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Digital Transformation for Improving Customer Experience: A Bibliometric Review Analysis

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Strategy, Marketing, Operations and Management

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Para a minha avó Alzira

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Resumo

A sociedade está a passar por uma grande mudança e a transformação digital tornou-se um fator crítico para as empresas se manterem competitivas no atual panorama digital, mudando a forma como operam, inovam e interagem com os seus consumidores. Este ritmo de transformação digital foi acelerado pelo Covid-19, mas os consumidores já se estavam a tornar mais digitais e mais capacitados do que nunca. Compreender e satisfazer as necessidades individuais do consumidor através da implementação de tecnologias digitais tornou-se uma dimensão crucial para as empresas que pretendem obter uma vantagem competitiva no mercado. No entanto, este tópico continua a ser pouco investigado, pelo que o presente estudo visa analisar o estado atual do conhecimento, assim como identificar lacunas e tendências de investigação sobre a relação entre a transformação digital e a experiência do consumidor. Para realizar esta pesquisa, foi feita uma análise bibliométrica através da utilização da base de dados Scopus para recolher artigos científicos publicados entre 2019 e 2023. O VOSviewer foi utilizado para visualizar as relações e mapas conceituais entre os tópicos com base na literatura recolhida no Scopus. As principais conclusões deste estudo sublinham a influência positiva da transformação digital na experiência do consumidor e na vantagem competitiva de uma empresa. Destaca também que, entre as numerosas iniciativas de transformação digital, as estratégias omnicanal, a inteligência artificial e a realidade aumentada/virtual são atualmente as ferramentas mais poderosas para melhorar a experiência do consumidor. Assim, este estudo contribui para uma melhor compreensão de como é que a transformação digital melhora a experiência do consumidor e quais são as iniciativas que estão a ser implementadas com mais sucesso pelas empresas.

Palavras-chave: Análise Bibliométrica, Transformação Digital, Experiência do Consumidor, Iniciativas de Transformação Digital, Vantagem Competitiva

Classificação JEL:

L21 – Business Objectives of the Firm

M15 – IT Management

M31 – Marketing

M21 – Business Economics

O32 – Management of Technological Innovation and R&D

Abstract

Society is going through a major change and digital transformation has become a critical factor for businesses to stay competitive in today's fast-paced digital landscape, changing the way they operate, innovate, and interact with their customers. This pace of digital transformation has been accelerated by the Covid-19 pandemic, but customers were already becoming more digital and more empowered than ever. Understanding and meeting individual customer requirements through the implementation of digital technologies has become a crucial dimension for companies that aim to gain a competitive advantage. However, this topic remains under-researched, and this study aims to analyze the current state of knowledge, identify research gaps and track research trends on the relationship between digital transformation and customer experience. To conduct this research, a bibliometric analysis was made using Scopus database to retrieve scientific articles between 2019 and 2023. VOSviewer was used to visualize relations and conceptual maps between topics based on the literature from Scopus database. This study's core findings underscore a positive influence of digital transformation on customer experience and on a company's competitive advantage. It also highlights that among numerous digital transformation initiatives, omnichannel strategies, artificial intelligence and augmented/virtual reality are currently the most powerful tools for customer experience enhancement. Thus, this study contributes to a better understanding of how digital transformation improves customer experience and which initiatives are being most successfully implemented by companies.

Keywords: Bibliometric Analysis, Digital Transformation, Customer Experience, Digital Transformation Initiatives, Competitive Advantage

JEL Classification:

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Table of Contents

Acknowledgements	iii
Resumo	v
Abstract	vii
Index of Figures	xi
Index of Tables	xi
Index of Acronyms	xiii
Chapter 1. Introduction	1
Chapter 2. Theoretical Background	3
Chapter 3. Methodology	5
3.1. Review Question	5
3.2. Identification of Research	5
3.3. Articles Selection	6
3.4. Data Criteria	6
Chapter 4. Overall Findings	7
4.1. Global Data Elsevier Scopus	7
4.1.1. Documents per year	8
4.1.2. Top Publishing Sources	8
4.1.3. Total by Subject Area	9
4.1.4. Geographics	10
4.1.5. Type of Document	10
4.2. Key Concepts, Structures and Findings over the past 5 years	11
4.2.1. Customer Satisfaction cluster	13
4.2.2. Artificial Intelligence cluster	13
4.2.1. E-commerce cluster	14
4.2.1. Decision Making cluster	14
Chapter 5. Data Synthesis	15

Chapter 6. Discussion & Findings	19
6.1. First Research Question	19
6.1.1. Customer Experience	19
6.2.1. Digital Transformation and Customer Experience	20
6.2. Second Research Question	22
6.2.1. Omnichannel Strategies	22
6.2.2. Artificial Intelligence Solutions	23
6.2.3. Augmented Reality and Virtual Reality	25
6.3. Third Research Question	26
6.3.1. Digital Transformation as a strategy for competitive advantage	26
6.3.2. Success stories across industries	28
Chapter 7. Conclusion	31
References	33

Index of Figures

Figure 4.1 - Total Documents by Year	8
Figure 4.2 - Total Documents per Year and by Source	9
Figure 4.3 - Total Documents by Subject Area	9
Figure 4.4 - Total Documents by Country	10
Figure 4.5 - Total Documents by Type.....	10
Figure 4.6 - Keyword Selection in VOSViewer	11
Figure 4.7 - Network Visualization of Keyword and Co-occurrence in VOSviewer.....	12

Index of Tables

Table 4.1 - Cluster Division.....	12
Table 5.1 – Top 22 articles.....	15

Index of Acronyms

PRISMA – Preferred Reporting Items for Systematic Reviews and Meta-Analyses

DT – Digital Transformation

CX – Customer Experience

AI – Artificial Intelligence

AR – Augmented Reality

VR – Virtual Reality

CHAPTER 1

Introduction

Technology is no longer an era; it is the future. Society is going through a major transformation, everyone is becoming increasingly dependent on technology, and this is creating a need for a digital makeover of everything (Santhosh T., 2018).

Digital transformation has become a critical factor for businesses to stay competitive in today's fast-paced and rapidly evolving digital landscape. It is the process that involves the integration of digital technologies into all areas of an organization, to fundamentally transform business operations, strategies, and customer experience (Matarazzo et al., 2021; Volberda et al., 2021). In other words, it is changing the way businesses operate, innovate, and interact with their customers.

Digital Transformation involves a fundamental restructuring of the entire organization (Vial, 2019) and, as noted by Verhoef et al. (2021), is not just about adopting new technologies and it goes beyond digitalization. It is about changing the culture, the mindset, and the processes of an organization to become more agile, innovative, and customer centric. By going through this transformation, organizations are creating new business models, optimizing their operations, increasing efficiency, reducing costs and improving customer experience (Kraus et al., 2022; Matarazzo et al., 2021; Verhoef et al., 2021).

This pace of digital transformation has been accelerated by the Covid-19 pandemic, which made companies realize the importance of digital technologies to adapt to the new normal (Reuschl et al., 2022; Volberda et al., 2021). However, a gradual change was already happening in terms of customers becoming more and more digital and they now have more power than ever before. Customers have access to loads of media channels and can effortlessly communicate with companies, while passing through numerous touchpoints in their customer journey, many of which are digital (Verhoef et al., 2021). This has highlighted the need to focus on customer experience, which encompasses impressions, knowledge and associations that a customer receives during interactions with a company (Taraskin, 2021).

Understanding and meeting individual customer requirements has become a crucial dimension for companies that aim to gain a competitive advantage, no matter what industry it specializes in (Demirel, 2022; Taraskin, 2021). In today's business landscape, organizations must find new ways to create competitive differentiation to rise above the competition (Fletcher

& Griffiths, 2020; Verhoef et al., 2021). Many companies have started implementing digital transformation initiatives to improve their customer experience and there is evidence to suggest that digital transformation can play a critical role in improving customer experience. The key to this is understanding the customer base. When customers' expectations are met, their satisfaction increases, brand preference increases, and loyalty also strengthens (Matarazzo et al., 2021).

Leveraging digital technologies is now paramount for companies to improve customer satisfaction and loyalty, leading to repeated business and, ultimately, increased sales (Ortstad & Sonono, 2017). However, this topic remains under-researched, and this study aims to analyze the current state of knowledge, identify research gaps and track research trends on the relationship between digital transformation and customer experience.

CHAPTER 2

Theoretical Background

In this literature review, a comprehensive analysis of various articles was undertaken to explore how digital transformation positively impacts customer experience.

