Antecedents and Outcomes of a Strategic Digital Marketing Approach

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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"We can know only that we know nothing.
And that is the highest degree of human wisdom"
(Leo Tolstoy, 1865)

In the last months of my postgraduate studies in 2019, I saw by chance an online advertisement for a Ph.D. position in Marketing at Leeds University Business School. Immediately, I contacted Professor Leonidas Leonidou, my respected professor from my undergraduate degree back in Cyprus, to ask his opinion on whether to apply for this position. Professor Leonidas Leonidou did not only encourage me to grab the opportunity but also strongly supported me in the application process and later throughout the whole doctoral journey as one of my supervisors. Therefore, if I was to describe how everything started, I would certainly need to highlight the name of this professor, to whom I will always be grateful.

From the first months of this journey, the academic struggles, and the global pandemic which just started torturing the world, made this goal of receiving a doctoral title look like something impossible, unrealistic, and distant in my mind. Battling daily with numerous personal insecurities, anxiety, and the fear of failure, I now cannot remember how often I felt the despair of doing a Ph.D. However, throughout this journey, I was lucky enough to have next to me the right people who never let me quit and always pushed me to continue acquiring more and more wisdom. Those individuals represent why I eventually enjoyed this academic adventure and had the strength to complete this degree and thesis.

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I dedicate this thesis to my father

March 2023, Marina Christofide

ABSTRACT

The new digital era requires firms to be explorative by experimenting with new tools, channels and online market trends, and remain focused on customers' current needs by exploitatively refining existing digital marketing activities. Despite the substantial research on the digital marketing field and the tremendous developments in digital marketing practice, empirical research on strategic digital marketing issues is limited, with no available holistic examinations of the digital marketing strategy and minimal efforts in studying the strategic approaches of exploration, exploitation and ambidexterity within this field. Consequently, marketing managers lack the guidance to effectively implement digital marketing strategies.

Therefore, this thesis examined how explorative, exploitative and ambidextrous digital marketing strategic approaches can be effectively adopted within retail organisations competing in today's fast-changing digital context. Drawing on the dynamic capabilities theory and the organisational learning theory, a comprehensive model outlining the drivers and outcomes of a digital marketing strategic approach was developed. A cross-sectional study design and a large-scale online survey were used to empirically test the model among 242 large retailers in the UK. The hypothesised direct, moderating and control effects were examined using structural equation modelling.

The results confirmed the positive associations of sensing and integrating capabilities with the explorative digital marketing strategic approach and of responding and coordinating capabilities with the exploitative digital marketing strategic approach. The explorative approach was found to associate positively with the differentiation-based competitive advantage, and the exploitative approach was found to associate positively with the cost-reduction-based competitive advantage. Differentiation-based and cost-reduction-based advantages were related to online customer engagement, which was positively associated with the firm's market and financial performance. Results also demonstrated that market dynamism negatively moderates the exploitative approach–cost-reduction-based advantage link. These findings have important implications for marketing theory and practice. Limitations and future research directions were also considered.

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LIST OF ABBREVIATIONS

ADC	Adaptive Capability
AMB	Ambidextrous
AVE	Average Variance Extracted
B2B	Business-to-Business
B2C	Business-to-Consumers
CCA	Cost-reduction-based Competitive Advantage
CEN	Online Customer Engagement
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMB	Common Method Bias
CMV	Common Method Variance
COI	Competitive Intensity
CR	Composite Reliability
CRC	Coordinating Capability
CRM	Customer Relationship Management
DCA	Differentiation-based Competitive Advantage
DCs	Dynamic Capabilities
EXL	Exploitative
EXR	Explorative
FIP	Financial Performance
IFI	Incremental Fit Index
INC	Integrating Capability
IT	Information Technology
LRC	Learning Capability
MAD	Market Dynamism
MAP	Market Performance
NFI	Normed Fit Index
NPD	New Product Development
PPC	Pay-Per-Click
RBV	Resource-based View
RMSEA	Root Mean Square Error of Approximation
ROA	Return-on-Assets
ROI	Return-on-Investment
RSC	Responding Capability
SEM	Structural Equation Modelling
SEO	Search Engine Optimisation
SMEs	Small and Medium Enterprises
SNC	Sensing Capability
SRMR	Standardised Root Mean Residual
TLI	Tucker Lewis Index
VE	Variance Extracted
WOM	Word of Mouth

Preface

The work of this doctoral thesis was carried out during the period when the student was registered at the University of Leeds, Leeds University Business School, United Kingdom.

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic.

CHAPTER ONE

Introduction

1.0 Introduction

With an extensive body of research on the multifaceted field of digital marketing already and tremendous developments in digital marketing retail practice, it is surprising that only in recent years have marketing academics started showing interest in crucial issues regarding digital marketing strategy, organisational capabilities necessary for digital marketing operations, or outcomes achieved through digital marketing practices (Gupta et al., 2020; Homburg and Wielgos, 2022; Vieira et al., 2019). While, the World Economic Forum talks of the fourth and fifth industrial revolutions that are developing exponentially (Amitabh, 2022; Schwab, 2016), the advances around the internet's use for commercial purposes since 2000, along with the rapid growth of the digital, mobile, and social media platforms have brought a significant transformation in the marketing scene (Kannan and Li, 2017; Lamberton and Stephen, 2016; Yadav and Pavlou, 2014). Thus, firms aiming to remain competitive nowadays must apply strong digital marketing efforts and adapt properly and quickly to the fast-paced, dynamic digital environment (Varadarajan, 2020).

Retail companies especially have long been applying digital marketing practices to communicate information about their offerings, encourage customer interaction, and offer an additional channel to their existing stores (Hart et al., 2000), while new opportunities are continually arising due to the growing use of digital technology-based retail services (Erdmann et al., 2021). The recent Covid-19 pandemic has also hyper-accelerated current retailers' dependence on digital retailing and digital advertising, platforms, and online marketing communications (Villanova et al., 2021). In essence, internet-based retailing is constantly growing and expanding to numerous product categories considering the advantages of more and better information availability, greater transparency across retailers from the customer perspective, as well as lower prices due to lower fixed-cost operations (Reinartz et al., 2019; Vazquez, 2021).

The focus of this doctoral thesis is on digital marketing within the retail industry, mainly elaborating on the strategic literature of the digital marketing field. Its key objective is to investigate how different digital marketing strategic approaches can be adopted and implemented effectively within retail organisations competing in today's fast-changing, turbulent digital context. Thus, an integrated model outlining the drivers and outcomes of a digital marketing strategic approach is developed and empirically tested, relying on the paradigms of dynamic

capabilities (DCs) and the notions of exploration, exploitation and ambidexterity derived from the Organisational Learning theory.

This introductory chapter provides a synopsis of the present thesis. First, it describes key digital marketing concepts analysed in this research. After that, the study's background regarding the significant digital transformation happening in the business and marketing scene during the last two decades is explained. Then, it discusses the historical evolution of digital marketing, providing an overview of how academic researchers have studied various strategic notions related to this field. Subsequently, it defines and explains some of the main gaps in the literature around digital marketing strategic issues, which this study aims to tackle. It also presents the research problem and objectives of the study and briefly defines the model's constructs. Furthermore, the imperative need to conduct this project and its significance for the academic and business communities are emphasised. Lastly, this chapter describes how the thesis is structured, providing summary information for each chapter that follows.

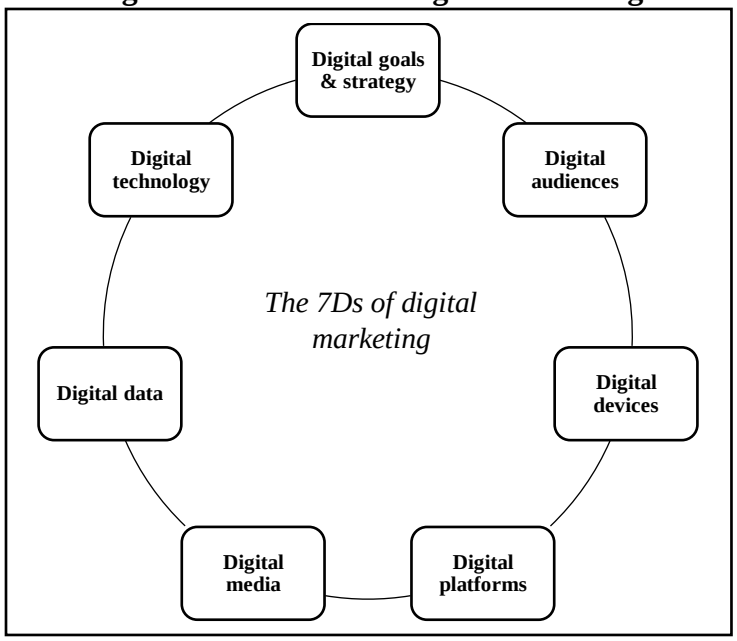
1.1 Key concepts in digital marketing

Digital marketing, also known by the names of interactive marketing, internet marketing, online marketing, e-marketing, and web marketing, has been developed over time from a term explaining just the marketing of products and services through digital channels to an umbrella term portraying a firm's process of utilising digital technologies to build customer preferences, promote firm offerings, and achieve results such as customer acquisition and retention and sales performance growth (Kannan and Li, 2017). Chaffey and Ellis-Chadwick (2022, p.5) provide a similar definition: "the application of digital media, data and technology integrated with traditional marketing communications to achieve marketing objectives", and the American Marketing Association (2022a) also describes it as the firm's use of digital or social channels to conduct various marketing efforts and achieve different goals. This doctoral study relies on these definitions.

Chaffey and Ellis-Chadwick, (2022) shed light on the 7Ds of digital marketing, which they explain as the field's key concepts and pillars (**Figure 1.1**). These are the: (1) digital goals and strategy, that is, setting the objectives a company wants to achieve through digital marketing; (2) digital audiences, which requires knowledge of the online customer behaviours, preferences and

characteristics; (3) digital devices that customer audiences use to interact with the company; (4) digital platforms which mediate the online interaction between firms and consumers, influencing customer purchase; (5) digital media, including the different communication channels through which firms can reach and engage their audiences; (6) digital data, suggesting that firms should structure and apply the insight they collect about their customers; and (7) digital marketing technology, used to create interactive customer experiences and support digital marketing channel activities and campaigns in their planning, execution and optimisation.

Figure 1.1: The 7Ds of digital marketing



Source: Adapted from Chaffey and Ellis-Chadwick (2022, p.8)

Described as an "ever-changing, dynamic process" (AMA, 2022a), digital marketing is an extremely broad and multidimensional field, encompassing different areas, including social media marketing, search engine optimisation, pay-per-click advertising, email marketing, content marketing, mobile marketing, and influencer and affiliate marketing. These are summarised in **Table 1.1**, along with other critical terms used in this study (e.g., digital marketing, digital marketing strategy, digital marketing practices, digital market offering).

Performing well in such areas means that the firm's digital marketing practices and offering are of high-level quality, achieving the set objectives. This thesis uses the term *digital marketing practices* to describe a firm's efforts through all digital marketing areas. In other words, digital

marketing practices indicate any marketing activity directed by a firm to current and/or potential customers, conducted using the internet, social media, search engines, mobile and electronic devices, digital technology and software, and other online channels.

In addition, the study uses the term *digital market offering* to refer to the broad value delivered to customers through the firm's involvement in digital marketing. This includes: (1) the firm's products (goods/services) sold online; (2) the online price that a firm charges for its products/ subscriptions along with extra charges, discounts and deals; (3) the different channels where customers can purchase the firm's products online (e.g., retail website, online marketplaces, social shopping platforms, social media shops); (4) the firm's promotional activities conducted through online marketing communication tools; (5) the firm's online customer support (e.g., employees, chat bots); (6) the online marketing processes and optimisation of delivering online products and customer experience (e.g., speed, number of steps, device optimisation, track orders, delivery updates); and (7) the physical evidence including the firm's number of online followers, likes and related metrics, customer reviews, testimonials and confirmation emails (Brooks, 2022; Wilson, 2022).

Building and implementing a digital marketing strategy is challenging, considering the field's many different areas. Firms need to decide how much time and expenditure to put into efforts concerning each digital marketing area and align their digital marketing strategy with their business and marketing strategy. A firm's digital marketing strategy should focus on clear objectives and value propositions, use channels consistent with its customer audiences, and manage and support the online customer lifecycle (Chaffey and Ellis-Chadwick, 2022). *Digital marketing strategy* is thus defined as a step-by-step process, utilising different digital media and channels, data, tools and technology, outlining how a company can achieve digital marketing goals such as audience engagement (American Marketing Association, 2022; Chaffey and Ellis-Chadwick, 2022). This study uses this definition, acknowledging that different firms pursue different digital marketing strategies according to their objectives, available resources and capabilities, desired outcomes and customer audiences. It is worth mentioning that different digital marketing strategic approaches can be adopted and pursued over time, which will be further explained in this chapter.

Table 1.1: Key digital marketing concepts

Term	Indicative Meaning
Social media marketing	The use of social media channels to conduct marketing activities.
Search engine optimisation	The activity of improving the company's ranking within major search engines to grow its online traffic.
Pay per click	The paid online advertisements that aim to grow a company's online search traffic and that a firm pays only when users click on them.
Email marketing	Branded promotional content sent directly to current and potential customers through email.
Content marketing	Publishing and distribution of text, digital video, or audio materials to lead the consumer in a desired action.
Mobile marketing	Offers and personalised content sent to the firm's target audience on their smart phones or tablets through text messages, social media, websites, email and mobile applications.
Affiliate/influencer marketing	Cooperation with third-party sites/firms or influencers to promote products and services through engaging their audiences with posts, blogs and videos.
Digital marketing	The process of using digital or social channels and technologies to conduct marketing efforts such as promoting brands and building customer preferences, and achieve marketing objectives.
Digital marketing practices	Any marketing activity directed to current and potential customers, that is conducted using the internet, social media, search engines, mobile and electronic devices, and other online channels.
Digital market offering	The value delivered to customers through the firm's involvement in digital marketing (e.g., related to 7Ps of digital marketing)
Digital marketing strategy	A step-by-step process, utilising different online channels and tools, outlining how a company can achieve its digital marketing goals.

Source: AMA (2022a,b); Bird (2007); Chaffey and Ellis-Chadwick (2022); Gustavsen (2022); Kingsnorth (2019)

1.2 Study background

The fourth industrial revolution, which started with the 21st century, is also known as the digital revolution and is described by velocity, effortless diffusion of new-age technologies across industries and markets, and marketplace disruption, with the digital element catalysing innovations (e.g., Internet of Things, AI, big data) (Gupta et al., 2020; Marr, 2018; Schwab, 2016). A move towards the fifth industrial revolution, which also embodies the digital element, started to be observed around 2020, encompassing the idea of more harmonious collaborations between humans and smart technologies (Noble et al., 2022). With unlimited opportunities for people to connect and access knowledge solely through their mobile devices, numerous prospects for businesses to use digital technologies and platforms for research and development, marketing, and distribution purposes, growing customer engagement and new forms of consumer behaviour online, companies are forced to adapt the way they design, market and deliver their offerings (Schwab, 2016). In fact, the plethora of digital developments that occurred during the last two decades, including the introduction of new mobile and web-based applications, the continuous advances in social media

and e-commerce, as well as the arrival of new technologies (e.g., artificial intelligence, virtual reality) are dramatically transforming the business landscape to an entirely new digital context (Lamberton and Stephen, 2016; Marr, 2018).

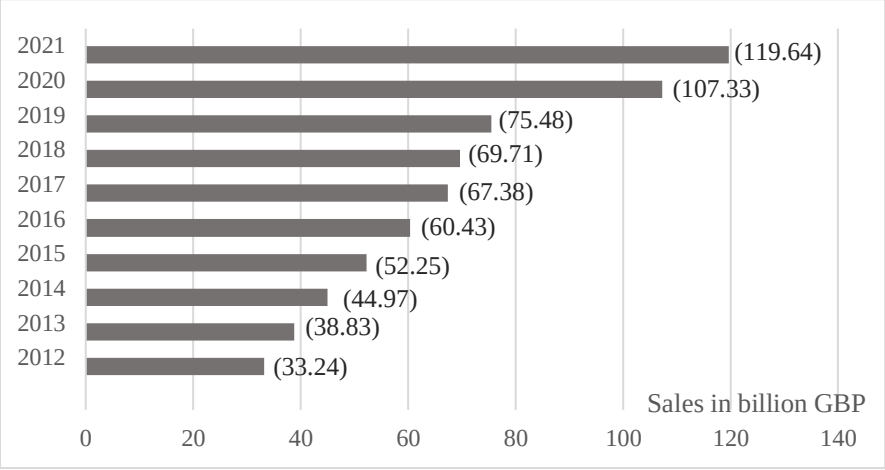
Online-based multinational corporations such as Google, Facebook (now Meta), Alibaba, Amazon and eBay today represent some of the leading players in the modern economy (Kannan and Li, 2017), while many of these platforms aggregate retailers, enabling customers to visit multiple stores at the same time (e.g., Marketplace) (Villanova et al., 2021). Most firms have long established their online presence in this digital context, shifting to digital marketing approaches to serve customers (Chirumalla et al., 2018). For example, retail firms leverage social media and mobile platforms to reach and communicate with customers, promote their offerings, and enhance customer experience and convenience, especially now that store location has become irrelevant, and consumers can purchase online 24/7 (Dolega et al., 2021; Duarte et al., 2018; Vazquez, 2021). The Covid-19 crisis has also forced businesses to jump five years forward in digital transformation in a matter of weeks, increasing their digital and technological investments considerably, with online shopping in 2020 growing by 37.4% worldwide (Baig et al., 2020; De Silva, 2021; Rigby, 2021).

Digital-based retailers like Zalando, SHEIN, Missguided, and Boohoo are already killing physical stores (Clawson, 2019), and companies like Argos and IKEA, which for years relied on catalogues and traditional customer service, are now enjoying significant revenue streams from online sales and digital marketing programmes (Gilliland, 2017; Marr, 2018). Indeed, digital media platforms have provided firms with: (1) new opportunities to learn about, inform, interact with, engage, sell to and serve customers (Lamberton and Stephen, 2016); (2) new ways to measure their performance (Järvinen and Karjaluoto, 2015); and (3) the advantages of lower costs, higher efficiency and greater geographic reach (Chaffey, 2019). As a result, traditional marketing is losing its effectiveness, with firms shifting from traditional to digital media, increasing their spending on digital advertising and e-commerce to compete in this dynamic, fast-changing, internet-enabled marketplace where consumers are more empowered than ever, taking more control of the marketing process (Gupta et al., 2020; Li et al., 2020).

In this post-Covid-19 digital era described by the accelerated dependence of retailers and customers on digital platforms, there is no doubt that the retail landscape will continue evolving,

resulting in more opportunities for retail firms and requiring new capabilities to achieve their strategic objectives (Villanova et al., 2021). Notably, global retail e-commerce sales amounted to $4.9 trillion in 2021 and were projected to increase by 50% until 2025, reaching about $7.4 trillion (Chevalier, 2022), while one out of every four people worldwide is an online buyer (Oberlo, 2022). Focusing specifically on the United Kingdom, online retail has been gaining ground over the last 10 years, reaching around £120 billion in 2021, with 29% of retail sales being attributed to online **(Figure 1.2)** (Coppola, 2022). These numbers are projected to increase even more, with UK retail sales set to be 38% online by 2026 (Rigby, 2021), highlighting the imperative need for retail organisations to be strongly involved with digital marketing practices.

Figure 1.2: Online retail sales in the United Kingdom (UK) 2012-2021



Source: Coppola (2022)

Digital technologies today enable firms to perform any marketing-related activity, enabling two-way communication with customers (Kannan and Li, 2017). Nevertheless, constant change and uncertainty appear to describe the contemporary digital times, with continual new digital marketing trends, novel online technologies, and fast-changing customer preferences putting real pressure on firms to remain relevant by adapting to this new digital reality (Barsegyan, 2020). Accordingly, this new era requires firms to be explorative by experimenting with new tools, methods, and latent market trends and wants, but also to remain focused on their customers' current needs and demands by exploitatively improving their existing digital marketing activities (Herhausen et al., 2020; Krishen et al., 2021; Turner et al., 2013).

With most of the firms' marketing spending in the UK allocated to online channels and an increase of approximately 30% in the overall UK digital marketing spending in 2022, digital marketing represents the most potent marketing form (Guttmann, 2021; 2022). However, retailers still face challenges in planning and implementing effective digital marketing strategies, struggling to adjust to online customer needs (Faulds et al., 2018). In fact, a significant percentage of them claim not to have a defined digital marketing strategy, frequently missing opportunities and resulting in budget allocations to incorrect digital channels, ineffective digital marketing campaigns, and lower online customer engagement (Chaffey, 2020; Mazzini, 2020). Firms performing digital marketing without a strategic approach may also be at risk of a competitive disadvantage if their competitors are savvier in digital marketing, investing more appropriately and effectively in digital media and technology (Chaffey and Ellis-Chadwick, 2022).

