexad user profiles, and incorporate carefully selected dynamics, mechanics, and components. These ideas will be further refined and developed in the subsequent stages of the method. This stage effectively bridges the gap between conceptual understanding and practical implementation, laying a solid foundation for developing impactful gamified solutions.

4.3.3.4. Gamification Idea Evaluation and Prototyping

In the last stage of the ServiceGameX, the ideas generated during Ideation are evaluated by stakeholders to ensure they align with established criteria and have the potential to enhance the customer experience (CX) significantly. After the evaluation, the most promising idea is selected for prototyping. This stage consists of three key steps:

(10) Defining Evaluation Criteria: Before the evaluation process, it is essential to establish clear and comprehensive criteria for assessing the gamified ideas. These criteria typically may include (i) alignment with the service's strategic objectives, (ii) technical feasibility, (iii) potential to engage customers, (iv) cost-effectiveness, and (v) long-term sustainability. Additionally,

alignment with the identified Hexad user profiles is crucial, ensuring the gamification elements resonate with user motivations. Stakeholders are encouraged to propose additional criteria and reach a consensus to ensure all perspectives are considered and aligned. These criteria provide a structured framework guiding the evaluation and decision-making processes.

(11) Idea Voting: With the criteria in place, the gamified ideas are presented to the stakeholders for evaluation. The ideas are assessed using a structured voting system (e.g., using relationship matrices), where stakeholders rate each idea against the pre-established criteria. Relationship matrices, alongside collaborative voting techniques, are employed to facilitate a transparent and democratic evaluation process. Each idea is analyzed, and its merits and drawbacks are discussed concerning the defined criteria. The voting process should ensure a collaborative environment where different viewpoints are valued and integrated into the final decision.

(12) Prototyping: Once the voting is complete, the idea that scores the highest score or best meets the criteria is selected for prototyping. This step involves translating the selected idea into a tangible and testable prototype. In the SD process, high and low-fidelity prototypes are suitable for visually representing the selected idea in the service experience (Stickdorn et al., 2018; Segelström and Holmlid, 2011). For this, the design team identifies the necessary resources (e.g., human, technological), accessibility, and budgetary constraints required to develop the prototype. These factors are critical in ensuring the prototype is feasible and aligned with the project's goals. The team also defines the project requirements, considering functional (specific functionalities), non-functional (quality attributes like usability, privacy, and security), system (technical infrastructure), and performance aspects. In the following, a prototype is then developed using SD tools such as storyboards and mockups, which provide a visual and interactive representation of the gamified solution. This prototype is a valuable tool for communication and collaboration among the design team, stakeholders, and potential users, allowing them to test and validate the solution's functionalities (Stickdorn et al., 2018; Segelström and Holmlid, 2011). Feedback gathered can be further used to refine and improve the prototype, ensuring it is well-aligned with customer needs and service objectives. The iterative nature of prototyping allows for continuous improvement, with adjustments made based on stakeholder feedback before moving towards final implementation.

By the end of this stage, the selected gamified idea is validated, refined, and presented through prototyping. The thorough idea evaluation and prototyping stage sets a solid foundation for further successfully implementing the gamified solution in the service environment, ultimately contributing to the long-term success and sustainability of the service gamified experience. By rigorously evaluating and prototyping the gamified solutions, the team ensures that the ideas are innovative, practical, and aligned with the service's strategic objectives.

4.4. RESULTS OF APPLICATION OF THE METHOD

4.4.1. CASE STUDY EVALUATION OF THE METHOD

To conduct a practical evaluation of the developed method, the researchers implemented it in a library within a public federal vocational education institution in Brazil. As of 2024, the network of which the institution is part comprises 682 units spread across all country regions, serving over 1.5 million students. The selected unit is located in a municipality in the interior of São Paulo, the state with the largest population and highest income in Brazil. The library serves approximately 900 people, including students and staff. In selecting the case study, the researchers sought an environment that demonstrated a need for developing user engagement mechanisms and allowed for a research collaboration under which the developed method could be assessed. This context was chosen because library services, while essential, have faced challenges in remaining engaging, particularly with the rise of the Internet and digital resources. Due to these changes, libraries, as traditional service organizations, strive to modernize and maintain their relevance in students' lives. Therefore, the need was identified to employ motivating mechanisms through gamification to influence library use positively. In this context, gamification could be a practical approach to engage users and revitalize the library's role within the student community. The application was made between November 2023 and June 2024.

4.4.2. METHOD IMPLEMENTATION

Service Exploration. Implementing the ServiceGameX method began with an alignment meeting with the library manager. During this meeting, expectations regarding gamification were balanced, and an initial understanding of the library's context, various audiences, behaviors, and main challenges and opportunities was formed. The meeting also allowed the identification of

key action priorities from a management perspective, with the primary goal being to increase the number of book loans. The target audience for gamification was high school technical students - adolescents aged 15 to 19 - who account for 318 students enrolled in 20224. This group was chosen due to its low number of book loans while being in an age group particularly receptive to gamification.

Following this, semi-structured interviews were conducted with eight students, two library staff members working in customer service, and two teachers. The interviews focused on understanding the students' profiles, motivations, and needs related to the use of the library, especially for book loans, as well as the functional, social, and emotional aspects of the student experience with the service. Additionally, a contextual observation of students using the library was conducted, along with consultations on the library's website and social media channels. These procedures provided an initial understanding of the students' profiles and a step-by-step comprehension of the usage process while identifying initial difficulties and critical points in the service experience. Based on the collected information, two personas and two student journey maps (one for general library services and another for book loans) were developed (**Appendix**) and later validated by stakeholder representatives.

A survey was conducted using the Hexad questionnaire with 64 students to identify the user types for gamification. In addition to the validated items from the Hexad questionnaire, questions were included to characterize the sample (age, gender, course, and library usage), as shown in **Table IX**. Data were collected online via SurveyMonkey between 13-27 November 2023 and analyzed for mean and statistical frequency distribution, as per Tondello, 2016, 2019. The results in **Table X** and **XI** revealed that the two predominant profiles in the sample were "Free Spirit" and "Philanthropist."

Table IX – Sample characterization

	Description (number of respondents)
Age	17 years old (24), 18 years old (15), 16 years old (13), 19 years or older (8), 15 years old (4)
Genre	Female (47), Male (16), I prefer not to answer (1)
Course	Food Technician - 3rd year (16), Chemistry Technician - 2nd year (9), I prefer not to answer (7), Sugar and Alcohol Technician - 2nd year (7), Chemistry Technician - 3rd year (6), Food Technician - 2nd year (5), Food Technician - 1st year (4), Sugar and Alcohol Technician - 1st year (4), Sugar and Alcohol Technician - 3rd year (3), Chemistry Technician - 1st year (3)

**Library
Attendance**

Rarely (<1x/month) (28), Never (15), Occasionally (1x/month) (5), Regularly (2-3x/month) (5), Whenever necessary (when I have a specific need) (4), Very often (>1x/week) (4), Frequently (1x/week) (3)

Table X – Mean and Standard Deviation Results

Category	Mean	Standard Deviation
Free Spirit	13,03	1,60
Philanthropist	12,89	1,52
Achiever	11,48	2,64
Player	11,17	2,65
Socializer	10,88	2,25
Disruptor	5,72	2,72

Table XI – Frequency Distribution Results

Category	Distribution (%)
Filantropo	66
Achiever	13
Player	11
Free Spirit	9
Socializer	2

“Free Spirits” are motivated by autonomy and the desire to explore, create, and express themselves. They prefer game elements that allow for open-ended exploration, creativity, and customization. Examples include sandbox environments, creative tools, and opportunities for self-expression within the game. “Philanthropists” are driven by purpose and a desire to help others. They engage in activities that allow them to support and enrich the lives of others. They are particularly attracted to game elements like gifting, mentoring systems, and collaborative challenges that encourage altruistic behavior. The characteristics of these profiles were integrated into the personas, and the corresponding game elements were strategically incorporated during the ideation phase of the service gamification process.

Service Visualization. This stage was conducted through a workshop facilitated by the researchers, held in May 2024, with seven participants: the institution’s general director, the head librarian, a library assistant, two teachers, and two students. Participants were introduced to the personas through an engaging narrative video designed to stimulate dialogue. Each

participant also received a printed version of the personas. They were instructed to reflect on the personas and provide feedback on any aspects they disagreed with or felt needed inclusion. Comments were written on post-its and attached to an enlarged version of the persona, fostering active and collaborative participation, as **Figure 12** shows. After a round of discussions, a final, validated version of the persona was agreed upon by representatives of all stakeholders (**Appendix**).

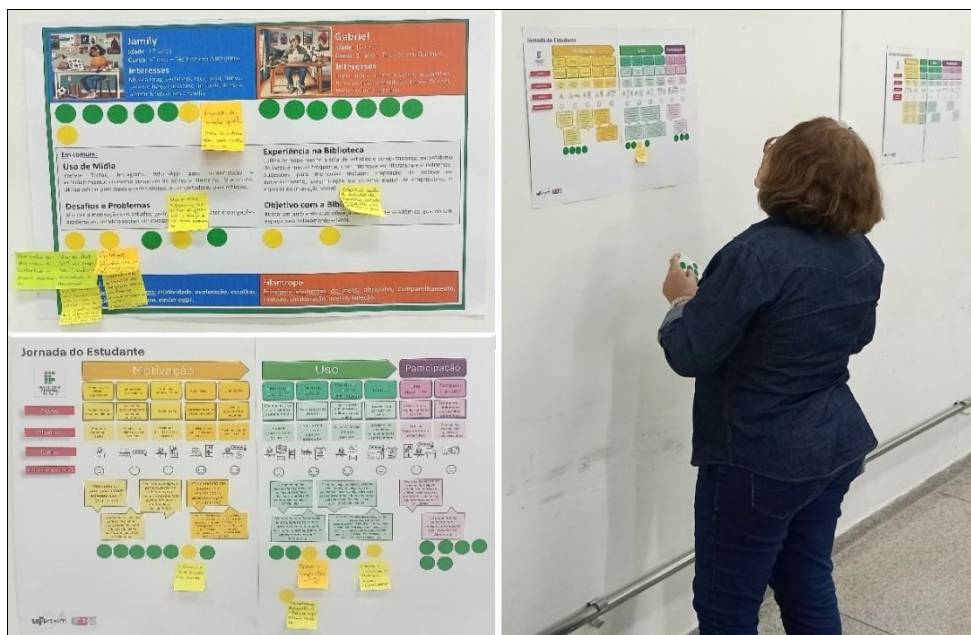


Figure 12. Participant interaction with the persona and customer journey map

Similarly to the persona validation, the two student journeys (one for general library services and another for book loans) were presented through narrative videos. The validation process followed the same approach used for validating the personas, using a printed version of the personas, an enlarged version, and post-its. The result of this stage was a unified vision of the student experience throughout the service journey with the library, especially for book loans, highlighting problems and opportunities for improvement (**Appendix**).

The participants were then invited to reflect on the issues related to the student book loan experience and vote on the one they deemed most important to address. Each participant received a sticker to place on the problem they considered most critical. The issue with the most votes was then evaluated using the Gamification Design Fit analysis tool to determine if it could be effectively addressed through gamification. The group identified the primary issue as a lack of

awareness about the library's literary collection. Despite the extensive range of books available, students perceived the selection as limited. Consequently, it was determined that gamification should be used to connect students with the existing collection better and encourage more frequent borrowing.

Gamification Ideation. This stage occurred through a second workshop with the same participants. In the first step of this stage, participants received training on gamification and its application in service contexts, including real-world examples. They were also introduced to classifying game elements into dynamics, mechanics, and components, along with various game elements tailored to the "Free Spirit" and "Philanthropist" profiles, the predominant user types among High School students.

Participants were then divided into two groups, each comprising representatives from different stakeholders. Each group received two boards and two decks of cards containing game elements appropriate for the "Free Spirit" and "Philanthropist" profiles, color-coded by dynamics, mechanics, and components, as **Figure 13** shows. They were instructed to brainstorm and create a wide range of gamified dynamics (more than eight) to address the student experience problem identified earlier. They were encouraged to consider the service context and persona characteristics during this process.



Figure 13. Participants interact with each other using the board and cards

Next, the groups were guided to select the four most promising dynamics and add mechanics. The groups then presented their results and were instructed to choose the two most promising ideas to add components to support the selected dynamics and mechanics. By the end of the

final round, each group had presented two well-structured ideas containing dynamics, mechanics, and components, resulting in four gamification concepts to improve the library's student book loan experience.

Gamification Idea Evaluation and Prototyping. The participants established evaluation criteria to select the idea for prototyping and potential implementation. These criteria were thoroughly discussed and agreed upon, ensuring a shared understanding across the group. The criteria were alignment with the library's objectives, availability of resources for implementation, complexity and time required for implementation, sustainability and maintenance, impact on student experience, and inclusion and accessibility.

The four gamification ideas from the previous stage were then submitted for a vote by the participants based on the defined criteria. The winning idea was "Library Blogger," which aimed to engage high school students with the library's book collection by leveraging social media platforms like TikTok and Instagram. Students create and share video reviews of books, encouraging peer engagement and fostering a reading community. The best reviews are awarded and shared on the educational institution's social media profiles.

This idea was structured around two dynamics: collaboration and exploration. The collaboration aligns with the Philanthropist's desire to contribute to the community, encouraging students to collaborate on book reviews and share them with others. The exploration supports the Free Spirit's love for autonomy and exploration since they explore different genres and lesser-known books in the library, enabling them to discover and review unique titles.

These dynamics are bolstered by specific mechanics that guide how these dynamics are executed. Feedback mechanisms allow students to receive constructive comments on their reviews, helping them improve and feel more engaged. Voting mechanics involve the community by allowing peers to vote on their favorite reviews, adding a layer of interaction and competition. Challenges and quests motivate students to complete specific tasks, such as reviewing books from different genres or reaching specific reviews, keeping the experience exciting and goal-oriented.

To further enhance these mechanics, various components are integrated into the system. Time constraints may be used to create urgency in completing challenges or posting reviews.

Points are awarded for each activity, such as posting a review or receiving votes, which can accumulate towards rewards. Badges serve as visual recognition of achievements, such as completing a set number of reviews or receiving high feedback scores, and rewards provide tangible incentives, such as certificates or featured posts, encouraging continued participation and effort. **Figure 14** presents the chosen idea completed board.

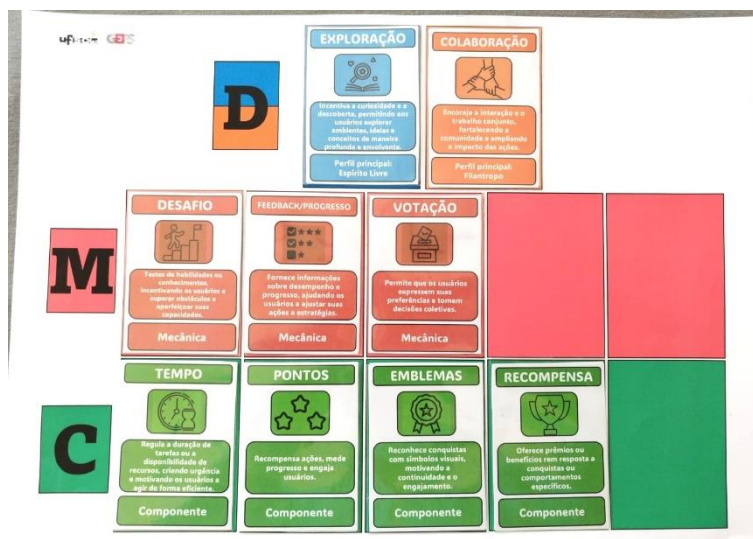


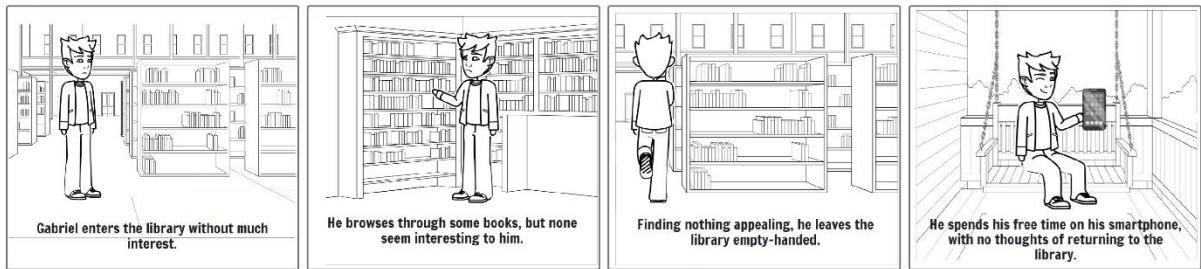
Figure 14. Chosen idea completed board

Finally, the necessary resources for implementing the idea were identified alongside functional, non-functional, system, and performance requirements, which were then prototyped in a project. This project translated the concept of the “Library Blogger” into actionable steps, ensuring that students could effectively create and share video reviews of books on social media platforms like TikTok and Instagram. The project also set quality standards for the content and ensured that the platforms used were accessible and user-friendly for all students.