The primary aim of this research is to understand how companies are leveraging digital transformation initiatives to improve customer experience and its' main driver is the recognition of the rapid advancement of technology that has significantly transformed customer behavior and expectations, especially in the digital realm. The growing dominance of digital platforms and the increasing reliance on digital interactions need a comprehensive understanding of how companies can leverage digital transformation to provide seamless, personalized, and engaging customer experiences.

As more customers embrace digital channels for product research, purchasing, and engagement, companies face a pressing demand to adapt and meet the evolving needs of the digital customer. Therefore, the present research serves to understand how digital transformation initiatives can improve customer experience and satisfy customer's rapid and constant evolving expectations in the digital era.

CHAPTER 3

Methodology

3.1. Review Question

The present research focuses on exploring the link between digital transformation initiatives and their impact on customer experience improvement.

Q1: What does the existing literature from 2019 to 2023 say about Customer Experience and Digital Transformation?

Q2: What are the main Digital Transformation initiatives being used by companies to improve Customer Experience?

Q3: By implementing Digital Transformation Initiatives, are companies improving customer experience and creating competitive advantage?

3.2. Identification of the Research

This study intends to explore and analyze the current literature landscape in the context of digital transformation and customer experience, by using a bibliometric analysis methodology. This methodology allows to investigate the database while using quantitative techniques, to pinpoint relevant authors, discover emerging trends, analyze patterns, and map the cumulative scientific knowledge built so far in the topic of digital transformation and customer experience (Donthu et al., 2021).

By analyzing citation patterns and relevant networks, it will identify highly cited articles and influential authors whose contributions have shaped the field, while also finding connections between research topics and identifying emerging areas of interest. The findings will contribute to a comprehensive understanding of the current state of knowledge, research gaps, and potential areas for future exploration in digital transformation and customer experience.

Moreover, this bibliometric analysis will contribute to the existing body of knowledge on digital transformation and customer experience. It will provide a foundation for informed decision-making and strategic planning. The findings will serve as a valuable resource for researchers, professionals and students looking to deepen their understanding of the field and drive future advancements in theory and practice.

3.3. Articles' Selection

To gather relevant data for this research, a large sample of articles was collected from Elsevier Scopus. This database was chosen to ensure access to a wide range of comprehensive and high-quality literature. Following the PRISMA methodology, as seen in Figure 3.1, the collected sample was subjected to a selection process based on a series of criteria, to ensure that the final dataset provided information to answer all review questions.

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is designed to improve the reporting of systematic reviews, providing a structured approach (Page et al., 2021). Its checklist allows transparency and reduction of bias, ensuring that the selection and reporting of articles leads to credible research without misleading results (Page et al., 2021).

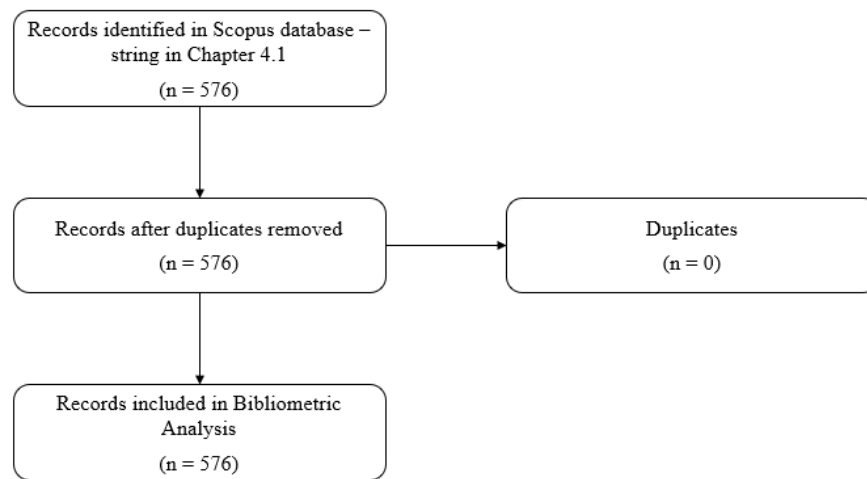


Figure 3.1 - Selection Process based on PRISMA methodology (Adapted from Pereira et al., 2021)

3.4. Data Criteria

The criteria considered to identify the relevant articles to be analyzed in this research were the following:

1. Included in the Elsevier Scopus database;
2. English academic articles, conference papers, or book chapters;
3. Published between the 1st of January of 2019 and the 30th of August of 2023 (date of the last database search).

Overall Findings

4.1. Global Data Elsevier Scopus

The initial keyword search in Elsevier Scopus focused on "digital transformation" and "customer experience." However, the search results led to a limited number of articles. To expand the scope and capture a wider range of information, additional synonyms were included.

For the digital transformation part of the search, in order to explore the integration of emerging technologies, there were included terms such as "new technologies", "digital technologies", "information technologies", "artificial intelligence" and "augmented reality". In terms of customer experience, keywords like "customer satisfaction" and "customer journey" were incorporated to include the different touchpoints of a customer's interaction with a company.

Additionally to these 2 concepts, to redirect the search towards the digital consumer era, the keywords "e-commerce" and "online" were included. By incorporating these extra keywords, the range of articles discloses a broader range of insights related to digital transformation and customer experience in the context of new technologies and the evolving digital landscape.

```
( TITLE-ABS-KEY ( "Digital Transformation" ) OR TITLE-ABS-KEY ( "New Technology*" ) OR TITLE-ABS-KEY ( "Digital Technology*" ) OR TITLE-ABS-KEY ( "Information Technology*" ) OR TITLE-ABS-KEY ( "Artificial Intelligence" ) OR TITLE-ABS-KEY ( "Augmented Reality" ) ) AND ( TITLE-ABS-KEY ( "Customer Experience" ) OR TITLE-ABS-KEY ( "Customer Satisfaction" ) OR TITLE-ABS-KEY ( "Customer Journey" ) ) AND ( TITLE-ABS-KEY ( "E-commerce" ) OR TITLE-ABS-KEY ( "Online" ) ) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND ( LIMIT-TO ( LANGUAGE , "English" ) ) )
```

The selected filter and criteria resulted in 376 documents available.

4.1.1. Documents per year

As shown in Figure 4.1, between the years 2019 and 2023, there has been a growing publication of documents ever since the year 2020, reaching its peak in 2022. It is also clear that this is an under-researched topic, with little results available, when compared to other fields of study.

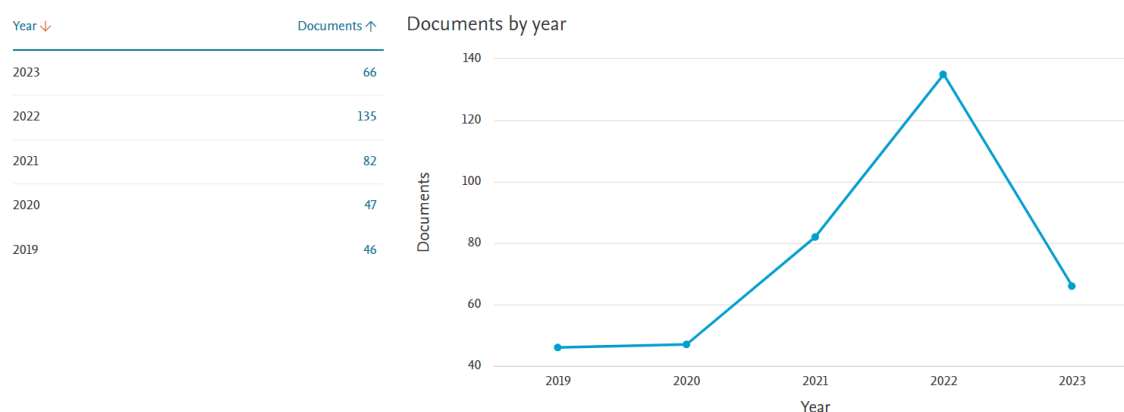


Figure 4.1 - Total Documents by Year

The significant increase in the number of articles related to digital transformation and customer experience from 2020 to 2021, and an even larger rise in 2022, can be attributed to several factors. Firstly, the Covid-19 pandemic accelerated the need for businesses to adapt and transform digitally. As countries went on lockdowns and border restrictions, organizations had to shift their customer touch points from offline to online and it increased the awareness in the organizations for the need to accelerate digital transformation, leading to a surge in discussions and articles on this topic. Secondly, advancements in technology, such as artificial intelligence, are becoming more dominant, leading to increased interest and research. Lastly, there has been a growing emphasis on customer-centric strategies and the importance of delivering exceptional customer experience, leading to a greater focus on understanding customer journeys and satisfaction.