Therefore, it is not only exciting but essential to shed more light on certain crucial digital marketing areas within the retail industry that have been so far purely studied. The calls for further digital marketing research into the retail sector concerning strategy, essential organisational competences, and related outcomes are also numerous (e.g., Galante et al., 2013; Grewal et al., 2017; Herhausen et al., 2020; Homburg and Wielgos, 2022). Henceforth, to respond to those calls and to offer value to both marketing academics and practitioners, this study investigates the dynamic capabilities driving the explorative and exploitative digital marketing strategic approaches, along with the influence of explorative, exploitative and ambidextrous approaches on competitive advantage and the moderating effects of market dynamism and competitive intensity. The association between competitive advantage and customer engagement and the relationship between customer engagement and performance are also examined.

1.3 The evolution of digital marketing research: A historical perspective

This section presents the historical evolution of digital marketing (**Table 1.2**), briefly describing how academic literature examined related issues throughout the years. The internet, as an extraordinarily complex system and a fundamental prerequisite of digital marketing (Hewett et al., 2016), has emerged gradually rather than suddenly after a series of events. The very first sign of its appearance came in **1969**, when DARPA, the Defense Department in the US, developed the ARPANet, an expensive, fully government-funded computer network with slow and limited

machines, mainly used by the military, administrative staff and computer scientists (Busca and Bertrandias, 2020). Six years later, in **1975**, the standard internet protocol called RFC 706 was written by the Internet pioneer Jon Postel (Postel, 1975), and, in **1978**, the first spam (e.g., a message massively broadcasted to all users) was sent on the ARPANet, with computer scientists advocating autonomous governance rather than external military control (Busca and Bertrandias, 2020).

A year later (**1979**), students from poor universities studying computer science created a cheaper and non-official network called Usenet, with thousands of individuals embracing and interacting on it, which, 15 years later, received the first spam from a law firm, causing strong negative responses from its users (Busca and Bertrandias, 2020). Company-owned private networks then (**early 1980s**) began joining the ARPANet, but the Internet's Acceptable Use Policy prevented its usage for commercial purposes. In **1983**, the Domain Name System (DNS) was created by the National Science Foundation, followed by the creation of the .com extension for commercial firms' domains in **1985** (Busca and Bertrandias, 2020). A decade later (**1995**), the DNS was controlled by Network Solutions, the American-based technological company and subsidiary of Web.com, which charged registrants a yearly fee.

From the **late 80s until** the **mid-90s**, privately operated commercial networks such as AOL, CompuServe, Microsoft and Prodigy provided access to the entire internet network, with the National Science Foundation transferring the main operation to MCI and IBM private firms (Busca and Bertrandias, 2020). All previous developments drove the World Wide Web's creation (e.g., Web 1.0 platform) in **1990** based on hyperlink technology, allowing information search but not information sharing (Monnappa, 2022). Specifically, **1993** saw the launch of the first web browser with a graphical interface named Mosaic, along with the placement of the first clickable banner ad on the Global Network Navigator (Busca and Bertrandias, 2020). It is said that the online magazine HotWired bought a few of these banner ads for advertising purposes (Monnappa, 2022). A year later, in **1994**, Yahoo! was launched, receiving almost a million hits in its first year, and the HTTP cookie was developed as a file put on the shopper's navigator to enable the usage of online shopping carts (Busca and Bertrandias, 2020; WebandCrafts, 2021).

Table 1.2: The historical evolution of digital marketing

Decade	Year	Key events	Dominant theme in literature	Indicative studies
1960	1969	• DARPA develops the ARPANet		
	1975	• Internet pioneer Jon Postel writes the RFC 706		
1970	1978	• The first spam is sent on the ARPANet		
	1979	• Development of Usenet		
	1980	• Company-owned private networks join the ARPANet, but Use Policy prevents commercial usage		
1980	1983	• National Science Foundation creates the DNS		
	1985	• .com extension creation for commercial firms' domains		
	1989 - 1995	• Privately operated commercial networks provide access to the entire internet network	• Internet technology's potential in transforming the marketplace	Hershman, 1992; Maloff, 1992; McKenna, 1991
		• The National Science Foundation transfers the main operation to MCI and IBM private firms	• Internet's facilitating role in direct marketing and market research	De Ville, 1995; Mehta and Sivadas, 1995
1990	1990	• World Wide Web creation based on hyperlink technology		
	1993	• Launch of the first web browser with graphical interface		
	1993	• Placement of the first clickable banner ad on the Global Network Navigator	• Opportunities and challenges presented by the World Wide Web for marketing, business strategy and retail shopping	Hoffman and Novak, 1996; Morgan, 1996; Peterson et al., 1997; Rowley, 1996
	1994	• Launch of Yahoo! (receives almost a million hits)		
		• Creation of the HTTP cookie		
	1995	• Network Solutions controls the DNS, charging a yearly fee		
	1996	• Launch of new search engines and tools (e.g., HotBot, LookSmart, Alexa)	• Virtual communities' usefulness and dynamics, members' content creation, computer-mediated communication and interactions	Dennis et al., 1997; Flores, 1998; Garton et al., 1997; Gómez, 1998; Hagel and Armstrong, 1997
		• Launch of the first virtual community		
	1998	• Emergence of Google		
		• Launch of MSN search engine by Microsoft		
		• Launch of Yahoo!'s web search		
	1999 - 2000	• Startups become more fashionable than large firms	• The internet as a search and decision support consumer tool for raising choice quality with less efforts/costs	Häubl and Trifts, 2000; Lynch and Ariely, 2000
		• As the Californian Ideology spreads, the dotcom bubble explosion transforms startups from e-commerce websites to social networking services		
	1999	• Creation of Web 2.0 allowing content upload and share, encouraging the user's active participation	• Online consumer individual expression	Kozinets, 2002; Schau and Gilly, 2003
2000	Early 2000s	• Publication of first influential books (e.g., Wikinomics, The Future of Competition, The Wisdom of Crowds) and articles (e.g., in Advertising Age and Wired) on the internet and crowdsourcing business opportunities	• Internet as a marketing intelligence source and a strategic tool for competitive strategy	Bradlow and Schmittlein, 2000; Chatterjee et al., 2003; Vradarajan and Yadav, 2002
	2000	• Development of TripAdvisor		

	2002	• Development of LinkedIn		Chevalier and Mayzlin, 2006; Trusov et al., 2009
	2004	• Development of Yelp • Development of Facebook	• Online UGC and e-WOM effects on firm performance	
	2005	• Development of YouTube		Katona and Sarvary, 2008; Stephen and Toubia, 2010
	2006	• Development of Twitter	• Digital networks and their effectiveness for knowledge acquisition and value creation	
	2007	• Development of Zilok		
	2008	• Development of Airbnb		
	2009	• Launch of Google Instant		
2010	2010	• Launch of WhatsApp • Launch of Instagram • Launch of Pinterest	• Rise of online UGC and C2C interactions (e.g., social media communities)	Berger and Milkman, 2012; Galak, 2012; Malthouse et al., 2013; Rishika et al., 2013; Stephen and Shriver et al., 2013; Toubia and Stephen, 2013
	2011	• Launch of Snapchat	• Firms' social media marketing efforts and social media CRM	
	2012	• Development of Lyft	• Consumer privacy concerns, risk perceptions and trust within online shopping contexts	Hung et al., 2012; Lu et al., 2016
	2014	• Launch of the Facebook Messenger • Tailored ads appeared on LinkedIn and other social platforms	• Search engines, digital platforms	Sriram et al., 2015; Shi and Trusov, 2021
	2016	• Launch of TikTok	• Digital customer engagement	Eigenraam et al., 2018
			• Digital marketing brand activities' effects	Felix et al., 2017; Wang and Kim, 2017
			• Digital marketing communication (e.g., online influencer marketing, display advertising, content marketing)	Yoo and Kim, 2017; Hollebeek and Macky, 2019; Torres et al., 2019

Source: Compiled by the author, based by Busca and Bertrandias (2020); Lamberton and Stephen (2016)

It was around these years when marketers started paying attention to the transition to digital marketing, and the very first academic studies relating the internet to the marketing field appeared in the marketing literature. In particular, early writings referred to the significant value and potential of internet technology in transforming the business and marketplace communities (e.g., Hershman, 1992; Maloff, 1992; McKenna, 1991), the internet's facilitating role in direct marketing practices and market research (e.g., De Ville, 1995; Mehta and Sivadas, 1995), and the opportunities (e.g., higher efficiency, lower costs, fewer technological and communication barriers) and challenges (e.g., network navigation) presented by the World Wide Web for marketing and business strategy (e.g., Hoffman and Novak, 1996; Morgan, 1996; Peterson et al., 1997) and retail shopping (e.g., Rowley, 1996).

New search engines and tools (e.g., HotBot, LookSmart, Alexa) were launched in **1996** (Monnappa, 2022), while during the same year, the term 'virtual community' became known as a tool to maximise the audience for ads, organised in Bulletin Board Systems (e.g., Usenet), with the first virtual community being the "Café Herpé" launched by the pharmaceutical company SmithKline Beecham (Busca and Bertrandias, 2020). Virtual communities were recognised for their business usefulness regarding the members' valuable content creation (Hagel and Armstrong, 1997), and early academic research shed light on the dynamics of virtual communities, including the way that the web establishes them (e.g., Dennis et al., 1997; Flores, 1998), and the computer-mediated communication and interactions achieved between individuals and organisations through virtual communities (e.g., Garton et al., 1997; Gómez, 1998).

1998 saw the emergence of Google, the launch of the MSN search engine by Microsoft, and the arrival of Yahoo's web search (Monnappa, 2022). Notably, at the **end of the 90s** and with the spread of the Californian Ideology (the-then emerging global orthodoxy concerning the association between society, technology and politics) (Barbrook and Cameron, 1996), startups were considered more fashionable than large firms, and, along with the explosion of the dotcom bubble in **1999-2000**, they begun transforming from e-commerce websites to social networking services (Busca and Bertrandias, 2020). Web 2.0 was created in **1999** (but only took this name and launched in 2004), allowing content upload and sharing, encouraging the user's active participation (Webandcrafts, 2021).

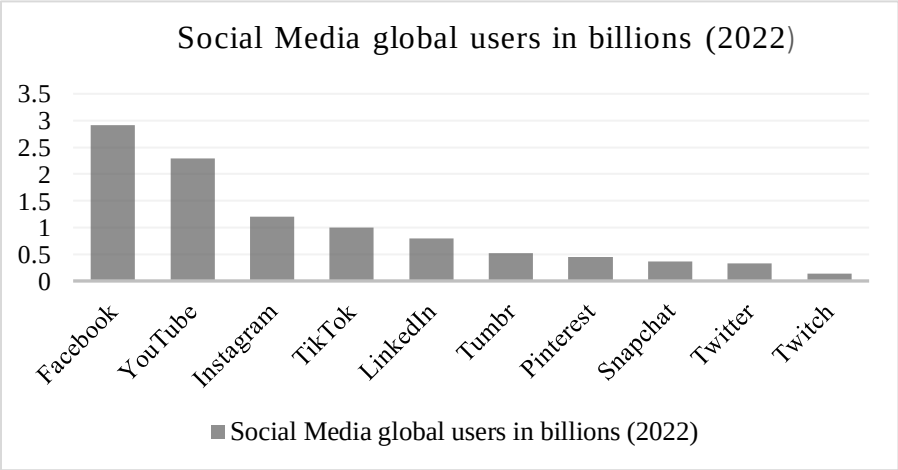
Accordingly, digital marketing research started flourishing mainly after 2000 along with the emergence of focused to the field academic journals (e.g., the Journal of Interactive Marketing launched in 1998) and the publication of a number of influential books (e.g., Wikinomics, The Future of Competition, The Wisdom of Crowds) and articles (e.g., in Advertising Age and Wired) related to the internet and crowdsourcing business opportunities in the early 2000s. Initial studies investigated the internet as a search and decision support consumer tool for raising choice quality with fewer efforts and costs (e.g., Häubl and Trifts, 2000; Lynch and Ariely, 2000), shed light on the online forms of consumers' individual expression (Kozinets, 2002; Schau and Gilly, 2003), and presented the internet's benefits as a marketing intelligence source and a strategic tool for the firm's competitive strategy (e.g., Bradlow and Schmittlein, 2000; Chatterjee et al., 2003; Varadarajan and Yadav, 2002).

Between **2000** and **2004**, some of the leading user review platforms (e.g., TripAdvisor, Yelp) were developed, enabling individuals to act on their own, followed by the appearance of the first social media networking platforms (**Figure 1.3**) (Busca and Bertrandias, 2020). These included LinkedIn (**2002**), MySpace (**2003**), Facebook (**2004**), YouTube (**2005**) and Twitter (**2006**), whose development took place in the San Francisco Bay Area, allowing the creation of corporate and individual accounts. Observing the new opportunities and the high potential, organisations started to market their offerings on these platforms, with the US internet advertising revenue rising to $3 billion in 2004 (Webandcrafts, 2021). The world then saw the formation of a number of major sharing economy platforms, including the goods rental Zilok in **2007**, the house rental Airbnb in 2008 and the car-sharing platform Lyft in **2012**, where transactions happen between individuals, with the platforms coordinating their interplay (Busca and Bertrandias, 2020). Moreover, Google Instant was launched in **2009**, enabling instant search engine results, while the following year (**2010**), the mobile messaging app WhatsApp was launched.

Research in the second half of the 2000 decade emphasised the empowered role of connected online consumers. Specifically, the authors explored online user-generated content (UGC) and word-of-mouth (WOM) along with their impacts on firm performance (e.g., Chevalier and Mayzlin, 2006; Trusov et al., 2009), as well as themes related to digital networks and their effectiveness for knowledge acquisition and value creation (e.g., Katona and Sarvary, 2008; Stephen and Toubia, 2010).

The **2010** decade saw the emergence and instant popularity of more contemporary social media platforms (e.g., Instagram and Pinterest in **2010** and Snapchat in **2011**), while Facebook and Twitter were already recording more than 250 and 100 million daily active users, respectively, in 2011. In **2014**, Facebook Messenger was launched, and tailored ads appeared on LinkedIn and other social platforms (Webandcrafts, 2021). In **2016**, TikTok was launched (named after the Chinese firm ByteDance that took over the app in 2018), which is used today by more than 1 billion global users **(Figure 1.3)**. Accordingly, these, along with all previous social media developments, resulted in an explosion of marketing research in social media areas (Lamberton and Stephen, 2016).

Figure 1.3: Social media global users in 2022



Source: Geyser (2022)

In particular, social media researchers studied the viral transmission and content generation dynamics within social media platforms (e.g., Berger and Milkman, 2012; Toubia and Stephen, 2013), emphasising the rise of UGC and consumer-to-consumer interactions (e.g., social media communities) (e.g., Shriver et al., 2013; Stephen and Galak, 2012). They also become interested in topics related to firms' social media marketing efforts and how customer relationships are managed through such channels (e.g., Malthouse et al., 2013; Rishika et al., 2013). The enforcement of data privacy regulations (e.g., GDPR, DPA 2018), and the growing consumer privacy consciousness since the **2010-2020** decade (Cooper et al., 2022; Kakatkar and Spann, 2019) initiated further research on consumer privacy concerns, risk perceptions and trust within online shopping (e.g., social and mobile commerce) contexts (e.g., Hung et al., 2012; Lu et al., 2016).

Research conducted after 2015 studied digital, social media and mobile marketing issues in more depth (Lamberton and Stephen, 2016). Great attention was given to digital marketing intermediaries such as search engines and digital platforms (e.g., Shi and Trusov, 2021; Sriram et al., 2015), to the different forms of digital customer engagement along with its drivers and outcomes (e.g., Eigenraam et al., 2018), and to the various effects of digital marketing brand activities on customer-related and financial-related firm performance outcomes (e.g., Felix et al., 2017; Wang and Kim, 2017). More recently, and with the growing use of new digital technologies in marketing practice (e.g., AI, AR, VR), researchers have become highly interested in modern digital marketing communication issues, including online influencer marketing, display advertising and content marketing (e.g., Hollebeek and Macky, 2019; Torres et al., 2019; Yoo and Kim, 2017).

Clearly, from the very end of the 20th century until today, multiple milestones were noted in digital marketing practice, which drove an exponential growth of the related literature, but causing, however, high levels of research fragmentation (Eigenraam et al., 2018; Lamberton and Stephen, 2016). At the same time, the continuous invention of new phenomena, digital technologies and online channels, along with the field's fast-paced advances, quickly make research outdated, causing an asynchrony between research and practice (Lamberton and Stephen, 2016; Yadav and Pavlou, 2014).

1.4 Gaps in the literature and problem statement

Although a substantial body of research regarding digital marketing has been published during the last two and a half decades, four critical gaps appear in this literature. *First,* digital marketing research on retail settings is limited (Dolega et al., 2021; Reinartz et al., 2019), studying discrete topics (e.g., mobile shopping, augmented and virtual reality in customer experience) rather than providing holistic digital marketing examinations. This is worrying considering the current strong involvement of retail businesses with digital marketing practices, the extraordinary levels of digital spending by this industry, and the continually growing consumer population buying online from retailers, especially since the start of the global Covid-19 pandemic (Cimmino, 2021; Fisher, 2021; Kraemer, 2021). More empirical investigations are thus required around digital marketing issues in retail contexts to provide value to the evolving retail landscape by enabling the improvement of retail digital marketing strategies.

Second, research around digital marketing strategy is still in its infancy, characterised by an on-going and substantial scarcity of relevant empirical investigations (Homburg and Wielgos, 2022; Kannan and Li, 2017). While conceptual research does exist to provide thematic reviews and conceptual frameworks of the digital marketing strategy and related strategic aspects (e.g., Kannan and Li, 2017; Varadarajan and Yadav, 2009; Yadav and Pavlou, 2014), the relevant empirical studies are limited. Moreover, the available empirical research analyses digital marketing strategy from discrete strategic areas rather than providing holistic examinations to include all elements of the marketing mix strategy, which means that it cannot properly guide managers in forming and implementing strategic decisions that consider all areas of digital marketing strategy. Furthermore, no research has been published so far studying the strategic organisational approaches of exploration, exploitation and ambidexterity within digital marketing, despite their significant implications towards developing digital marketing strategies. The few limited investigations examining those concepts within digital areas are considered insufficient (e.g., Benitez et al., 2018; Roberts and Dinger, 2018). This scarcity should alarm researchers and marketing practitioners, especially considering that explorative, exploitative and ambidextrous tactics have long been observed in digital marketing practice, with retailers already creating value through the development of entirely new digital marketing processes and the consistent improvement of their existing practices in digital marketing (Ho and Lu, 2015). Specifically, no clear understanding has emerged regarding the use of the explorative, exploitative and ambidextrous approaches within the firm's digital marketing strategy, the interplay with other capabilities, and the antecedents and outcomes of these approaches in the digital marketing context. Consequently, this causes a lack of practical understanding about implementing effective and efficient digital marketing strategies in the modern age.

Third, the literature explains that different types of dynamic capabilities are required to implement successful digital marketing strategies, for which, however, academic knowledge provides limited guidance. For example, most studies (e.g., Nguyen et al., 2015; Wang and Kim, 2017) focused on capabilities related to single digital marketing practices (e.g., social media capability, social CRM capability, website capability) rather than the broad set of digital marketing strategic activities, failing to reflect the multidimensionality of digital marketing (Homburg and Wielgos, 2022). At the same time, digital marketing literature can be described by a dearth of empirical research on the association between dynamic capabilities and competitive advantage (Herhausen et al., 2020;

Homburg and Wielgos, 2022). This indicates a weak application of the theoretical paradigm of dynamic capabilities within the digital marketing literature, considering the theory's argument that dynamic capabilities can change existing organisational positions and influence competitive advantage (Helfat and Peteraf, 2009). Only a few empirical studies have been identified to examine how firms can achieve and sustain a competitive advantage in the dynamic digital context, with the extant literature suffering from the absence of appropriate measurement scales and the lack of study about different types of competitive advantage (e.g., differentiation, low-cost) that can be achieved online. Therefore, further academic research is required concerning specific groups of dynamic capabilities that can holistically support the digital marketing strategy and how these can be applied to create competitive advantages in the continually changing digital landscape.

Finally, although the literature has well documented individually the vital role played by digital marketing in the creation of online customer engagement (e.g., Hollebeek and Macky, 2019; Lim and Rasul, 2022) and performance improvement (e.g., Homburg and Wielgos, 2022; Wielgos et al., 2021), only a few investigations exist that study the association between these two constructs (e.g., Cheng et al., 2021). Specifically, more research exists on the antecedents of online customer engagement (e.g., Bazi et al., 2020; de Oliveira Santini et al., 2020) rather than on its outcomes on firm performance (e.g., Ho and Chung, 2020). As a result, the effects of online customer engagement on firm performance are largely ignored in the literature. This is problematic, considering the significant benefits engaged customers bring to firms nowadays (e.g., increased cross-selling, up-selling and average order value) already recognised in digital marketing practice (Fertik, 2019; Paton, 2022). Thus, more academic research is needed on the relationship between digital customer engagement and firm performance, especially when examining strategic digital marketing issues.