In addition to outlining the technical and operational aspects, the project included a storyboard that illustrated the “before” and “after” scenarios of implementing the gamification. This storyboard served as a visual tool to represent the anticipated changes in student engagement and the library’s role, helping stakeholders understand the project’s impact more clearly. The storyboard was beneficial in aligning the project team and stakeholders on the expected outcomes and in visualizing potential challenges that might arise during implementation.

Overall, the detailed prototype, supported by the storyboard, provided a comprehensive roadmap for executing the gamified concept. It ensured that the project was not only theoretically sound but also practically feasible, with clear guidelines for implementation, monitoring, and continuous improvement. Using a storyboard added value by enhancing communication, aligning expectations, and providing a clear vision of the project’s benefits to the student community and the library. **Figure 15** presents the chosen idea storyboard.

Before



After

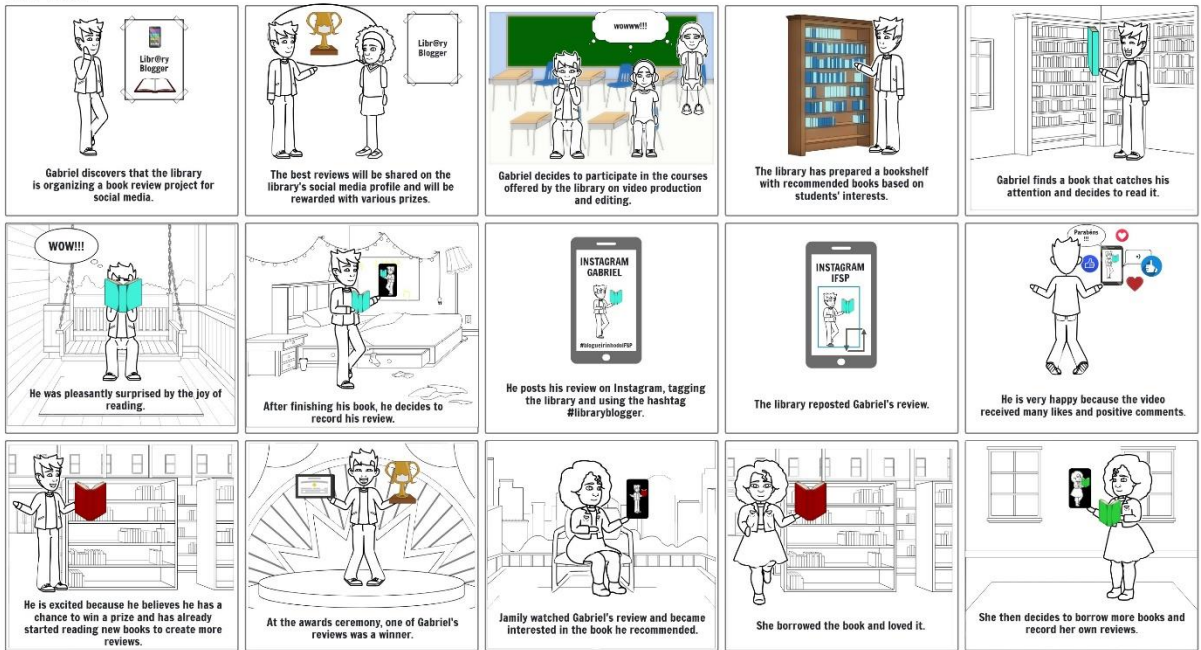


Figure 15. Chosen idea storyboard

4.4.3. EVALUATION RESULTS

The ServiceGameX method was evaluated through feedback sessions with participants immediately following each workshop. The researchers encouraged participants to openly discuss the method's strengths and weaknesses, providing a comprehensive assessment of its effectiveness and areas for improvement. Following, we present a selection of participant quotations, organized into thematic categories that reflect the findings from participants' insights and experiences.

Understanding the Student. Implementing the ServiceGameX method provided a deeper understanding of students' needs and values. The use of personas and the analysis of the student journey were particularly effective in challenging pre-existing assumptions, enabling participants to visualize better and comprehend the students' perspectives. For instance, two participants argued positively. The library assistant said *"The student journey opened my eyes to understanding what students value in the library... Understanding how students' perceptions often differ from our initial assumptions."* A teacher commented: *"I found the use of personas very helpful. It helped us better visualize who the students are and how we can engage them."* However, one participant expressed concern about the representational accuracy of the personas used: *"One negative thing I would point out is the representation in the stories. I did not feel represented by the image. It would help if you stepped away from stereotypes. Although you were concerned about including Black people and people with disabilities, all the characters are slim and beautiful. That is not reality."*

Communication and Workshop Structure. Participants generally appreciated the structure and flow of the workshops, but there were concerns regarding the timing and clarity of information, mainly related to the introduction of gamification concepts. For example, one teacher commented, *"The communication during the workshop was excellent. The instructions were clear, and I always knew what was expected of us at each stage. It made participation much easier and avoided any confusion."* Similarly, a library assistant said, *"The workshop structure was dynamic and varied, which kept everyone engaged from start to finish. The mix of presentations, group discussions, and practical activities made the time fly quickly and productively."* A student also shared their experience: *"It was my first workshop, and I found it very interesting and fun. I learned a lot, and we also created something good for the other students."* However, some criticisms emerged. For instance, a teacher noted, *"What made me anxious was that you*

mentioned gamification in the first workshop but did not explain it. I wanted a lot of information right away. But it was not until the second workshop that I understood what it was about."

Use of Visual and Dynamic Tools. Participants widely appreciated the visual tools and group dynamics employed in the method. They facilitated communication and understanding among the various stakeholders and created a collaborative and inclusive environment where everyone felt comfortable contributing. For example, the director remarked, *"Seeing everything visually made it easier to understand the challenges. Plus, it is all very colorful. I found it functional and fun."* The librarian commented: *"The visual tools made communication easier between the different representatives of students, teachers, and library staff. Everyone left with a unified vision of what we need to improve."* A student appreciated the team division, stating, *"The team division was cool. Everyone could share their ideas. I did not feel embarrassed."*

Structuring Ideas and Democratic Process. The ideation process, structured through tables, cards, and a voting system, was praised for its clarity and the democratic manner in which decisions were made. It ensured that the selected ideas were aligned with common goals and were feasible for implementation. One teacher shared, *"The use of cards helped us structure our ideas clearly and think about how each element could contribute to the idea."* A director highlighted the voting process, noting, *"The voting process was democratic and gave us confidence that we were choosing the idea most aligned with our goals. The clarity of the criteria ensured everyone was on the same page."*

Efficiency and implementability. Participants recognized the efficiency of the ServiceGameX method, favorably comparing it to more traditional methods. One of the method's key strengths was rapidly generating practical and implementable solutions. For example, the director commented, *"What I found most interesting is that it is an agile process. If we had done it the way we are used to, we would have had to form a committee and hold several meetings that often do not lead anywhere. But today, we left with four innovative ideas, and any of them could easily be implemented with the resources we have."* A library assistant added, *"It was motivating to see that we managed to create something practical that can impact the students."* The librarian noted, *"I found the method very comprehensive. I can understand each step, from where we started to where we ended up. In the end, we had a solution that makes sense, is practical, and implementable."* A student also expressed: *"I am already excited for the idea to come to life."*

The feedback collected from the workshops provides valuable insights into the strengths and areas for improvement of the ServiceGameX method. Overall, participants appreciated the method's ability to foster an understanding of student needs, facilitate effective communication through visual tools, and promote a structured and democratic ideation process. However, the feedback also highlighted some areas where the method could be refined, particularly regarding representational accuracy in personas and the timing of gamification information delivery. These insights will be pivotal in refining the ServiceGameX method, ensuring it remains responsive to the needs of diverse stakeholders. These reflections will guide further development and application of ServiceGameX in various service contexts, aiming to enhance the method's practical impact and alignment with user expectations.

4.5. RESEARCH CONTRIBUTIONS

This section presents the article's contributions to theory and practice, outlining how the research advances academic understanding and provides practical guidance for designers and managers.

4.5.1 THEORETICAL CONTRIBUTIONS

The present study provides a number of contributions to gamification and SD research. Firstly, it proposes the ServiceGameX method, an interdisciplinary method for designing gamified service experiences that integrates SD and gamification strategically and synergistically. The ServiceGameX method combines the engaging power of gamification with the user-centered, co-creative approach of SD, offering a method for developing innovative, user-centric solutions that enhance service CX. By answering calls for more structured methodologies and frameworks that support the integration of these two areas (Martín-Peña et al., 2024; Conejo et al., 2021), this study also contributes to theory synthesis (Jaakkola, 2020). It achieves conceptual integration across multiple theories and literature streams by linking previously unconnected or incompatible elements of SD and gamification in a novel way, offering an enhanced perspective on their intersection. Such synthesis allows researchers to 'see the forest for the trees' by encapsulating, digesting, and reducing what is known into a coherent and manageable whole (Jaakkola, 2020; MacInnis, 2011).

Secondly, it provides a comprehensive set of CX and gamification tools designed to support the implementation of the ServiceGameX stages. These tools are structured conceptually to enhance stakeholder engagement, facilitate co-creation, and ensure the development of experience-centric gamified solutions in the service context. ServiceGameX functions as a “method of methods,” synthesizing previous frameworks and knowledge on gamification and SD. Thus, while individual elements of the method have been validated in prior research, this study empirically validates the holistic practicality of ServiceGameX in real-world scenarios, demonstrating its applicability and relevance. Consequently, this study helps reduce the gap between the theory and practice of gamification (Sharma et al., 2024; Seaborn and Fels, 2015), proposing a unified framework that bridges gamification and SD conceptual foundations, ensuring they are effective in practice.

Thirdly, this study expands the argument on the benefits of linking gamification with value co-creation, highlighting how this relationship positively impacts SD (Martín-Peña et al., 2024; Patrício et al., 2020). It provides a robust theoretical framework for coordinating the integration of stakeholders’ resources in SD by leveraging the engaging power of gamification. It contributes new ideas on implementing SD to the literature, expanding the theoretical foundation (Patrício et al., 2020). Representative quotes from participant evaluations of the method demonstrate that gamification is an engaging and effective platform for fostering dialogue among multiple actors, facilitating mutual understanding, aligning goals, and encouraging the sharing of creative experiences and the development of solutions within the SD process.

Lastly, it contributes to service research by proposing a novel method that focuses on enhancing CX throughout the service journey. It answers calls for new methodologies and tools to help firms design CX journeys within the context of rapid technological advancement (Ostrom et al., 2021). The advent of technologies like the Internet of Things (IoT) and AI-driven tools, such as mobile applications, has significantly transformed customer-provider touchpoints, redefining CX throughout the service journey (Ostrom et al., 2021; Silva et al., 2021; Bolton et al., 2018). Although gamification is a technology that has greatly benefited from these digital advancements, it stands out for its ability to influence behaviors and engage users in both digital and physical contexts (Silva et al., 2023; Patrício et al., 2020), with the impact of technologies on CX varying depending on the context (Ostrom et al., 2021; De Keyser et al., 2020). As such, the ServiceGameX method has the potential to enhance CX in both digital and physical environments,

transforming touchpoints along the service journey whether using only analog resources or by integrating with digital and emerging technologies (Silva et al., 2021; Bolton et al., 2018).

4.5.2 PRACTICAL CONTRIBUTIONS

This article contributes to practice in four key ways. Firstly, the ServiceGameX method is collaborative and accessible, enabling stakeholders to participate actively in the SD process. By involving diverse participants throughout the process, the method ensures that a broad range of perspectives is considered, leading to more inclusive and balanced solutions. Visual and interactive tools, such as personas and journey mapping, make the process more approachable for participants from various backgrounds.

Secondly, the method's accessibility is supported by its emphasis on co-creation, user-centered design, and iterative feedback, which fosters a sense of ownership and alignment among stakeholders, increasing the likelihood of successful implementation. The democratic nature of the ServiceGameX method is reflected in its facilitation of shared decision-making through structured ideation and evaluation processes. Using voting systems and collaborative workshops ensures that the ideas chosen for implementation align with collective goals and priorities, enhancing the quality of the solutions and increasing stakeholder buy-in.

Thirdly, the practical application of the ServiceGameX method in a Brazilian federal public vocational education library demonstrates its effectiveness in addressing real-world CX challenges. The method engaged stakeholders, generated actionable ideas, and produced a tangible prototype, showing its potential for application across various service sectors. Its adaptability and focus on stakeholder engagement make it suitable for environments where diverse perspectives and inclusive decision-making are essential.

Lastly, the article provides insights for designers and managers by offering guidance on creating gamified service experiences. Combining theoretical knowledge with real-world application equips practitioners with a method that can be adapted across different service contexts, ensuring that gamified solutions are theoretically sound and practically viable.

4.6. CONCLUSIONS

This article explored the intersection of gamification and SD by proposing the ServiceGameX method to create gamified service experiences that enhance customer CX. The study contributes to theoretical understanding by integrating gamification and SD, offering practical guidance to support service innovation. It demonstrates how this approach can be applied within SD to create more engaging and user-centered experiences. The synthesis of previous theories and practices resulted in a methodological model designed to address gaps in the existing literature and open new avenues for research and application.

The ServiceGameX method was applied in a real-world setting, specifically in a Brazilian vocational education library. By engaging stakeholders, the method facilitated the generation of actionable ideas and the creation of a tangible prototype, highlighting its adaptability and relevance. The focus on co-creation, user-centered design, and iterative feedback was important for implementing effective gamified solutions.

However, the study also has limitations that suggest areas for future research. First, the ServiceGameX method was tested in a single context, specifically in a Brazilian vocational education library. This limited application raises questions about the generalizability of the results to other sectors and service environments. Future research could explore the application of the method in different contexts, such as healthcare, tourism, or financial services, to assess its versatility and adaptability across various settings.

Another limitation is the lack of integration with emerging technologies, such as artificial intelligence (AI) and data analytics. While the method proved effective in a practical context, it did not incorporate these technologies, which could further enhance its potential. Future studies could investigate how integrating AI and data analytics into the ServiceGameX method might improve the personalization and dynamic adaptation of gamified experiences, thereby increasing its impact and relevance.

Finally, the study primarily focused on the initial implementation of the method and its immediate outcomes without assessing the long-term impacts on CX and stakeholder engagement. This limited evaluation suggests the need for longitudinal studies that examine the sustainable effects and behavioral changes in users over time. Future research could focus on

long-term analysis of the ServiceGameX method to better understand its lasting impact on service design and customer experience.

Despite these limitations, ServiceGameX offers a structured approach to SD and gamification with the potential to contribute to academic research and practitioners. As SD and gamification continue to converge, ServiceGameX may serve as a method that contributes to understanding this integration service and providing a pathway for creating more engaging, user-centered, and effective service experiences.