4.1.2. Top Publishing Sources

During the last 5 years, as presented in Figure 4.2, the source with the most documents published is *ACM International Conference Proceeding Series*, which is related to Computer Sciences field.

It is also noted that there is a dispersed distribution of articles across multiple sources, and there is not a clear and established publication source in this topic. This can be explained by the fact that the research topic is relatively new and rapidly evolving and there can be diverse perspectives and subtopics within the field.

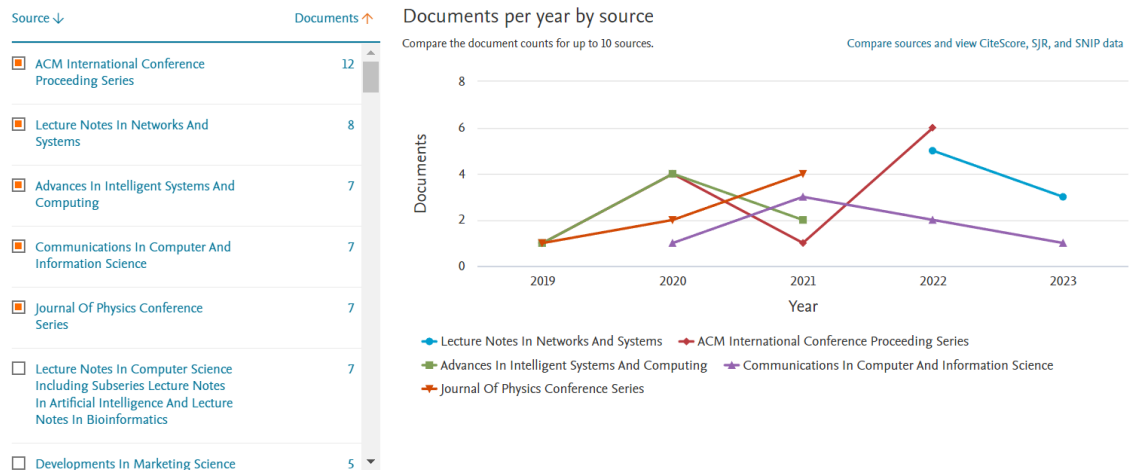


Figure 4.2 - Total Documents per Year and by Source

4.1.3. Total by Subject Area

In the 376 documents available, the largest share (26.4%) belongs to the Computer Science field, showing that there is research about technological advancements and their impact on various domains. Following is the subject area of Business, Management, and Accounting, underscoring (19.0%), revealing the recognition of digital transformation's relevance in optimizing organizational strategies and operations.

The larger distribution of documents across these 2 subject areas highlights the multidisciplinary nature of digital transformation, holding both technological and organizational dimensions.

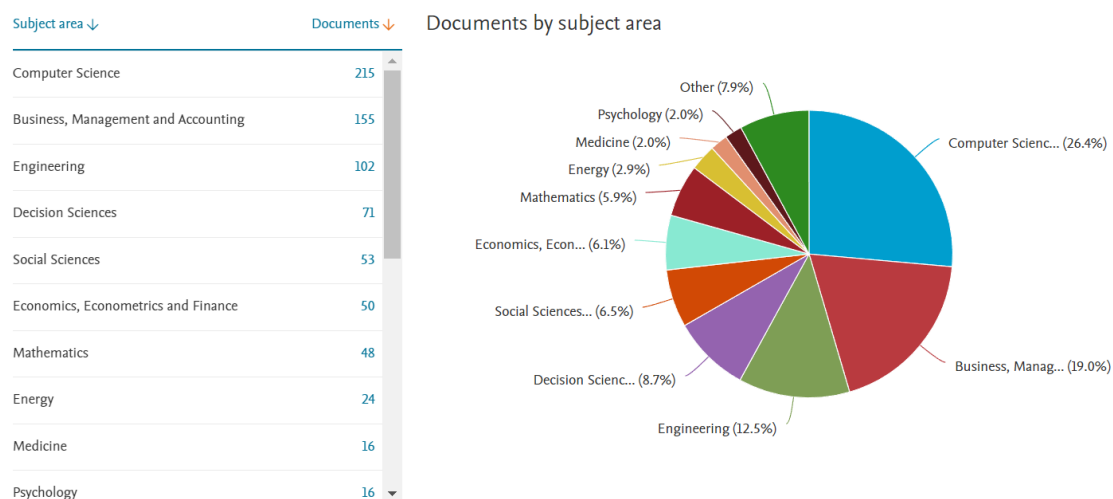


Figure 4.3 - Total Documents by Subject Area

4.1.4. Geographics

India and China stand out as the clear dominant countries in terms of publications in this topic, with 63 and 52 published documents, respectively. These countries are followed by the United Kingdom and the United States.

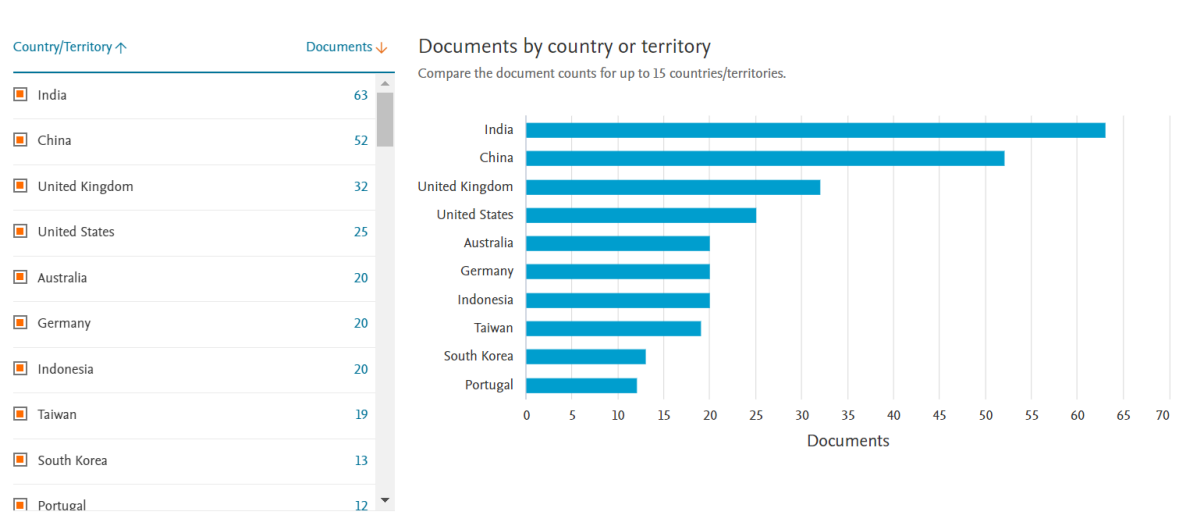


Figure 4.4 - Total Documents by Country

4.1.5. Type of Document

Of the 376 documents, 47.3% are articles, which is the primary form of scholarly research, contributing to advancing the knowledge in this topic. Additionally, conference papers make up 33.5% of the total documents, which aligns with the fact that the top publishing source is a conference proceeding (*ACM International Conference Proceeding Series*).

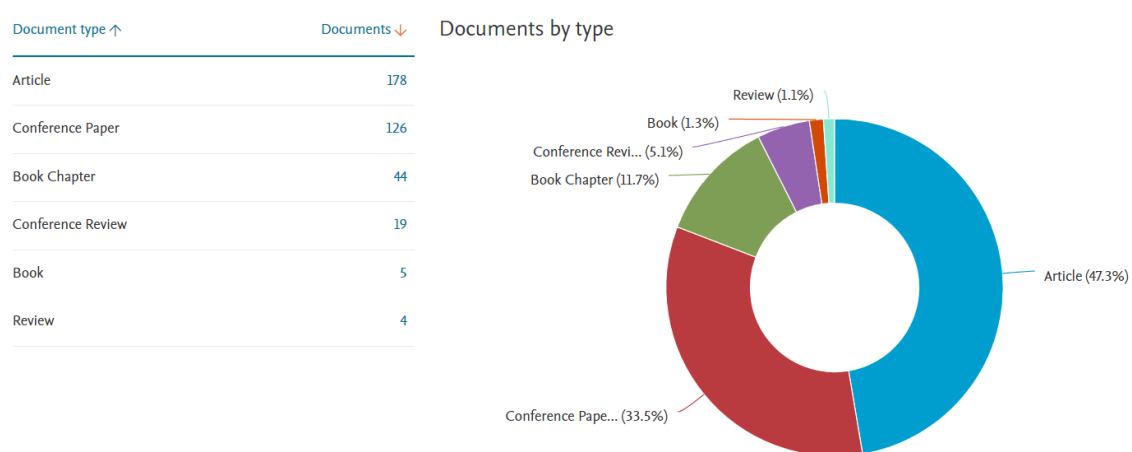


Figure 4.5 - Total Documents by Type

4.2. Key Concepts, Structures and Findings over the past 5 years

As previously stated, the search engine used for this research was Elsevier Scopus. Through this website, 376 documents were retrieved and its information. To proceed with the analysis, the VOSviewer program was used, through a keyword co-occurrence analysis. This analysis showed a network visualization of the most prominent keywords, which were later on clustered into diverse groups.