Altogether, despite the widespread digital marketing research, the intensifying digitalisation, and the growing threat from new competition, the above limitations have not yet been appropriately addressed through the available published literature, impeding theory from further development and inhibiting practical advancement in the field. It is, therefore, evident that there is a need for a digital marketing strategic framework to better understand: (1) which are the key capabilities in developing effective and efficient digital marketing strategies in this dynamic landscape; (2) how different digital marketing strategic approaches can be pursued today; (3) what types of

competitive advantages can be achieved in this fast-changing digital marketing era; (4) how and under which market conditions firms can achieve these competitive advantages; (5) how firms can engage their customers through digital marketing; and (6) what are the benefits of having strongly engaged customers for the firm's performance. Henceforth, it is an imperative need to shed light on the key dynamic capabilities driving the digital marketing strategic approaches adopted by firms today, as well as the types of competitive advantage they tend to associate (under different market conditions), and further, the relationships between competitive advantages and customer engagement, and between customer engagement and performance (Varadarajan and Yadav, 2009).

1.5 Research aim and objectives

This study aims to fill the gaps mentioned above by ***developing and empirically testing a conceptual model that examines the drivers, outcomes and moderators of a digital marketing strategic approach*** based on exploration (i.e., continuous introduction of new and novel digital marketing practices), exploitation (i.e., constant refinement and modification of the existing digital marketing practices), and ambidexterity (i.e., simultaneous application of both explorative and exploitative digital marketing activities). This conceptual model is grounded on two inter-related theories: (1) d*ynamic capabilities theory*, which underlines the role of specific organisational strategic processes in the creation of new competitive advantage to respond to market change (Teece et al., 1997); and (2) *organisational learning theory*, which offers the concepts of exploration, exploitation and ambidexterity as the main adaptive processes enabling superior performance in dynamic markets (March, 1991).

The present doctoral research aims to accomplish five main objectives: (1) to understand which dynamic capabilities influence companies to adopt explorative and exploitative digital marketing strategic approaches today; (2) to explore how the utilisation of each one of the three digital marketing strategic approaches (e.g., explorative, exploitative, ambidextrous) is related to the creation of a competitive advantage; (3) to find out the effects of differentiation and cost-reduction competitive advantages on online customer engagement; (4) to examine the role of online customer engagement on firm performance and particularly on its market and financial results; and (5) to investigate the moderating role of market dynamism and competitive intensity on the different associations between digital marketing strategic approaches and competitive advantages.

1.6 Definitions of model constructs

The conceptual model contains six main groups of constructs: dynamic capabilities, digital marketing strategic approaches, competitive advantage, online customer engagement, performance and moderating influences. Firstly, *dynamic capabilities* refer to specific organisational strategic processes that enable firms to respond to market change by creating a new competitive advantage (Teece et al., 1997). In this research's model they are represented by sensing, learning, integrating, responding, adaptive and coordinating capabilities that influence the firm's digital marketing strategies.

The model also involves three *digital marketing strategic approaches*, namely explorative, exploitative and ambidextrous, that represent the primary constructs of the study. In detail, the explorative digital marketing strategic approach refers to the continuous introduction and development of new and novel digital marketing practices, the exploitative digital marketing strategic approach describes the constant improvement and refinement of the firm's existing digital marketing processes, while the ambidextrous approach describes the simultaneous application of both explorative and exploitative digital marketing activities (Josephson et al., 2016; Kyriakopoulos and Moorman, 2004; Vorhies et al., 2011).

The adoption of such digital marketing strategic approaches is expected to influence the creation of a *competitive advantage* in the retail firm in terms of differentiation and cost reduction. Analytically, the differentiation-based competitive advantage describes the firm's competence in delivering a digital market offering that distinguishes the retailer from its competitors by providing unique, better value and different benefits to customers online, whereas the cost-reduction-based competitive advantage explains the firm's competence in delivering a digital market offering that enables higher operating efficiencies and cost reductions compared to its competitors (Kim and Atuahene-Gima, 2010; Li and Zhou, 2010; Song and Parry, 1997).

Accordingly, those two competitive advantages are associated with *online customer engagement*, which refers to the emotional connection and interactions that customers have with the company online (Hollebeek et al., 2014; Kim and Johnson, 2016). This is operationalised based on the three dimensions of customer brand engagement suggested by Hollebeek et al. (2014): cognitive processing, affection and activation. Notably, the measurement was adapted to examine the construct from a managerial perspective.

Online customer engagement has certain *performance* results for the retail firm. In terms of market performance, this is measured in terms of: (1) customer satisfaction; (2) customer retention/loyalty; (3) new customer acquisition; (4) customer lifetime value; (5) customer share (e.g., the percentage of a customer's purchasing budget allocated to the firm within a specific product category); and (6) market share. Concerning financial performance, this is operationalised in terms of: (1) sales turnover; (2) sales growth; (3) profits; (4) profit growth; (5) return on investment; and (6) return on assets.

Lastly, market dynamism and competitive intensity are viewed as *moderators* in the model, specifically in the various links between the explorative and exploitative digital marketing strategic approaches and the competitive advantages of differentiation and cost-reduction. Market dynamism refers to the rate of change in customers' online preferences and needs, while competitive intensity is defined as pressure from competing firms applying digital marketing practices (Jaworski and Kohli, 1993).

1.7 Value of the study

In light of the increasing digitalisation that dramatically affects business and marketing dynamics, the rapidly revolutionising retail environment by the use of online technologies and mobile devices, the rapidly increasing number of empowered customers purchasing online from retail firms, the fast and continuous developments occurring in the digital marketing field influencing customer preferences, and the fact that digital marketing literature suffers from crucial gaps and limitations, the need for investigations like this, is indeed imperative and expected to provide significant value in literature and marketing practice. The study's empirical insights on pursuing competitive digital marketing strategies in contemporary markets hold implications for academic researchers and marketing managers.

Theoretically, this research provides a reflective, dynamic framework applicable to the fast-advancing digital landscape and multidimensional field of digital marketing, triggering further interest in this area. This improves our empirical knowledge of the digital marketing strategy, filling the gaps of: (1) the limited digital marketing research with a focus on the retail industry; (2) the research scarcity on major digital marketing strategic aspects (e.g., explorative, exploitative, ambidextrous); (3) the research inconsistencies regarding firm capabilities necessary for digital

marketing operations and competitive advantages achieved through the internet; and (4) the scarce research in digital marketing examining the effects of customer engagement on firm performance. Importantly, by transferring two theories firstly developed in the strategic management field (e.g., dynamic capabilities, organisational learning) into the relatively new discipline of digital marketing and by complementing them with the addition of the customer engagement construct, the study enables a more holistic and insightful consideration of the nuances of the digital marketing strategy. It also introduces an alternative perspective of conceptualising the digital marketing strategy through exploration, exploitation and ambidexterity. In this way, it helps to broaden the applicability of those approaches beyond the product innovation context (where the greatest focus has been) into the digital marketing context, extending previous academic discoveries and discussions.

Managerially, this thesis stresses the necessity for large retail firms to have a clearly defined digital marketing strategy and the benefits associated with it. Thus, practitioners can be more capable of recognising and exploiting valuable digital marketing opportunities and making appropriate investments in digital media and technology. More specifically, digital marketing managers are usefully guided to deploy the right set of dynamic capabilities in their digital marketing activities, depending on the strategic approach they want to pursue, in order to cope with the idiosyncrasies of the fast-changing environment within which they operate and offer better customer value. Moreover, the research's insights can contribute to the firms' efforts to create competitive advantage within their digital market offering based on differentiation and/or cost-reduction, as well as secure high levels of online customer engagement, which is of paramount importance in achieving superior levels of market and financial performance. The study accomplishes this by explaining to managers how to properly handle their digital marketing strategies' exploration, exploitation and ambidextrous dimensions. Digital marketing practitioners will also be in a better position to comprehend the role of external contingencies (e.g., market dynamism, competitive intensity) in influencing their efforts to achieve a competitive advantage, and thus be more capable of planning and implementing effective digital marketing strategies.

1.8 Organisation of the study

This doctoral thesis is organised into eight chapters, as shown in **Figure 1.4**. *Chapter one* is the present introductory chapter, which provides information on the study's topic. It first introduces the key concepts to be examined and then outlines the study's background in digital marketing. It continues by discussing the historical evolution of digital marketing and explaining some of the main gaps in the literature that this study aims to tackle. It also presents the research's aims and objectives, defines the conceptual model's constructs, and emphasises the study's significance and usefulness for the academic and business communities. The structure of the thesis is also outlined.

Chapter two identifies and presents the main theoretical underpinnings of the digital marketing literature. It first discusses the major theories and paradigms employed to shape different digital marketing areas in strategic and consumer research. It also briefly discusses other miscellaneous theories applied to a lesser extent in digital marketing research. Finally, the chapter ends by offering a brief critical assessment of the discussed theories and paradigms underpinning this line of research.

Chapter three reviews the available published academic literature in digital marketing. It starts by providing key digital marketing definitions and continues by examining the evolution of digital marketing literature. Six main digital marketing-related streams with multiple associated sub-streams are identified and discussed. The chapter ends by pointing out the main research deficiencies and gaps related to the examined studies.

Chapter four deals mainly with the study's conceptual model and develops the research hypotheses. Initially, it discusses the main theoretical paradigms that influenced the development of the study's conceptual model, referring specifically to the dynamic capabilities theory and the organisational learning theory with an emphasis on the theoretical notions of exploration, exploitation and ambidexterity. Then, it describes and explains the conceptual model's six parts, namely dynamic capabilities, digital marketing strategic approaches, competitive advantages, customer engagement, performance outcomes, and moderators. It also develops the research hypotheses, explaining the logic behind each predicted relationship between constructs using related to the subject theoretical and empirical evidence from the literature.

Figure 1.4. Thesis Organisation

Chapter one Introduction	• Introduces key digital marketing concepts used in the thesis • Presents the study's background • Discusses the historical evolution of digital marketing • Specifies the research gaps, aim and objectives • Defines the conceptual model's constructs • Presents the value of the study • Explains the organisation of the thesis
Chapter two Theoretical underpinnings of the digital marketing literature	• Synopsises key theories and paradigms employed in digital marketing research • Briefly discusses miscellaneous theories in this literature • Critically assesses the discussed theories and paradigms
Chapter three Review of the literature	• Provides key academic definitions of digital marketing • Summarises and critically discusses digital marketing research • Discusses gaps related to the examined literature
Chapter four Research model and hypotheses	• Discusses the main theoretical paradigms underpinning the research model • Develops and explains the conceptual model • Develops and describes the research hypotheses
Chapter five Research methodology	• Provides information around the research scope • Explains the sampling processes • Discusses the constructs' operationalisation • Discusses the research instrument • Explains the steps followed for the data collection • Provides information on the sample's size and structure • Outlines the statistical methods and tools employed for data analysis
Chapter six Descriptive analysis and data purification	• Presents descriptive results through mean scores and standard deviations for all constructs' items • Performs purification analysis of the constructs through item-total correlation • Provides the results of the confirmatory factor analysis • Illustrates the results of convergent and discriminant validity tests • Presents constructs' reliabilities • Tests for common method variance
Chapter seven Test of hypotheses and discussion of results	• Develops and discusses a correlation matrix of the research constructs • Presents the results of the structural equation modelling analysis • Reports which hypotheses are supported or rejected • Uses previous theoretical and empirical research to discuss the findings
Chapter eight Conclusions, implications, limitations, and future research	• Gives a summary of the study • Derives conclusions • Discusses implications for academics and practitioners • Presents study limitations • Offers suggestions for future research

Chapter five emphasises the methodology undertaken in this empirical study. It starts by providing details about the research scope and the various procedures adopted to develop the sampling frame. It continues with an explanation of the operationalisation of the research constructs, and then provides information about the research instrument. Furthermore, it explains in detail the multiple steps followed for the data collection process. Information is then provided about the sample size and structure. Finally, it outlines the statistical methods and tools employed for data analysis.

Chapter six exhibits the descriptive analysis of the data collected and describes the processes employed to examine the validity of the measures used in this study. It begins by presenting the descriptive results for all constructs included in the conceptual model, the percentage scores of each construct and item, and the values of their means and standard deviations. Then, it discusses the purification process of the constructs employed through item-total correlation, including both item correlation and item-to-total correlation tests. It continues by discussing the confirmatory factor analysis procedures and providing the measurement model results. Next, it illustrates the outcomes of the tests employed for assessing the constructs' nomological, convergent and discriminant validity. It also discusses the results of the reliability analysis employed. The chapter ends by presenting the results of the common method variance analysis undertaken.

Chapter seven presents the results of the statistical analysis undertaken with regard to testing each of the study's hypotheses. Specifically, it develops and discusses a correlation matrix of all latent constructs used in this research. It also presents the structural equation modelling analysis results and reports on which hypotheses are supported or rejected. Finally, it relies on relevant previous theoretical and empirical insights to discuss the research findings.

Chapter eight provides the overall conclusions derived from the study findings. It starts by summarising the key results and drawing conclusions. It also discusses the implications of the study findings for academics and practitioners, and identifies certain limitations that accompany the study. This chapter ends by offering meaningful suggestions for future research directions on the subject.

1.9 Summary

This chapter introduced the present thesis. First, it provided a brief description of important concepts analysed in this research, such as the key digital marketing areas, the digital marketing practices, the digital market offering, and the digital marketing strategy. It then offered an analysis of the study's background, referring to the current digital transformation affecting the marketing scene with an emphasis on the retail industry, followed by a discussion of the historical evolution of digital marketing and an overview of the extant academic studies concerning digital marketing strategic aspects. Next, the identified gaps in the relevant academic literature that the current thesis aims to fill were highlighted and discussed. Accordingly, the research aim and main objectives were presented, and definitions of the conceptual model's constructs were provided. The value that this research wants to offer to both academics and practitioners was also underlined. The chapter ended with an exploration of the organisation of the thesis.

CHAPTER TWO

Theoretical underpinnings of the digital marketing literature

2.0 Introduction

This chapter presents the main theoretical underpinnings of digital marketing literature. Specifically, it offers a synopsis of the major theories and paradigms employed to shape different areas within digital marketing research in the last decades, categorising them in two main parts: (1) theories identified in digital marketing research from a firm's point of view (resource-based-view of the firm, dynamic capabilities theory, organisational learning theory, service-dominant logic, technology acceptance model), and (2) theories identified in digital marketing research from a consumer's point of view (uses and gratifications theory, social capital theory, social exchange theory). The chapter also provides a brief discussion around other theories that, although used less extensively, appear to be prominent for digital marketing research.

2.1 Key theories and paradigms used in previous digital marketing research from the firm's perspective

Researchers examining digital marketing issues from a firm's side adopted five main theories and paradigms, which are discussed in the first part, namely: (1) the resource-based-view of the firm (RBV) (Barney, 1991); (2) the dynamic capabilities theory (Teece et al., 1997); (3) the organisational learning theory (March, 1991); (4) the service-dominant logic (S-D) (Vargo and Lusch 2004); and (5) the technology acceptance model (TAM) (Davis, 1989). **Table 2.1** presents these theoretical underpinnings, along with a summary of their key arguments, the contexts of their application, and indicative studies using them.

Table 2.1: Theories used in previous digital marketing research from the firm's perspective

Paradigm/theory	Theoretical conceptualisation/ key arguments	Application in digital marketing context	Indicative studies
Resource-based view (RBV) (Barney 1991; Wernerfelt, 1984)	The firm's resources and capabilities (e.g., assets, knowledge, organisational processes, managerial qualities) explain its competitive advantage and performance. They should be valuable, rare, inimitable and non-substitutable for the competitive advantage to be sustainable.	• Effects of digital, e-commerce and social media resources on firm's competitive advantage and performance • Integration of IT-related resources and capabilities with marketing capabilities	Elia et al., 2021; Gregory et al., 2019; Herhausen et al., 2020; Kacker and Perrigot, 2016; Mahmoud et al., 2020; Marchand et al., 2021; Varadarajan and Yadav, 2009
Dynamic capabilities' theory (Teece et al., 1997)	Firms operating in dynamic markets can achieve a competitive advantage/superior performance by developing dynamic capabilities (i.e., organisational processes enabling firms to implement new strategies to adapt to changing market conditions).	• Association between digital marketing resources/capabilities and firm performance • Digital marketing dynamic capabilities' characteristics	Ahani et al., 2017; Chuang, 2020; Coreynen et al., 2020; Marchand et al., 2021; Trainor et al., 2011; Trainor et al., 2014; Wang and Kim, 2017; Wang, 2020
Organisational learning theory (Cyert and March, 1963)	Organisations that face environmental changes, should be involved in learning to gain information and insights in order to be able to adapt and respond to the changing conditions.	• Digital technology for customer exploration and exploitation • Social media co-creation between customers and the firm • Digital firms' business models	Konig et al., 2019, Lin and Lin, 2023, Zhang et al., 2020
Service-dominant logic (SDL) (Vargo and Lusch 2004, 2008, 2016)	Market exchange is the process where parties apply their specialised knowledge to receive mutual benefits within service ecosystems controlled through their institutional arrangements.	• Value co-creation in social media • Digital customer brand engagement • Social commerce	Brodie et al., 2011; Hollebeek et al., 2019 ; Kumar et al., 2019; Li et al., 2021; Singaraju et al., 2016
Technology acceptance model (TAM) (Davis, 1989)	A firm's intention to use and its actual usage of new technologies (e.g., IT, computers) is subject to those technologies' perceived usefulness and perceived ease of use.	• Organisational adoption of social media, IT, and other digital and e-commerce technologies	Chatterjee et al., 2021b; Han et al., 2020; Mostafa and Kasamani, 2020; Zerbini et al., 2022

Source: Compiled by the author

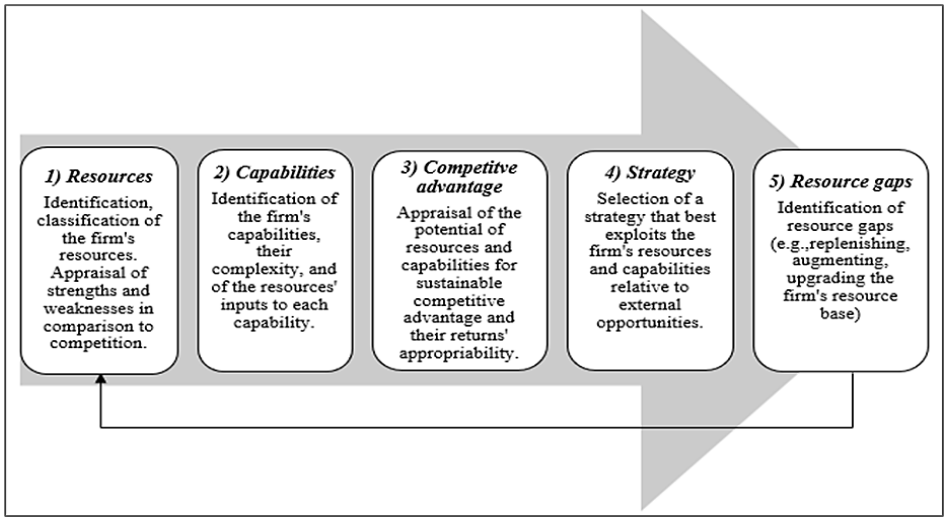
2.1.1 The resource-based-view of the firm (RBV)

A frequently used theory in strategic digital marketing research is the resource-based-view (RBV) of the firm (Barney, 1991), known as one of the most influential and cited theoretical frameworks for understanding strategic management (Barney et al., 2001; Kraaijenbrink et al., 2010). Successfully applied by many scholars in numerous fields of study, including marketing, human resource management, economics and finance, entrepreneurship, and international business, the RBV emphasises the internal sources of a company's sustained competitive advantage (Barney et al., 2001; Kraaijenbrink et al., 2010). Specifically, it posits that unique combinations of internal resources and capabilities can result in value creation (Barney, 1991; Peteraf and Barney, 2003).

According to this theory, the firm's resources consisting of assets (e.g., tangible and intangible), capabilities, organisational processes, managerial qualities, and knowledge are considered to enable the implementation of long-term strategies that increase efficiency and effectiveness and to explain its competitive advantage and performance (Grant, 1991; Peteraf, 1993; Wernerfelt, 1984)

(see **Figure 2.1**). Firms are, in fact, heterogeneous in their strategic resources and, by effectively converting these into capabilities, they can achieve sustained competitive advantages and performance benefits (Mahmoud et al., 2020). A competitive advantage is achieved when a firm implements a value-creating strategy that current or potential competitors do not employ at the same time, whereas, when competitors are also unable to duplicate this strategy's benefits, the competitive advantage can be referred to as a sustained competitive advantage (Barney, 1991).