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APPENDIX – CHAPTER 4

Appendix 2 - Overview of articles integrating gamification and SD

Study	Main Goal	Techniques/ tools	Context	Research Method	Key Findings	Differences from the Present Study
Oliveira et al. (2014)	To present and evaluate the use of gamification cards in co-design activities to engage citizens in developing neighborhood services.	A set of gamification cards designed specifically for co-design workshops that help participants integrate game mechanics into SD.	Public services	Qualitative approach involving workshops.	Gamification cards effectively supported the co-design process by making it more engaging and accessible for non-experts.	The study focused on public services and used gamification cards, while the present study applies a comprehensive method that integrates gamification and SD.
Klapztein and Cipolla (2016)	To present and develop the Gamification Service Framework (GSF) to enhance user experience and service engagement.	Game design concepts (e.g., voluntariness, rules, control) and service design principles (e.g., engagement, immersion).	Service	Action Design Research (ADR)	GSF transformed a service from technology-focused to user- and experience-centered, improving engagement.	GSF applies a different framework, whereas the present study introduces a new method integrating multiple frameworks.
Signoretti et al. (2016)	To present the Services & Products Gamified Design (SPGD) methodology integrating game thinking into service and product design.	SPGD combines game design and service design principles, using tools such as persona creation, user journey mapping, and iterative prototyping.	Service and product	Case study	The SPGD methodology effectively bridges service design and gamification, improving user engagement and experience.	SPGD focuses on services and products, while the present study exclusively focuses on SD with a stronger emphasis on CX.
Ihamaki et al. (2018)	To explore the use of a gamified and playable customer journey installation in ski resorts.	The Comicubes tool—a set of cardboard cubes used to visualize and prototype customer journeys, enabling playful interactive design sessions.	Tourism service	Exploratory case study	The gamified installation allowed for personalized and engaging service experiences, highlighting gamification and playification as effective design tools.	The present study introduces a method applied in an educational context, while Ihamaki focused on tourism.
Liu and Idris (2018)	To construct a model for achieving a desirable UX in museums using gamification and service design.	Gamification (e.g., player types) and service design (e.g., touchpoints during-visit and post-visit).	Museums	Exploratory research	Meaningful gamification based on intrinsic motivations improves UX in museums, encouraging continuous visits.	Focused on museums, whereas the present study targets educational services and integrates a broader set of tools.
Patrício et al. (2018)	To analyze the deployment of the ideaChef® gamified method in service design ideation.	N/A	Service design and innovation	Case study	ideaChef® enhances engagement, collaboration, and idea development, though it requires clearer instructions and better facilitation.	The present study introduces a method with a comprehensive approach, integrating various tools beyond a single gamified method.
García-Magro and	To propose a conceptual model justifying gamification as an	N/A	Servitized companies	Conceptual literature review	Gamification, when combined with HCD, improves service design by fostering customer	Focused on servitized companies, while the present

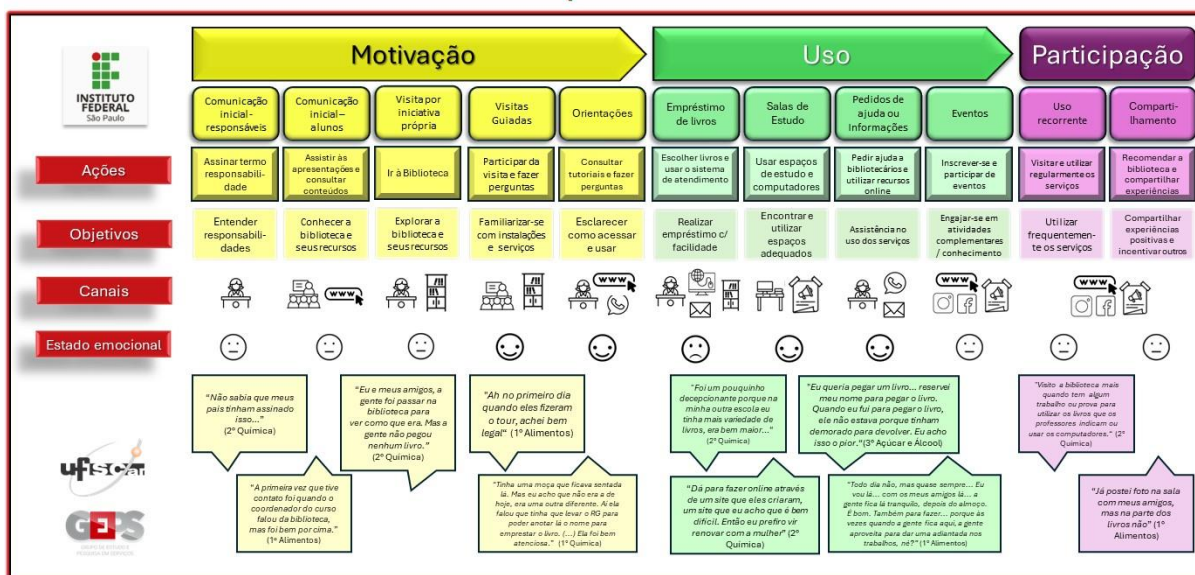
Soriano-Pinar (2019)	effective tool for improving service design in servitized companies.					participation, crucial for servitization success.	study applies the service context.
Kungwengwe and Evans (2020)	To develop and assess the Sana system, a gamified rehabilitation management tool for ACLR recovery.	Double diamond framework and human-centered design, including behavioral design principles, gamification elements, and usability testing.	Home-based physiotherapy for ACLR patients	Qualitative research approach with interviews, card sorting, and usability testing		Sana system enhanced patient engagement, provided effective feedback, and improved communication between patients and caregivers.	Focuses on healthcare rehabilitation, whereas the present study targets services using a broader gamification and service design approach.
Patrício et al. (2020)	To explore gamification's role in enhancing co-creation through collaborative innovation practices.	ideaChef® gamified method and tool, combined with speed date meetings, debriefing sessions, and in-depth interviews.	Collaborative innovation in developing new products/services.	Case study		Gamification enhances co-creation by structuring and engaging participants, improving dialogue, solution quality, and fostering creativity.	The present study introduces a more comprehensive method integrating multiple tools beyond a single gamified method.
Conejo et al. (2021)	To map existing literature on gamification and service design integration and identify how these methodologies are combined.	N/A	Service	Systematic literature mapping		Some methodologies combine gamification and service design, but none fully integrate both processes, leaving room for further research.	Focused on literature mapping, while the present study provides a practical, empirical application of integrated methodologies.
Martín-Peña et al. (2024)	To analyze the impact of emotional mechanics in gamification on service design and co-creation experiences.	N/A	Service	Quantitative approach applying structural equation modeling (SEM)		Emotional mechanics of gamification positively influence value co-creation, significantly impacting service design.	Focused on emotional mechanics with a quantitative approach, whereas the present study applies a broader design science research method.
Present study	To introduce the ServiceGameX method, which integrates gamification and service design to enhance customer experience (CX) through gamified service experiences.	The ServiceGameX method utilizes a combination of service design tools (e.g., personas, customer journey maps) and gamification frameworks (e.g., HEXAD model, DMC Framework)	Service	Design Science Research (DSR)		The application of ServiceGameX demonstrated its ability to enhance stakeholder engagement, foster value co-creation, and produce innovative, experience-centric gamified solutions, making it a practical and adaptable tool for service design and gamification integration.	

Appendix 3 - Persona

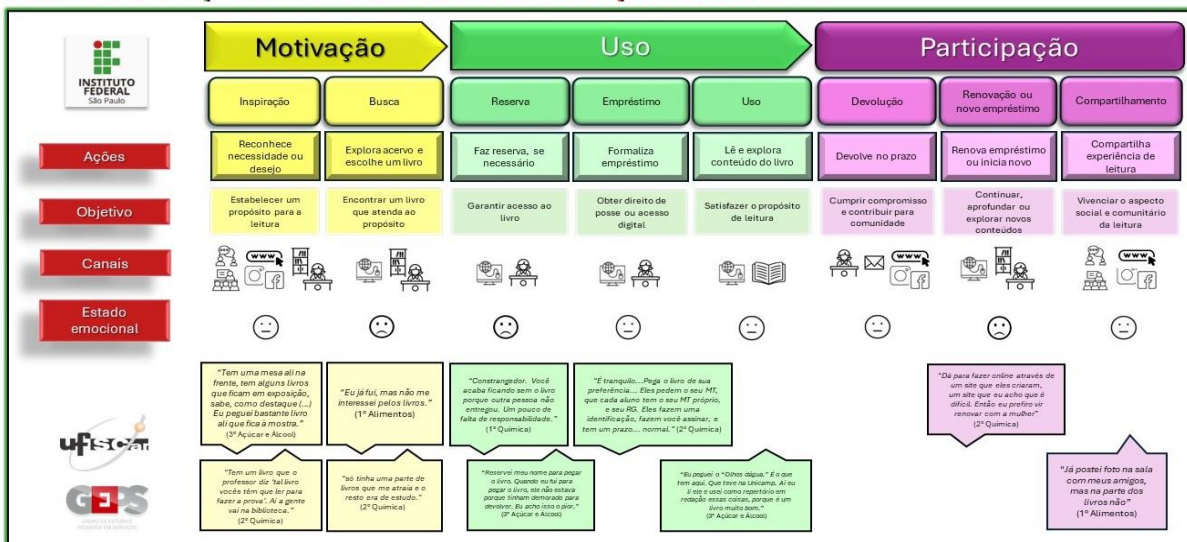
 <p>Family Idade: 17 anos Curso: 3º ano – Técnico em Alimentos</p> <p>Interesses Música (trap, sertanejo, rock, pop); filmes, séries e livros (suspense, mistério, terror); assistir futebol com a família.</p>	 <p>Gabriel Idade: 16 anos Curso: 2º ano – Técnico em Química</p> <p>Interesses Jogos online, filmes e séries; quadrinhos; livros de ficção científica e heróis (Marvel, Harry Potter); biografias; esportes.</p>
<p>Em comum:</p> <p>Objetivo com a Biblioteca Buscam um ambiente que ofereça tanto suporte acadêmico quanto um espaço para relaxamento e lazer.</p> <p>Experiência na Biblioteca Utilizam principalmente a sala de estudos e computadores; empréstimos de livros são menos frequente, com interesse em literatura e quadrinhos. Sugestões para melhorias incluem ampliação do acervo de entretenimento, simplificação do sistema digital de empréstimo e melhoria nos espaços de interação social.</p>	
<p>Espírito Livre</p> <p>Espíritos Livres são motivados por autonomia e autoexpressão. Valorizam sistemas que permitem exploração e criatividade, prosperando em ambientes que oferecem liberdade para inovar.</p> <p><u>Principais elementos de jogos:</u> criatividade, exploração, escolhas, personalização, conteúdo raro, easter eggs.</p>	<p>Filantropo</p> <p>Filantropos são motivados por propósito e significado. Este grupo é altruista, desejando enriquecer a vida de outras pessoas de alguma forma, sem expectativa de recompensa.</p> <p><u>Principais elementos de jogos:</u> altruísmo, compartilhamento, cuidado, colaboração, acesso, coleção.</p>

Appendix 4 - Customer Journey Maps

Jornada do Estudante – Biblioteca IFSP Campus Matão



Jornada de Empréstimo – Biblioteca IFSP Campus Matão



5 CONCLUSIONS

This thesis aimed to explore the potential of gamification in enhancing service customer experience (CX) across different stages of the customer journey and developing a method that integrates gamification and service design (SD). To achieve this objective, a multimethod approach was employed, structured in three research stages. The first stage involved a bibliometric literature review to map and understand the key concepts underpinning service CX, establishing a theoretical foundation for the integration of gamification strategies. The second stage focused on developing a conceptual model through a systematic literature review, providing theoretical guidelines for applying gamification effectively across the customer journey. The third and final research stage involved the practical application of the proposed method, ServiceGameX, within a real-world service context, demonstrating its effectiveness in improving CX and fostering value co-creation in this context. A summary of the research contributions and limitations is presented below. The detailed contributions of this research are discussed within the articles that comprise this thesis.

5.1 CONCLUDING REMARKS

Among the theoretical contributions offered by this thesis, three stand out. Firstly, it contributes to service research by developing a conceptual framework that integrates the literature on service CX across three research domains: customer, organizational, and technological (Chapter 2 – Article I). Such an integration contributes to advancing the subject (Palmatier et al., 2018), since literature fragmentation has hampered conceptual advancement in the CX research (Becker and Jaakkola, 2020; De Keyser et al., 2020). This integration provides a structured and integrated view of the field, highlighting how technology serves as a transversal element that connects the perspectives of both customers and organizations. It addresses questions in service research for leveraging technology for service provision and consumption focusing on the relationship between technology and the CX (Ostrom et al., 2021). Additionally, the thesis proposes a conceptual model that facilitates understanding the interactions and contributions of each domain to value creation and CX co-creation. From the conceptual model, the following concluding points can be drawn: (i) CX occurs within the customer's individual sphere, influenced by internal and external inputs, which are emotionally processed and can lead to behaviors such

as engagement, loyalty, and word-of-mouth (Becker and Jaakkola, 2020; Mahr et al., 2019); (ii) CX is co-created through interactions between customers and various actors (both human and technological) within a complex network, where effective management involves measuring, designing, and implementing strategies that engage all actors in value co-creation (Brodie et al., 2019; Chandler and Lusch, 2015); and (iii) rapid technological advancements continuously transform services and impact CX by both enhancing customer delight and streamlining interactions among actors (Ostrom et al., 2021; Kunz et al., 2019; Larivière et al., 2017).

Secondly, this thesis contributes to integrating service and gamification research by developing a conceptual model and findings discussing how gamification can enhance the service CX throughout the customer journey (Chapter 3 – Article II). Although previous literature reviews have contributed to advancing the understanding of gamification in service research and other domains (e.g., Ciuchita et al., 2023; Pasca et al., 2021; Shi et al., 2017), this study differs from and complements these previous studies by advancing the integration between gamification and CX research areas based on the concept of the customer journey. Despite the importance of the customer journey concept for CX and service experience literature (Tueanrat et al., 2021; Følstad and Kvale, 2018) and the growing interest in gamification (e.g., Hameddi et al., 2024; Hollebeek et al., 2021; Wolf et al., 2020), there is a lack of studies explicitly integrating them into a conceptual approach. Therefore, this study contributes to filling this research gap, as raised by Ciuchita et al. (2023) and Leclercq et al. (2020a), and to a better understanding of gamification design and implementation in the service context, offering insights for scholars interested in enhancing CX through gamification.

Lastly, this thesis introduces the ServiceGameX method, an interdisciplinary approach for designing gamified service experiences that integrate SD and gamification in a synergic way (Chapter 4 – Article III). ServiceGameX combines the engaging power of gamification with the user-centered, co-creative approach of SD, offering a method to develop innovative, user-centric solutions that enhance service CX. By addressing the need for more structured methodologies that support the integration of SD and gamification, which have been pointed out by Martín-Peña et al. (2024) and Conejo et al. (2021), this thesis contributes to theory synthesis (see Jaakkola, 2020) by linking previously unconnected elements of these fields. Additionally, it expands on the benefits of linking gamification with value co-creation, highlighting the positive impact on SD, as raised by Martín-Peña et al. (2024) and Patrício et al. (2020). This method provides a robust

framework for coordinating stakeholder resources in SD, leveraging gamification's engaging power, and contributing new insights to the literature on implementing SD, thus expanding its theoretical foundation, as Patrício et al. (2020) recommended.

5.2 MANAGERIAL CONTRIBUTIONS

Among the practical contributions provided by this thesis, three key aspects are particularly noteworthy. Firstly, the identified CX literature domains—customer, organizational, and technological — serve as essential resources for building successful CX-oriented organizations (Chapter 2 – Article I). This is reflected in the strategies of disruptive brands across various industries, such as Uber, Airbnb, and Netflix, as well as fintech companies like Revolut and Ant Financial, which leverage AI-based technologies to enhance customer experiences. The ongoing digital transformation, accelerated by the COVID-19 pandemic, has reshaped customer expectations and behaviors, compelling traditional companies to innovate their business models by adopting an integrated customer-organizational-technological approach (Verhoef et al., 2021). This approach emphasizes a CX-centered organizational mindset, recognizing that exceptional customer experiences connect key stakeholders and brands emotionally through people, processes, and technologies. Consequently, managers and leaders can utilize the domains, topics, and boundaries identified in this thesis to reinforce a CX-oriented organizational culture.