It is worth mentioning that the higher the number of occurrences, the stronger the connection between those keywords and the topic under study (Eck & Waltman, 2023). This approach allows to reduce the probability of including keywords that are not reliable nor significant for this specific context. However, in this research, since it is a relatively recent topic, only 376 documents were found. With this, having a high number of minimum occurrences severely restricts the total number of keywords available (example: with 15 minimum occurrences, only 17 keywords match). The goal was to find the right balance that allowed a reasonable number of keywords while ensuring a reliable number of occurrences.

As a result, as seen in Figure 4.6, 8 was the threshold for the number of occurrences leading to 45 keywords out of 2299.

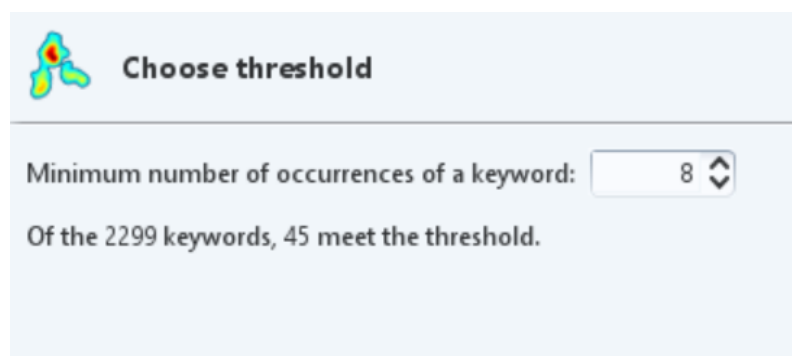


Figure 4.6 - Keyword Selection in VOSviewer

Considering the option keyword co-occurrence in VOSviewer, an analysis was made, which output was a comprehensive network visualization of the top keywords.

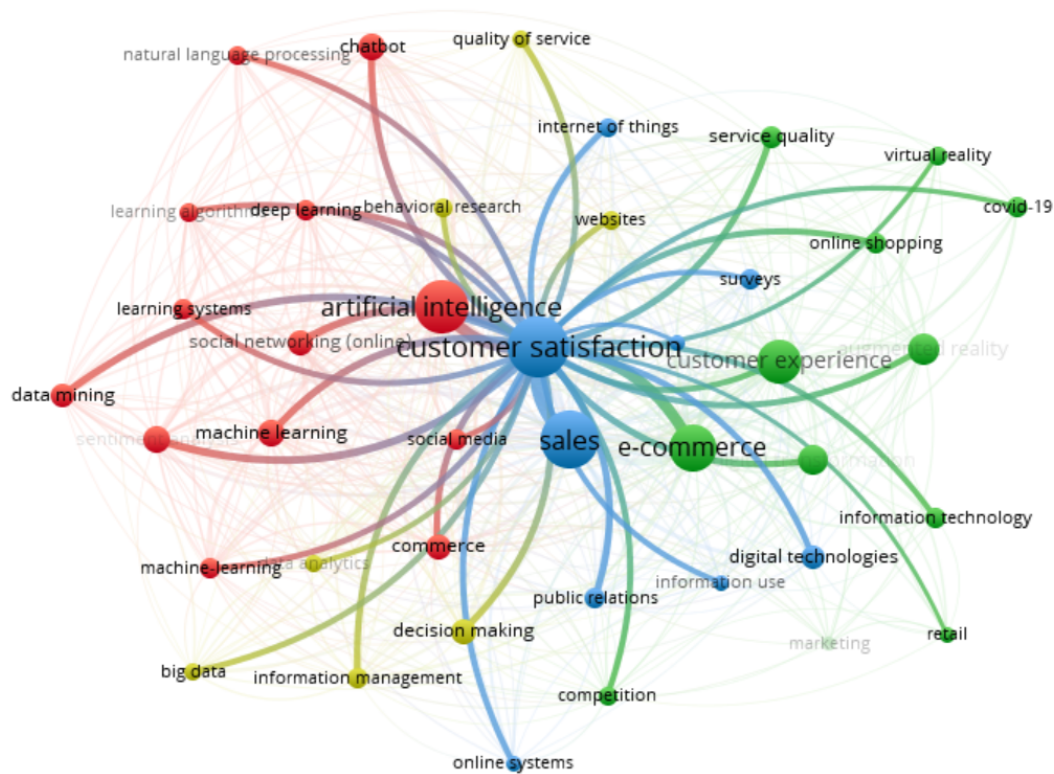


Figure 4.7 - Network Visualization of Keyword and Co-occurrence in VOSviewer

After analyzing Figure 4.7, it is possible to identify 4 clusters, as shown in Table 1. These clusters are formed through algorithms that identify patterns of co-occurrence among the terms in the dataset. According to Eck & Waltman (2023), these clusters mean that most articles use these keywords together, indicating a strong thematic or conceptual connection among them, and the size of the circle is proportional to the co-occurrence of the keyword. The shorter the distance between them, the stronger their relation is (Eck & Waltman, 2023).

Table 4.1 - Cluster Division

Customer Satisfaction	Artificial Intelligence
Sales, public relations, online systems, digital technologies, internet of things, surveys, information use, online systems, customer journey	Chatbot, machine learning, data mining, social media, commerce, learning systems
E-commerce	Decision Making
Customer experience, augmented reality, competition, digital transformation, service quality, online shopping, covid-19, virtual reality	Information management, big data, websites, quality of service, behavioral research, data analytics

An in-depth analysis of these clusters can provide valuable insights as they represent the major conceptual topics of this research. Overall, they provide insights into how digital transformation interacts with customer satisfaction, artificial intelligence, e-commerce strategies, and data-driven decision making, providing a holistic view of its impact on customer experience improvement.

4.2.1. Customer Satisfaction cluster

The Customer Satisfaction cluster revolves around enhancing customer satisfaction through digital transformation. "Sales" suggests the use of digital channels for selling products or services, while "public relations" points to maintaining a positive online brand image. "Online systems" and "digital technologies" imply the adoption of digital tools and platforms to streamline customer interactions. "Surveys" and "information use" emphasize the significance of customer feedback in refining strategies. "Customer journey" suggests a holistic approach to understanding and optimizing every touchpoint in the customer's interaction with the brand.

This cluster highlights the multifaceted nature of achieving customer satisfaction through digital transformation. It condenses concepts related to leveraging technology, online systems, and digital tools to understand customer needs, improve sales, manage public relations, and enhance the overall customer journey.

4.2.2. Artificial Intelligence cluster

This cluster highlights how AI technologies are revolutionizing the way customers interact with businesses. When we talk about "Chatbot", we are talking about the use of AI-driven chatbots for instant customer support. "Machine learning" and "data mining" emphasize the critical role of AI in analyzing customer data, allowing for personalized and predictive insights. "Social mining" implies that companies are using AI to monitor social media for customer sentiment analysis. "Commerce" suggests AI applications in optimizing e-commerce platforms, such as recommendation engines. Lastly, "Learning systems" might refer to AI-powered adaptive learning tools to educate customers.

Overall, this cluster highlights how AI acts as a driving force behind digital transformation, to optimize customer engagement and deliver personalized experiences.

4.2.3. E-commerce cluster

The e-commerce cluster dives into how online shopping is evolving in this digital era. "Customer experience" emphasizes the importance of delivering seamless and enjoyable online shopping experiences. "Augmented reality" suggests that companies are using AR to enhance how customers visualize and engage with different products. "Competition" is a reminder of the need for businesses to stay agile and competitive in the digital marketplace. "Service quality" underlines the importance of maintaining high standards in delivering quality digital services. The mention of "Covid-19" is an acknowledgement of the significant pandemic's impact on accelerating the shift towards online shopping. "Virtual reality" hints at innovative ways to engage customers through immersive experiences, potentially in the form of virtual showrooms or experiences.

In brief, this cluster shows the multifaceted nature of e-commerce and its relationship with digital transformation. Additionally, it recognizes how an external factor like the covid-19 pandemic, have accelerated the adoption of digital commerce.