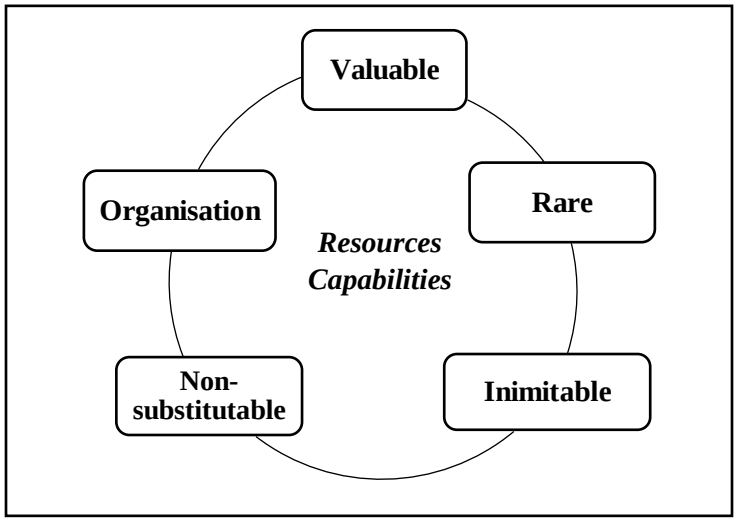
Figure 2.1: A practical framework of a resource-based approach to strategy analysis



Source: Adapted from Grant (1991, p. 115)

The RBV theorists explain that the most critical strategic resources in a firm are those that are superior in use and can decrease costs or increase revenues, that are difficult to imitate or to substitute for, and their value is higher within instead of outside the organisation (Barney, 1991; Grant, 1991; Gregory et al., 2019). In particular, firms can achieve and sustain a competitive advantage and superior performance only when they develop and acquire resources and capabilities that are *valuable* (e.g., exploiting opportunities or neutralising threats identified in the external environment), *rare* (e.g., not processed by the firm's current and potential competitors), *inimitable* (e.g., imperfectly imitable, that is, when it is difficult or impossible for competitors to obtain them) and *non-substitutable* (e.g., no other strategically equivalent resources exist for substitution), while their *organisation* is also ready and capable to absorb and exploit them, referring to the VRINO framework (**Figure 2.2**) (Barney, 1991; Kraaijenbrink et al., 2010; Wernerfelt, 1984).

Figure 2.2: The VRINO framework



Source: Influenced from Barney (1991) and Wernerfelt (1984)

Barney (1991) considers computers and information processing systems as part of the firm's physical technology, explaining that when embedded into decision-making processes they can be potentially perceived as a source of competitive advantage. While the RBV represents a quite useful theoretical paradigm for research in information technology and digital settings, it is also believed to offer a sound foundation for digital marketing research to examine digital marketing-related resources and capabilities, strategies and the associated competitive advantages (Trainor et al., 2011; Herhausen et al., 2020). For instance, the paradigm has been successfully applied in the research areas of e-commerce, online export marketing and social media marketing.

In detail, some e-commerce researchers relied on the RBV to explain the effects of e-commerce resources and e-commerce marketing capabilities on export market performance (e.g., Gregory et al., 2019b), while others focused on social commerce contexts, examining how firms within such contexts can access valuable, rare, inimitable and non-substitutable resources to achieve competitive advantages (Lam et al., 2019). In the context of online export marketing, Jean and Kim (2019) considered IT-related resources and capabilities to fill the VRINO criteria and improve export performance only when embedded within marketing capabilities, while Elia et al. (2021) were among the first to confirm through the RBV the necessity of both digital resources (e.g., digital technologies) and digital capabilities (e.g., e-commerce managers) for firms to create a competitive advantage in digital exporting.

Social media researchers used the RBV to study the association between social media resources (e.g., social media investments, social media technologies) and a firm's social media performance and competitive advantage (e.g., Marchand et al., 2021; Wang and Kim, 2017), or to examine the association between firm characteristics and the organisational adoption of social media networks (e.g., Kacker and Perrigot, 2016). Mahmoud et al. (2020) considered firm-to-customers relationships and social interactions through social media technologies as valuable, rare and inimitable resources, which, when properly employed, can generate informational and relational capabilities and accordingly result in improved performance. In addition, Palacios-Marqués et al. (2015) studied the value of online social networks, which they perceived as firm resources, and their effects on marketing capabilities and firm performance.

Despite strong research applicability in multiple fields and high relevance to the digital marketing area, the RBV has received extensive criticism throughout the years, with Kraaijenbrink et al. (2010) summarising most of these critiques into eight areas: (1) limited managerial implications derived from the theory (Priem and Butler, 2001); (2) it implies infinite regress (Collis, 1994; Priem and Butler, 2001); (3) the theory's limited applicability (Connor, 2002; Miller, 2003; Gibbert, 2006); (4) non-achievability of sustainable competitive advantage (Fiol, 2001); (5) it does not represent a theory of the firm (Foss, 1996); (6) VRINO is neither essential nor adequate for sustainable competitive advantage (Armstrong and Shimizu, 2007); (7) a resource's value is too indeterminate to provide for a valid theory (Lockett et al., 2009); and (8) an unworkable resource definition (Priem and Butler, 2001). Nevertheless, most of these criticisms do not threaten the theory's validity, while its significance, especially for research in strategic marketing and management, cannot be doubted.

2.1.2 The dynamic capabilities (DCs) theory

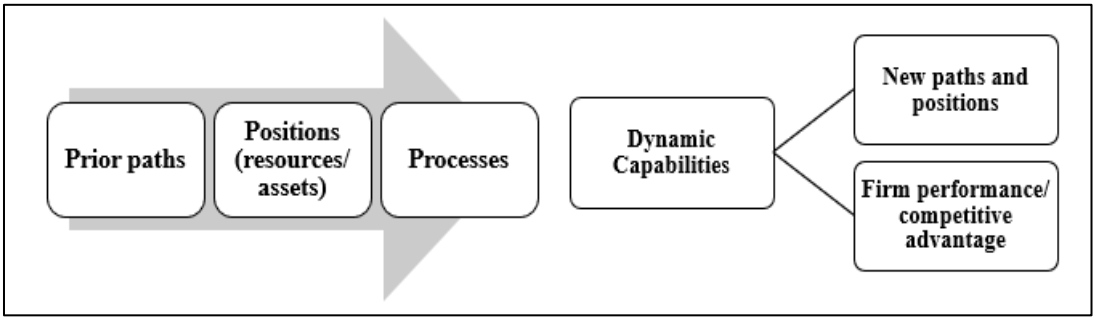
In 1997, Teece, Pisano and Shuen proposed the theory of dynamic capabilities (DCs) to explain strategic change, referring to "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p.516). Notably, the theory extends the RBV by considering competitive advantage as a function of the firm's assets and their deployment and redeployment in changing markets (Teece et al., 1997). The major differences between the RBV and the DCs theory lie in the fact that while the former focuses

on fungible assets with firms being heterogeneous in their resource endowments which they exploit according to the market's opportunities, the latter emphasises the dynamic element required by firms to create new distinctive capabilities to identify and respond to opportunities occurring in high-velocity contexts (Eisenhardt and Martin, 2000; Gregory et al., 2019b; Teece et al., 1997).

In particular, DCs are defined as those strategic processes that enable firms to acquire new or transform their current organisational resources to valuable market offerings in order to achieve competitive advantage and adapt and capitalise on dynamic, unpredictable environments (Eisenhardt and Martin, 2000; Teece et al., 1997; Winter, 2003). A more concise definition from Helfat et al. (2007) referred to "the capacity of an organisation to purposefully create, extend, and modify its resource base" (p.4). Generally, capabilities are dynamic when they enable firms to implement new strategies that create value by achieving congruence with the constantly changing business environment; thus, they differ categorically from other capabilities (Eisenhardt and Martin, 2000; Teece, 2007). It is also emphasised that competitive advantage can be sustained through responding to and creating change in the external environment (Helfat and Peteraf, 2009; Teece and Pisano, 1997).

Described as "an emerging paradigm of the modern business firm" (Teece and Pisano, 2003, p.22), the theory is related to the Schumpeterian view, where rivalry among firms to create new or improve existing competences is critical, and differences in their capabilities enable the achievement of long-term competitive results (Winter, 2003). As **Figure 2.3** shows, Teece et al.'s (1997) chain of logic considers that prior paths, such as previous firm investments, can lead to current firm positions, including tangible and intangible assets, while dynamic capabilities, as the organisational processes that can change current positions, tend to influence performance, competitive advantage, and new paths and positions (Helfat and Peteraf, 2009).

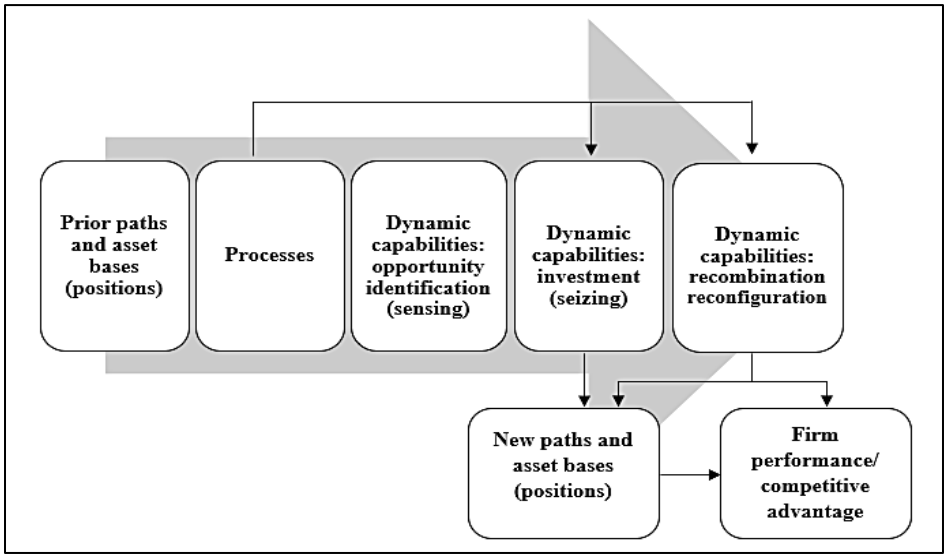
Figure 2.3: Teece et al.'s (1997) chain of logic regarding the dynamic capabilities paradigm



Source: Adopted from Helfat and Peteraf (2009, p.96)

Later, Teece (2007; 2018) expanded upon the initial chain of the paradigm's logic (see **Figure 2.4**) and disaggregated dynamic capabilities into three general classes: (1) *sensing capabilities*, that is, organisational activities of scanning, learning, researching and identifying opportunities; (2) *seizing capabilities*, that is capabilities addressing potential opportunities through new firm offerings; and (3) *reconfiguring/transforming capabilities,* that is, capabilities recombining and realigning organisational resources and structures during environmental changes. These are considered the bases for creating and maintaining competitive advantage, enabling enterprises to direct their financial resources to the market requirements in the long term (Helfat and Peteraf, 2009; Teece, 2007).

Figure 2.4: Teece's (2007) chain of logic regarding the dynamic capabilities paradigm



Source: Adopted from Helfat and Peteraf (2009, p.96)

DCs are considered particularly relevant for firms to evolve in turbulent, fast-changing markets where the success of business models is uncertain, as in the case of digital marketing (Marchand et al., 2021; Wang, 2020). While a few initial studies (e.g., Zhu and Kraemer, 2002) emphasised the dynamic capabilities' orientation towards change which facilitates resource reconfiguration to meet changing customer preferences and competing strategies in contexts such as e-commerce, most research on dynamic capabilities and digital marketing has been conducted in recent years. For instance, Li et al. (2022) studied the associations between digital technologies-enabled dynamic capabilities and firm performance, while Wang et al. (2020) provided a conceptualisation of digital marketing capabilities, underlining that such capabilities should be inherently dynamic

to enable responsive and flexible decision-making, sensing of new digital market trends, and simultaneous management of customers and other stakeholders.

Notably, much of the recent digital marketing research tends to rely on both RBV and DCs theoretical perspectives (e.g., Gregory et al., 2019b; Marchand et al., 2021; Trainor et al., 2011; Wang and Kim, 2017) to support that various types of resources and capabilities are significant drivers of effective digital marketing strategies which can accordingly result in higher firm performance. They also explain that the integration of digital technologies into marketing strategy is considered a competitive imperative. Thus, these theories strengthen our understanding of how firms can develop valuable, rare, inimitable, and non-substitutable resources and dynamic capabilities to improve their digital marketing practices and achieve a competitive advantage (Gregory et al., 2019).

Still, as with any theory, the dynamic capabilities paradigm has attracted various criticisms: (1) dynamic capabilities as complex, abstract and vague concepts, suffering from oversimplified dynamics and lacking clarity (Barreto, 2010; Kraatz and Zajac, 2001; Williamson, 1999); (2) dynamic capabilities might not be recognised by practitioners or be amenable to managerial action, owing to the absence of an accurate, specific definition, measurement and empirical grounding (Arend and Bromiley, 2009; Williamson, 1999); and (3) there is a tautological link between dynamic capabilities and performance, creating confusion regarding their effects, as well as the specific mechanisms by which these affect performance (Grant, 1996; Zott, 2003; Pavlou and El Sawy, 2011; Priem and Butler, 2001). Notwithstanding these criticisms, academic research on dynamic capabilities has been developed substantially, with an increasing number of empirical studies examining the role of dynamic capabilities in various ways (Pavlou and El Sawy, 2011). Moreover, more and more firms nowadays comprehend the value and usefulness of such capabilities to accomplish their objectives in fast-changing environments (Helfat and Peteraf, 2009).

2.1.3 Organisational learning theory

Closely related to the DCs theory, the organisational learning theory (Cyert and March, 1963) views organisations as complex adaptive systems where individuals continually interact to exchange ideas and knowledge, resulting in organisational learning and improved firm

performance (Drejer, 2000; Fang et al., 2010; Miller et al., 2006). Organisational learning is interpreted as a routine-based, history-dependent and target-oriented process, explaining that organisations learn by encoding interpretations of the past into routines that guide their further actions (Levitt and March, 1988). It includes three main sub-processes, namely: creating new knowledge, retaining this knowledge over time and transferring it throughout the organisation (Argote, 2011). Konig et al. (2019) also explain it as an interactive process happening constantly and one that is self-regulated, with firms learning from and with their outside environment to achieve a competitive knowledge advantage.

Organisational learning can be understood from multiple angles, such as the improvement of organisational actions through better knowledge and understanding (Fiol and Lyles, 1985), or the evolution of the individual learning process among employees and organisations (Wang and Ahmed, 2003). Notably, Fiol and Lyles (1985) categorised it into lower-level learning (e.g., temporarily repeating previous behaviours) and higher-level learning (e.g., developing complex rules and associations about new actions affecting the whole firm), and, later, March (1991) talked about the perspectives of exploitation (i.e., refinement of the existing competences) and exploration (i.e., experimentation with new alternatives) within organisational learning. Based on this view, Fang et al. (2010) explained exploitation as the fast-learning which increases efficiency through incremental improvements in the organisation's knowledge, and exploration as the slow learning through which firms adopt higher-performing ideas in a slower mode, improving the organisational knowledge's quality in the long run.

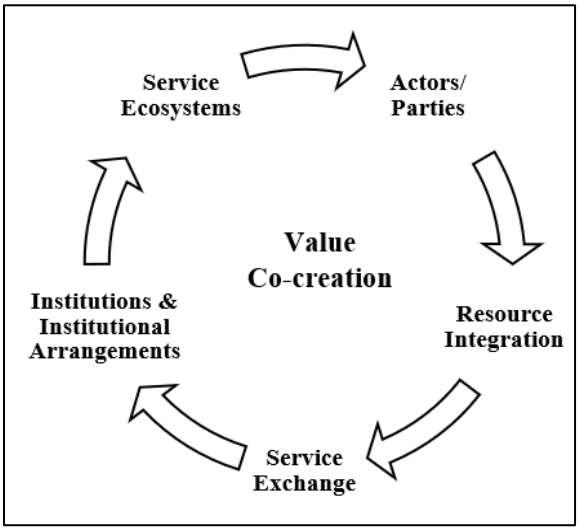
Organisational learning theorists (e.g., Cangelosi and Dill, 1965; Fiol and Lyles, 1985) stressed the unforeseen external shocks that an organisation is subject to, the rules and routines that facilitate decision-making, the imperfect control of the results, and the processes for organisational change, learning and adaptation to explain how firms adjust to their dynamic environments. These are applicable to the digital marketing context, where firms are constantly facing change in terms of digital technologies, tools and online platforms, and should continually learn about the new online trends and customer preferences, and adapt their digital marketing strategies to remain competitive. The theory posits that organisations that face environmental changes, such as the ones happening in the digital marketing context, should be involved in learning to gain information and insights in order to be able to adapt and respond to the changing conditions (Lin and Lin, 2023).

Although the theory is relevant and useful to researchers studying digital marketing topics, considering the continually changing digital context, the application of the organisational learning theory in this area is limited. Only a few recent studies relied on this theory to examine discrete digital issues. For example, Zhang et al. (2020) used this theory to study the co-creation between customers and the firm through social media, showing positive effects on organisational performance, while Lin and Lin (2023) explored the firm's digital technology use, finding that using digital technology for both customer exploitation and exploration can enhance customisation and performance. Konig et al. (2019) also used the theory to investigate digital ventures' business models, demonstrating that these firms should first iterate their business activities on the market and, once they do that, search for investment.

2.1.4 The service–dominant logic (SDL)

The service–dominant logic (SDL) was introduced by Vargo and Lusch (2004; 2008) as a service-centred alternative to the traditional goods-dominant paradigm (i.e., economic exchange is understood under the production and distribution of goods that obtain value through design and manufacturing) rooted in economic philosophy and economic science (e.g., Smith, 1776). It explains value creation and economic exchange, emphasising service (e.g., process) as the foundation of all exchange (Vargo and Lusch, 2008). As Vargo and Akaka (2009, p.32) state: "SDL is based on the idea that service, the application of competences for the benefit of another, is the fundamental basis of value creation through exchange". Specifically, this paradigm views market exchange as the process where parties apply their specialised knowledge (e.g., resource integration) to receive mutual benefits (e.g., mutual service provision) within service ecosystems controlled through their institutional arrangements (e.g., rules, norms, beliefs) (**Figure 2.5**) (Vargo and Akaka, 2009; Vargo and Lusch, 2016).

Figure 2.5 The narrative and process of Service-Dominant Logic



Source: Adopted from Vargo and Lusch (2016, p.7)

The paradigm has followed an evolutionary path through the years (see **Table 2.2**). The initial work of Vargo and Lusch in 2004 was based on eight foundational premises centred on the notions of value co-creation, of service as the basis of all exchange, and of the significant role of operant resources (i.e., knowledge and skills) on value creation (Wilden et al., 2017). Academic discussion and criticism around the paradigm's initial foundational premises resulted in their revision and extension to ten premises in 2008, introducing the idea of resource integration and emphasising value as an idiosyncratic phenomenon (Wilden et al., 2017). The SDL's list of foundational premises was revised again in 2016, resulting in 11 foundational premises, adding the institutions' and institutional coordination's significance in service exchange ecosystems (Vargo and Lusch, 2016; Wilden et al., 2017).

Table 2.2: SDL foundational premise development

Foundational Premise	2004	2008	2016
FP1	The application of specialised skills and knowledge is the fundamental unit of exchange.	Service is the fundamental basis of exchange.	No Change (AXIOM STATUS)
FP2	Indirect exchange masks the fundamental unit of exchange.	Indirect exchange masks the fundamental basis of exchange.	No Change
FP3	Goods are distribution mechanisms for service provision.	No Change	No Change
FP4	Knowledge is the fundamental source of competitive advantage.	Operant resources are the fundamental source of competitive advantage.	Operant resources are the fundamental source of strategic benefit.
FP5	All economies are service economies.	No Change	No Change
FP6	The customer is always the co-producer.	The customer is always a co-creator of value.	Value is cocreated by multiple actors, always including the beneficiary (AXIOM STATUS)
FP7	The enterprise can only make value propositions.	The enterprise cannot deliver value, but only offer value propositions.	Actors cannot deliver value but can participate in the creation and offering of value propositions.
FP8	Service-centred view is customer oriented and relational.	A service-centred view is inherently customer oriented and relational.	A service-centred view is inherently beneficiary oriented and relational.
FP9		All social and economic actors are resource integrators.	No change (AXIOM STATUS)
FP10		Value is always uniquely and phenomenologically determined by the beneficiary.	No change (AXIOM STATUS)
FP11			Value co-creation is coordinated through actor-generated institutions and institutional arrangements. (AXIOM STATUS)

Source: Adopted from Vargo and Lusch (2016, p.8)

Notably, five of the premises in the updated view of SDL were elevated to axiom statuses, emphasising: (1) service as the fundamental basis of exchange, (2) interactional value co-creation by multiple actors (e.g., customers and other stakeholders), including the beneficiary, (3) all social and economic actors as resource integrators (e.g., networks of networks), (4) value as idiosyncratic, experiential, contextual and meaning-laden, and (5) the coordination of value co-creation through actor-generated institutions and institutional arrangements (Vargo and Lusch, 2017).

Marketing researchers (e.g., Brodie et al., 2011; Li et al., 2021) consider SDL a helpful paradigm in guiding firms' strategic decisions. This is because it depicts marketing relationships described by the interactive, co-creative experiences of customers with firms, service personnel and other customers, emphasising how customers as active participants and value evaluators instead of passive actors in the exchange process are bringing resources to their interaction with firms (Vargo

and Lusch, 2008; Vargo and Akaka, 2009). In fact, during recent years, the SDL has been considerably applied in strategic digital marketing research, especially in the areas of value co-creation in social media (e.g., Singaraju et al., 2016), digital customer brand engagement (e.g., Cheung et al., 2021; Hollebeek et al., 2019), and social commerce (Hu et al., 2019). For example, Brodie et al. (2011) recognised the paradigm's important role in explaining customer engagement by considering customers as value co-creators and the value creation to occur as an experience within networks. Similarly, Hollebeek et al. (2019) highlight the significance of customer resource integration, customer knowledge sharing and customer learning in the process of customer engagement, explaining that engaged customers tend to invest focal operant resources (e.g., cognitive, emotional, behavioural, and social knowledge and skills) in brand interactions providing service. They also stressed the powerful role of customers that does not allow firms to control their interactions' evaluation fully.