Secondly, the proposed conceptual model of gamification in the customer journey (Chapter 3 – Article II) aids managers in making more informed decisions by highlighting critical variations in gamifying service interactions throughout the customer journey. This enables managers to tailor strategies to the specific needs of each journey phase, creating targeted opportunities. Viewing gamification as a strategic tool for long-term engagement, rather than a one-off effort, is particularly beneficial in digital contexts, where it can generate valuable customer behavior data, offering insights to enhance operational processes and boost engagement. Given the expanding service sector and increasing competition, gamification can differentiate both communication and service delivery strategies, offering managers insights into its suitability for enhancing CX in their contexts.

Lastly, this thesis bridges theoretical understanding with practical application in a library context, equipping practitioners with a viable method for creating service gamified experiences (Chapter 4 – Article III). The proposed ServiceGameX method fosters collaboration and accessibility, encouraging active stakeholder participation throughout the service design process. Engaging diverse participants ensures that diverse perspectives are incorporated, leading to more inclusive and balanced solutions. The practical application of the ServiceGameX method in a Brazilian federal public vocational education library illustrates its effectiveness in addressing real-world CX challenges. The method generated actionable ideas and produced a tangible prototype, demonstrating its potential across various service sectors. Its adaptability and emphasis on stakeholder engagement make it particularly well-suited for environments where diverse perspectives and inclusive decision-making are critical. Ultimately, this method's ability to blend diverse perspectives into actionable, real-world solutions positions it as a valuable tool for enhancing service CX through gamification.

5.3 LIMITATIONS AND FUTURE OPPORTUNITIES RESEARCH

This thesis contains some limitations that open opportunities for further research. Firstly, a bibliometric review was conducted to map and integrate the key concepts and influential articles within the service CX literature (Chapter 2 - Article I). Bibliometric methodologies, especially co-keyword analysis, are based on the premise that authors select keywords to summarize the main topics of their research effectively. However, this approach may inherently limit the scope of the study's findings, as it relies on the accuracy and relevance of the chosen keywords. To address this limitation, we supplemented the analysis with a thematic review, which allowed for a more nuanced definition of the main themes in the literature. Given the large sample size (629 articles) and the comprehensive nature of the study, an aggregate approach was necessary to describe the intellectual structure of the CX field. This approach, while broad, carries the risk of overlooking some significant studies that have contributed to the field's development. To minimize this risk, we prioritized articles with high citation counts and more recent publication dates, focusing on those published in prominent journals. Despite these efforts, the study's limitations suggest that future research could benefit from exploring alternative bibliometric methodologies and more detailed approaches. Such efforts could yield more profound insights

and provide a more comprehensive understanding of the intellectual structure and evolving themes within the service CX literature.

Secondly, although this thesis aims to understand the role of gamification in the service CX across different stages of the customer journey (Chapter 3 – Article II), it cannot fully capture the complexities of the customer journey, as customers may change their path, iterate between stages, or abandon the journey at any point, only to restart it later (Hamilton et al., 2020; Lemon and Verhoef, 2016). Therefore, while this thesis serves as a foundational effort to integrate gamification into the customer journey, future research could explore alternative customer journey frameworks. Additionally, the proposed conceptual model is derived entirely from the literature review. Future studies should consider gathering and analyzing empirical data to complement and expand upon the current model, potentially uncovering other significant dynamics.

Lastly, the ServiceGameX method (Chapter 4 – Article III) was tested within a specific context—a Brazilian vocational education library. This focused application limits the generalizability of the findings to other sectors and service environments. Future research should explore its application across diverse contexts, such as healthcare, tourism, or financial services, to assess the method's adaptability. Additionally, the method did not incorporate emerging technologies like artificial intelligence (AI) and data analytics, which could enhance its effectiveness. Although the method demonstrated practical value, integrating AI and data analytics could further personalize and dynamically adapt gamified experiences, that may increase its impact and relevance. Future studies should investigate how these technologies might be integrated into the ServiceGameX method to expand its potential.

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MÉTODO DE
GAMIFICAÇÃO
PARA
SERVIÇOS



FASES DO MÉTODO DE GAMIFICAÇÃO

1. Exploração do serviço



2. Visualização do serviço

3. Ideação da gamificação



4. Avaliação da gamificação

1 EXPLORAÇÃO DO SERVIÇO

O principal objetivo desta fase é avaliar o contexto da organização para identificar oportunidades viáveis de gamificação.

A Exploração do serviço compreende 3 etapas:

- 1.1 Reunião de Alinhamento
- 1.2 Aprofundamento da Jornada
- 1.3 Tipo de Usuário na Gamificação



1.1 REUNIÃO DE ALINHAMENTO

O propósito da Reunião de Alinhamento é avaliar o contexto da organização, entender os seus objetivos em relação à gamificação, explorar potencialidades e discutir limitações do projeto.

A Reunião de Alinhamento possibilita equilibrar expectativas entre representantes da organização e a equipe consultora de gamificação.

Ela também permite identificar preliminarmente oportunidades/ jornadas viáveis para a gamificação de serviços considerando os objetivos da organização.

1.1





Pessoas envolvidas

- Equipe consultora de gamificação
- Representantes da organização – pode incluir uma ou mais lideranças do projeto, além de membros de setores estratégicos como CX, UX, Gestão da Qualidade, etc.

Dados/ Informações requeridas

- Visão geral sobre o contexto da organização, serviços oferecidos, proposta de valor, clientes, dores e oportunidades
- Expectativas da organização em relação à gamificação

Ferramentas necessárias

- Roteiro para a reunião de alinhamento
- Matriz de avaliação de oportunidades

Resultado final

- Relatório do contexto
- Decisão da liderança sobre a oportunidade/jornada a ser gamificada

MATRIZ DE AVALIAÇÃO DE OPORTUNIDADES

	Tem ação direta no comportamento do cliente?	Passível de ser gamificada, em termos de estímulos e recursos?	Está alinhada com os objetivos da organização?	Está alinhada com os objetivos do cliente?	Score
Oportunidade 1 Descrição					
Oportunidade 2 Descrição					
Oportunidade 3 Descrição					
Oportunidade 4 Descrição					
Oportunidade 5 Descrição					

Roteiro para a Reunião de Alinhamento

1. Introdução

- Cumprimente os representantes da organização e agradeça por sua participação.
- Apresente-se como consultor especializado em gamificação e explique o propósito da reunião.

2. Contexto da Organização

- Peça aos representantes que forneçam uma visão geral da organização, incluindo sua missão, valores e principais serviços oferecidos.
- Entenda o histórico da organização em relação à gamificação (se houver) e como a empresa percebe essa abordagem atualmente.

3. Clientes

- Peça aos representantes que forneçam uma visão geral sobre os clientes da organização, e, caso haja, detalhem sua segmentação e perfil.

4. Objetivos em relação à Gamificação

- Pergunte quais são os principais objetivos da organização ao considerar a implementação de elementos de gamificação nos serviços oferecidos.
- Explore como eles esperam que a gamificação contribua para melhorar a experiência do cliente, aumentar o engajamento ou alcançar outras metas específicas.

5. Potencialidades do Projeto de Gamificação

- Discuta com os representantes as áreas específicas dos serviços onde eles veem potencial para a aplicação da gamificação.

6. Limitações e Desafios

- Identifique quaisquer preocupações ou desafios percebidos em relação à implementação da gamificação.
- Discuta questões como recursos disponíveis, tecnologia necessária, aceitação da equipe interna e possíveis resistências dos clientes.

7. Explorando Oportunidades e Jornadas Viáveis

- Juntos, analisem as oportunidades identificadas e discutam como elas podem ser traduzidas em jornadas viáveis para os clientes da organização.
- Avalie como a gamificação pode ser integrada aos serviços existentes sem comprometer a qualidade ou o valor entregue aos clientes.
- Utilize a Matriz de Avaliação de Oportunidades para ranquear as oportunidades de acordo com critérios objetivos.

8. Alinhamento de Expectativas

- Certifique-se de que as expectativas da organização em relação à gamificação sejam claras e realistas.
- Discuta o cronograma e as etapas do projeto e assegure-se de que ambas as partes estejam alinhadas quanto às próximas ações.

9. Encerramento

- Recapitule os principais pontos discutidos na reunião.
- Deixe que os representantes da organização façam perguntas adicionais ou forneçam mais informações, se necessário.
- Agradeça a todos pela participação e interesse na implementação da gamificação.
- Lembre-se de que a reunião deve ser uma troca de informações e ideias, por isso, ouça atentamente as perspectivas dos representantes da organização e adapte o roteiro conforme necessário.



Relatório da Reunião de Alinhamento

Informações Gerais:

Data: 20 de setembro de 2023

Local: Escritório Central da FashionStyle

Participantes:

Laura Mendes - Diretora de Marketing

Carlos Oliveira - Gerente de Atendimento ao Cliente

André Santos - Analista de Desenvolvimento de Produtos

Sofia Rodrigues - Consultora de Gamificação

Guilherme Silva - Consultor de Experiência do Cliente

1. Introdução:

A reunião teve como objetivo avaliar o contexto da FashionStyle, uma marca em expansão no cenário nacional da moda, em relação à gamificação. Além disso, buscou-se entender os objetivos da empresa com a implementação de elementos gamificados nos serviços oferecidos, explorar potencialidades e discutir limitações do projeto. A reunião também teve o propósito de alinhar expectativas e identificar oportunidades e jornadas viáveis para a gamificação direcionada aos clientes.

2. Contexto da Organização:

Visão Geral da Organização: A FashionStyle, uma marca em ascensão no cenário nacional, é reconhecida por suas coleções de moda ousadas e inovadoras. A empresa está determinada a conquistar seu espaço entre os principais players da indústria da moda, oferecendo produtos de qualidade e design exclusivo.

Histórico de Gamificação: Durante a reunião, foi destacado que a FashionStyle ainda não teve a oportunidade de implementar

um projeto de gamificação. No entanto, há uma genuína vontade de explorar como essa abordagem pode ser um trunfo para estabelecer conexões mais profundas com os clientes em um momento crucial de crescimento.

3. Clientes:

Laura Mendes, Diretora de Marketing, apresentou quatro segmentos de clientes da marca FashionStyle:

A. Clientes Fashion-Conscious: Este segmento é composto por indivíduos que são entusiastas da moda. Eles estão sempre em busca das últimas tendências e valorizam produtos de alta qualidade. Esses clientes estão dispostos a investir em peças que reflitam seu estilo único e desejam ser reconhecidos por suas escolhas de moda.

Comportamento de Compra: Compras frequentes para manter o guarda-roupa atualizado, foco em marcas reconhecidas pela moda, participação em eventos de moda.
Motivações: Autoexpressão, estar na vanguarda das tendências, senso de estilo distinto.

B. Compradores Práticos: Composto por clientes que consideram a praticidade e o conforto como fatores essenciais em suas escolhas de moda. Eles preferem peças versáteis e funcionais que se adaptem às suas rotinas diárias. Esses clientes buscam produtos de qualidade que ofereçam uma ótima relação custo-benefício.

Comportamento de Compra: Compras com foco em itens básicos e versáteis, preferência por materiais duráveis, busca por ofertas e promoções.

Motivações: Conforto, praticidade, durabilidade.



A. Trendsetters: Composto por influenciadores e líderes de opinião em suas redes sociais. Eles têm um impacto significativo na formação de tendências e são seguidos por aqueles que buscam inspiração. Os trendsetters estão constantemente buscando peças únicas e inovadoras para se destacarem.

Comportamento de Compra: Busca por peças exclusivas e de edição limitada, engajamento ativo nas redes sociais, participação em eventos de moda.

Motivações: Criar tendências, se destacar, influenciar os outros.

B. Clientes de Primeira Compra: Abrange os novos clientes que estão descobrindo a marca FashionStyle. Eles podem ter ouvido falar da marca por meio de amigos, redes sociais ou recomendações. Esses clientes estão buscando conhecer a marca, seus produtos e avaliar se ela se alinha ao seu estilo e preferências.

Comportamento de Compra: Exploração do catálogo de produtos, avaliação das avaliações e comentários dos produtos, compras iniciais para testar a qualidade.

Motivações: Conhecer uma nova marca, experimentar produtos, encontrar um estilo que ressoe.

4. Objetivos em Relação à Gamificação:

Principais Objetivos: Laura Mendes, Diretora de Marketing, compartilhou que o principal objetivo da FashionStyle é elevar o envolvimento dos clientes com a marca. A intenção é criar uma experiência de compra envolvente e memorável que destaque a marca em um mercado competitivo.

Metas de Engajamento: Carlos Oliveira, Gerente de Atendimento ao Cliente, enfatizou que a empresa está buscando aumentar o tempo médio de permanência no site

em 30% e elevar a taxa de conversão de visitantes em compradores em 20%.

5. Potencialidades do Projeto de Gamificação:

Áreas de Aplicação: Durante a reunião, ficou claro que a gamificação pode ser aplicada em várias etapas da jornada do cliente. Isso inclui a pesquisa de produtos, interações nas redes sociais da marca, experiência de compra e o compartilhamento de avaliações.

6. Limitações e Desafios:

Recursos Disponíveis: Considerando o estágio de crescimento, Laura Mendes observou que há um orçamento limitado para o projeto de gamificação. Isso pode influenciar as escolhas de tecnologia e design, tornando a otimização dos recursos uma prioridade.

Resistência dos Clientes: André Santos, Analista de Desenvolvimento de Produtos, expressou preocupação com relação à aceitação dos clientes em relação à gamificação. Para minimizar essa resistência, a equipe deve garantir que a abordagem esteja alinhada com a imagem sofisticada da marca FashionStyle.

7. Explorando Oportunidades e Jornadas Viáveis:

Oportunidades Identificadas: A equipe de consultores, Sofia Rodrigues e Guilherme Silva, detalhou oportunidades específicas para a FashionStyle. Propôs a criação de missões temáticas sazonais que incentivem a exploração de novas tendências. Além disso, ressaltou a possibilidade de desafios de estilização virtual, permitindo que os clientes criem e compartilhem seus próprios looks. Isso poderia criar um senso



um programa de fidelidade exclusivo, personalizado com recompensas que incentivem a fidelidade do cliente. Além disso, foram apresentadas outras opções, como missões sazonais para exploração de novas coleções, desafios semanais relacionados às tendências de moda e um sistema de "styling virtual" para que os clientes possam criar e compartilhar seus próprios looks.

Após avaliar as oportunidades utilizando a matriz de avaliação de oportunidades, a equipe e a organização decidiram focar no desenvolvimento do programa de fidelidade. Esta escolha se deve ao alinhamento estratégico com os objetivos de aumentar o engajamento e a fidelidade dos clientes, bem como a viabilidade de implementação dentro das restrições orçamentárias e do estágio de crescimento da FashionStyle.

Com base nos segmentos de clientes apresentados, o segmento escolhido para ser o foco das atividades de gamificação no programa de fidelidade é o "Clientes Fashion-Conscious". Dado o foco da FashionStyle em elevar o engajamento dos clientes e considerando as características e comportamentos do segmento Fashion-Conscious, é estratégico escolher esse grupo como o principal foco das atividades de gamificação no programa de fidelidade. Isso permitirá à marca aproveitar a paixão pela moda desses clientes para criar uma experiência envolvente e altamente atraente, fortalecendo sua conexão com a marca e construindo a fidelidade do cliente.

Além disso, os clientes Fashion-Conscious tendem a fazer compras frequentes para manter seus guarda-roupas atualizados. Ao focar nesse segmento com o programa de fidelidade gamificado, a FashionStyle tem a oportunidade de transformar clientes recorrentes em clientes fiéis. A gamificação oferecerá uma experiência única e envolvente que incentivará esses clientes a retornar e interagir com a marca de maneira consistente.

8. Alinhamento de Expectativas:

Expectativas da Organização: A equipe concordou que a gamificação deve aprimorar a experiência do cliente e ser vista como um complemento aos serviços atuais. A equipe também reiterou que os resultados esperados devem ser realistas e mensuráveis.