4.2.4. Decision Making cluster

This cluster is centered on data-driven decision making within the context of digital transformation. At its core, it emphasized the importance of handling substantial volumes of data in this digital era to understand customer behavior and preferences, to make informed decisions, as indicated by "Information management", "big data", "behavioral research" and "data analytics". Moreover, this cluster focuses on the vital role of digital platforms ("Websites") as touchpoints for customer interactions and data collection. Combining all of this should result in a delivery of high-quality experiences ("Quality of service").

Basically, this cluster highlights how data and analytics play a crucial role in shaping the quality of customer service and overall customer experiences in the digital era. It highlights the importance of effective information management, big data analytics, and data-driven insights in guiding strategic decision making.

CHAPTER 5

Data Synthesis

Following an in-depth analysis of each cluster, it was possible to identify the papers that were strongly connected with the top keywords retrieved in the previous keyword co-occurrence analysis (Table 4.1). Besides this, another factor was taken into account to identify the top articles: the number of citations. As a result, after a qualitative approach focused on the content of the article, and a quantitative analysis centered on citations, there were identified the top 22 articles that best related to the research topics. This selection of articles can be seen on Table 5.1 below.

Table 5.2 – Top 22 articles

Year	Author	Title	Keywords	Cited
2023	Szozda N.	Omnichannel as a driver of digitalization: evidence from the emerging market in the fashion industry	Customer experience; Fashion industry; In-store and out-store technologies; Omnichannel retail	2
2022	Wang W.; Cao D.; Ameen N.	Understanding customer satisfaction of augmented reality in retail: a human value orientation and consumption value perspective	Augmented reality; Customer satisfaction; Technology value; Value orientation	1
2022	Hwang S.-Y.	Effects of Online Purchase e-CRM activities and e-Customer Satisfaction on e-Loyalty during COVID-19: The Mediating Effects of e-Customer Satisfaction	COVID-19; E-customer satisfaction; E-loyalty; Mediating Effects; Online purchase e-CRM activities	0
2022	Soni S.; Yadav U.; Soni A.	Virtual Reality & Augmented Reality: A way to Digital Transformation of Customer Engagement	Augmented Reality; Digital Transformation; Shopping Experience; Virtual Reality	0
2022	Trawnih A.; Al-Masaeed S.; Alsoud M.; Alkufahy A.M.	Understanding artificial intelligence experience: A customer perspective	Artificial Intelligence; Chabot; Customer experience; Service Quality; Trust-Commitment	4

2022	Rana J.; Gaur L.; Singh G.; Awan U.; Rasheed M.I.	Reinforcing customer journey through artificial intelligence: a review and research agenda	Artificial intelligence; Augmented reality; Chatbot; Customer journey; Machine learning; Mixed reality	18
2022	Demirel D.	The effect of service quality on customer satisfaction in digital age: customer satisfaction-based examination of digital CRM	CRM; Customer relationship performance; Digital services; Information technology; Service quality; Technological capabilities	3
2022	Kumar H.	Augmented reality in online retailing: a systematic review and research agenda	Augmented reality; Consumer behaviour; Customer experience; Retail; Systematic literature review	32
2022	Chen Y.; Prentice C.; Weaven S.; Hisao A.	The influence of customer trust and artificial intelligence on customer engagement and loyalty – The case of the home-sharing industry	AI; customer engagement; loyalty; sharing economy; trust	2
2022	Yeo, S.F., Tan, C.L., Kumar, A., Tan, K.H., Wong, J.K.	Investigating the impact of AI-powered technologies on Instagrammers' purchase decisions in digitalization era– A study of the fashion and apparel industry	AI; Digital transformation; Fashion; Instagram; Purchase decision	17
2021	Ameen N.; Tarhini A.; Reppel A.; Anand A.	Customer experiences in the age of artificial intelligence	Artificial intelligence; Beauty brands; COVID 19; Customer experience; trust; Trust-commitment theory	143
2021	Goutam D.; Gopalakrishna B.V.; Ganguli S.	Determinants of customer satisfaction and loyalty in e-commerce settings: An emerging economy perspective	e-commerce; e-loyalty; e-satisfaction; SEM.; structural equation modelling	10
2021	Mele C.; Russo-Spena T.; Tregua M.; Amitrano C.C.	The millennial customer journey: a Phygital mapping of emotional, behavioural, and social experiences	Emotions; Millennial customer journey; Moments; Phygital mapping; Social interactions	18
2021	Rudy; Prabowo H.; Furinto A.; Hamsal M.	The influence of digital technology, customer experience, and customer engagement on E-commerce customer loyalty	Customer engagement; Customer experience; Customer loyalty; Digital technology; E-commerce retail	1

2021	Huang D.; Chen Q.; Huang J.; Kong S.; Li Z.	Customer-robot interactions: Understanding customer experience with service robot	Acceptance; Artificial intelligence; Cognitive- affective-conative model; Customer experience; Satisfaction; Service robot	36
2021	Mydyti H.; Kadriu A.	The impact of chatbots in driving digital transformation	Artificial Intelligence in Businesses; Chatbot; Digital Transformation	8
2021	Cakir G.; Iftikhar R.; Bielozorov A.; Pourzolfaghar Z.; Helfert M.	Omnichannel retailing: Digital transformation of a medium- sized retailer	channel integration; COVID-19; customer experience; digital retail; digital strategy; in-store experience; Omnichannel retailing	7
2021	Yen C.; Chiang M.-C.	Trust me, if you can: a study on the factors that influence consumers' purchase intention triggered by chatbots based on brain image evidence and self- reported assessments	Chatbots; electroencephalography (EEG); neuroscience; purchase intention; Trust	65
2020	Xu X.	How do consumers in the sharing economy value sharing? Evidence from online reviews	Customer satisfaction; Online reviews; Product and service attributes; Sharing economy	80
2020	Sun Y.; Yang C.; Shen X.-L.; Wang N.	When digitalized customers meet digitalized services: A digitalized social cognitive perspective of omnichannel service usage	Channel integration quality; Digitalization; Mobile identity; Omnichannel service; Social cognitive theory	47
2019	Mihardjo L.W.W.; Sasmoko; Alamsjah F.; Elidjen	The influence of digital customer experience and electronic word of mouth on brand image and supply chain sustainable performance	Brand image; Digitalization; E- commerce; Supply chain; Sustainable performance	14
2019	Weber M.; Chatzopoulos C.G.	Digital customer experience: The risk of ignoring the non- digital experience	Customer experience; Digital customer experience; non-digital customer experience; Total customer experience	12

CHAPTER 6

Discussion & Findings

6.1. Q1: What does the existing literature from 2019 to 2023 say about Customer Experience and Digital Transformation?

6.1.1. Customer Experience

Customers are no longer only looking for high-quality products or services but are also expecting a seamless, enjoyable, and personalized experience throughout their entire interaction with a brand (Weber & Chatzopoulos, 2019). As a consequence of this evolution of what the customer needs and values, customer experience (CX) is one of the most important factors in the maintenance of a company's competitive advantage in the market, no matter what industry it specializes in (Taraskin, 2021; Weber & Chatzopoulos, 2019).

CX is defined as a “personal and subjective response that customers have on direct or indirect contact with an organization” (Weber & Chatzopoulos, 2019, p. 202). It is a combination of impressions and knowledge, including physical and emotional experiences of customers when interacting with products, systems, and services (Huang et al., 2021; Taraskin, 2021). More than being the quality of a product or service, CX refers to the overall interactions between customers and a company or brand throughout their entire journey, from the first point of contact to any ongoing support they may need after making a purchase (Sun et al., 2020; Weber & Chatzopoulos, 2019).

The way a company manages and enhances this experience significantly influences customer loyalty and retention (Goutam et al., 2021; Sun et al., 2020). These interactions can occur through a variety of channels, both online and offline, and they include factors like the quality of the products or services provided, the user-friendliness of digital platforms, the level of customer support offered, and the overall satisfaction and emotions that customers associate with these interactions. This involves understanding customer needs, providing personalized solutions, and ensuring consistency across all touchpoints. However, one positive experience doesn't increase loyalty and customer advocacy, but rather keep delivering consistently a positive customer experience (Weber & Chatzopoulos, 2019). A well-crafted customer experience can foster loyalty, drive repeated business, and even turn customers into brand advocates. It's not merely a transactional exchange but a relationship built on trust, empathy, and a commitment to meet customer needs at every step of their journey. In essence, customer

experience is the driving force behind building lasting and profitable relationships with customers (Goutam et al., 2021).