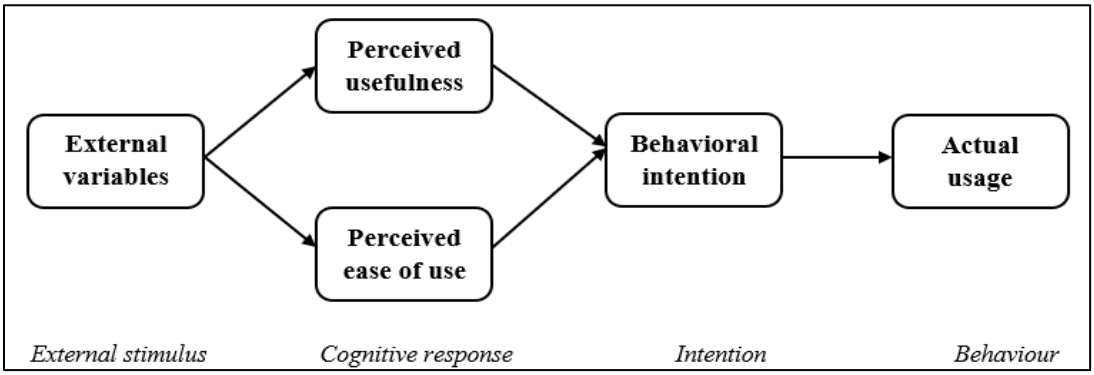
Cheung et al. (2021) refer to value co-creation with consumers on social media platforms and online contexts as a critical success factor for businesses today, suggesting that consumers should be considered a source of valuable information, ideas and knowledge that can benefit the firm. Thus, relying on the SDL, they discuss that firms should invest considerable efforts (e.g., involving consumers in social media brand communities) to facilitate positive customer-to-brand and customer-to-customer interactions online to collect useful consumer feedback and ideas for improving their offerings (Cheung et al., 2021). Hu et al. (2019) also explain that SDL provides a valuable perspective in examining the interactions between key actors and entities of social commerce (e.g., firm, customer, online platform) to co-create service value, conceptualising social commerce as a collection of services mediated by IT, that enables social exchanges among firms and consumers.

2.1.5 Technology acceptance model (TAM)

A fourth theoretical model quite relevant for research in digital and technological areas is the technology acceptance model (TAM), introduced by Fred D. Davis in 1989. TAM's central proposition is that a firm's intention to use and its actual usage of new technologies (e.g., IT, computers) is subject to those technologies' perceived usefulness and perceived ease of use (Davis, 1989). The model is an adaptation of the theory of reasoned action (e.g., behaviour intention is the

strongest predictor of volitional behaviour) (Fishbein and Ajzen, 1975). It aims to explain the association between external stimulus (e.g., objective system design characteristics, training, computer self-efficacy, user involvement in design), technologies' perceived usefulness and ease of use, intention to use, and the actual usage of technology in a workplace (**Figure 2.6**) (Davis and Venkatesh, 1996).

Figure 2.6: Technology acceptance model (TAM)



Source: Adopted from Davis and Venkatesh (1996, p.20)

Davis defines *perceived usefulness* as the degree to which an employee or firm believes that the use of a particular technological system can improve their job or firm performance, and measures it with the following items: "work more quickly", "job performance", "increase productivity", "effectiveness", "makes job easier" and "useful" (Davis, 1989, p.331). *Perceived ease of use,* on the other side, is described as the degree to which an employee or a firm considers the use of a particular technological system as easy, that is, free of effort, and it was measured with the following items: "easy to learn", "controllable", "clear and understandable", "flexible", "easy to become skilful" and "easy to use" (Davis, 1989, p.331). Thus, according to TAM, a firm is more likely to accept using digital technologies perceived high in usefulness and easier in their usage than other technologies.

Considered the most widely accepted model for studying the adoption of new technologies within different organisational levels, TAM has emerged as a leading, parsimonious IT-specific model with high predictive power, mainly because of its high understandability and simplicity (Chatterjee et al., 2021a; Chatterjee et al., 2021b; King and He, 2006). It has received substantial popularity among strategy researchers, and, although many years have passed since its introduction, it still represents a relevant and valuable theoretical model for recent digital marketing research. For

example, Chatterjee et al. (2021a) studied small and medium-sized enterprises' intention to use social media marketing based on the social media technology's perceived usefulness and perceived ease of use, along with its ability to provide a strategic competitive advantage for the firm.

TAM was also applied by Chatterjee et al. (2021b) to examine the organisational adoption of IT in the context of digital manufacturing and by Rodríguez-espíndola et al. (2022) to study managers' adoption of big data, artificial intelligence, cloud computing and blockchain. In another recent study, Magni et al. (2021) relied on the model to investigate employees' acceptance of wearable devices, explained as the small digital devices that enable data collection and transmission. Finally, a few studies have applied the TAM in consumer digital marketing research to explore consumer adoption and use of digital technologies. For instance, researchers relied on the model to examine consumer trust in chatbot technologies (e.g., Mostafa and Kasamani, 2022) and consumer adoption of e-commerce and online shopping (Zerbini et al., 2022).

2.1.6 Other theories in digital marketing research from a firm's perspective

Apart from the theories discussed earlier that were widely adopted in the digital marketing literature, some other theories and paradigms have also been identified in this field which, although applied to a lesser extent, appear prominent for digital marketing research from a firm's perspective. These include the institutional theory, the knowledge-based-view of the firm (KBV), and the information processing theory of the organisation (IPT).

The institutional theory (DiMaggio and Powell, 1983) posits that organisations ensure long-term survival by adapting their behaviour according to institutional pressure. In particular, the behaviour of organisations can be understood through two forms of institutional pressure, namely: (1) *coercive pressure*, that is the political influence applied to the organisation by the national and regional governments; and (2) *competitor pressure*, which explains the influence of the industry rules/values and key competitors (Braojos-Gomez et al., 2015). Some digital marketing researchers (e.g., Foltean et al., 2019; Kacker and Perrigot, 2016; Lin et al., 2021) relied on this theory mainly to explore the impact of institutional pressure on the firm's adoption and use of digital technologies and social media networks, while others (e.g., Braojos-Gomez et al., 2015) focused on more specific themes such as the influence of competitor pressure on the firm's development of specific digital marketing capabilities (e.g., social media capability).

The knowledge-based-view of the firm (KBV), influenced by the work of Brown and Duguid (1991), Kogut and Zander (1992) and Nonaka (1994), and officially introduced by Grant (1996), represents another theoretical extension of the RBV, which considers knowledge as the primary resource for firms to create value, heterogeneity, and competitive advantage (Felin and Hesterly, 2007). More specifically, it posits that the management of knowledge derived from customers and other individuals accounts for the most critical resource for a firm (e.g., viewed as an institution) to improve its performance outcomes (Grant, 1996). The KBV was applied in digital marketing research mainly to examine the effects of online knowledge acquisition through social media networks, online communities and digital technologies (e.g., big data) on the firm's competitive advantage and performance (e.g., Faraj et al., 2016; Gupta et al., 2021; Hossain et al., 2021; Nguyen et al., 2015).

The information processing theory (IPT), introduced by Tushman and Nadler (1978), perceives organisations as information processing entities where their ability to obtain, translate and exploit information relevant to their business (e.g., from customers and suppliers) affects their business performance (Chou and Shao, 2022). Specifically, IPT suggests that the effectiveness of an organisation in dynamically changing environments is higher when its information-processing capacity matches its external information-processing requirements and that internal task complexity and external uncertainty can generate information-processing needs (Jean and Kim, 2019; Tushman and Nadler, 1978). The theory has been applied to information systems and digital research to examine IT and other digital technology capabilities as information-processing capabilities (e.g., platform capability, website capability) that enable organisations to tackle and reduce external uncertainty to increase their competitiveness (Chou and Shao, 2022; Jean and Kim, 2019).

2.2 Theories and paradigms used in previous digital marketing research from the consumer's perspective

Three other commonly used theories employed by consumer researchers in the digital marketing field are discussed in the second part, namely: (1) the uses and gratifications theory (UGT) (Katz et al., 1973; 1974); (2) the social capital theory (SCT) (Coleman, 1988; Adler and Kwon, 2002); and (3) the social exchange theory (SET) (Blau, 1964; Homans, 1961; Richard and Emerson, 1976). **Table 2.3** presents these theoretical underpinnings, along with a summary of their key arguments, the contexts of their application, and indicative studies using them.

Table 2.3: Theories used in previous digital marketing research from the consumer's perspective

Paradigm/theory	Theoretical conceptualisation/ key arguments	Application in digital marketing context	Indicative studies
Uses and gratifications theory (Katz et al. 1973; 1974)	Consumers are actively and selectively involved in media usage to derive benefits by satisfying various needs/motives (e.g., cognitive, social integrative, personal integrative, hedonic).	• Consumer benefits from media usage (e.g., social media, online content, virtual communities) affecting online customer behaviour and engagement • Consumer participation, knowledge seeking and sharing behaviours in online communities • Consumer online shopping intentions • Social capital formation within social networking sites and behavioural intentions to their usage	Dolan et al., 2016; Hollebeek and Macky, 2019; Khan, 2017; Li et al., 2021; Phua et al., 2017; Verhagen et al., 2015 Fisher, 2019; Horng and Wu, 2020; Huang, 2016; Jin et al., 2015; Leung et al., 2022; Lu and Yang, 2014; Mashayekhi and Head, 2022; Wang et al., 2022; Yang and Li, 2016
Social capital theory (Coleman, 1988; Burt, 1997; Adler and Kwon, 2002)	Social structures, networks, and relationships among individuals or social units are perceived as valuable productive resources (e.g., trust, reciprocity, common norms, shared beliefs) resulting in various specific benefits.		
Social exchange theory (Homans, 1961; Blau, 1964; Richard and Emerson, 1976)	Social interactions represent exchanges, which when successful, result in mutual benefits for the parties involved. Actors tend to assess the relationships' related benefits and costs, and engage in those where the perceived benefits will exceed the perceived costs	• Customer-to-customer and firm-to-customer interactions online (e-WOM, knowledge contribution) • Online customer engagement • Consumer personal data disclosure online • Trust in influencers	Alvarez-Milan et al., 2018; Azer and Ranaweera, 2022; Jiang et al., 2022; Jin et al., 2015; Kao et al., 2020; Luo, 2002; Urbonavicius et al., 2021; Yuon and Kim, 2021; Wang and Liu, 2019

Source: Compiled by the author

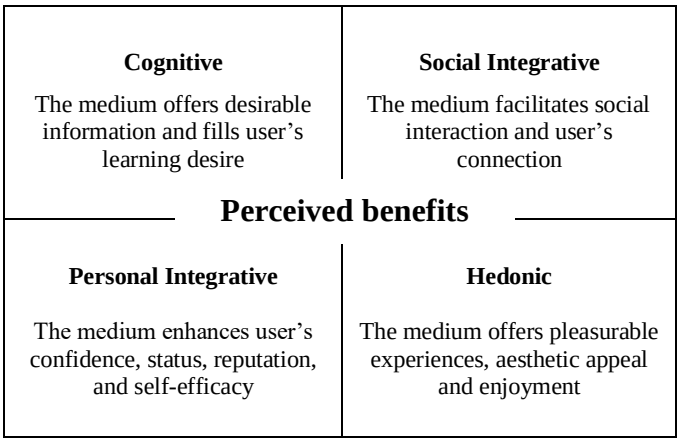
2.2.1 Uses and gratifications theory (UGT)

Consumer research in digital marketing has grown substantially since the beginning of the 21st century, with consumer researchers adopting numerous paradigms and theories for studying online consumer behaviour. One of the most popular theories adopted in the digital marketing consumer literature is the uses and gratifications theory (UGT), which explains why and how people are

actively involved in searching and using specific media in order to gratify their specific psychological and social needs (Katz et al., 1973; 1974). In particular, UGT provides an understanding of three areas: (1) how individuals use the media to fill their needs; (2) the motives behind the individual's selection of and interaction with particular media or channels over alternatives; and (3) the positive and negative outcomes of media use (Katz et al., 1973; Khan, 2017; Hollebeek and Macky, 2019).

The theory recognises four types of consumer benefits from media usage, namely: (1) *cognitive benefits*, referring to knowledge acquisition and a better understanding of situations; (2) *social integrative benefits*, such as improving social ties; (3) *personal integrative benefits*, including strengthening the individual's credibility and status; and (4) *hedonic or affective benefits*, such as reinforcing aesthetic/pleasurable experiences (**Figure 2.7**) (Katz et al., 1974; Nambisan and Baron, 2007). Equally, research that relied upon UGT discussed various motives for consumer media usage, including functional or informational motives (e.g., information seeking, facilitating purchase decision-making), hedonic or entertainment motives (e.g., desire for fun, relaxation), social interaction or authenticity motives (e.g., desire for social benefits such as belonging and socialising with others), and motives regarding reward or remuneration (e.g., economic incentives, job-related) (Dolan et al., 2016; Hollebeek and Macky, 2019; Verhagen et al., 2015).

Figure 2.7: UGT's perceived benefits from media usage



Source: Compiled from Katz et al. (1974) and Nambisan and Baron (2007)

Importantly, UGT was one of the first approaches to consider the consumers' active instead of passive role as recipients of media (Dolan et al., 2016; Ibáñez-Sánchez et al., 2022), and to stress the goal-directed user behaviour (towards achieving optimal gratification levels) while selecting

media channels (Katz et al., 1973; Rubin, 1986). Widely used in the media literature, the UGT has been well established in computer-mediated communication research including studies on virtual communities and blogs (e.g., McLean et al., 2022; Sundar and Limperos, 2013), social media research, especially since the introduction and rapid evolution of the social media platforms (e.g., Dolan et al., 2016; Osei-Frimpong et al., 2022; Phua et al., 2017), and research investigating digital technologies' (e.g., Augmented Reality, Artificial Intelligence, Virtual Reality) consumer adoption and usage (e.g., Ibanez-Sanchez et al., 2022; Lee and Cho, 2020).

Social media researchers who used this theory have mainly focused on understanding consumers' consumption behaviours on such platforms and their motives for using specific platforms (Phua et al., 2017; Osei-Frimpong et al., 2022). For example, Khan (2017) investigated consumers' motives for engaging in YouTube, while Li et al. (2021) explained that consumers' selection and use of social media channels are driven by utilitarian, hedonic and relational motivations. Similarly, Zolkepli and Kamarulzaman (2015) showed that personal motives (e.g., enjoyment, entertainment), social motives (e.g., social influence, interaction), and tension-release motives (e.g., belongingness, companionship, playfulness) drive social media adoption by internet users.

Based on this theory, Muntinga et al. (2011) grouped customers' brand-related social media behaviours into consuming (e.g., reading brand posts), contributing (e.g., providing online reviews) and creating (e.g., uploading brand-related content), while Dolan et al. (2016) developed an integrative model suggesting that informational, entertaining, remunerative and relational social media content facilitates co-creation, contribution and consumption social media engagement behaviours. Research on virtual customer environments based on UGT examined the consumers' different benefits/gratifications (e.g., utilitarian, hedonic social, personal) from interacting and engaging in virtual customer environments and their influence on future participation (e.g., Ibáñez-Sánchez et al., 2022; Nambisan and Baron, 2007; Verhagen et al., 2015). Hollebeek and Macky (2019) also found that consumers' decisions to interact with digital content marketing communications are driven by their functional, hedonic and authenticity-based motives.

2.2.2 Social capital theory (SCT)

Social capital theory (SCT) (Alder and Kwon, 2002; Burt, 1997; Coleman, 1988) is another widely used theory in consumer digital marketing research. It explains human social behaviour by

emphasising the valuable resources (e.g., actual and potential) embedded in networks of social relationships and social ties that can be mobilised for purposive actions (Fisher, 2019; Horng and Wu, 2020; Adler and Kwon, 2002). While there is no universal agreement on defining *social capital*, Fukuyama (2022, p.27) explains it as the "shared norms or values that promote social cooperation, instantiated in actual social relationships". Nahapiet and Ghoshal (1998, p.243) define it as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit". Finally, Alder and Kwon (2002, p.17) refer to it as "the goodwill that is engendered by the fabric of social relations and that can be mobilised to facilitate action", explaining that social capital resources involve trust, reciprocity, common norms and shared beliefs within social relations.

Social capital is less tangible than physical capital, occurring in people's relations in the form of skills and knowledge gained (Coleman, 1988; Mashayekhi and Head, 2022). Individuals tend to use their interpersonal relationships, networks and social structures (e.g., social capital) as productive resources to accomplish their goals such as to improve their self-esteem and life satisfaction and increase their civic participation (Coleman, 1988; Phua et al., 2017). In detail, Nahapiet and Ghoshal (1998) discuss three dimensions of social contexts: (1) the *structural dimension*, which relates to the properties of the social system and network of relationships (e.g., social network ties, centrality, interaction frequency, social interaction); (2) the *relational dimension*, explaining the assets built through relationships and the relations' influence towards behaviour (e.g., trust, norm of reciprocity, obligations); and (3) the *cognitive dimension*, referring to resources that offer shared interpretations and meaning between individuals (e.g., shared language and vision).

The theory also suggests that social capital is classified into two types, namely: (1) *bonding social capital*, which is more exclusive, strengthening identities and homogeneous groups, also known as "strong ties" between individuals that offer mutual strong emotional and substantive support; and (2) *bridging social capital*, which refers to more "weak ties" between individuals from diverse backgrounds that share useful resources (e.g., information) but little emotional support (Horng and Wu, 2020; Putnam 2000). Bonding social capital is usually derived from relationships with family and close friends, and it is usually more costly (e.g., requires more time and attention) than bridging

social capital, which can be maintained through many ties with different people (Horng and Wu, 2020).

Widely applied in the social, organisational and management literature, SCT has also been largely adopted by digital marketing researchers to investigate themes related to: (1) consumer engagement and knowledge-seeking and sharing behaviours within online communities (e.g., Fisher, 2019; Yang and Li, 2016; Wang et al., 2022), (2) consumers' social commerce and online shopping intentions including online impulse buying (e.g., Horng and Wu, 2020; Huang, 2016), (3) social capital formation within social networking sites and consumer behavioural intentions to use such sites (e.g., Mashayekhi and Head, 2022; Lu and Yang, 2014), and (4) online influencer marketing, highlighting that its effectiveness can be achieved through resources such as follower network and trust, personal positioning and communication content (e.g., Leung et al., 2022).

Notably, researchers in the digital marketing field consider social capital as a significant resource for social networking websites as it increases consumer exposure to others' opinions and online consumer influence (Huang, 2016). It enables individuals to access higher-quality and more relevant information, exert influence, and feel solidarity and unity within an online social network (Fisher, 2019). Thus, higher participation in social media, which means higher involvement in online interpersonal interactions, increases the individual's social capital (Jin et al., 2015). In the context of online communities, Yang and Li (2016) found that social network ties between consumers (e.g., structural dimension of social capital) increase reciprocity norm and shared language (e.g., relational and cognitive dimensions) that accordingly affect customer-generated content's popularity in co-creation online communities. Wang et al. (2022a) showed that knowledge-seeking behaviours of online community users positively impact their social capital, which also associates positively with their knowledge-contribution behaviours.

2.2.3 Social exchange theory (SET)

A third popularly used theory in consumer digital marketing research, and one which is frequently applied in combination with SCT (discussed in 2.2.2), is the social exchange theory (SET) rooted in the conceptual studies of Homans (1961), Blau (1964) and Emerson (1976). SET builds on the fundamental notion of reciprocity, explaining social behaviour during connectedness and interactions, mainly positing that social interactions represent exchanges, which, when successful,

can result in mutual benefits for the parties involved (Blau, 1964). The theory is guided by three main principles, namely: (1) rules and norms of exchange; (2) resources exchanged; and (3) relationships emerging from the exchange (Alvarez-Milán et al., 2018; Cropanzano and Mitchell, 2005).

SET applies microeconomics' principles to explain social behaviour, emphasising that social exchange involves the feelings of belonging, personal obligation, gratitude and trust and that actors tend to assess the relationships' related benefits and costs and engage in those from which they know they will receive positive equity, that is the perceived benefits exceed the perceived costs (Jin et al., 2015; Urbonavicius et al., 2021; Wang and Liu, 2019). This means that, when one party in the relationship invests resources, it is expected that the other party will behave accordingly and offer them rewards, with the resource exchange being equally strengthened by each's party behaviour (Blau, 1964; Yuon and Kim, 2021). Individuals involved in social exchanges receive benefits and rewards such as respect, reputation and other incentives that cannot be quantified in terms of physical mediums of exchange (Jin et al., 2015).