Cronograma e Próximas Etapas: Ficou decidido que os consultores Sofia Rodrigues e Guilherme Silva desenvolverão um cronograma detalhado para as próximas etapas.

9. Conclusão:

A equipe de consultores, Sofia Rodrigues e Guilherme Silva, recapitulou os principais pontos discutidos durante a reunião e reforçou seu compromisso em colaborar com a FashionStyle para alcançar o sucesso do projeto de gamificação de serviços.

10. Considerações Finais:

Os consultores agradeceram a todos os participantes pela colaboração e expressaram confiança no potencial da gamificação para elevar a experiência dos clientes da FashionStyle, fortalecendo sua presença em um mercado em expansão.





1.2 APROFUNDAMENTO NA JORNADA

Esta etapa é projetada para permitir uma exploração mais profunda e abrangente da jornada selecionada na etapa anterior.

O propósito fundamental é adquirir um entendimento mais completo, detalhado e significativo das experiências, desafios e necessidades do cliente.

Durante esta etapa, busca-se coletar informações detalhadas sobre cada estágio da jornada do cliente, desde o ponto de partida até o objetivo final ou a conclusão do processo.



Pessoas envolvidas

- Equipe consultora de gamificação
- Membros da área focal do serviço – por exemplo, marketing, CX, suporte, etc.

Dados/ Informações requeridas

- Informações detalhadas sobre cada etapa da jornada, incluindo pontos de contato, emoções, desafios e necessidades.

Ações

- Consultar fontes existentes
- Entrevistar clientes
- Entrevistar stakeholders internos

Ferramentas necessárias

- Roteiro para entrevista com clientes
- Roteiro para entrevista c/ stakeholders internos
- Questionário HEXAD
- Modelo para personas
- Rascunho para a jornada do cliente

Resultado final

- Versão inicial da jornada do cliente e persona.

CONSULTA A FONTES EXISTENTES

Comece revisando feedback direto de clientes, como e-mails e registros de atendimento, além de posts em redes sociais como Facebook e Twitter, para identificar padrões e obter insights sobre a organização e seus serviços.

Utilize também avaliações e classificações de fontes como o Google e Reclame Aqui. Além disso, aproveite pesquisas de mercado, questionários e testes de usuário realizados pela organização para compreender a experiência dos usuários.

Também considere consultar relatórios da indústria e análises de especialistas, caso disponíveis, para obter informações valiosas sobre o setor.

ORGANIZANDO DESCOBERTAS

Provavelmente, você não encontrará uma única fonte de informação existente sobre uma experiência completa do cliente. A maioria dos relatórios foca em partes específicas dessa experiência. Se sua organização não tiver feito pesquisas prévias, você terá que filtrar informações de várias fontes. Ao analisar esses dados, use um formato padrão de três etapas:

1. **Evidência:** Registre fatos ou observações sem julgamento.
2. **Interpretações:** Tente entender por que algo foi observado.
3. **Implicações para a experiência:** Avalie como a descoberta afeta a experiência do cliente, considerando fatores emocionais.

Consolide as informações de cada fonte em tabelas separadas. Essas tabelas facilitam a comparação das descobertas entre diferentes fontes.

Fonte 1: Feedback por Email Programa de Fidelidade Fashion Style

Evidência	Interpretações	Implicações para a experiência
Alguns e-mails indicam dificuldades com a inscrição no programa de fidelidade, por exemplo: "Após várias tentativas, desisti de me inscrever devido às complicações." - Cliente	Os clientes podem não ter as habilidades necessárias para completar o processo de inscrição e podem ficar frustrados.	A fase de inscrição pode ser problemática na jornada do programa de fidelidade. Alguns clientes podem não ter tempo ou paciência para ler as instruções com atenção.
Alguns emails questionaram sobre a necessidade de fornecer dados pessoais durante a inscrição, por exemplo: "Por que eles precisam do meu endereço?"	Os clientes podem estar preocupados com a privacidade de seus dados pessoais.	A coleta de dados pessoais durante a inscrição pode ser um obstáculo para alguns clientes. Comunicar claramente a finalidade desses dados pode melhorar a confiança do cliente.
Clientes elogiaram o atendimento ao cliente ao resolverem problemas de pontos perdidos, por exemplo: "O suporte ao cliente foi rápido em restaurar meus pontos perdidos. Estou impressionado!"	Um suporte ao cliente eficaz pode melhorar a percepção do programa de fidelidade.	Oferecer um atendimento ao cliente de qualidade pode aumentar a satisfação dos clientes e reforçar a fidelidade ao programa.



Roteiro para entrevista com clientes

- Data, Local
- Cumprimentar o cliente e agradecer por dedicar tempo à entrevista
- Apresentar-se e explicar o objetivo da entrevista
- Pedir autorização para gravar

1. Dados demográficos:

- Gênero
- Idade
- Escolaridade
- Profissão

2. Motivação inicial:

- O que o levou a procurar esse serviço?
- Quais eram seus principais objetivos e expectativas ao utilizar esse serviço?
- Como você descobriu o serviço em questão?

3. Utilização do serviço:

- Quais aspectos do serviço você utilizou?
- Como você descreveria a qualidade e a variedade dos recursos oferecidos?
- A equipe ou os prestadores de serviço foram atenciosos e experientes?

4. Suporte e acompanhamento:

- Houve algum acompanhamento ou suporte personalizado por parte da equipe responsável pelo serviço?
- Você recebeu orientações regulares?
- Houve alguma iniciativa para ajudá-lo a superar desafios ou estabelecer metas adicionais?

5. Comunicação e envolvimento:

- Como o serviço se comunica com você? (ex: e-mails, aplicativos, redes sociais)
- Você se sente envolvido e informado sobre eventos, promoções ou mudanças relacionadas ao serviço?
- Existe algum canal de comunicação aberto para fornecer feedback ou fazer perguntas?

6. Desafios e superação:

- Houve alguma mudança significativa em seu estilo de vida desde que começou a utilizar o serviço?
- Quais os principais desafios que você enfrenta ao utilizar esse serviço?
- Você se lembra de algum problema marcante relacionado ao serviço?
- Quais foram as circunstâncias específicas que levaram ao problema?
- Como você se sentiu naquele momento?
- Quais ações você ou outras pessoas tomaram em resposta ao problema?
- Há algo que o prestador de serviço poderia ter feito de forma diferente para prevenir ou melhorar o problema?

7. Satisfação geral e recomendação:

- Em uma escala de 1 a 10, qual é o seu nível de satisfação geral com o serviço?
- Você recomendaria o serviço a um amigo ou familiar? Por quê?
- Existe algo que você gostaria que fosse diferente ou melhorado no serviço?
- Lembre-se de que a entrevista é sobre o cliente, por isso, ouça atentamente a perspectiva dele e adapte o roteiro conforme necessário.



Roteiro para entrevista com clientes

Programa de Fidelidade da FashionStyle

Introdução:

- Data e Local: [Data] - [Local]
- Agradecer ao cliente por participar da entrevista.
- Apresentar-se como representante da FashionStyle e explicar o objetivo da entrevista: entender a experiência do cliente no programa de fidelidade visando melhorias e aprimoramentos.
- Obter permissão do cliente para gravar a entrevista para referência futura.

Dados Demográficos:

- Gênero:
- Idade:
- Profissão:

Entrada no Programa de Fidelidade:

- Como você ficou sabendo sobre o programa de fidelidade da FashionStyle?
- O que motivou você a se inscrever e participar do programa?
- Você foi incentivado por algum conhecido ou colega?

Experiência no Programa de Fidelidade:

- Como você descreveria sua experiência geral no programa de fidelidade da FashionStyle?
- Quais benefícios ou recompensas você mais utiliza no programa de fidelidade?
- Como você se mantém informado sobre as atualizações e novidades do programa?

Interação e Engajamento:

- Quais são as principais formas de interação que você tem com o programa de fidelidade? (ex: site, e-mails, aplicativo)
- Você sente que está engajado e envolvido com as atividades e ofertas do programa? Por quê?
- Existe algum recurso ou aspecto do programa que você acredita que poderia ser mais envolvente ou interativo?

Desafios e Obstáculos:

- Você já enfrentou alguma dificuldade ao usar o programa de fidelidade? Pode nos contar um exemplo específico?
- Como você se sentiu ao enfrentar essa dificuldade? O que você fez para superá-lo?
- Em sua opinião, o que poderia ter sido feito de maneira diferente para evitar ou lidar melhor com esse desafio?

Feedback e Melhorias:

- Na sua opinião, quais são os pontos fortes do programa de fidelidade da FashionStyle?
- Existe algo que você gostaria de ver melhorado ou adicionado ao programa?
- Como você acha que poderíamos aprimorar a experiência do programa de fidelidade?

Encerramento:

- Agradecer ao cliente pela participação e insights valiosos. Informar que os feedbacks serão cuidadosamente considerados para aprimorar o programa de fidelidade e a experiência do cliente.



Roteiro para entrevista com stakeholders internos

1. Introdução:

- [Data] - [Local]
- Agradecer aos participantes por dedicarem tempo à entrevista.
- Apresentar-se como consultor ou representante da organização e explicar o objetivo da entrevista: coletar insights sobre a jornada do cliente a partir da perspectiva dos colaboradores envolvidos.
- Obter permissão dos participantes para gravar a entrevista para referência futura.

2. Identificação do Stakeholder e Função:

- Nome do Participante:
- Cargo/Função:

3. Entendimento da Jornada do Cliente:

- Como você enxerga a jornada do cliente conosco, desde o primeiro contato até o uso contínuo dos nossos serviços?
- Quais são os principais pontos de interação entre a organização e o cliente durante essa jornada?

4. Experiência do Cliente:

- Como você acredita que nossos clientes se sentem ao usar nossos serviços?
- Quais são os momentos mais importantes ou significativos que nossos clientes experimentam durante essa jornada?

5. Desafios e Obstáculos:

- Na sua visão, quais são os principais desafios que nossos clientes enfrentam ao interagir com nossos serviços?
- Existem obstáculos específicos que nossos clientes frequentemente encontram ao usar nossos serviços?

6. Comunicação e Feedback:

- Como nossos clientes se comunicam conosco e fornecem feedback?
- Quais são os canais de comunicação preferidos pelos nossos clientes para expressar suas opiniões ou preocupações?

7. Melhorias e Inovação:

- De acordo com sua perspectiva, quais áreas da jornada do cliente podem ser aprimoradas ou inovadas?
- Você já identificou oportunidades para melhorar a experiência do cliente ou introduzir novas abordagens?

8. Encerramento:

- Agradecer aos participantes por compartilharem suas perspectivas e insights.
- Informar que os feedbacks serão considerados para aprimorar a jornada do cliente.
- Lembre-se de que este roteiro visa simplificar e focar na jornada do cliente na perspectiva dos colaboradores. Adapte-o conforme necessário para refletir as diferentes funções e tipos de jornadas de clientes dentro da organização de serviços.



Roteiro para entrevista com stakeholders internos

Programa de Fidelidade da FashionStyle

1. Introdução:

- Data e Local
- Agradecer aos participantes por dedicarem tempo à entrevista.
- Apresentar-se como representante da FashionStyle e explicar o objetivo da entrevista: coletar insights sobre a jornada do cliente no programa de fidelidade a partir da perspectiva dos colaboradores envolvidos.
- Obter permissão dos participantes para gravar a entrevista para referência futura.

2. Identificação do Stakeholder e Função:

- Nome do Participante:
- Cargo/Função:

3. Entendimento da Jornada do Cliente no Programa de Fidelidade:

- Como você enxerga a jornada do cliente em nosso programa de fidelidade, desde o momento em que se inscrevem até o uso contínuo dos benefícios?
- Quais são os principais pontos de contato entre o cliente e nosso programa de fidelidade durante essa jornada?

4. Experiência do Cliente no Programa de Fidelidade:

- Como você acredita que nossos clientes se sentem ao participar do programa de fidelidade?
- Quais são os momentos mais marcantes ou gratificantes que nossos clientes experimentam ao usar os benefícios do programa?

5. Desafios e Benefícios do Programa de Fidelidade:

- Na sua visão, quais são os principais desafios que nossos clientes podem enfrentar ao interagir com nosso programa de fidelidade?
- Quais são os principais benefícios ou recompensas que os clientes mais valorizam no programa?

6. Comunicação e Feedback no Programa de Fidelidade:

- Como nossos clientes se comunicam conosco em relação ao programa de fidelidade e fornecem feedback?
- Quais são os canais de comunicação preferidos pelos nossos clientes para expressar suas opiniões ou compartilhar sugestões relacionadas ao programa?

7. Melhorias e Inovação no Programa de Fidelidade:

- Com base em sua perspectiva, quais áreas do programa de fidelidade podem ser aprimoradas para oferecer uma experiência ainda mais valiosa para nossos clientes?
- Você já identificou oportunidades para inovar ou introduzir novos elementos no programa de fidelidade?

8. Encerramento:

- Agradecer aos participantes por compartilharem suas perspectivas e insights.
- Informar que os feedbacks serão cuidadosamente considerados para aprimorar a jornada do cliente no programa de fidelidade.



DICAS PARA ENTREVISTAS

1. Certifique-se de orientar os participantes e definir expectativas.
2. Estabeleça uma conexão e ganhe a confiança do participante.
3. Prefira perguntas abertas para mantê-los falando e mostre que está ouvindo ativamente com contato visual e gestos.
4. Deixe o participante expressar-se, evitando conduzir suas respostas.
5. Busque entender profundamente suas crenças e valores, evitando generalizações.
6. Minimize distrações e, caso a entrevista sofra interrupções, retome o foco rapidamente.
7. Respeite o tempo dos participantes, comece pontualmente e, se necessário, verifique se podem continuar em caso de atraso.
8. Adapte-se ao ambiente e situação da entrevista.
9. Agende um debriefing após cada sessão. Reveja as anotações com seus parceiros (caso haja) e aprofunde-se na compreensão do que foi dito pelo participante, identificando temas principais e destaques.

1.2



DEBRIEF - CLIENTES FASHIONSTYLE

Cliente	Dados Demográficos	Entrada no Programa de Fidelidade	Experiência no Programa de Fidelidade	Interação e Engajamento	Desafios e Obstáculos	Feedback e Melhorias
Maria	28 anos, Designer de Moda	Descobri o programa de fidelidade através de post nas redes sociais.	Adoro usar pontos acumulados para resgatar descontos em novas coleções.	Acesso regular ao site e aplicativo.	Dificuldade com um cupom de desconto, resolvido pelo suporte.	Mais opções de produtos exclusivos e desafios de estilo.
Rafael	35 anos, Influenciador de Moda	Indicado por outro influenciador.	Recompensas para descontos em lançamentos e acesso antecipado são ótimos para conteúdo.	Acesso diário ao site e compartilhamento nas redes sociais.	Notificações de ofertas podem ser mais claras.	Flexibilidade no sistema de pontos.
Isabella	22 anos, Estudante de Moda	Descobri pesquisando por marcas inovadoras.	Descontos exclusivos ajudam a manter o estilo atualizado.	Acesso regular ao site para verificar produtos elegíveis.	Problema com cupom de desconto, suporte resolveu.	Desafios de estilo mensais e sensação de comunidade.