Fundamentally, customers are becoming “more connected, informed, empowered, and active” (Verhoef et al., 2021, p. 891), and companies now understand that customer retention is often more profitable than acquiring new customers. Maintaining a positive customer experience is paramount for companies in today's business landscape as it cultivates brand loyalty and trust over time (Demirel, 2022; Weber & Chatzopoulos, 2019; Xu, 2020). However, loyal customers are more likely to make repeated purchases and spend more (Verhoef et al., 2021, Demirel, 2022). Furthermore, in an era where information travels at lightning speed through social media and online reviews, a single negative experience can do serious damage to a company's reputation. Therefore, companies must consistently prioritize exceptional experiences to not only survive but also thrive in a fiercely competitive market.

Given this, the responsibilities of companies towards their stakeholders and customers are on the rise (Demirel, 2022). Businesses recognize that satisfying the target audience and understanding the unique challenges facing customers is an important issue and essential to gain a competitive advantage (Demirel, 2022; Weber & Chatzopoulos, 2019; Xu, 2020). However, today's consumers have enhanced expectations, seeking companies that listen and are flexible to satisfy their evolving needs. This is particularly relevant for the newer generations, often referred to as "digital natives", who have grown up in a tech-savvy environment (Mahraz et al., 2019). Thus, the rapid growth of technologies is changing the interplay between businesses and its customers (Cakir et al., 2021). This means that, in today's society, one essential way of reaching customers is through digital transformation, through focusing on communication channels, embracing innovative market monitoring systems to keep delivering what customers want.

6.1.2. Digital Transformation and Customer Experience

The Digital Transformation (DT) concept has been reaching high popularity among researchers in the last couple of years, and it is becoming a matter of consideration and a strategic topic for all organizations (Hanelt et al., 2021; Mahraz et al., 2019). As the business world and the technology that supports it evolves, so too has the term digital transformation. As shown and analyzed by Mahraz et al. (2019), the DT concept has been through some evolution, having started merely as a Digitization concept (the use of technology to automate data handling), to now being a whole new phenomenon. At its core, DT is the use of digital technologies, such as Big Data, Analytics, Cloud Computing, Mobile Technologies, and Internet of Things (IoT), to

create new, or transform existing business processes, culture, and customer experiences to deliver more value (Mahraz et al., 2019). This innovative process offers new opportunities by accelerating growth and creating sustainable competitive advantages (Mahraz et al., 2019; Mihardjo et al., 2019).

Furthermore, DT has gone from a technological opportunity to now being a necessity that includes the changes of the critical business elements (Kraus et al., 2022; Mahraz et al., 2019). DT is not technology driven, but instead a strategy concept, including changes in structure, processes, and culture (Kraus et al., 2022; Mahraz et al., 2019; Plekhanov et al., 2022), and it is not an easy path, since DT requires structural changes at different levels for companies and industries to be prepared for it (Kraus et al., 2022). While integrating cutting-edge tools and systems is certainly part of the equation, what really differentiates a successful digital transformation effort is the ability to make strategic and informed decisions.

Digital transformation is a powerful tool that allows the creation of new opportunities for innovation and growth and is an essential strategy for organizations looking to remain competitive in the digital age, but this transformation journey is not a one-size-fits-all solution (Kraus et al., 2022; Mahraz et al., 2019). Rather, it manifests itself in three main dimensions: transforming business models, transforming operational processes and/or transforming the customer experience (Mahraz et al., 2019). Recognizing and navigating these dimensions is paramount for companies to seek the full potential of digital transformation and tailor it to their unique goals and priorities (Westerman et al., 2014).

Transforming the business model involves digital business modification, new digital business, and digital globalization (Mahraz et al., 2019). Companies change the way they work, not only by introducing new digital solutions, but also by introducing new digital business (Mahraz et al., 2019). Additionally, companies can transform from multinationals to global operations, leveraging on global synergies and shared services, increasing efficiency and reducing risk (Mahraz et al., 2019). One example is what Netflix did when it went from being a DVD rental and sales business to introducing movie streaming services and becoming the most known online movie platform (Allegretti et al., 2021).

Transformation of the business processes includes, for example, the automation of R&D (Research and Development), production and distribution processes (Mahraz et al., 2019). By automating and standardizing processes, organizations can become more agile, more reactive to market changes, able to deliver faster and to increase and sustain profitability (Mahraz et al., 2019). Nike did this with its Supply Chain Transformation, by leveraging technology like artificial intelligence and machine learning to forward position the products that consumers love most and deliver faster (Barsky, 2021).

Lastly, transforming consumer experiences involves integrating new market monitoring systems to gain in depth understanding of market segments, promoting the brand through digital media, building online communities to better understand the consumer (Mahraz et al., 2019). By doing this, businesses can transform the sales experience, providing more personalized sales and customer service.

Digital Transformation and technologies were already a topic of growing relevance amongst companies. However, the covid-19 pandemic came and severely accelerated this phenomenon (Hwang, 2022; Kraus et al., 2022; Rana et al., 2022). Covid-19 has disrupted peoples' lives in a variety of ways and perhaps one of the most significant impacts has been on the workplace. The pandemic has increased the urgency with which companies must digitally transform in order to survive and thrive in the market. As a result, as countries went on lockdowns and border restrictions, companies were forced to use technology and innovation instead of the usual operational methods, shifting their customer touchpoints from offline to online (Mishrif & Khan, 2023; Rana et al., 2022; Yeo et al., 2022). Covid-19 brought challenges that came to enhance the importance of digital capabilities in enabling companies to rapidly adapt their business models in response to changing customer needs and market conditions (Hanelt et al., 2021; Hwang, 2022; Mishrif & Khan, 2023). In other words, it increased the awareness in the organizations for the need to accelerate digital transformation, and insufficient efforts towards implementing new technologies can lead to a negative customer experience and, thus, compromise a company's competitive advantage (Cakir et al., 2021).

6.2. Q2: What are the main Digital Transformation initiatives being used by companies to improve Customer Experience?

6.2.1. Omnichannel Strategies

In today's business landscape, customers engage with companies across a wide array of channels and touchpoints. The barrier between online and physical channels is being

challenged, and while some businesses opt for a single-channel strategy, research shows that an omnichannel approach, seamlessly integrating all aspects of the supply chain and various activities across different channels, can lead to exceptional customer experience (Cakir et al., 2021; Sun et al., 2020; Weber & Chatzopoulos, 2019).

An omnichannel approach aims to provide immediate access across all channels, allowing companies to gain insights into evolving customer behavior patterns and deliver corresponding experiences. This strategy not only opens opportunities for promoting products and services but also facilitates customer engagement from different fronts, thus enhancing customer satisfaction and, ultimately, customer loyalty (Weber & Chatzopoulos, 2019). The key element to ensure a consistent and exceptional customer experience across all channels is the ability of the company to manage and seek synergies among multiple touchpoints (Mele et al., 2021; Weber & Chatzopoulos, 2019).

Research highlights that companies with well-integrated channels outperform those with single-channel or poorly integrated approaches. Weber & Chatzopoulos (2019) compared two companies with different approaches: one focused solely on digital channels and the other applying an omnichannel strategy. The digitally focused company prioritized creating a highly efficient and satisfying online process but failed to deliver a meaningful CX due to the disregard for other forms of contact, such as phone calls and physical distribution. Conversely, the company adopting an omnichannel approach leveraged multiple channels, including distribution centers, delivery services, and online interaction systems, to address customer inquiries and concerns throughout the non-digital journey.

Retail, for example, is one sector that has been heavily investing in omnichannel strategies as, according to Cakir et al. (2021), omnichannel customers spend more than the traditional ones. Even the world's largest online retailer, Amazon, is entering the physical world, in order to give its customers the option to choose which channel they want to use, threatening not only smaller sized retailers but also those who struggle to follow these types of dynamics (Cakir et al., 2021).

Even in an increasingly digital world, customers appreciate a fast and intuitive online experience while seeking additional human support. It becomes evident that providing customers with the freedom to choose between physical and digital experiences is key to delivering an exceptional customer experience. Customers keep changing their approach between physical and digital depending on the interactions they seek, and companies need to guarantee that they optimize the whole CX by focusing on both channels (Kraus et al., 2022; Mele et al., 2021; Szozda, 2023; Weber & Chatzopoulos, 2019). In some instances, customers

may prefer human interaction for added assurance, while in others, the convenience and speed of digital interactions are preferred (Weber & Chatzopoulos, 2019; Xu, 2020).