Notably, most studies in the management and marketing fields tend to rely on the theory's fundamental notion of reciprocity (Cropanzano and Mitchell, 2005), which, according to Gouldner (1960), proposes that social exchange occurs by reward and that the value of the reward defines the likability of the exchange. Thus, based on this theory, relationships between individuals develop over time into trusting, loyal and mutual commitments (Cropanzano and Mitchell, 2005), encouraging research on consumer behaviour and interactions within digital settings.

Considering the belief that the roots of marketing are inherently found in SET (Urbonavicius et al., 2021), SET was substantially applied to the digital marketing literature to examine online customer engagement focusing on the fact that it resonates well with its interactive nature (e.g., Alvarez-Milán et al., 2018; Hollebeek, 2016). The theory was also used to investigate consumer willingness to disclose personal data in online shopping and micro-blogging (e.g., Liu et al., 2016; Urbonavicius et al., 2021) as well as to study consumer trust and loyalty towards online influencers based on their expertise, authenticity, physical attractiveness and homophily (e.g., Yuon and Kim, 2021).

Researchers also relied upon this theory to investigate customer-to-customer and firm-to-customer interactions online, including e-WOM motivations in online social networks and consumers'

knowledge contribution to online social communities (e.g., Azer and Ranaweera, 2022; Jin et al., 2015; Kao et al., 2020). In particular, social capital was strongly related to consumer behaviour in online and virtual communities, with consumers sharing knowledge with an expectation to gain in return new knowledge or attention (e.g., Jin et al., 2015), while different social and task communication styles in online communities tend to signal different benefits to individuals (Kao et al., 2020).

2.2.4 Other theories in digital marketing research from a consumer's perspective

Theories in consumer behaviour research regarding digital marketing include the stimulus-organism-response model (SOR) and the elaboration likelihood model (ELM). The stimulus-organism-response model (SOR) (Mehrabian and Russell, 1974) is a theoretical model mainly applied in consumer behaviour research to explain external environmental influences on consumers (e.g., advertising, price, product design, social pressure, economic conditions) (stimulus), the consumers' internal processes responding to such influences (e.g., emotional and cognitive responses) (organism), and the resulting consumer behaviours (e.g., intention to act, actual choices) (response) (Bagozzi, 1983; Kim and Johnson, 2016). The theory is considered quite useful for digital marketing research, and it has so far been applied to studies investigating: (1) consumer attitudes and behaviour in online shopping contexts such as retail websites and online and social media platforms (e.g., Huang, 2016; Leong et al., 2018; Peng and Kim, 2014), (2) consumers' intention to engage in eWOM (e.g., Ha and Jim, 2012; Kim and Johnson, 2016), and (3) consumers' online privacy concerns and trust (e.g., Bleier and Eisenbeiss, 2015).

Lastly, the elaboration likelihood model (ELM) (Cacioppo and Petty, 1984) was another theoretical framework identified in the digital marketing literature examining online consumer behaviour. Specifically, the model posits that individuals process product-relevant information based on their motivation and ability to process information and that their persuasion is induced either through a central route (e.g., based on the strength of arguments in the message) or through a peripheral route (e.g., based on cues like the attractiveness of the message source) (Cyr et al., 2018; Y. Wang et al., 2022). According to their "elaboration likelihood" (high versus low states), consumers are processing messages motivated by the messages' argument quality or peripheral cues (Cyr et al., 2018). Digital marketing researchers applied the ELM to investigate themes

related to: (1) web personalisation and consumer online persuasion and shopping (e.g., Cyr et al., 2018; Hewei, 2022; Ho and Bodoff, 2014), (2) the consumer responses to online advertising and social media marketing communications (e.g., Chang et al., 2015; Geng et al., 2021; Koh and Cui, 2022), and (3) the consumers' attitudes towards online customer reviews (e.g., Kim et al., 2023; Y. Wang et al., 2022).

2.3 Concluding remarks regarding theories and paradigms in digital marketing research

The review of the theories and paradigms used to support studies in the digital marketing field leads to several observations. *First*, the most applied theories in the digital marketing literature from a firm's perspective appear consistent with those employed in the traditional marketing literature. This mainly demonstrates the significance of the RBV and DCs theories for examining the effects of resources and capabilities on a firm's marketing strategy and performance in both offline and online contexts. Particularly, the DCs theory that was initially developed in the strategic management area seems to be significantly relevant for supporting research in the newly developed digital marketing field, considering its dynamic nature (Teece, 2007). SDL and TAM are also among the most prominent theories in the marketing literature in relation to both offline and digital settings. The theory of organisational learning was employed to a lesser extent in the digital context. Importantly, research into the adoption of these theories in digital marketing from a firm's point of view has mainly increased in recent years (e.g., Li et al., 2022; Wang, 2020) as scholars started paying attention to more strategic digital marketing issues.

A *second* observation is that while recent times have observed an increase in the adoption of theoretical frameworks for research in digital marketing, a significant number of the reviewed studies (see Chapter three) did not rely upon any theoretical frameworks, and, consequently, much of the research in this area remains atheoretical (e.g., Boudreau et al., 2022; Kireyev et al., 2017; Ravula et al., 2020). In fact, studies examining online consumer behaviour issues appear to rely on theoretical frameworks more extensively than studies investigating digital marketing themes from the firm's side. This is perhaps because most of these theories (e.g., SCT, SET, ELM) can more easily be transferred to the digital marketing field, while theories have also already been developed and oriented towards this context (e.g., UGT). In contrast, strategic researchers attempted to employ theories and paradigms after the field matured. At the same time, a theory has

not yet been developed explicitly for research in the digital marketing field. Hence, researchers tend to transfer theories from the strategic marketing and management fields. Consequently, less justifiable theoretical frameworks are employed to conceptualise the current digital marketing studies, while the provided empirical evidence might lack theoretical robustness and the ability to appropriately guide digital marketing practice.

Third, it was observed that some studies in the digital marketing field tend to adopt multiple theories together in the same study. For example, much of the recent research in digital marketing (e.g., Marchand et al., 2021; Trainor et al., 2011; Wang and Kim, 2017) combined the RBV paradigm with the DCs theory to investigate how firms can develop valuable, rare, inimitable, and non-substitutable resources and appropriate dynamic capabilities to improve their digital marketing practices and achieve a competitive advantage online (Gregory et al., 2019). Similarly, much consumer behaviour research (e.g., Jin et al., 2015; Prom Tep et al., 2022; Yang and Li, 2016) combined SET with SCT mainly to examine customer-to-customer and firm-to-customer interactions online and how customers can engage with firms in this digital context. Notably, the adoption of multiple theoretical perspectives can enhance our understanding of a study's digital marketing topic and increase its conceptual framework's theoretical validity and robustness.

A *final* observation is that none of the theories reviewed in the strategic area can fully explain the drivers and outcomes of a firm's digital marketing strategies, and thus, the need for new theory development in the field is evident. The reason is that most reviewed theories tend to emphasise specific elements of the digital marketing strategy (e.g., antecedents or outcomes) rather than theoretically support holistic digital marketing themes. This might explain why many researchers frequently combine two or more theories in the same study, as discussed above. To the researcher's knowledge, no theory has been specifically developed yet to explain how firms can adopt and successfully implement different digital marketing strategic approaches and their effects on their competitive advantage and performance. For these reasons, DCs theory and organisational learning theory were chosen for this doctoral thesis, which together can explain this study's conceptual model more holistically, including the antecedents, strategic approaches, competitive advantage and performance outcomes.

2.4 Summary

This chapter described and assessed the main theories and paradigms used to support different themes within digital marketing literature. First, it presented the theories identified in digital marketing research from a firm's point of view (resource-based view, dynamic capabilities theory, service-dominant logic, technology acceptance model, organisational learning theory) along with several other theories (institutional theory, knowledge-based-view of the firm, information processing theory) that were implemented sporadically in this line of research. Theories such as the resource-based view of the firm and the dynamic capabilities theory represent the most widely employed theories in the field and are the most prominent ones to investigate how firms can develop and use the appropriate resources and dynamic capabilities to improve their digital marketing strategies and achieve a competitive advantage in this online era. The service-dominant logic emphasising that firms should perceive online customers as a source of valuable information, ideas and knowledge, and the technology acceptance model explaining firms' adoption of new digital technologies depending on their perceived usefulness and perceived ease of use, were employed at a lesser extent. Similarly, few studies rely on the organisational learning theory, to examine strategic issues in digital marketing. Then, the chapter presented some of the most popularly used theories in consumer research in the digital marketing field (uses and gratifications theory, social capital theory, social exchange theory), along with some other theories (stimulus-organism-response model, elaboration likelihood model) that were employed at a lesser degree in this field. The chapter ended by offering a brief critical assessment of the discussed theories and paradigms underpinning digital marketing research.

CHAPTER THREE

Research streams of digital marketing literature

3.0 Introduction

This chapter presents a review of the available published academic literature in digital marketing. It reviews and investigates literature published in high-ranked marketing and business-related academic journals consisting of studies of a conceptual or empirical nature, with a focus on the business-to-consumer market and particularly on the retail sector, in keeping with the current thesis's context. The aim is to: (1) to identify and review the key research streams and sub-streams in the digital marketing literature by how this evolved over time; and (2) to critically evaluate the extant literature and identify possible research gaps that need attention. The chapter starts by providing key definitions related to digital marketing. Next, it examines the evolution of the digital marketing literature through six main research streams, focusing on: (1) macro-environmental factors; (2) micro-environmental aspects; (3) organisational aspects; (4) managerial characteristics; (5) digital marketing strategy; and (6) digital customer behaviour.

3.1 Digital marketing definitions

Although digital marketing is a relatively recent field of research, the extant literature has long been studying the terms of interactive marketing, internet marketing, online marketing, e-marketing, or web marketing, which arguably refer to the same area (Varadarajan and Yadav, 2009). **Table 3.1** presents these key definitions of digital marketing identified in the literature since the inception of this field. Early studies described digital marketing as the process of leveraging the capabilities of new interactive media to develop new kinds of interaction among marketers and consumers, and as the integration of interactive media with other marketing elements (Parsons et al., 1998). They emphasised the effective connection and coordination among marketing, information technologies, and interactive technologies to initiate and sustain a dialogue between the firm and its customers (Coviello et al., 2001; Lynn et al., 2002). However, with the turn of the century, the emphasis was on the use of internet technologies and digital systems to link the company with its various stakeholders (e.g., customers, suppliers, business partners), emphasising practices such as internet advertising and sponsorship, marketing of websites and extranets, e-mail marketing, and online promotions (Barwise and Farley, 2005; Wu et al., 2003). Such practices aim to provide customer value through creating, communicating and delivering the firm's market offering (Trainor et al., 2011; Varadarajan and Yadav, 2009). More recent research offered definitions focusing on the use of digital technologies, including digital and mobile channels, e-

commerce and social media to achieve corporate goals, such as customer acquisition and retention (Kannan and Li, 2017; Pandey et al., 2020).

Table 3.1: Definitions of digital marketing

Study	Term	Definition
Parsons et al., 1998, p. 32	Digital marketing	"By digital marketing, we mean two activities: first, leveraging the unique capabilities of new interactive media to create new forms of interactions between consumers and marketers; and second, integrating interactive media with the other elements of the marketing mix."
Coviello et al., 2001, p. 26	E-marketing	"Using the internet and other interactive technologies to create and mediate dialogue between the firm and identified customers."
Wu et al., 2003, p. 425-426	E-business	"The use of Internet technologies to link customers, suppliers, business partners, and employees using: (a) e-commerce websites that offer sales transactions, (b) customer-service websites, (c) intranets and enterprise information portals, (d) extranets and supply chains, and (e) IP electronic data interchange"
Barwise and Farley, 2005, p. 68	Interactive marketing	"Interactive Marketing includes Internet advertising and sponsorship, marketing Web sites and extranets, e-mail marketing, online promotions and incentives, and new media."
Varadarajan and Yadav, 2009, p. 12	Interactive marketing	"Interactive Marketing refers to the use of an information infrastructure network and devices connected to the network for mediating interactions between an organisation and its customers in the context of activities/processes employed by the organisation for creating, communicating, and delivering products that offer value to customers in an exchange."
Trainor et al., 2011, p. 162	E-marketing	"The assimilation of IT and marketing that encompasses a broad set of interaction-enabling technologies including customer relationship management software, sales force automation, e-commerce websites, and extranets."
Kannan and Li, 2017, p.23	Digital marketing	"An adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders."
Vieira et al., 2019, p. 1093	Digital inbound marketing	"Weekly investment in inbound marketing operationalised via a third-party agency. This means that the firm pays for digital inbound marketing."
Pandey et al., 2020, p.1192	Digital marketing	"The use of internet technologies or activities, which includes internet marketing, digital channels, e-commerce, social media marketing and mobile marketing to achieve the company's objective"

Source: Compiled by the author

3.2 The evolutionary path of digital marketing research streams

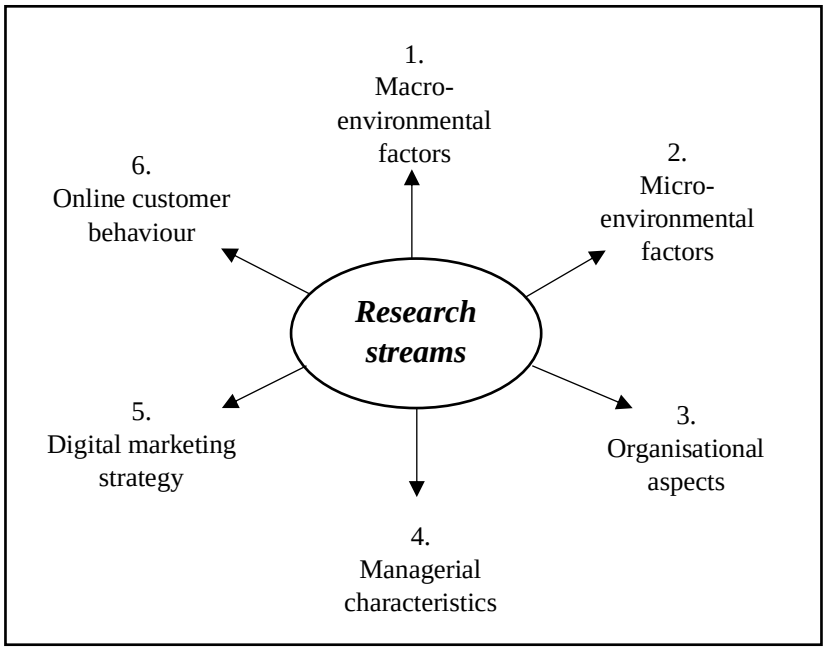
While the first sign of the internet's appearance came in 1969 with the development of the ARPANet, corporate and academic interest in digital marketing began to emerge only after the beginning of the 1990s with the creation of the World Wide Web and the placement of the first clickable banner ad on the Global Network Navigator. Thus, the first writings on digital marketing appeared during that decade, discussing the World Wide Web's and internet technology's potential

and opportunities for marketing and retail shopping (e.g., Hoffman and Novak, 1996; McKenna, 1991; Mehta and Sivadas, 1995).

The launch of the first search engines and virtual communities and the creation of Web 2.0 in the late 1990s made firms take digital marketing more seriously, giving rise to the related literature. Particularly, since the beginning of the 21st century when the first influential books (e.g., Wikinomics, The Future of Competition, The Wisdom of Crowds) and articles (e.g., in Advertising Age and Wired) were published focusing on this new digital phenomenon, the topic of digital marketing has exponentially evolved according to the developments in the field including the emergence of the first user reviews platforms and social media networks, and the corporate usage of new digital technologies for marketing purposes.

Since this thesis focuses on the business-to-customers (B2C) market and particularly on the retail sector, the literature review is limited to research on these areas. This can be classified into six streams, namely: (1) macro-environmental factors; (2) micro-environmental aspects; (3) organisational aspects; (4) managerial characteristics; (5) digital marketing strategy; and (6) digital customer behaviour (see **Figure 3.1**). **Table 3.2** provides a summary of the themes covered in each research stream, while a more detailed analysis is provided in the following sections.

Figure 3.1 The research streams in digital marketing research



Source: Compiled by the author

Table 3.2: Key research streams and themes covered in digital marketing research

Research streams	Sub streams	Themes covered
1. Macro-environmental factors	a) Regulatory	• Digital regulations, directives and policies (e.g., privacy and security on the web, cookie notices about data collection and tracking customer behaviour, anonymised, fragmented data, effects on digital marketing effectiveness)
	b) Technological/ Digital	• Internet-related infrastructure and digital technologies, developments and advances (e.g., the role of digital technologies in digital marketing strategies, AR and VR in online retailing and online shopping, chatbots, virtual assistants, robots and machine learning, AI product design, effects on firm performance)
	c) Sociocultural	• The influence of culture (e.g., Hofstede's cultural dimensions, rule of law, cultural performance orientation, religiosity) on consumer online behaviours (e.g., social media use, clicking and sharing behaviours, online information searching, consumer value on websites, AI use in marketing)
2. Micro-environmental aspects	a) Competition	• Competition's structure online (e.g., bricks and clicks, online retailers, intensifying competition, new internet competitors • The role of competition in digital marketing practices (e.g., development of digital marketing capabilities, digital marketing strategy adoption, online reputation management) • Online and offline retailing competition (e.g., competitive pricing policies, price competition on the internet)
	b) Online intermediaries	• Search engines (e.g., keyword investment, keyword' choice and bidding, brand positioning via search engines, consumer click behaviour at search engines, organic vs paid search, impact on firm performance) • Digital platforms (e.g., brand aggregation platforms, brand own platforms, consumer crowdsourcing and crowdsending, managing customer interactions and customer satisfaction) • Social media networks (e.g., crowdsourcing product ideas, firm-sponsored online brand communities and their impact on sales, brand loyalty, trust, and new product success)
3. Organisational aspects	a) Firm's characteristics	• Firm size • Firm age • Firm orientations (e.g., market orientation, innovation orientation, entrepreneurial orientation)
	b) Resources	• E-commerce-related resources (e.g., human, business, financial, digital & technological resources for e-commerce including e-commerce & mobile technology, wireless communication, big data, analytics, cloud computing) • Social media-related resources (e.g., social media technology use, customer centric management systems, social CRM technology, social media budget, online social networks)
	c) Digital-specific capabilities	• Digital marketing-related capabilities (e.g., e-marketing, internet marketing, digital marketing capabilities) • E-commerce-related capabilities (e.g., e-commerce, social commerce IT, e-commerce marketing capabilities) • Social media-related capabilities (e.g., social media capability, social CRM capability) • Digital technology-related capabilities (e.g., platform capability, web capability)
	d) Competitive advantage	• Characteristics of competitive advantage in the digital era
4. Managerial characteristics		• Managers' attitudes towards innovation and digital technologies' adoption • Managers' perceptions on digital marketing's perceived ease of use, perceived usefulness, and success • Management's support and strategic leadership

5. Digital marketing strategy	a) Strategic firm orientations	• Impact of digital technologies on explorative, exploitative, and ambidextrous firm activities • Explorative and exploitative digital capabilities
	b) Product/service decisions online	• Product customisation in the web (e.g., mass customisation, personalisation, collaborative product innovation) • Online recommendation systems (e.g., matching customer product needs, after-sales satisfaction, Q&A technology of e-commerce for product ratings, perceived usefulness) • Digital products/services (e.g., bundling on the internet, product digitisability, free samples)
	c) Online pricing decisions	• Price dispersion in internet retailing contexts (e.g., price differences between online retailers, price dispersion online vs offline, price positioning) • Online pricing strategies and dynamic pricing on the internet (e.g., consumer price expectations, charging online content, price partitioning, checkout strategies, self-matching policy, pricing mechanisms)
	d) Online channel decisions	• Multichannel online marketing environment and multichannel customer management (e.g., omni-channel retailing, channel' choice, value of multichannel customers) • Location-based mobile targeting (e.g., targeting by time and location, effects in sales)
	e) Online marketing communication decisions	• Digital marketing communications (e.g., online advertising, social media advertising, e-mail communication) • Online advertising (e.g., display advertising, clickthrough rates, effects on purchase conversion) • Content marketing (e.g., effects on customers' brand trust, attitudes and purchase intentions) • Influencer marketing (e.g., types, influencer marketing effectiveness, effects on consumer attitudes and engagement)
6. Digital customer behaviour	a) Online browsing and buying behaviours	• Information acquisition online, online search and decision-making (e.g., interactive online tools, loading time, lower information search costs) • Motivations for consumer engagement in online shopping (e.g., e-commerce, social commerce, f-commerce) • Online purchase behaviour, intentions, drivers
	b) User generated content (UGC)	• Online customer reviews for products/services (e.g., motivations for posting, negative reviews, pseudo reviews, two-sided reviews, effects on brand attitudes and purchase intentions) • Electronic Word-Of-Mouth (e.g., negative vs positive e-WOM, motivations, impact on sales) • Online consumer-to-consumer interactions (e.g., online communities, motivations for knowledge contribution) • Brand-related UGC effects (e.g., engagement, sales, customer acquisition and retention, better product development)
	c) Online customer trust and risk perceptions	• Customer trust and risk perceptions in online shopping (e.g., risk perceptions while buying online, privacy conscious consumers, determinants of trust in online sellers/shopping, privacy and security concerns, effects on attitude towards online shopping and purchase intentions) • Consumer trust in user-generated brand recommendations
	d) Customer engagement	• Customer engagement in social media/online channels (e.g., drivers/motivations, outcomes/effects) • Different forms/types of online customer engagement (e.g., for fun practices, learning practices, customer feedback, work for a brand, talk about a brand, online customer engagement behaviours) • Different types of measurement (e.g., impressions, reach, views, likes, shares, testimonials, WOM)

Source: Compiled by the author

3.2.1 Macro-environmental factors

Various factors of the macro-environment tend to influence the firms' digital marketing strategies and activities and these were discussed in the literature. Today's stronger online regulations, higher consumer privacy concerns, and continuous advances in digital technologies can play an important role in a firm's digital marketing effectiveness. Thus, retailers must be intensely vigilant and continually scan their external environment to detect changes, new opportunities and challenges that can impact their digital marketing activities.