DEBRIEF - STAKEHOLDERS INTERNOS

	Descoberta do Programa de Fidelidade	Primeiro Uso das Vantagens	Exploração de Benefícios	Envolvimento em Eventos	Interação com Profissionais	Feedback e Comunicação	Lealdade e Fidelidade
Atendente de Atendimento	Inscrição animada	Desconto exclusivo	Resgate de recompensa	-	-	Feedback presencial	Compartilhamento
Gerente de Marketing	Campanha de marketing	Evento exclusivo	Uso de desconto	Desfile de moda	Envolvimento com marca	Compartilhamento	Defensor da marca
Gerente de Vendas	Incentivo à inscrição	Primeiro resgate	Compartilhamento	Evento de venda	Assistência personalizada	Feedback de compra	Retorno frequente
Analista de Dados	Oferta personalizada	Cupom de desconto	Recomendações	Evento personalizado	Feedback de compra	Pesquisas de uso	Uso contínuo
Desenvolvedor de Software	Uso do aplicativo	Uso intuitivo do app	Acompanhamento de pontos	Participação em eventos	Interage com chatbot	Notificação push	Fidelização no app
Problemas e Emoções Negativas	Desconhecimento do programa		Dificuldade no resgate	Ausência de convite	Atendimento insatisfatório	Falta de comunicação	Insatisfação
Pontos de Melhoria	Falta de informações claras		Complicações no resgate	Falta de informações	Desconexão	Falta de feedback	Desistência

MODELO PARA VERSÃO INICIAL DA JORNADA DO CLIENTE

EMOTIONS

NEEDS

MOMENT

ATTITUDES

PICTURE

NAME

BEHAVIORS

...VISUALIZE THEIR EXPERIENCE

ON STAGE EXPERIENCE

PEOPLE

THINGS


BACK STAGE SUPPORT

PEOPLE

THINGS

TRENDS

MODELO PARA VERSÃO INICIAL DAS PERSONAS

<p>Name and Sketch</p> <p>Mary</p> 	<p>Behaviors and actions</p> <p>Reads newspaper daily Subscribes to weekly news magazine Watches news on TV 1-2 times a week Gets digest news as email (e.g. Daily Beast)</p>
<p>Demographic and psychographic details</p> <p>College grad 32 years old single Full time marketing manager</p>	<p>Needs and pain points</p> <p>Needs short, consumable news stories Difficulty reading news on mobile device Overwhelmed by sources of news Needs to be able to trust a source of accuracy</p>

1.3





1.3 TIPO DE USUÁRIO NA GAMIFICAÇÃO

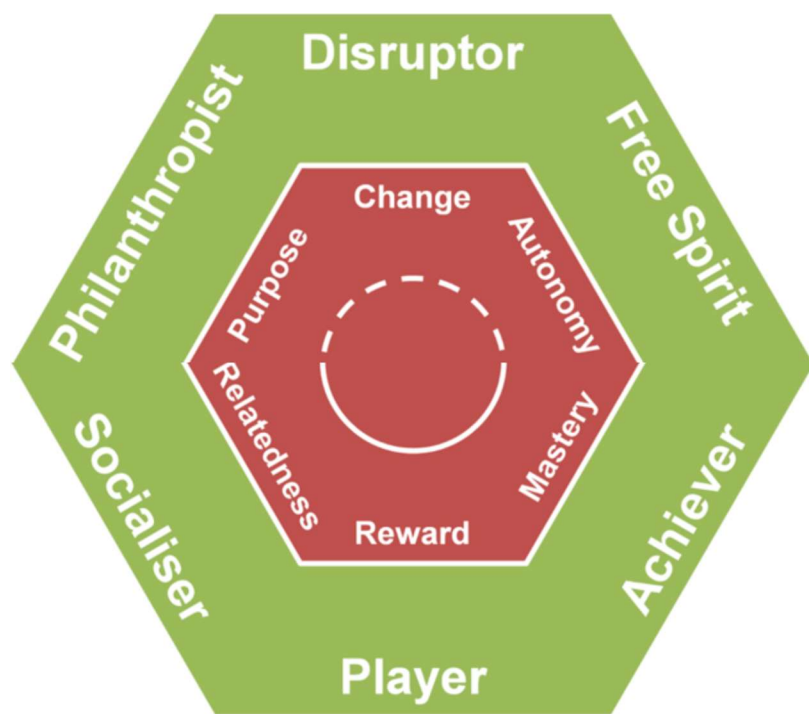
Na última etapa da Fase de Exploração, o propósito é associar o cliente a um tipo de usuário na gamificação.

O Modelo HEXAD define seis tipos de usuário na gamificação: Socializador, Espírito Livre, Realizador, Filantropo, Jogador e Desestabilizador. Cada perfil se beneficia de elementos de gamificação específicos.

Ao utilizar um questionário direcionado aos clientes, é possível identificar o seu perfil de usuário, o que facilita a escolha de elementos e mecânicas de jogos alinhados às suas características. Isso resulta em uma experiência mais personalizada e envolvente.

MODELO HEXAD

O modelo Hexad descreve seis tipos de usuários para design de gamificação. Foi desenvolvido por Andrzej Marczewski para fornecer aos designers de gamificação um framework simples para pensar sobre os tipos de pessoas que podem estar usando seu sistema.



Marczewski's User Type HEXAD

TIPOS DE USUÁRIOS



Socializadores: São motivados pela relação com outros. Eles desejam interagir e criar conexões sociais. Eles são mais motivados pelos aspectos de conexões sociais de relacionamento.



Espíritos Livres: São motivados pela autonomia e autoexpressão. Eles desejam criar e explorar. Existem dois subtipos básicos: Criadores e Exploradores: Os exploradores não querem ser restringidos em como passam por sua jornada pessoal e são propensos a encontrar a maioria dos buracos em um sistema. Os criadores querem construir coisas novas, ter os avatares mais sofisticados e criar o máximo de conteúdo pessoal.





Realizadores: São motivados pela maestria. Eles desejam aprender coisas novas e melhorar a si mesmos. Eles buscam desafios para superar e fazem isso por si mesmos, provavelmente não se preocupando em mostrar aos outros suas conquistas.



Filantropos: São motivados por propósito e significado. Este grupo é altruísta, querendo dar aos outros e enriquecer a vida dos outros de alguma forma sem expectativa de recompensa.



Jogadores: São motivados por recompensas. Eles farão o que for necessário para coletar recompensas de um sistema. Eles estão nisso por si mesmos.



Desestabilizadores: São motivados pela mudança. Eles desejam perturbar seu sistema, seja diretamente ou através de outros usuários, para forçar uma mudança positiva ou negativa.

Questionário para identificar o tipo de usuário

Socializador

1. Gosto de fazer parte de uma equipe.
2. Gosto de atividades em grupo.

Espírito livre

3. É importante para mim seguir meu próprio caminho.
4. Ser independente é importante para mim.

Realizador

5. Gosto de dominar tarefas difíceis.
6. Gosto de sair vitorioso de circunstâncias difíceis.

Filantropo

7. Fico feliz se posso ajudar os outros.
8. O bem-estar dos outros é importante para mim.

Jogador

9. Se a recompensa for suficiente, farei o esforço.
10. Recompensas são uma ótima maneira de me motivar.

Desestabilizador

11. Me vejo como um rebelde.
12. Não gosto de seguir regras.

Desenvolvido por Jeanine Krath, Maximilian Altmeyer, Gustavo F. Tondello e Lennart E. Nacke.

- Entreviste o maior número de clientes possível.
- As respostas devem ser dadas em uma escala-likert de 7 pontos variando de “discordo totalmente” a “concordo totalmente”.
- Calcule a pontuação média.
- As pesquisas pressupõem que as questões são pertinentes e contam com a autoavaliação honesta dos participantes, o que pode ser afetado por vieses cognitivos.
- Além disso, as pesquisas oferecem apenas um retrato momentâneo do tipo de usuário, que pode mudar com o tempo e a interação com o sistema.



Periodic Table of Gamification Elements



1 Rr Random Rewards									2 Fr Fixed Reward	3 Td Time Dependent	
4 Ob On-boarding	5 Si Signposting	6 La Loss Aversion	7 I Investment					8 Pf Progress / Feedback	9 T Theme	10 N Narrative	11 C Curiosity
12 Tp Time Pressure	13 S Scarcity	14 St Strategy	15 F Flow	10 Co Consequences	17 Gt Guilds / Teams	18 Sn Social Network	19 Ss Social Status	20 Sd Social Discovery	21 Sp Social Pressure	22 Cm Competition	
23 Ch Challenges	24 Ce Certificates	25 L Learning	26 Q Quests	27 Lp Levels / Progression	28 Bb Boss Battles	29 E Exploration	30 Bc Branching Choices	31 Ee Easter Eggs	32 U Unlockables	33 Ct Creativity Tools	
34 Cu Customisation	35 Ap Altruistic Purpose	36 Cg Care Taking	37 A Access	38 Cn Collection	39 Gs Gifting / Sharing	40 Ks Knowledge Share	41 P Points	42 Pr Prizes	43 Le Leaderboards	44 B Badges	
		45 Ve Virtual Economy	46 Lo Lottery	47 Ip Innovation Platform	48 V Voting	49 Dt Development Tools	50 A Anonymity	51 Lt Light Touch	52 An Anarchy		

Reward Schedule	General	Socialiser	Achiever	Free Spirit	Philanthropist	Player	Disruptor
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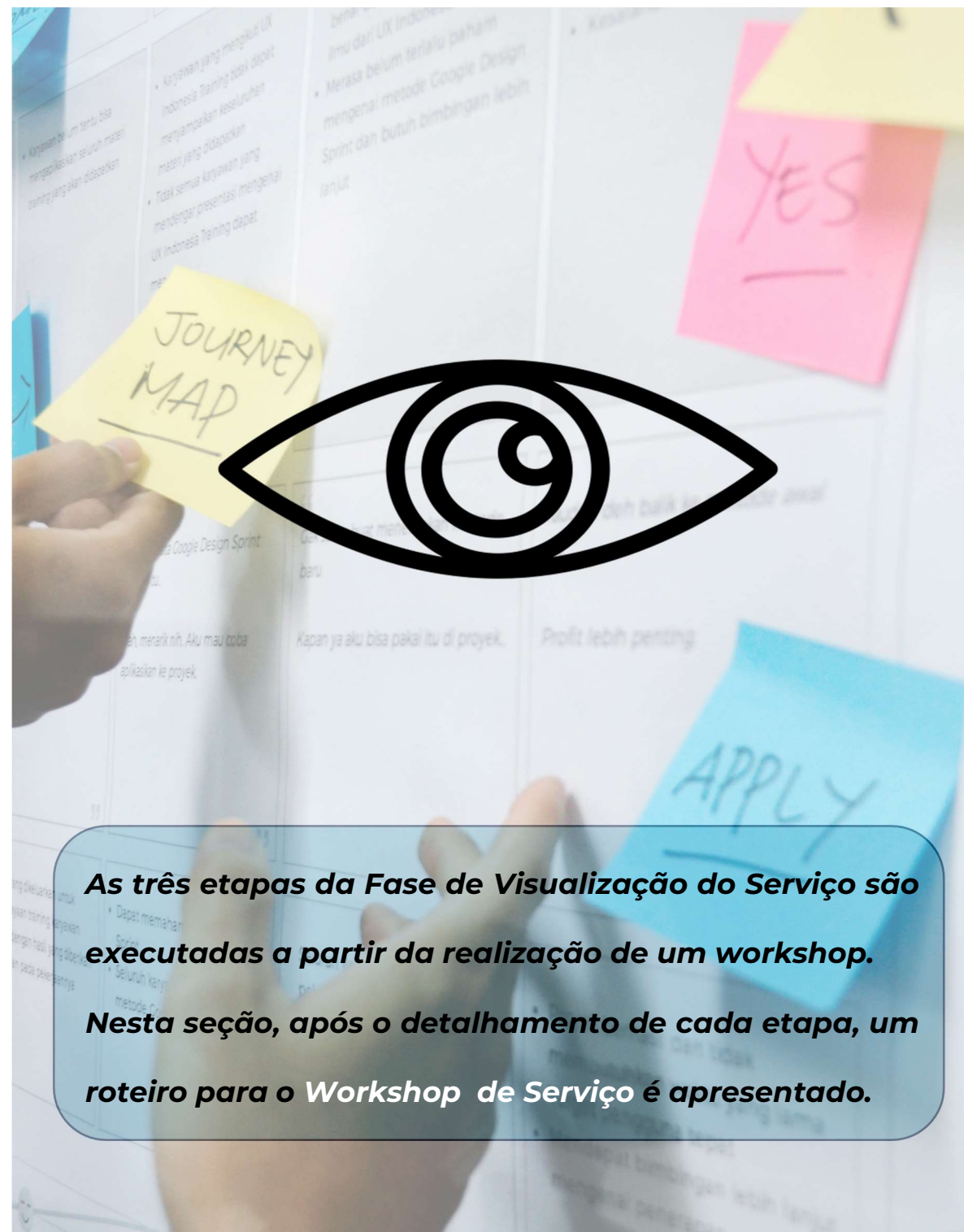


2 VISUALIZAÇÃO DO SERVIÇO

O propósito desta fase é validar as informações da etapa anterior para compreender e visualizar em grupo a jornada do cliente, bem como dialogar sobre as principais oportunidades de gamificação.

A Visualização do serviço compreende 3 etapas:

- 2.1 Visualização da jornada do cliente (nível macro)
- 2.2 Visualização das oportunidades
- 2.3 Visualização das interações (nível micro)



As três etapas da Fase de Visualização do Serviço são executadas a partir da realização de um workshop.

Nesta seção, após o detalhamento de cada etapa, um roteiro para o *Workshop de Serviço* é apresentado.

2.1 VISUALIZAÇÃO DA JORNADA DO CLIENTE

O principal objetivo desta etapa é visualizar a jornada do cliente, por meio de uma abordagem em grupo.

Validar coletivamente as informações e mapear a jornada do cliente é um passo importante para entender como a gamificação pode ser usada de forma eficaz.

Ao envolver uma equipe representativa, pode-se criar uma estratégia de gamificação que não só melhora a experiência do cliente, mas também atende aos objetivos de negócios.

2.1





Pessoas envolvidas

- Equipe do projeto de gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Informações coletadas na fase anterior (Contexto, versão inicial da persona, perfil do usuário na gamificação e versão inicial do mapa da jornada do cliente).

Ações

- Validar o contexto
- Validar a persona
- Validar a jornada do cliente

Ferramentas necessárias

- Roteiro para o Workshop de Serviço

Resultado final

- Mapa da Jornada do cliente e persona validados

BENEFÍCIOS DA VISUALIZAÇÃO

Visualizações ou diagramas, como o Mapa do Jornada do Cliente, não fornecem respostas imediatas diretamente. Em vez disso, são instrumentos convincentes que atraem outros para conversas importantes sobre a criação de valor. Seu objetivo final é gerar um diálogo inclusivo dentro da organização, e não apenas criar o diagrama em si. Os benefícios potenciais da visualização incluem construir empatia, fornecer uma visão geral comum, quebrar silos, reduzir complexidade e encontrar oportunidades.

2.2 VISUALIZAÇÃO DE OPORTUNIDADES

O principal objetivo desta etapa é visualizar oportunidades de gamificação, a partir dos problemas identificados na jornada do cliente.

A gamificação tem emergido como uma poderosa ferramenta para melhorar a experiência do cliente, transformando interações rotineiras em experiências envolventes e motivadoras.

Ao identificar problemas na jornada do cliente, as empresas têm a oportunidade única de implementar elementos de gamificação para superar esses desafios.





Pessoas envolvidas

- Equipe do projeto de gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Mapa da Jornada do Cliente
- Persona

Ações

- Identificar oportunidades de gamificação

Ferramentas necessárias

- Roteiro para o Workshop de Serviço

Resultado final

- Seleção de oportunidades de gamificação

"TRANSFORMANDO CARRINHOS ABANDONADOS POR MEIO DA GAMIFICAÇÃO"

A gamificação tem sido amplamente adotada no setor de varejo para melhorar a experiência de compra online.

Considere uma loja virtual que identificou que muitos clientes abandonam seus carrinhos antes de finalizar a compra.

A loja pode introduzir um sistema onde os clientes ganham pontos a cada etapa do processo de checkout que completam.

Esses pontos podem ser trocados por descontos ou brindes em compras futuras.



2.3 VISUALIZAÇÃO DAS INTERAÇÕES

Nesta etapa, o foco recai sobre a minuciosa análise e ilustração das interações de serviço que se alinham às oportunidades de gamificação previamente identificadas.

Ao detalhar cada interação, as empresas podem compreender melhor como integrar elementos gamificados de maneira eficaz, garantindo que essas adições não apenas resolvam os problemas existentes, mas também enriqueçam a experiência geral do cliente, transformando a jornada do cliente em uma experiência mais lúdica e recompensadora.