6.2.2. Artificial Intelligence Solutions

Artificial Intelligence (AI) has emerged as a catalyst in the realm of digital transformation, reshaping how businesses interact with their customers and it plays a crucial role in the digital transformation strategy of various companies (Ameen et al., 2021; Mydyti & Kadriu, 2021). AI has the capability of learning, exhibiting adaptive behavior, and make informed decisions autonomously, without requiring human intervention (Rana et al., 2022). Its capacity to comprehend and compress data into useful information is key (Trawnih et al., 2022), since it allows companies to continually refine its strategies through self-improving algorithms, allowing companies to tailor their strategies to specific target markets, with several approaches to influence customer purchase decision (Rana et al., 2022).

One of the primary ways AI contributes to improved customer experiences is through its ability to harness the vast volumes of behavioral data generated in the digital age. AI-powered analytics enable organizations to collect helpful insights from customer behavior, preferences, and feedback (Rana et al., 2022; Trawnih et al., 2022). With all the collected information, AI allows the customization of products and service recommendations by evaluating customers' past purchases and interests (Ameen et al., 2021; Trawnih et al., 2022).

With AI's help, companies can gather consumer data online and offline information, gain insights about their purchasing behavioral data, and it can bridge the gap between the company and the customer's needs (Rana et al., 2022; Trawnih et al., 2022). In fact, AI has been implemented in several contexts and industries. Healthcare uses AI by incorporating digital consultations and robotic surgery (Rana et al., 2022). In the Education sector, AI has transformed classrooms with tactile robots assist students with reading, learning and social interaction (Rana et al., 2022). These innovations provide customers with practical, easy to use and useful solutions.

By understanding customer journeys and pain points, businesses can tailor their products and services to align more closely with what their customers truly desire. This data-driven approach empowers companies to make informed decisions, driving efficiency and relevance in their customer interactions. AI algorithms analyze customer data in real-time to deliver highly targeted and relevant content, recommendations, and offers. This level of personalization goes beyond mere customization; it anticipates the needs and desires of individual customers (Rana et al., 2022; Trawnih et al., 2022). As a result, customers feel valued and understood,

leading to increased engagement, loyalty, and ultimately, higher revenue for businesses (Rana et al., 2022; Trawnih et al., 2022).

One example of an AI use-case is on social media platforms. With this technology, businesses can have access to data related with browsing trends, finding ways to capture customers' attention and compelling their purchase intention (Yeo et al., 2022). Consumers express their needs through many ways online: searches, comments, likes, videos and much more. AI allows the compilation of these massive amounts of data into useful and actionable insights that can be used by companies in the form of advertising and products presentations (Yeo et al., 2022), making the customer feel like the company provides exactly what they need.

Chatbots are one of the fastest rising AI-based solutions used to automate and influence customer's value creation by establishing online touch points, with personalized assistance (Rana et al., 2022; Yen & Chiang, 2021). This AI-based solution is capable of simulating human conversations through voice commands or text chats, acting as a modernization of the traditional business processes (Mydyti & Kadriu, 2021; Yen & Chiang, 2021). With chatbots, it's possible to analyze customer experience by indulging in conversations with customers using preprogrammed algorithms (Rana et al., 2022). Automated chatbots are available 24/7, providing immediate responses to customer inquiries and resolving issues in real-time (Rana et al., 2022; Yen & Chiang, 2021). This not only reduces response times but also frees up human agents to focus on more complex problems that require human intervention, improving overall efficiency. Even though customers may prefer human interactions in some matters, chatbots act as a triage, solving a lot of problems that don't require human escalation (Yen & Chiang, 2021).

Despite AI's popularity among this topic, Chen et al. (2022) defends that there still relies a question on whether AI services are better than human interactions. Ameen et al. (2021) concluded in his research that AI-enabled services can lead to some less positive points such as lack of human interaction and loss of privacy. Huang et al. (2021) studied customer-robot interactions in hospitality and tourism and stated that practitioners are concerned that it can decrease humanist hospitality and customer experience. However, he reached a conclusion that indeed robot services are increasing and associated with a positive customer experience but that the Covid-19 served as an external factor that facilitated this integration, since customers increased their preference for service robots during this crisis (Huang et al., 2021).

Despite the doubt on whether customers enjoy full AI-based services, both authors agree that customer trust heavily influences the success of the implementation of this technology. When AI solutions are tailored, convenient and of high quality, customers begin to trust the company and, consequently, the technology (Ameen et al., 2021). Additionally, customer trust

and a positive digital experience not only enhances a company's reputation but also drives positive word-of-mouth, which ultimately contributes to a sustainable performance (Mihardjo et al., 2019). Concluding, after conducting an extensive analysis on the literature, it is clear that, as stated in the previous chapter, both physical and digital experiences should be used but, within the digital one, AI is the technology that best contributes to an exceptional customer experience.

6.2.3. Augmented Reality and Virtual Reality

Augmented Reality (AR) and Virtual Reality (VR) have been emerging as key interactive technologies, being increasingly used in businesses, mainly in retail and e-commerce settings, such as product display and design, advertising, entertainment, tourism, and others (Soni et al., 2022). They allow a visualization of the world with different dimensions that don't exist in real life.

The relationship between customers and a company is becoming more and more like a collaboration. This factor, along with remote accessibility, makes the potential market for AR VR very appealing for the upcoming years (Soni et al., 2022). Soni et al. (2022) states that 23% of ventures are planning to build AR and VR products and almost 13% of the organizations have built their strategies to deploy AR VR systems in the future. These technologies have the potential to be the foundation to build innovative customer strategy (Kumar, 2022; Rana et al., 2022; Soni et al., 2022).

VR completely separates the user from reality, and the user consequently only moves in an entirely virtual world (Wang et al., 2023). At the same time, AR describes the visual alignment of virtual content with real-world contexts (Wang et al., 2023). It links virtual reality with the real-world environment, allowing for customers to visualize products and engage with them before actually purchasing them (Wang et al., 2023). This specific feature of AR makes it more valuable in many ways from a marketing perspective because AR users do not disconnect from reality (Soni et al., 2022; Wang et al., 2023).

AR has been a target for numerous brands across various industries. For instance, in the beauty sector, renowned brands like Sephora, L'Oréal, Benefit Cosmetics, and Mac have created virtual smart applications for makeup trials. In the fashion industry, ASOS has also embraced AR technology, introducing the concept of a virtual catwalk (Wang et al., 2023).

AR interactivity and vividness are perceived on ease of use, usefulness and enjoyment, making the pre-purchase experience fun, increasing the customer's perceived quality of the journey. (Kumar, 2022; Rana et al., 2022; Wang et al., 2023). With this technology, customers

can enjoy direct trial experiences of the products without physically trying them on in a physical store (Wang et al., 2023). This way, it offers a revolutionary way for companies to interact with customers, engaging with them and creating exciting shopping experiences (Kumar, 2022; Wang et al., 2023). It also provides an extraordinary personalization service to the customer (Soni et al., 2022).

AR allows customers to interact with a business in a unique way by allowing them to contribute to the construction of their experience. Through these technologies, customers can see early on if the product fulfills their needs, allowing for informed decisions (Soni et al., 2022). According to Wang et al. (2023), consumers experiencing more vivid product visualizations tend to report a more positive customer experience. Therefore, it is possible to conclude that AR and VR can be an important determinant of customer satisfaction due to its playful value.

6.3. Q3: By implementing Digital Transformation Initiatives, are companies improving customer experience and creating competitive advantage?

6.3.1. Digital transformation as a strategy for competitive advantage

Digital transformation and its resultant business model innovation have changed consumers' expectations and behaviors, pressured traditional firms and disrupted numerous markets (Verhoef et al., 2021). The digital revolution changed the business competitive landscape (Bag et al., 2022; Plekhanov et al., 2022) and it has had a tremendous effect on customers shopping habits and on opportunities for companies to increase customers engagement (Bag et al., 2022). Customers are more demanding and expect companies to listen, understand, and be flexible about the evolution of their needs, especially the new generations of digital natives (Mahraz et al., 2019). The more satisfied a customer is, the more consistent is his relationship with the business (Bag et al., 2022), therefore, the more likely he is to recommend the company and to repurchase. Overall, in this new digital context, any organization needs to be able to quickly recognize changes and correctly react to them.

Through the integration of digital technologies, companies can gain better insights into consumer behavior and preferences. Customers' digital footprints are crucial because of the valuable information on customer activities and their information inputs that can contribute for product innovations or even the development of radically new products (Plekhanov et al., 2022). For that, technology is required as it accelerates and capacitates companies with the necessary

skills (Goutam et al., 2021; Hwang, 2022; Rudy et al., 2021; Sun et al., 2020), allowing them to offer seamless and personalized experiences across multiple channels, both online and offline (Sun et al., 2020), and this data driven approach allows businesses to make more informed business decisions, tailor their products and services and quickly identify areas for improvement (Rudy et al., 2021; Sheppard et al., 2018).