3.2.1.1 Regulatory environment

The development and implementation of digital marketing strategies requires constant monitoring of the numerous, frequently updated and amended digital-related directives (i.e., they provide guidance and requirements around an organisation's digital marketing activities) and regulations (i.e., they provide mandatory rules regarding digital marketing) introduced by governments worldwide (European Union, 2022; Goldfarb and Tucker, 2011). Companies shall adhere to and comply with such rules, and those which fail to do so are subject to sanctions and financial penalties. Recent research in digital marketing (e.g., Cooper et al., 2022; Prastyanti and Purnomo, 2019) noted many regulations retailers' online marketing strategies shall comply with, such as the General Data Protection Regulation (GDPR) or Data Protection Act 2018 (e.g., regarding consumer data protection and privacy), the national laws implemented based on the e-privacy directive (e.g., regarding cookies in online targeted advertising), the e-commerce directive (e.g., regarding commercial communications), the Digital Market Act and Digital Services Act (DMA, DSA) (e.g., regarding online intermediaries), or other specific regulations concerning particular digital marketing activities such as online advertising, influencer and social media marketing (e.g., competitions and sweepstakes).

The evolution in digital-related regulations and the consumers' growing privacy consciousness indicate that firms will continue to face significant restrictions on their digital marketing strategies and practices (Quach et al., 2022). For example, online privacy regulations like the Privacy Directive were found to reduce digital marketing effectiveness in terms of display advertising in the study by Goldfarb and Tucker (2011). Moreover, the fact that many internet consumers are now using tracker-blocking technologies, are selective about data sharing online, and are regularly deleting cookies from their devices was found to cause errors in measuring the number of unique

visitors to a firm's website and the reach and frequency of its digital ad campaigns (Kakatkar and Spann, 2019; Wind et al., 2013). Thus, retailers today are obligated to disclose which consumer data they are collecting and storing by using cookie notices and allow consumers to agree or disagree with their browsing behaviour being tracked (Schmidt et al., 2020). This accordingly complicates digital marketing strategy implementation, considering the significant loss of consumer insights and that retailers are forced to deal with anonymised and fragmented consumer data (Kakatkar and Spann, 2019; Schmidt et al., 2020).

3.2.1.2 Technological-digital environment

The level of internet infrastructure and speed were found to be crucial factors in a retailer's technological environment determining its ability to use digital technologies for marketing purposes (Katsikeas et al., 2020; Patil et al., 2023). Notably, the current technological environment of firms is characterised by the emergence of fast-advancing digital technologies, which were even more accelerated by Covid-19 (Wu et al., 2022). Online technologies, including Augmented Reality (AR), Virtual Reality (VR), virtual assistants, chatbots and robots **(Table 3.3)**, are revolutionising retailers' marketing strategies by increasing effectiveness, augmenting and amplifying human intelligence, considerably changing customer experience, and enabling the efficient processing of large-scale and unstructured data (Hoyer et al., 2020; Mishra et al., 2022).

Table 3.3: Digital technologies' definitions

Technology	Definition
Augmented Reality (AR)	The technology that uses digital visual elements to enable users to view virtual objects in live physical environments and visualise their fit into their real world.
Virtual Reality (VR)	The technology that enables users to be immersed in an interactive, simulated 3D digital environment to interact with a virtual surrounding that approximates reality.
Virtual assistants	Computer programs which can understand and perform user queries and tasks. Examples include Siri, Cortana and Alexa.
Robots	Intelligent, physically embodied Artificial Intelligence machines that are used by firms to perform tasks autonomously.
Chatbots	Virtual assistant software programs using audio or text to create conversations with online users

Source: Hilken et al., 2022; Hoyer et al., 2020; Tan et al., 2022

Developments in digital displays, motion sensors, computing and computer vision brought about the rapid growth of AR and VR applications in marketing (e.g., head-mounted displays, haptic devices, body-tracking sensors, motion-tracked controllers, 360-treadmills), shaping the relationships between customers and firms, and creating enormous market value in the retail

industry (Wedel et al., 2020; Xi and Hamari, 2021). For example, automotive retailers (e.g., Audi) tend to use 360-VR in their digital marketing strategies to enable customers to visualise car designs or test-drive cars from home (Cowan et al., 2021). Increasing research interest has been given to the VR technology adoption in the retail sector (e.g., Han et al., 2020; Wedel et al., 2020), to the facilitating role of VR on the customer journey stages of pre-purchase, purchase and post-purchase (e.g., Hoyer et al., 2020; Luangrath et al., 2022), to the role of VR in digital marketing communications (e.g., Wu et al., 2022), and to effectiveness and assessment of VR (e.g., Xi and Hamari, 2021).

Moreover, a growing amount of research in recent years (e.g., Gatter et al., 2022; Tan et al., 2022) has empirically confirmed the role of AR as a powerful digital marketing tool which can be applied in retailers' digital marketing strategies to entertain and educate customers, facilitate customer evaluations of product fit, increase sales, and enhance customer post-purchase consumption experience. The combination of digital technologies (e.g., AR with VR) in online retail marketing strategies was also found to improve purchase intentions and brand attitudes (Hilken et al., 2022), while other researchers (e.g., Ngai and Wu, 2022; Volkmar et al., 2022) revealed the benefits for retailers to use machine-learning technologies in their marketing strategies, which include process automation, service' improvements, market forecasting, better decision-making, higher-level customer service, and simplified data analysis.

Technological advances also led to the popularity of AI-powered technologies (e.g., service robots, chatbots) on retailers' websites, social media pages and instant messaging apps, enabling the development of two-way, dialogic interactions with customers (Jiang et al., 2022). AI use in digital marketing practices was found to improve net profitability, net operating efficiency and return on marketing-related investment, and to lower ad spending (Mishra et al., 2022), while research on AI chatbots (e.g., Chung et al., 2020; Jiang et al., 2022; Mostafa and Kasamani, 2022) confirmed the positive effects of chatbot services on online customer engagement and purchase intention. However, despite the numerous advantages brought by all these new digital technologies, concerns have been raised regarding violating data privacy, with many retailers still hesitating to adopt such immersive technologies, perhaps due to the high costs involved, the lack of expertise and inadequate technological infrastructure or the technologies' high complexity (Ibáñez-Sánchez et al., 2022; Mishra et al., 2022; Volkmar et al., 2022).

3.2.1.3 Sociocultural environment

Digital technologies have dramatically eliminated geographical barriers, with firms being able to engage and sell to customers located worldwide. However, consumers in different countries and places exert different consumer behaviour on the internet (e.g., information search, participation in online forums, usage display patterns on search engines, visiting and posting on consumer websites) and react differently to digital marketing practices due to specific cultural characteristics and values (Thompson and Brouthers, 2021; Vuylsteke et al., 2010). Thus, firms should also consider the sociocultural environment around the markets where they implement their digital marketing practices, as the effectiveness of these practices also relies on consumers' cultural sensitivities, values and norms, literacy levels, and attitudes towards the new technologies and digitalisation (Katsikeas et al., 2020; Patil et al., 2023).

A number of researchers (e.g., Krishen et al., 2021; Thompson and Brouthers, 2021; Zerbini et al., 2022) relied on Hofstede's cultural dimensions, taking a cross-cultural research perspective to examine the effects of individualism, power distance, uncertainty avoidance, masculinity and long-term orientation on different digital customer behaviours such as customer engagement (e.g., sharing, clicking), online purchase intention, and virtual satisfaction with social media networks. For example, it was found that collectivistic societies are associated with more extensive use of email communication, internet search, social media activities, and higher levels of trust and reliance on user-generated product information during online shopping (Jiao et al., 2018; Leonhardt et al., 2020), whereas more individualistic societies value more privacy/security protection and customisation website factors (Steenkamp and Geyskens, 2006). Other studies shed light on the cultural performance orientation (i.e., the degree to which societies pressure their members for higher performance, excellence and work achievement), finding that it encourages consumer use of AI products (Frank et al., 2021), as well as on the positive influence of religiosity on consumer perceptions and evaluations of firms using AI in marketing (Leonhardt et al., 2020).

3.2.2 Micro-environmental aspects

Another stream of research referred to the various micro-environmental aspects that influence the effectiveness of firms' digital marketing activities, such as a firm's competitors and intermediaries, which in digital settings appear to exert different characteristics and forms compared to traditional

settings. Digital marketing research (e.g., Ahani et al., 2017; Grandon and Pearson, 2004; Van Huy et al., 2012) has shown that both competition and intermediaries are key determinants of e-commerce adoption and digital marketing implementation and success.

3.2.2.1 Competition

The structure and rules of the competition are changing due to digitisation and advances in digital technologies that opened the way for many new, fast-moving internet competitors, diminished entry barriers, and resulted in rapidly-evolving competitive situations that require new capabilities to accommodate them (Hirt and Willmott, 2014). The easy way of online shopping and the multiple opportunities provided by digital technologies enable customers to compare prices and switch among digital retailers effortless, thus causing new pressure and competitive wars regarding prices and margins (Fedoseeva et al., 2017; Grewal et al., 2003; Hirt and Willmott, 2014). In addition, lower costs in search and distribution appear to give online retailers a cost advantage over offline retailers, while the competitive intensity between online and offline retailers is lower when there is a clear advantage on one channel over the other (Ratchford, Soysal, Zentner, et al., 2022).

The dynamics of competition online are, in fact, very different from those in the offline context, considering that retailers today need to compete not only with their offline rivals but also with smaller retailers emerging as powerful competitors due to digital technologies and different types of online providers (e.g., Amazon, eBay) that already have high levels of consumer trust (Hirt and Willmott, 2014; Fedoseeva et al., 2017). Competing in online markets where the retailers' location is irrelevant, and consumers have complete information on prices and product offerings, retailers face higher hurdles in making a profit and surpassing the competition (Fedoseeva et al., 2017). Hence, they are adapting their strategies to target customers and differentiate themselves from the competition either through price (e.g., segmentation, dynamic and smart pricing, product and price versioning or price bundling) or non-price (e.g., enhancing the customer services' portfolio, improving customer satisfaction and loyalty considerations) (Fedoseeva et al., 2017).

The role of competition in firms' digital marketing practices has been widely studied within the digital marketing literature. For example, researchers revealed the strong effects of social competitor pressure, that is, the effect exerted on the company by industrial rules, values and key competitors to develop firm capabilities related to digital marketing (Braojos-Gomez et al., 2015) or to adopt a social CRM strategy (e.g., Ahani et al., 2017), and presented the moderating

influences of competitive intensity on the association between digital marketing resources and capabilities and firm performance (Jean and Kim, 2020; Trainor et al., 2011). Competition was also found to play a key role in the firm's management of its online reputation, with firms being more likely to respond to consumer reviews in conditions of high competitive intensity, as in such conditions they tend to invest more in IT to engage customers on online platforms (Kumar et al., 2018; Yang et al., 2021).

3.2.2.2 Online intermediaries

In a digital context, firms rely on various online intermediaries such as search engines, digital platforms and social media networks to market their offerings and improve their accessibility for customers. Such intermediaries support firms by promoting, selling, and distributing their various products and services to online customers.

3.2.2.2.1 Search engines

Search engines like Google, Microsoft Live Search, Bing, Baidu, Yandex and Yahoo represent powerful agents of digital transformation, playing a critical strategic role in connecting online consumers with retailers, with firms that do not use search engines suffering from a considerable disadvantage (Erdmann et al., 2022; Klapdor et al., 2014; Rangaswamy et al., 2009). Specifically, customers use online search engines to search and find information, navigate repositories, learn new knowledge, compare retailers and make purchases, whereas retailers depend on search engines to be "findable" by customers (and partners), to reach prospective customers, increase customer website visits, and be more responsive (Ma et al., 2012; Rangaswamy et al., 2009; Shi and Trusov, 2021). Search engine optimisation (SEO) increases search engine traffic to the firm's website by improving its ranking positions in natural listings, such as Google search results (Chaffey and Ellis-Chadwick, 2022; Kingsnorth, 2019). This is achieved by complementing the firm's own digital content with keywords that consumers frequently use when searching for information online (Bird, 2007; Gustavsen, 2022). The more strategic the keyword' choice, the higher the possibility of achieving important rankings (AMA, 2022b).

Ma et al. (2012) explain that search engines are crucial for online information diffusion, determining content visibility to web users and providing organic results (i.e., generated by proprietary algorithms ranking sites based on various elements) and paid results (i.e., produced by paying search engines to place bids on one or more terms in search queries). Researchers (e.g.,

Jerath et al. 2014; Rangaswamy et al., 2009) also showed that the value of the results depends on certain characteristics, such as the comprehensiveness and currency of the search engine's indices and its capacity to rank the webpages correspondingly to the users' intent. Data on the search terms consumers use offer important insights regarding their interest in the firm's products/services, frequently predicting new product sales (Kulkarni et al., 2012). Hence, it is essential for retail firms to appropriately engage in paid search campaign management tasks such as choosing the correct and relevant keywords to attract customers and defining and adjusting the bids on a keyword level to develop effective digital marketing strategies (Erdmann et al., 2022; Klapdor et al., 2014). Specialised tools (e.g., EfficientFrontier, IntelliAd, Omniture) can also be used to support such tasks (Klapdor et al., 2014).

3.2.2.2.2 Digital platforms

Digital platforms such as Google Shopping, Amazon marketplace, Wish, Alibaba and Zalando that aggregate products and services also represent powerful intermediaries of discrete transactions among retailers and consumers, offering the appropriate infrastructure and governance for economic interactions (Sriram et al., 2015; Wichmann et al., 2022). Such platforms are two-sided and often multisided, functioning as a marketplace, and are described by a stable foundational digital infrastructure, value creation for all parties involved, network effects, heterogeneous customer preferences and sellers' offerings, and high operational transparency (Rangaswamy et al., 2020). Digital marketing researchers (e.g., Rangaswamy et al., 2020; Sriram et al., 2015) provided classifications of digital platforms, including the search/ad platforms (e.g., Google, Bing, AppNexus), the content/ad platforms (e.g., YouTube, Spotify Technology, TripAdvisor), the exchanges/transaction platforms (e.g., Amazon, Alibaba, eBay, eHarmony), the payment platforms (e.g., Visa, PayPal Holdings), the social media platforms, and the online service platforms (e.g., Uber, Airbnb, Expedia).

Many retailers choose to sell their products on online platforms like Amazon, paying a fee for each unit sold, while others establish similar online retail platforms to facilitate sales by other independent sellers (Jiang et al., 2011). Despite the benefits, reintermediation through brand aggregation online platforms was also found to create disadvantages such as lowering brand differentiation and intensifying price competition (Wichmann et al., 2022); hence why retailers like Nike, Adidas, Bosch and BMW have started building their own flagship platforms to achieve

more control over their customers, higher customer loyalty and brand awareness, and strengthen their customer relationships (Wichmann et al., 2022). Mobile technology advances along with the Covid-19 pandemic, also contributed to this trend, with many retail organisations developing their own mobile platforms (e.g., mobile apps) for customer service and customer engagement purposes and the reduction of operational costs (Chen and Rao, 2022).

3.2.2.2.3 Social media networks

Social media networks enable firms to reach and connect with customers through brand communities, discussion forums, chat rooms, blogs and microblogs. Online communities (e.g., embedded in independent websites, firm-operated, third-party social media platforms) represent a significant business opportunity for retailers, bringing customers closer to a brand (Manchanda et al., 2015; Noble, 2019). In particular, online brand communities describe a wide range of community forums (e.g., electronic bulletin boards, social networking sites, shared-interest websites), while firm-hosted online brand communities represent internet forums specifically developed and maintained by the firm and concerned with its products/services (Gruner et al., 2014).

Researchers (e.g., Brodie et al., 2013; Hajli et al., 2017; Laroche et al., 2012) analysing social media-based brand communities found that social interactions between brands and customers enhance relationship quality and boost customer brand loyalty, trust and satisfaction. Focusing on two fan pages on Facebook (e.g., Xiaomi and MyBeautyDiary.taiwan), Cheng et al. (2020) shed light on the drivers of customer satisfaction and relationship commitment that predict consumer loyalty, including the information quality of the online brand community's posts and the consumers' need for online social capital and emotion, while Noble et al. (2019) revealed four ways in which firms can improve the effectiveness of their online brand communities, namely: (1) enhancing the timeliness of information exchanged; (2) improving the relevance of the posted content; (3) extending the conversation with users (e.g., current and potential customers); and (4) increasing the frequency of the exchanged information.

Firm-sponsored online customer communities in particular are believed to increase customer engagement and sales, with Manchanda et al. (2015) confirming that customer participation in the online community significantly increases customer expenditures. Retailers can also gather helpful consumer ideas for developing new offerings and digital marketing processes by creating online

crowdsourcing communities like Starbucks's mystarbucksidea.force.com or Dell's www.ideastorm.com communities (Bayus, 2013; Luo and Toubia, 2015). Gruner et al. (2014) also found that firm-hosted online brand communities (e.g., forums.ebay.com, discussions.apple.com) can predict new product success by supporting the launch of new firm offerings.

3.2.3 Organisational aspects

Among the key organisational aspects that affect the firm's adoption of digital technologies and effectiveness of digital marketing strategies are the firm's size and age, and different firm orientations. Digital marketing researchers also examined various resources and capabilities required for firms to engage in digital marketing activities.

3.2.3.1 Firm characteristics

3.2.3.1.1 Firm size

Larger firms were previously considered to be in a better position compared to smaller firms to adopt e-commerce, digital technologies and digital marketing practices due to their possession of necessary financial, technological and other resources and infrastructure (e.g., Hart et al., 2000; Van Huy et al., 2012; Zhou et al., 2015). However, more recent studies (e.g., Elia et al., 2021; Marchand et al., 2021; Parveen et al., 2016; Wang, 2020) emphasised smaller firms' flexibility in adopting digital and social media technologies due to their ability to operate on a more ad hoc basis, not requiring excessive detail or formalised procedures. In fact, while large retailers may have a better marginal performance than SMEs, the smaller retailers' ability to properly leverage digital technologies and online channels, and their possession of strong digital capabilities were found to associate with achieving similar high-performance results as their medium and large-sized counterparts (Braojos-Gomez et al., 2015; Elia et al., 2021; Wang, 2020).

3.2.3.1.2 Firm age

Firm age was also considered a factor associated with digital marketing activities (Parveen et al., 2016). Earlier studies (e.g., Saini and Johnson, 2005) revealed firm age and web age (e.g., the firm's experience with the web) to signal a firm's trustworthiness in terms of online shopping for customers, whereas later studies (e.g., Kacker and Perrigot, 2016; Mozas-Moral et al., 2016) showed either negative or no effects of firm age on digital technology usage. For example, while

Mozas-Moral et al. (2016) expected that firm age would represent a key factor for achieving social media success (i.e., measured in terms of number of social media followers) due to the experience gained from operating in online social networks, their empirical findings showed no significant results, attributable to the easy access, simplicity and inexpensiveness of social media usage.

3.2.3.1.3 Firm's orientations

Firms' market and technological orientations were found to significantly enhance their digital marketing capabilities and their positive effects towards firm performance in the context of e-commerce and social media marketing (Nguyen et al., 2015; Tolstoy et al., 2022; Trainor et al., 2011). The positive influences of entrepreneurial and innovation orientations on social media marketing strategy (i.e., advertising and promoting offerings, creating brand visibility, conducting marketing research, customer communication, receiving customer feedback, providing product information) were also confirmed (Wu et al., 2020). Valos et al. (2019) also shed light on various strategic orientations (e.g., market, entrepreneurial, e-marketing) that influence a firm's social media performance. Specifically, they found that: (1) market orientation was negatively related to customer retention through social media; (2) entrepreneurial orientation was positively related to customer acquisition through social media but negatively related to customer retention; and (3) e-marketing orientation (i.e., the firm's usage of the latest e-marketing technologies, the employees' e-marketing expertise, and the good coordination among departments responsible for e-marketing implementation) was positively linked to customer acquisition.

3.2.3.2 Resources

3.2.3.2.1 E-commerce-related resources

Research identified various types of resources facilitating retailers' e-commerce operations. For example, Grandon and Pearson (2004) revealed that financial and technological resources were the main determinants of SMEs' readiness to adopt e-commerce, and Zhuang and Lederer's (2006) study among 458 retailers found that business resources (measured in terms of partner and customer relationships, IT-based relationships, process redesign, benchmarking and e-commerce planning), together with e-commerce technology resources (measured as the firm's e-commerce site's interactivity, publishing applications, catalogue applications, transaction applications, network and user interface) had a positive impact on e-commerce performance.