Pessoas envolvidas

- Equipe do projeto de gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Oportunidades de gamificação selecionadas

Ações

- Detalhar as interações de serviço relacionadas às oportunidades de gamificação selecionadas

Ferramentas necessárias

- Roteiro para o Workshop de Serviço

Resultado final

- Sketches de interação

BLUEPRINT DE SERVIÇO

É uma ferramenta visual detalhada utilizada para representar e compreender as características de um serviço. Ela compõe o instrumental do workshop de serviço e se diferencia do mapa da jornada do cliente ao revelar os processos que ocorrem nos bastidores, muitas vezes invisíveis para o cliente, mas essenciais para a entrega eficaz do serviço. Ao identificar pontos de contato, processos, pontos de falha potenciais e áreas de melhoria, o blueprint de serviço permite que as organizações otimizem e inovem suas ofertas de serviço, garantindo uma experiência mais coesa e satisfatória para o cliente.

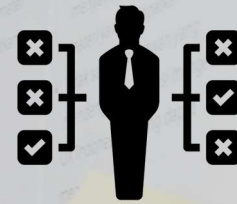
ROTEIRO PARA O WORKSHOP DE SERVIÇO

FACILITANDO O WORKSHOP

Visualizações não fornecem respostas; elas promovem conversas.

Como facilitador do workshop, é sua responsabilidade fazer essas conversas acontecerem.

Seu papel começa com uma preparação cuidadosa, depois passa para a moderação da sessão, e continua com um acompanhamento eficaz.



1 Preparação

- Organize o workshop com antecedência e agende o evento o quanto antes.
- Convide uma variedade de participantes para uma ampla adesão e contribuições de perspectivas diversas.
- Grupos de 6-12 participantes são os ideais. Grupos maiores são possíveis, mas tornam a moderação mais difícil.
- Reserve uma sala maior do que o necessário para o número de pessoas que você convidou.
- Você estará se movimentando e em pé grande parte do tempo.
- Tente encontrar um espaço fora do ambiente de trabalho habitual para que os participantes não se distraiam
- Prepare antecipadamente equipamentos como projetor, Internet e materiais de escrita, além de cópias do diagrama.
- Faça pausas para lanches e café, e almoce próximo ao local.
- Estabeleça uma agenda para o workshop, permitindo flexibilidade, mas mantendo o foco.





2 Introdução

- Comece o workshop com uma nota positiva e energética. Uma introdução bem planejada pode definir o tom para todo o evento e garantir que os participantes estejam engajados desde o início.

Apresentação dos Facilitadores e Participantes:

- Inicie com uma breve apresentação sua, destacando sua experiência e paixão pelo tema.
- Encoraje todos os participantes a se apresentarem brevemente. Isso pode incluir nome, função e uma expectativa para o workshop.

Definição dos Objetivos do Workshop:

- Seja claro sobre o que você espera alcançar ao final do workshop. Isso pode incluir uma melhor compreensão da experiência do cliente um mapa da jornada do cliente revisado, identificação de pontos de dor e de oportunidades de melhoria por meio da gamificação.

Estabelecimento de Regras Básicas:

- Estabeleça algumas regras básicas para garantir um ambiente respeitoso e produtivo. Isso pode incluir ouvir ativamente, evitar interrupções e manter os telefones no modo silencioso.

Dinâmica de Quebra-gelo:

- Considere iniciar com uma atividade de quebra-gelo para ajudar os participantes a se sentirem à vontade e promover a interação. Isso pode ser algo simples como "Duas verdades e uma mentira" ou uma rápida dinâmica de grupo.

Visão Geral da Agenda:

- Dê uma rápida visão geral do que está planejado para o dia. Isso ajuda os participantes a saberem o que esperar e a se prepararem mentalmente para as atividades.





3 Mediação

A mediação é o coração do workshop, onde a maior parte do aprendizado e discussão ocorre. É essencial conduzir esta sessão com clareza, paixão e um foco claro nos objetivos.

3.1 Introdução à Experiência do Cliente:

- Comece com uma história ou caso que ilustre a importância da experiência do cliente.
- Explique como a experiência do cliente difere da satisfação do cliente e por que isso é crucial para o sucesso dos negócios.
- Use gráficos ou vídeos para visualizar conceitos e tornar a apresentação mais envolvente.

3.2 Validação do Contexto:

- A partir do Relatório da Reunião de Alinhamento e outras informações coletadas na Fase de Exploração, faça uma breve apresentação da empresa, os principais produtos/serviços e o público-alvo.
- Crie tópicos e ilustrações que tornem a apresentação envolvente.
- Encoraje os participantes a compartilhar suas próprias experiências e percepções sobre a empresa.
- Revise as informações e valide o contexto com os participantes.

3.3 Validação da Persona:

- Apresente a versão inicial da persona.
- Encoraje os participantes a compartilhar suas percepções.
- Revise as informações e valide a persona com os participantes.



Contexto

Experiência do Cliente

Foco principal na satisfação do cliente.
Atendimento personalizado e de qualidade.
Busca entender as necessidades e preferências dos clientes.
Proporciona uma experiência única de compra.

Coleções

Coleções de moda ousadas e inovadoras.
Acompanha as tendências atuais.
Design exclusivo e diferenciado.
Variedade de produtos para atender diferentes estilos.

Qualidade

Materiais duráveis e confortáveis.
Acabamento impecável.
Controle de qualidade rigoroso.

Sustentabilidade

Preocupação com o meio ambiente.
Uso de materiais sustentáveis.
Práticas sustentáveis na produção.
Participação em projetos sociais e ambientais.

FashionStyle

**Marca em ascensão no cenário nacional.
Reconhecida por coleções de moda ousadas e inovadoras.
Objetivo: Conquistar espaço entre os principais players da indústria da moda.
Oferece produtos de alta qualidade e design exclusivo.**

Preço e Acessibilidade

Preços competitivos.
Promoções e descontos especiais.
Variedade de opções de pagamento.
Acessibilidade para diferentes públicos.

Canais de Venda

Loja online.
Lojas físicas em várias cidades.
Parcerias com lojas de departamento.
Participação em feiras e eventos de moda.

Pós-venda

Política de trocas e devoluções flexível.
Atendimento ao cliente pós-venda eficiente.
Programa de fidelidade e benefícios para clientes frequentes.
Feedback e monitoramento constante da satisfação do cliente.

Segmentos de Clientes

Clientes Fashion-Conscious

Entusiastas da moda.
Buscam últimas tendências.
Valorizam produtos de alta qualidade.
Comportamento de Compra:
Compras frequentes.
Foco em marcas reconhecidas,
Participação em eventos de moda.
Motivações:
Autoexpressão
Vanguarda das tendências
Senso de estilo distinto.

Compradores Práticos

Valorizam praticidade e conforto.
Preferem peças versáteis e funcionais.
Comportamento de Compra
Foco em itens básicos e versáteis.
Preferência por materiais duráveis.
Busca por ofertas e promoções.
Motivações
Conforto.
Praticidade.
Durabilidade.

Trendsetters

Influenciadores e líderes de opinião.
Impacto na formação de tendências.
Comportamento de Compra
Busca por peças exclusivas.
Engajamento ativo nas redes sociais.
Participação em eventos de moda.
Motivações
Criar tendências.
Se destacar.
Influenciar os outros.

Clientes de Primeira Compra

Novos clientes descobrindo a marca.
Comportamento de Compra
Exploração do catálogo.
Atenção a reviews e comentários.
Compras iniciais para testar a qualidade.
Motivações
Conhecer uma nova marca.
Experimentar produtos.
Encontrar um estilo que ressoe.



Persona FashionStyle



Marina Oliveira

Idade: 28 anos

Profissão: Gerente de Marketing Digital

Localização: São Paulo, SP

Estilo de vida e personalidade:

- Jovem profissional em São Paulo.
- Apaixonada por moda e tendências.
- Extrovertida, criativa e líder de opinião.
- Ativa em mídias sociais, compartilhando dicas de moda.

Comportamento de compra:

- Compradora regular em busca de peças únicas e de alta qualidade.
- Valoriza marcas sustentáveis e éticas.

Pontos de dor:

- Necessidade de experiências únicas
- Falta de tempo para montar looks criativos
- Dificuldade em encontrar soluções práticas
- Equilíbrio entre trabalho e influência online
- Sensação de sobrecarga de informações





3.4 Validação do Mapa da Jornada do Cliente:

- Use um grande quadro branco ou papel kraft para desenhar a jornada do cliente em tempo real.
- Peça aos participantes para identificar pontos de contato e possíveis pontos de dor.

3.5 Oportunidades de Gamificação:

- Introduza o conceito de gamificação com um exemplo divertido e interativo.
- Discuta os critérios de gamificação
- Facilite uma discussão sobre áreas de melhoria e oportunidades usando os critérios de gamificação.
- Identifique interações que mostram potencial significativo.

3.6 Detalhamento da interação

- Explore a interação selecionada, enfatizando tanto a ação realizada pelo cliente quanto a resposta da interface.
- Ilustre essa interação através de esboços ou sequências visuais (storyboards).

CRITÉRIOS DE GAMIFICAÇÃO

1. **Envolve mudanças comportamentais do cliente ou ações comportamentais desejadas?**
2. **Envolve falta de motivação?**
3. **O novo comportamento pode ser estimulado por meio de mecanismos psicológicos básicos (senso de autonomia e/ou propósito e/ou desenvolvimento de habilidades e/ou interações sociais)?**

Mapa da Jornada do Cliente - Programa de Fidelidade FashionStyle

Estágios	Descoberta do Programa	Inscrição no Programa	Primeiro uso das vantagens	Exploração de benefícios	Interação com profissionais	Comunicação e feedback	Lealdade e fidelidade
Ações do Cliente	* Conhecer o Programa	* Inscrição no Programa	* Uso do Desconto exclusivo	* Resgate de recompensas * Exploração de vantagens	* Consulta a atendente * Interação com a equipe	* Uso de canais digitais * Feedback por pesquisa	* Compartilhamento * Retorno frequente
Canais	pessoalmente website aplicativo mídias sociais indicação	website aplicativo	pessoalmente website aplicativo	pessoalmente website aplicativo mídias sociais	pessoalmente chat whatsapp telefone e-mail mídias sociais	e-mail website aplicativo mídias sociais	website aplicativo mídias sociais indicação
Estado emocional	😊 Entusiasmo 😊 Curiosidade	😊 Entusiasmo	😊 Entusiasmo	😞 Frustração	😐 Neutro	😞 Cansaço	😞 Frustração
Problemas e desafios	Desconhecimento do programa	Inscrição exige dados sensíveis		O resgate de recompensas é tedioso e previsível, com pouca motivação para interagir		As pesquisas de avaliação geralmente são demoradas e entediantes	Clientes não se sentem motivados a continuar utilizando o programa
Critérios de gamificação Mudança? Motivação? Estímulos?				SIM		SIM	SIM



Detalhamento da interação - Programa de Fidelidade FashionStyle

O resgate de recompensas é tedioso e previsível, com pouca motivação para interagir

1 Acesso ao Aplicativo

Usuário: Entra no aplicativo esperando uma navegação clara e recompensas interessantes.

Aplicativo: Apresenta uma tela inicial básica, com um simples menu listando "Meus Pontos", "Recompensas" e "Configurações", sem imagens ou elementos interativos.



2 Consultando Pontos

Usuário: Clica em "Meus Pontos" para verificar o saldo.

Aplicativo: Mostra apenas um número, sem qualquer contexto ou visualização atrativa.



3 Visualizando Recompensas Disponíveis

Usuário: Clica em "Recompensas" para explorar opções de resgate.

Aplicativo: Lista todas as recompensas em uma longa lista de texto, sem imagens, descrições ou categorização. Os itens mais valiosos estão misturados com os menos valiosos, sem diferenciação.



4 Processo de Resgate

Usuário: Escolhe uma recompensa para resgatar, esperando uma confirmação clara.

Aplicativo: Simplesmente subtrai os pontos necessários do saldo do usuário e exibe uma mensagem genérica: "Recompensa Resgatada".



5 Feedback Pós-Resgate

Usuário: Espera algum tipo de confirmação ou detalhes sobre a recompensa resgatada.

Aplicativo: Retorna ao menu principal sem fornecer detalhes adicionais ou confirmação de envio/recebimento da recompensa.





4 Conclusão

- **Resumo Visual:** Ao finalizar o workshop, é essencial consolidar e visualizar tudo o que foi discutido. Utilize um quadro branco ou prepare slides que destaquem os tópicos chave, decisões tomadas e oportunidades identificadas. Isso não apenas reforça os pontos principais, mas também serve como uma referência rápida para futuras consultas.
- **Feedback:** A participação ativa dos participantes é crucial para o sucesso de qualquer workshop. Dedique um momento para que cada participante compartilhe seus aprendizados, insights e qualquer feedback sobre o processo. Isso pode fornecer informações valiosas para aprimorar futuros workshops.



3 IDEIAÇÃO DA GAMIFICAÇÃO

Nesta fase, o objetivo é gerar ideias para transformar as interações de serviço selecionadas anteriormente em experiências gamificadas que sejam envolventes. A ideação é um processo criativo que envolve a colaboração de diferentes stakeholders para garantir que as soluções propostas sejam inovadoras e eficazes.

Esta fase compreende 3 etapas:

- 3.1 Adoção de um processo de cocriação
- 3.2 Criação de conceitos gamificados
- 3.3 Seleção de ideias



As três etapas da Fase de Ideação da Gamificação também são executadas a partir da realização de um workshop. Nesta seção, após o detalhamento de cada etapa, um roteiro para o Workshop de Gamificação é apresentado.

3.1 ADOÇÃO DE UM PROCESSO DE COCRIAÇÃO

O principal objetivo desta etapa é reunir stakeholders relevantes, como usuários finais, designers, especialistas em gamificação e representantes da organização para juntos desenvolverem soluções gamificadas.

A cocriação é um processo colaborativo que visa explorar uma diversidade de perspectivas, garantindo que as soluções sejam tanto inovadoras quanto relevantes para o contexto da organização.

Ela também é benéfica para garantir a adoção e a aceitação das soluções desenvolvidas, uma vez que os principais stakeholders estão envolvidos desde o início.

3.1





Pessoas envolvidas

- Equipe do projeto de gamificação
- Designers
- Especialistas em gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Informações validadas na fase anterior (Contexto, persona, perfil do usuário na gamificação, mapa da jornada do cliente e detalhamento das interações).