Besides that, investing in digital technologies can also result in an increase of the profitability of the company by simplifying processes and interactions within the company, while focusing on innovation and on the needs of the consumer (Mahraz et al., 2019). Furthermore, digital transformation enables agility and responsiveness to the changing market conditions, customer preferences, or emerging technologies. This flexibility not only helps them seize opportunities but also navigate challenges more effectively. It allows for rapid innovation, which can be a game-changer in highly competitive markets (Hanelt et al., 2021; Plekhanov et al., 2022).

DT can help organizations to stay relevant and adapt to changing market conditions and customer demands. By embracing digital technologies, organizations can remain agile, innovative, and ahead of the curve in their respective industries. The best performing companies leverage both digital activity and a strong leadership to use technology and innovation and transform the business, the so-called digital maturity (Mihardjo et al., 2019; Westerman et al., 2014). The strength of a company depends on its ability to adapt to new market requirements (Mishrif & Khan, 2023).

Additionally, Rudy et al. (2021) concluded in his research that the implementation of digital technologies is indeed a form of improving customer experience and engagement, which, in the end, lead to customer loyalty. Being customer experience one of the main sources of competitive advantage, it is possible to make the correlation and say that by leveraging digital technologies, companies can achieve competitive advantage against players that don't take on the opportunity.

In conclusion, as the business landscape continues to evolve, the emphasis on customer experience will only grow. A company's ability to adapt comes with embracing a new digital transformation journey, that empowers them to read the changes quicker and respond accordingly (Rudy et al., 2021; Sheppard et al., 2018). It has become a strategic imperative for organizations looking to thrive in a customer-centric world. Investing in delivering exceptional experiences is no longer optional; it's a necessity for sustainable success and growth. Keeping a close relationship with customers is a crucial factor for companies that seek to strengthen its competitive position in the market (Plekhanov et al., 2022).

Considering all the research, and answering to the third research question, it is safe to say that companies that are at the forefront of digital transformation are often seen as more innovative and forward-thinking and are equipped with the tools necessary to provide a top-tier customer experience, giving them a competitive advantage over their rivals.

6.3.2. Success Stories across Industries

Digital transformation is essential for all companies, regardless of their size and/or sector of activity. No longer it is an industry trend, but rather a real and essential part of any organization's journey to becoming a digital enterprise. In fact, Information technologies accounts for more than 70% of the investment in services sectors such as finance, insurance, and real estate (Demirel, 2022). With the right strategy and resources, any company can use digital technologies to be closer to customers, providing new experiences and services, to increase brand loyalty and the number of repeat purchases (Taraskin, 2021). There are many examples of successful implementation of these initiatives in a broad range of industries.

Szozda (2023) conducted a study in the fashion industry and concluded that digital technologies are positively impacting omnichannel purchase intentions, proving that the boundary between traditional and online stores is beginning to fade away, and thanks to new technologies, customers can now enjoy a shopping experience both in physical stores and on digital apps and/or websites. Sephora, as well as L'Oréal, beauty brands, seems to be the clear disruptors in this industry when it comes to digital transformation with i's mobile app that provides personalized product recommendations, allows customers to book appointments, and even offers virtual makeup try-on experiences (Rana et al., 2022; Wang et al., 2023). This last feature uses AR technology, allowing users to try on makeup in the comfort of their homes via facial recognition. This allows a personalized experience, increases customer engagement with photo-realistic makeup and hair colors (Rana et al., 2022).

IKEA is another company very known for their innovative showroom that through augmented and virtual reality allows a whole new way of visualizing and exploring different products and layouts (Soni et al., 2022). With this showroom, customers can plan ahead in a creative and interactive way, while placing virtual furniture in their virtual living spaces. AR and VR are also used in the real estate industry, where clients can have an interactive 360 view, which is associated with a better visiting experience (Rana et al., 2022).

Another company that seems to be leveraging technology to provide its customers with differentiated experience is LEGO. LEGO developed a chatbot, called “Ralph”. Ralph is a Facebook messenger gift bot, which means that it helps customers to choose the right gift by providing recommendations based on how the customer answers some questions (Rana et al., 2022). It asks several questions related to budget, age, themes, and so on. As a result, Ralph finds the product that best matches what the customer is looking for and adds it to the shopping cart. This idea helps customers in the process of selecting gifts, and it is particularly convenient to individuals who are not familiar with the diverse range of toy choices available.

One last example was the marketing campaign that Coca-Cola launched while adopting AR VR technology. The project, named “Hydr8”, consisted in an omnichannel and personalized experience via mobile app to overlay interactive features in the customer’s surroundings (Soni et al., 2022). With this project, Coca-Cola intended to encourage healthy hydration habits and Coca-Cola’s consumption while using fun challenges and donations to humanitarian causes.

In conclusion, it is clear that several renowned brands have adopted digital transformation initiatives to enhance customer experience. These success stories are the example of the power of embracing technology to respond to the evolving customer needs and expectations. Customers want to be heard, empowered and, above all, feel satisfied not only with the product or service, but also with the overall experience. It is undeniable that, in this era of rapid technological evolution, the journey towards digital transformation is essential for those who seek to not just survive but thrive in the current competitive market.

CHAPTER 7

Conclusion

Digital transformation has emerged as a revolution in customer experience and businesses have recognized that the adoption of advanced technologies, data-driven insights, and a commitment to meeting evolving customer expectations, contributes to an elevated customer experience. As such, this topic is growing its awareness and interest among researchers, however, as technology rapidly evolves, research also needs to do so. Therefore, this study contributes to the ongoing research, allowing to highlight the current state of art and also discovering and mapping trends for future studies on Digital Transformation in Customer Experience improvement.

This study embarked on a journey to explore the dynamic interplay between digital transformation and the customer experience improvement, trying to answer three main research questions: (1) What does the existing literature from 2019 to 2023 say about Customer Experience and Digital Transformation?, (2) What are the main Digital Transformation initiatives being used by companies to improve Customer Experience? and (3) By implementing Digital Transformation Initiatives, are companies improving customer experience and creating competitive advantage?.

A strong part of the literature supports the established consent about the interdependent relationship between leveraging digital transformation initiatives and the enhancement of customer satisfaction, loyalty and advocacy. Among the various digital transformation initiatives, three have emerged as the clear leaders: omnichannel strategies, artificial intelligence and augmented/virtual reality. These solutions have evolved to now becoming the foundation for organizations to thrive in the digital era. They empower businesses to deliver seamless, personalized and immersive customer experiences that align with the evolving expectations of the digitally empowered customers.

Thus, through the literature review, it's clear that in today's digital age, organizations that overlook this transformation risk falling behind companies who pursuit these strategies. When implemented successfully, digital transformation initiatives serve as a source of competitive advantage, allowing companies to outperform their competition.

While this study provides valuable insights, it is important to recognize that it has its limitations. One potential limitation of this study comes from the exclusive reliance on a single

research engine (Scopus); however, it is still the one with the widest usage within the scientific research community. To note as well that this is an exploratory study, and the initial search with the chosen keywords yielded only 376 documents. The findings are based on the analysis of the 22 selected documents and other relevant cited references. Consequently, the results should not be generalized or representative. As the world of digital transformation is rapidly evolving, new trends are constantly showing up, these conclusions reflect a status quo at this specific time. It is entirely possible that in a short while, there might be updates or even completely new findings on this topic.

Nonetheless, this study provided a systematic literature review on the subject of digital transformation and its impact on customer experience improvement. The topics identified serve as a foundation for future research, giving researchers an overview of the current landscape. Looking ahead to future research, it would be interesting to delve into how digital transformation plays out in several types of organizations. Going through the process of digital transformation often involves investing in new resources, acquiring new skills, and adopting modern technologies. However, not every company has the budget to allocate for these changes. In simpler terms, it would be relevant to see how smaller companies are coping with the challenges and opportunities presented by the evolving landscape of digital transformation in today's world.

The digital transformation is a topic that will remain in the organization's agenda for the next few years and will constantly keep being renewed by new arising technologies. Digital transformation is permanent, since no customer wants to go back and give up on the practicality that technologies provide them. It is also inevitable in today's society due to the current organizational, globalization and urbanization context. Lastly, it is urgent; competitiveness depends on the ability to integrate technology into a company.

Despite the limitations, this research was able to offer a systematic review on digital transformation and customer experience, providing recent, relevant and pertinent information on the current state of this topic. The impact of digital transformation on customer experience improvement is obvious, ultimately driving greater customer satisfaction, loyalty, and business success in the digital age.

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