Ações

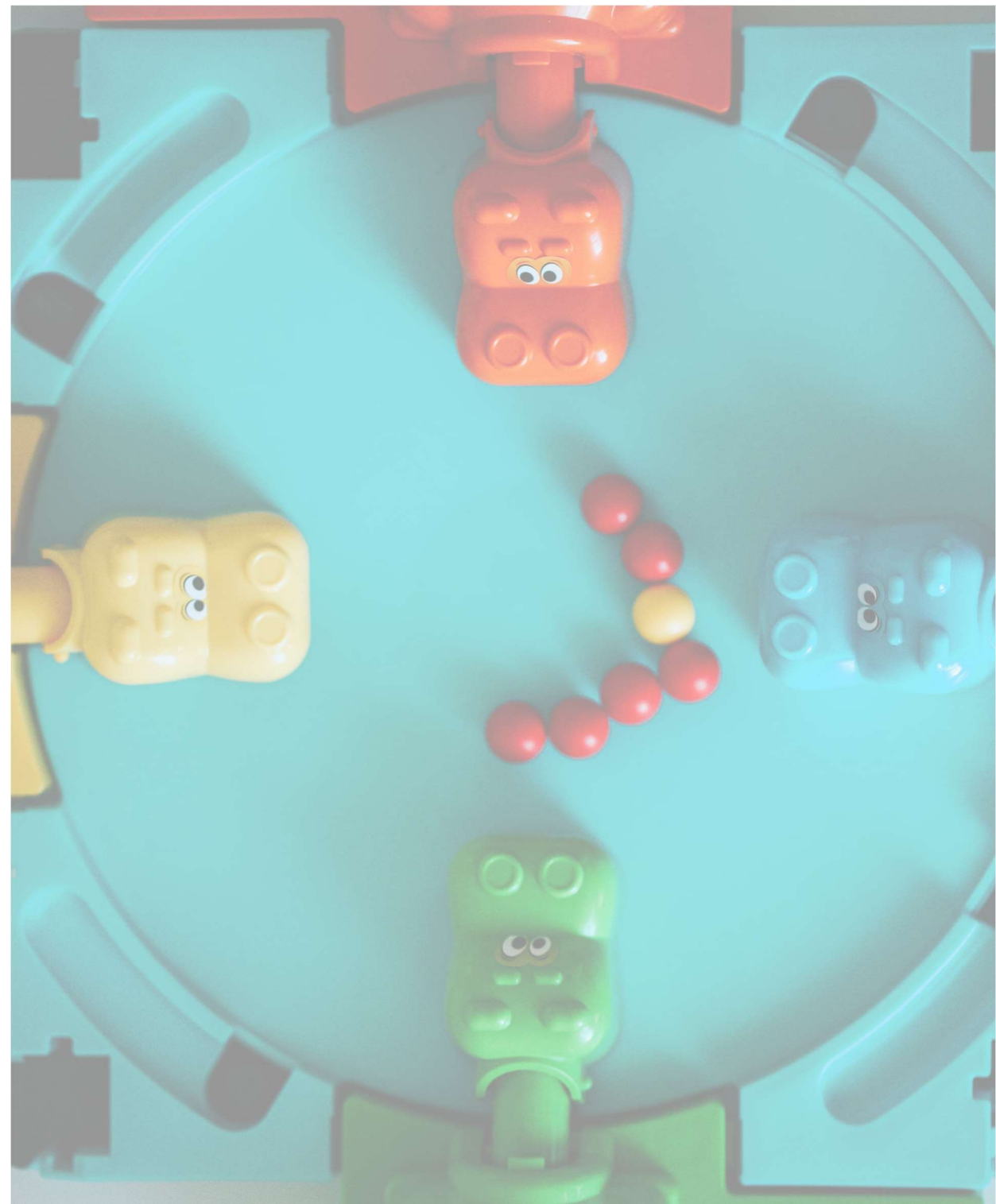
- Organizar o Workshop de gamificação

Ferramentas necessárias

- Roteiro para o Workshop de Gamificação

Resultado final

- Workshop de Gamificação



3.2



3.2 CRIAÇÃO DE CONCEITOS GAMIFICADOS

O objetivo desta etapa é estimular e orientar o pensamento criativo, buscando gerar ideias inovadoras que se traduzam em conceitos gamificados coesos.

Nesta etapa, dinâmicas, mecânicas e componentes de jogos são integradas às interações de serviço com vistas a um equilíbrio harmonioso entre os elementos do jogo e as funcionalidades do serviço.

Gamificação não é apenas sobre adicionar elementos de jogo, mas sim sobre integrar esses elementos de forma significativa para melhorar a experiência do cliente.



Pessoas envolvidas

- Equipe do projeto de gamificação
- Designers
- Especialistas em gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Informações validadas na fase anterior (Contexto, persona, perfil do usuário na gamificação, mapa da jornada do cliente e detalhamento das interações).

Ações

- Integrar elementos de jogos às interações de serviço
- Discussões em grupo para garantir um equilíbrio entre os elementos de jogo e o serviço

Ferramentas necessárias

- Roteiro para o Workshop de Gamificação

Resultado final

- Conceitos gamificados





Pessoas envolvidas

- Equipe do projeto de gamificação
- Designers
- Especialistas em gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Conceitos gamificados

Ações

- Selecionar e priorizar conceitos

Ferramentas necessárias

- Roteiro para o Workshop de Gamificação

Resultado final

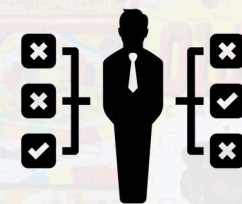
- Lista de conceitos selecionados



ROTEIRO PARA O WORKSHOP DE GAMIFICAÇÃO

FACILITANDO O WORKSHOP

Lembre-se de que os melhores conceitos de gamificação emergem de discussões ricas e colaborativas. Como facilitador, sua tarefa é conduzir essas discussões, garantindo que sejam produtivas e que todos os participantes contribuam



I Preparação

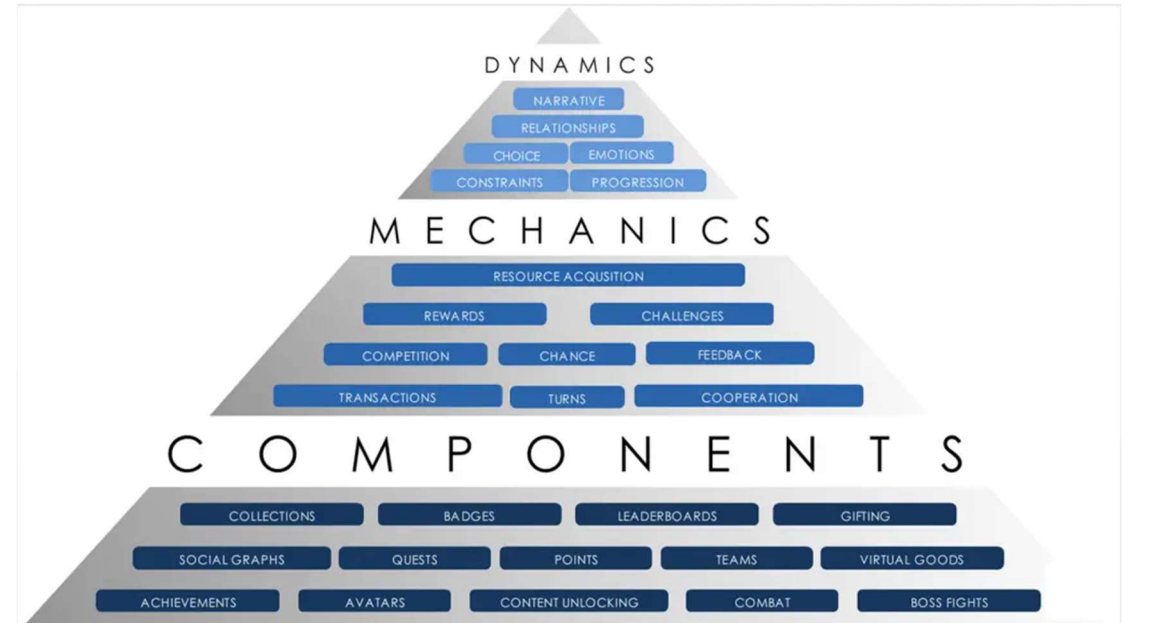
- Organize e reserve uma sala apropriada, preferencialmente diferente do local do workshop anterior para trazer um novo ambiente e perspectiva.
- Garanta que todos os recursos necessários, como post-its, canetas, papel kraft, projetor e quadro branco, estejam disponíveis.
- Prepare materiais que resumam o trabalho realizado até agora, incluindo os principais pontos e decisões do último workshop.
- Estabeleça e compartilhe uma agenda clara, mas esteja preparado para ajustes de acordo com as necessidades do grupo.





II Introdução

- **Apresentação dos Facilitadores e Participantes:** comece apresentando-se de forma sucinta, ressaltando sua trajetória e entusiasmo pelo assunto. Incentive cada participante a fazer uma breve apresentação, compartilhando nome, cargo e uma expectativa para a oficina.
- **Apresentação do Objetivo do Workshop:** Inicie destacando o foco em gamificação, sua relevância e o que você espera alcançar ao final do encontro.
- **Gamificação em Serviços:** Apresente exemplos de como os elementos de gamificação podem ser integrados em contextos de serviço. Apresente o conceito de Dinâmicas, Mecânicas e Componentes.
- **Revisão do Workshop de serviços:** Recapitule os resultados do workshop anterior para garantir que todos estejam alinhados. Apresente o contexto, persona, tipo de usuário na gamificação, jornada do cliente, oportunidades e detalhamento das interações.





III Mediação


- **Perfil do Usuário:** Retome o perfil do usuário na gamificação e apresente os principais elementos de jogos associados a ele.
- **Cartas ilustrativas:** Distribua cartas ilustrativas do perfil do usuário e elementos de jogos.
- **Atividade Prática:** Em grupos, peça aos participantes para selecionar uma interação de serviço e tentar integrar elementos de jogos. Distribua materiais de apoio como post-its, canetas coloridas, papel, etc... Ao final, cada grupo apresenta suas ideias para o restante do grupo.

Disruptor



- What can I break?
- Who can I upset?
- What can I improve / change
- How can I be heard?

Free Spirit



- Can I be creative?
- Can I find my own way?
- Is exploration encouraged and rewarded?
- What is there to find?

Achiever




- What will challenge me?
- How can I learn new skills?
- What will I have to show for at the end?
- How do I succeed?

Philanthropist



- How can I help others?
- How can I share with others?
- How can I improve the experiences of others?

Socialiser



- How can I connect to others?
- Can I play with friends?
- How can I collaborate?
- How will I be recognised by my peers?

Player



- What's in it for me?
- How do I win?
- What's the easiest way?
- How do I need to behave to get what I want?

Cartas ilustrativas:

Exemplo de Carta (frente) – Perfil Realizador



Achiever

- What will challenge me?
- How can I learn new skills?
- What will I have to show for at the end?
- How do I succeed?

Exemplo de carta (verso) – Perfil Realizador



-  **Achiever**
-  **Challenges**
Challenges help keep people interested, testing their knowledge and allowing them to apply it. Overcoming challenges will make people feel they have earned their achievement.
-  **Certificates**
Different from general rewards and trophies, certificates are a physical symbol of mastery and achievement. They carry meaning, status and are useful.
-  **Learning / New Skills**
What better way to achieve mastery than to learn something new? Give your users the opportunity to learn and expand.
-  **Quests**
Quests give users a fixed goal to achieve. Often made up from a series of linked challenges, multiplying the feeling of achievement.
-  **Levels / Progression**
Levels and goals help to map a users progression through a system. It can be as important to see where you can go next as it is to see where you have been.
-  **Boss Battles**
Boss battles are a chance to consolidate everything you have learned and mastered in one epic challenge. Usually signals the end of the journey – and the beginning of a new one.





IV Seleção de ideias

- **CrITÉrios de Seleção:** Apresente os critérios (potencial de engajamento, viabilidade técnica e objetivos alinhados) que serão usados para selecionar ideias.
- **Atividade Prática:** Utilize a “Matriz de priorização” para ajudar os grupos a avaliar e escolher suas melhores ideias.
- **Discussão em Grupo:** Facilite uma discussão aberta sobre as ideias selecionadas, garantindo que todos os aspectos, incluindo viabilidade técnica, alinhamento com os objetivos e potencial de engajamento, sejam considerados.

Matriz de Priorização

	Potencial de engajamento	Viabilidade Técnica	Objetivos alinhados
Alta	Ideias que demonstram alto potencial para aumentar o envolvimento do cliente.	Ideias facilmente implementáveis com a tecnologia atual e recursos disponíveis.	Ideias perfeitamente alinhadas com os objetivos estratégicos da organização.
Média	Ideias com potencial moderado de engajamento, podendo necessitar de ajustes para otimização.	Ideias que exigem desenvolvimento adicional ou integração, mas são viáveis com os recursos e tempo disponíveis.	Ideias que atendem parcialmente aos objetivos e podem precisar de refinamento.
Baixa	Ideias com baixo potencial de engajamento ou que podem não ser atraentes para o público-alvo.	Ideias complexas, que exigem muitos recursos ou tecnologias ainda não disponíveis.	Ideias com pouco ou nenhum alinhamento com os objetivos estratégicos.





V Conclusão

- **Resumo Visual:** Ao concluir o workshop, é fundamental sintetizar e representar visualmente as discussões realizadas. Empregue um quadro branco ou crie slides que ressaltem os principais temas, decisões efetuadas e oportunidades reconhecidas. Esta recapitulação não só enfatiza os assuntos centrais, mas também atua como um guia prático para revisões subsequentes.
- **Feedback:** A interação contínua dos participantes é determinante para o êxito de qualquer workshop. Reserve um tempo para que todos possam expressar suas descobertas, percepções e opiniões sobre a dinâmica do workshop. Essa etapa pode revelar insights úteis para otimizar encontros futuros.



4 AVALIAÇÃO DA GAMIFICAÇÃO

O propósito desta fase é validar e analisar a eficácia das soluções gamificadas propostas anteriormente, verificando sua aplicabilidade.

A Avaliação da Gamificação compreende 3 etapas:

- 4.1 Identificação de requisitos
- 4.2 Criação de protótipos
- 4.3 Avaliação dos protótipos



4.1 IDENTIFICAÇÃO DE REQUISITOS

O principal objetivo desta etapa é mapear e validar todos os requisitos necessários para implementar as soluções gamificadas de maneira eficaz.

Por meio de uma abordagem coletiva, é vital assegurar que todos os elementos gamificados estejam alinhados com os objetivos de negócios e as necessidades dos clientes.

Ao reunir feedback e insights de uma equipe representativa, é possível garantir que os requisitos técnicos, de design e de experiência do usuário sejam abordados corretamente.

4.1





Pessoas envolvidas

- Equipe do projeto de gamificação
- Desenvolvedores técnicos (se necessário)

Dados/ Informações requeridas

- Informações coletadas nas fases anteriores (conceitos gamificados selecionados, sketches de interação e mapa da jornada do cliente).
- Feedback e insights de stakeholders

Ações

- Listar os requisitos técnicos, funcionais e de design para cada interação gamificada.
- Definir restrições ou limitações.

Ferramentas necessárias

- Plataforma de gestão de requisitos (ex: JIRA, Trello)

Resultado final

- Lista de requisitos detalhada para a implementação da gamificação.



4.2 CRIAÇÃO DE PROTÓTIPOS

O principal objetivo desta etapa é desenvolver protótipos das soluções gamificadas, baseando-se nos requisitos identificados e nas oportunidades de gamificação visualizadas

A gamificação, como uma poderosa ferramenta de engajamento, precisa ser visualizada de forma concreta para garantir que suas implementações atendam às expectativas e, ao mesmo tempo, superem os desafios identificados na jornada do cliente. Ao prototipar, é possível transformar ideias em representações tangíveis.

4.2





Pessoas envolvidas

- Equipe do projeto de gamificação
- Designers
- Especialistas em gamificação
- Colaboradores representativos na jornada
- Clientes

Dados/ Informações requeridas

- Lista de requisitos detalhada da etapa anterior
- Conceitos gamificados

Ações

- Desenvolver protótipos das interações gamificadas.
- Validar funcionalidades e design com stakeholders.

Ferramentas necessárias

- Ferramentas de prototipagem (ex: Figma, Adobe XD, Sketch)
- Testes A/B

Resultado final

- Protótipos para avaliação





4.3 AVALIAÇÃO DOS PROTÓTIPOS

O foco desta etapa é analisar os protótipos desenvolvidos para garantir que eles não apenas atendam aos critérios estabelecidos, mas também melhorem a experiência do cliente.

Ao envolver os stakeholders e usuários finais nesta avaliação, é possível coletar feedback valioso que pode ser usado para refinar e aprimorar as soluções gamificadas, garantindo que a implementação final ofereça uma experiência rica, envolvente e alinhada com os objetivos da organização.



Pessoas envolvidas

- Equipe do projeto de gamificação
- Testadores/Usuários (pode incluir clientes reais ou usuários de teste)
- Designers de UX
- Desenvolvedores técnicos

Dados/ Informações requeridas

- Protótipos interativos
- Critérios de avaliação definidos

Ações

- Realizar sessões de teste com os clientes
- Coletar feedback dos usuários sobre
- Realizar ajustes conforme necessário.

Ferramentas necessárias

- Ferramentas de teste de usabilidade (ex: Lookback.io, UserTesting)
- Questionário de pesquisa

Resultado final

- Feedback consolidado e ajustes recomendados para a implementação final da gamificação.



FASES DO MÉTODO DE GAMIFICAÇÃO

1. Exploração do serviço



2. Visualização do serviço

3. Ideação da gamificação



4. Avaliação da gamificação

MÉTODO DE
GAMIFICAÇÃO
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