A study by Gregory et al. (2019) showed that firms should combine and integrate e-commerce resources (including the budget and people in charge of e-commerce export and marketing development) into e-commerce functionalities to create distinctive e-commerce capabilities to achieve superior export performance. Elia et al. (2021) also considered digital technologies (e.g., wireless communication, mobile technologies, big data analytics, cloud computing) as critical resources for firms competing in today's dynamically changing international markets, while Katsikeas et al. (2020) discussed the role of several online organisational resources that are crucial for exporters' e-commerce international marketing strategies, such as the access and expertise in digitalised technologies, information technologies and artificial intelligence tools, and adequacy in financial, human and technological resources.

3.2.3.2.2 Social media-related resources

Researchers have also detected certain resources related to a firm's success in social media marketing. Management training, the firm's previous experience in online social networks, specialised social media marketing personnel and social media budget were found to be critical factors for the implementation of effective social media marketing strategies that can accordingly improve the overall firm performance (Mahmoud et al., 2020; Marchand et al., 2021; Mozas-Moral et al., 2016). Such factors indicate higher investment in social media marketing activities and the ability to improve the firm's digital infrastructure and hire more social media specialists. The significant role of social media technology use in forming a social customer relationship management (CRM) capability was also underscored in the literature and found to subsequently enhance customer relationship performance (Trainor et al., 2014).

Within the context of social commerce, Lam et al. (2019) explained that social interactions and consumer contributions on social media can be useful external social media resources not controlled or bought by the firm. In their study of 275 social commerce initiatives, they confirmed that, for firms selling products with high uncertainty (where customers usually rely on other customers' comments or interactions with the firm on social media to make a judgement on product quality) and high reputation, social media resources are important as they strongly influence customer purchasing behaviour. In contrast, firms selling products with low uncertainty and low reputation are less motivated to use social media resources, and thus are less likely to benefit from social commerce. Singaraju et al.'s (2016) conceptual study proposed that the functions provided

by social media platforms have a technological nature with modular elements (and are not resources per se) which can be organised into the following functional groups that effectively convert into resources: (1) identity (e.g., users revealing themselves), (2) presence (e.g., availability status), (3) groups (e.g., forming communities), (4) relationships (e.g., social media relationships between users), (5) reputation (e.g., social standing of users and influencers), (6) sharing (e.g., content exchange among users) and (7) conversations (e.g., communication among users).

3.2.3.3 Capabilities

Considering the dynamic context of digital marketing, several authors (e.g., Marchand et al., 2021; Trainor et al., 2011; Wang, 2020) argued that digital marketing practices and strategies require the integration of specific organisational capabilities, of which most have a dynamic nature, to enable the creation of value in an unpredictable and constantly changing business environment (Eisenhardt and Martin, 2000; Teece, 2007) (see **Table 3.4)**. Overall, there seems to be a consensus that different sorts of digital marketing-related capabilities, e-commerce-related capabilities, social media-related capabilities and digital technologies-related capabilities act as antecedents to the firm's digital marketing strategy and by integrating resources, enable the creation of competitive advantage and higher performance outcomes.

Table 3.4: Digital marketing-related capabilities

Capability	Context	Examples	Indicative studies
E-marketing capability	Digital marketing	A dynamic firm-level capability, which, based on the application of the internet and the integration of human, business and IT resources, enables a meaningful interplay with customers	Trainor et al., 2011
Internet marketing capabilities	Digital marketing	Online advertising capability Online sales capability Online after-sales service capability Online market research capability Purchasing/procurement capability	Bianchi and Mathews, 2016; Mathews et al., 2016
Digital marketing capabilities	Digital marketing	Customer-linking digital capability Market-sensing digital capability Channel-bonding digital capability Capability for creating relationships with suppliers via digital platforms Ability to use digital marketing to retain customers	Wang, 2020
		Digital strategy development and execution capability E-market sensing capability Digital market innovation capability Leadership capability	Chinakidzwa and Phiri, 2020
		Social media marketing capability Mobile marketing capability Content marketing capability Search engine marketing capability Web analytics capability Marketing automation capability Email marketing capability	Homburg and Wielgos, 2022
E-commerce capability	E-commerce	Information capability Transaction capability Interaction capability Supplier connection capability Infrastructure capability	Fuller et al., 2022; Zhu and Kraemer, 2002; Zhu, 2004
		Information technology capability Strategic flexibility capability Trust-building capability	Saini and Johnson, 2005
Social commerce-IT capabilities	E-commerce	Social media capability (leveraging social media for business activities) E-commerce capability (leveraging web technology for product promotion/sales)	Braojos et al., 2019
E-commerce marketing capabilities	E-commerce	Provide online product/service catalogue to customers Promote and advertise firm's products Online ordering of products/services Presenting and paying bills online Enable salespeople online access to product/price/performance info Ordering supplies online (e-procurement) Participating in an electronic marketplace Fulfilling/delivering online–e-fulfilment	Gregory et al., 2019
Social media capabilities	Social media marketing	Social media strategic capability: acquiring, integrating and applying knowledge obtained through social media	Nguyen et al., 2015
		Social media dynamic capabilities: Social media strategy capability Social media employee activities' capability Social media measurement capability	Marchand et al. 2021
		Capability of social media use for marketing and communication Customer engagement capability Capability to collect customer data through social media	Perez-Vega et al., 2022
Social CRM capability	Social media marketing	Information generation capability Information dissemination capability Responding capability	Trainor, 2012; Trainor et al. 2014; Wang and Kim, 2017 Perez-Vega et al., 2022
Internet capabilities	Digital technologies	Platform capability Website capability	Jean and Kim, 2020

Source: Compiled by the author

3.2.3.3.1 Digital marketing-related capabilities

Several researchers (e.g., Homburg and Wielgos, 2022; Wang, 2020) have recognised the crucial need for organisations to develop new digital marketing capabilities. E-marketing capability was explored by Trainor et al. (2011) as a dynamic firm-level capability, which, based on the application of the internet and the integration of human, business and IT resources, aims to enable a meaningful interplay with customers. The authors presented the direct impact of IT resource endowments on capability development, explaining that firms can achieve a competitive advantage when they convert resources into capabilities. Their analysis of 522 Belgian firms showed that e-marketing capability is significantly driven by the firm's market and technology orientations and that this capability improves customer relationship performance (e.g., customer retention, satisfaction, loyalty) and organisational performance (e.g., ROI, cost position, profitability). They also confirmed the positive moderating effects of market turbulence and competitive intensity on the relationships between e-marketing capability and customer relationship performance and between e-marketing capability and organisational performance, respectively.

The empirical studies of Bianchi and Mathews (2016) and Mathews et al. (2016) considered internet marketing capabilities as the firm's ability to use internet technology to deliver marketing activities (e.g., online advertising, online sales, online after-sales support, market research, purchasing procurement). More specifically, Bianchi and Mathews (2016), in their study of 204 Chilean exporting firms, revealed the positive indirect influence of internet marketing capabilities on export market growth through the firm's available knowledge about international markets, competitors, customers and suppliers, and the development of business network relationships. Similarly, Mathews et al. (2016), in examining 224 Australian exporting firms, found that internet marketing capabilities indirectly enhance international market growth by benefitting firms through the reduction of information uncertainty and the increase of their ability to develop international network capabilities.

More recent studies used the term "digital marketing capabilities" to examine different sorts of capabilities. For example, Wang's (2020) study among 167 international firms, perceived digital marketing capabilities as the required relational competencies for leveraging digitalisation's benefits and strengthening the relationship with customers, suppliers and channel partners. Digital marketing capabilities comprised customer-linking digital capabilities, market-sensing digital

capabilities, channel-bonding digital capabilities, supplier relationship-building capabilities, and the ability to use digital marketing to retain customers. They also revealed that the possession of digital marketing capabilities leads to superior firm performance.

In their conceptual study, Chinakidzwa and Phiri (2020) referred to digital marketing capabilities as the required marketing capabilities for competing in highly dynamic, fast-paced and unstable digital marketing contexts that differ from those needed in traditional marketing settings. Specifically, they shed light on four digital marketing capabilities, namely: (1) *digital strategy development and execution capability*, which refers to the firm's ability to create and implement a digital marketing strategy to achieve organisational marketing objectives; (2) *e-market sensing capability*, which includes active gathering, interpretation and dissemination of market information to monitor digital changes and anticipate customer reactions and preferences; (3) *digital market innovation capability*, which is the firm's ability to create value through new digital market ideas, processes, models and products using digital market data and technologies; and (4) *leadership capability*, explained as the firm's ability to lead, manage, motivate and coordinate organisational activities. These capabilities were proposed to influence the firm's performance, including customer performance (e.g., customer attitudes and satisfaction) and financial performance (e.g., sales, market share, profitability).

Another study by Homburg and Wielgos (2022) defined digital marketing capabilities as the "..firm's ability to use digital technology–enabled processes to interact with customers and partners in a targeted, measurable, and integrated way to create new forms of value without regard for distance or time" (p.668), and assessed their value relevance beyond the value achieved through traditional marketing capabilities. By combining in-depth interviews with a multi-industry, multisource dataset, they empirically showed that digital marketing capabilities have a significant effect on firm profitability, and, by comparing digital marketing and traditional marketing capabilities, they suggest that the former type presents a higher degree of scalability (e.g., generating increasing returns in the marketplace), measurability (e.g., generating and assessing information related to the firm's activities), interconnectivity (e.g., establishing and leveraging interactive customer and partner linkages), and adaptability (e.g., rapidly sensing and responding to marketplace changes) than traditional ones.

3.2.3.3.2 E-commerce-related capabilities

Great focus has also been given to the study of capabilities within the context of e-commerce, including e-commerce capabilities, e-commerce marketing capabilities, and social commerce-IT capabilities. Early studies (e.g., Zhu and Kraemer, 2002; Zhu, 2004) considered e-commerce capability as a new type of technological capability in internet-enhanced firms describing the firm's ability to interact online with customers and partners. This comprises four main dimensions, namely: (1) information (e.g., providing useful insight about the firm and its products/services); (2) transaction (e.g., facilitating online transactions); (3) interaction and customisation (e.g., improving customer interaction to offer personalised information and customised offerings); and (4) back-end integration and supplier connection (e.g., electronic linkages to integrate suppliers through information sharing). Zhu and Kraemer's (2002) empirical study supported the positive relationship between e-commerce capability and firm performance, while, Zhu's (2004) study among 114 retailers confirmed the strong positive association between IT infrastructure and e-commerce capability, indicating that their complementarity has a favourable effect on business performance measured in terms of sales, inventory turnover and cost reduction. Fuller et al. (2022) relied on the same dimensions to investigate the adoption of e-commerce capability as a set of specific features leveraged by retailers to meet business process requirements, finding a positive relationship between e-commerce capability adoption and online retail sales.

Saini and Johnson (2005) conceptualised three firm capabilities necessary for superior firm performance in e-commerce, namely: IT capability (e.g., mobilising and deploying IT-based resources), strategic flexibility capability (e.g., responding to and generating environmental change), and trust-building capability (e.g., building and maintaining customer trust). Examining the effects of these e-commerce capabilities on firm performance (e.g., relative profits, sales, ROI), they found that IT capability in conjunction with proactive market orientation is crucial for superior performance on the internet, as opposed to strategic flexibility capability combined with proactive market orientation, which was deteriorating performance.

Gregory et al. (2019) focused on e-commerce marketing capabilities, which they defined as the organisation's ability to identify, develop and assimilate e-commerce practices into market value offerings. Applying quantitative and qualitative methodology, they found that those capabilities directly improve the organisation's distribution and communication efficiency levels, resulting in

better export performance. In addition, Braojos et al. (2019) studied social commerce-IT capabilities as the firm's ability to leverage and inter-connect social media and e-commerce. These comprised social media capability (e.g., using and leveraging social media for business activities) and e-commerce capability (e.g., using and leveraging web technology for product promotion and sales), and were found to improve firm performance through online customer engagement (e.g., Facebook, Twitter and blog customer engagement).

3.2.3.3.3 Social media-related capabilities

A number of researchers have investigated specific organisational capabilities within a social media context. Social media strategic capability, which was defined as the firm's ability to acquire, integrate and apply knowledge obtained through social media, was found to positively affect brand innovation, as well as improve proactive and responsive market orientations in achieving brand innovation (Nguyen et al., 2015). Marchand et al. (2021) also studied three social media dynamic capabilities, namely: (1) *social media strategy capability*, that is, the firm's ability to strategically choose applications, hashtags, search engine optimisation efforts and trending themes; (2) *social media employee activities' capability*, that is, the employees' decentralisation, willingness and empowerment to actively support the company's social media activities; and (3) *social media measurement capability*, that is, the systematic acquisition, monitoring and analysis of insights that are available in social media in real time and with clearly specified performance criteria. Using a sample of 165 German firms and data extracted from financial statements and social media (e.g., Facebook, Instagram, YouTube), they showed that all these capabilities positively affect social media performance.

Inspired by the continuous social media developments, the shift in power balance towards the social, empowered customers, and the social media technologies' benefits of openness, feedback channels and two-way communication, researchers recognised the need for firms to adapt their CRM capabilities to social CRM capabilities (Perez-Vega et al., 2022; Trainor, 2012). Social CRM capability, described as the integration of emergent social media technologies with traditional customer-facing activities (and measured with the dimensions of information generation, information dissemination and responsiveness) were found to significantly improve customer engagement and customer relationship performance (e.g., customer retention, satisfaction, loyalty) (Trainor, 2012; Trainor et al., 2014; Wang and Kim, 2017).

3.2.3.3.4 Digital technology-related capabilities

Jean and Kim (2020) identified two digital technology-related capabilities, namely: (1) *platform capability*, that is, as the firm's ability to use the platforms' various functions and services towards exporting (e.g., two-sided electronic platforms or electronic marketplaces); and (2) *website capability*, that is, the firm's ability to use websites to facilitate export activities. They also examined in their analysis various export marketing capabilities pertaining to new product development, pricing and marketing communication. Their longitudinal empirical study among 103 Chinese SMEs revealed the positive impact that platform and website capabilities have on export marketing capabilities, with the latter found to have a favourable effect on export performance.

3.2.3.4 Competitive advantage

Digital marketing researchers (e.g., Daniel and Wilson, 2003; Singer, 2006; Verona and Prandelli, 2002) have recognised from early times the challenges to achieve and sustain a competitive advantage due to heightened competition, empowered customers and information-diffusion describing the digital economy. The fact that nowadays almost any firm can have access to the same digital technologies and online information makes competitive advantage difficult to achieve and sustain, while the dynamic and fast-changing nature of digital marketing implies that the possession of a competitive advantage is temporary and that firms should devote stronger and continuous efforts to maintain it (Diaz et al., 2021; Lam et al., 2019).

The limited digital marketing research on how retailers can achieve a competitive advantage online has mainly focused on the relationships and interactions they develop with customers, emphasising the retailer's online service quality and online shopping convenience which can drive the creation of an advantage over competitors that do not dedicate substantial efforts to such areas (Diaz et al., 2021; Hallikainen et al., 2022; Liu-Thompkins et al., 2022). Javalgi et al. (2005) developed an integrative framework to explore the creation of a profitable and sustainable competitive advantage for online firms, arguing that continuous, appropriate, and better understanding and management of online consumers, together with appropriate targeting, affiliation, tracking and profiling, and lock-in strategies can enable firms to achieve a competitive advantage. Diaz et al. (2021) also proposed that digital firms should become more market-oriented and tailor their market offerings according to the needs and preferences of their customers to enjoy a competitive advantage.

Adopting a different approach, Fisher (2019) contends that firms can acquire distinct competitive advantages through their engagement with online communities, by generating: (1) *information benefits,* resulting from an increased market knowledge of online communities, which can be strengthened when the firm gathers, analyses, uses and shares these insights with the online community; (2) *influence benefits,* gained through managing their tangible and intangible resource dependencies, which can be strengthened through the firm's systems and procedures that enable it to garner tangible and intangible resources from the online community's members and reward their contributions; and (3) *solidarity benefits,* resulting from brand loyalty and deeper market penetration, which can be enhanced when the company offers community members a preferential, easy-to-use option to buy its products/services, and a means to publicly signal their online community membership.

3.2.4 Managerial characteristics

Numerous managerial characteristics were noted in the literature as important drivers in adopting digital marketing practices. These include managerial beliefs and attitudes towards innovation and digital technology, management commitment and strategic leadership. Specifically, the early study of Lynn et al. (2002) that collected data from 110 marketing managers and professionals found that the key drivers of digital marketing adoption and effectiveness include the marketing team's formal training, the marketing managers' awareness regarding the web usefulness, and the younger age of marketing personnel. Grandon and Pearson (2004) shed light on the managers' perceived ease of use of e-commerce and perceived usefulness of e-commerce in job performance, productivity and effectiveness as critical factors for its adoption. Doherty and Ellis-Chadwick (2009) also revealed the crucial role of management support for having successful retail e-commerce strategies, while Van Huy et al. (2012) found CEO's positive attitudes towards digital technology and patterns of using such technologies as key factors for SMEs adopting e-commerce.

The significant role of strategic leadership in affecting the adoption rate of digital technology and employees' overall behaviour and thinking towards digital marketing were also highlighted (Wu, 2016). A recent study by Chatterjee et al. (2021a) also found that some managerial beliefs and attitudes towards social media technology can represent important determinants of social media marketing use for achieving a competitive advantage in SMEs. In addition, the managerial use of new technology with the support of top management and technological infrastructure and the

motivation for its usage due to its perceived usefulness and ease of use are important characteristics positively affecting the use of social media marketing by SMEs.

3.2.5 Digital marketing strategy

Another stream in the digital marketing literature deals with digital marketing strategy. Few studies examined the strategic organisational orientations of exploration, exploitation and ambidexterity within digital marketing, whereas most studies had a particular focus on themes around online marketing mix decisions.

3.2.5.1 Strategic organisational orientations

The explorative, exploitative and ambidextrous strategic organisational orientations were derived from the organisational learning literature (March, 1991) and, although extensively examined by both business and marketing scholars, they have received limited attention by digital marketing researchers. *Marketing exploration* provides value by applying new market knowledge and boosting innovation through the development of new marketing skills and practices, *marketing exploitation* creates value by increasing efficiency through constantly strengthening, upgrading and improving the firm's existing marketing skills and processes, while marketing ambidexterity combines or balances the exploitation of current competencies with the exploration of upcoming ones in strategic marketing practices (Ho and Lu, 2015; Josephson et al., 2016; Vorhies et al., 2011). **Table 3.5** presents the most relevant definitions for marketing exploration, exploitation and ambidexterity in a traditional context, while **Appendix I** outlines indicative studies on marketing exploration, exploitation, and ambidexterity.

Table 3.5 Definitions of marketing exploration, exploitation, and ambidexterity

Authors	Exploration	Exploitation	Ambidexterity
Kyriakopoulos and Moorman, 2004, p.221	"Marketing exploration strategies are defined as strategies that primarily involve challenging prior approaches to interfacing with the market, such as a new segmentation, new positioning, new products, new channels, and other marketing mix strategies"	"Marketing exploitation strategies are defined as strategies that primarily involve improving and refining current skills and procedures associated with existing marketing strategies, including current market segments, positioning, distribution, and other marketing mix strategies"	
Vorhies et al., 2011, p.740	"Marketing exploration refers to the capabilities that focus on developing new skills, processes and marketing capabilities via the application of new market knowledge"	"Marketing exploitation refers to the capabilities that focus on improving and refining current skills, processes, marketing capabilities and the valued outcomes produced by those capabilities that are associated with existing markets"	
Ho and Lu, 2015, p.1027	"Marketing exploitation and exploration are two distinct approaches by which marketing competences create customer value. Marketing exploitation creates value through firms' strengthening and improvement of existing skills and practices in marketing"	"Marketing exploration creates value through firms' development of entirely new marketing skills and practices"	
Josephson et al., 2016, p.539			"...the blend of a firm's exploitation of existing competencies and exploration of future capabilities in strategic marketing activities that represents a vital dynamic capability in achieving superior performance"
Ho et al., 2020, p.66			"..firms' bilateral and balanced focus on exploration and exploitation simultaneously across marketing activities, including product design, promotion, segmentation and targeting, pricing, and customer services"

Source: Compiled by the author

Previous studies conducted in a digital context suggested that organisations require a balanced combination between exploration and exploitation of IT and digital resources (Gregory et al., 2015; Lee et al., 2015; Subramani, 2004), with most of them analysing the impact of IT and digital technologies on exploration, exploitation or firm performance. For example, Benitez et al. (2018)

investigated the role of IT infrastructure capability on innovation performance, confirming that this capability enables firms to innovate more effectively through knowledge ambidexterity (i.e., well-balanced combination of exploring and exploiting knowledge for operational purposes). They also studied the role of social media capability as the firm's competence in performing business actions through leveraging social media technologies, finding that this positively moderates the link between IT infrastructure capability and knowledge ambidexterity.

Kane and Alavi (2007) focused on three IT-enabled learning support mechanisms, namely: (1) knowledge repositories/portals; (2) groupware for virtual team rooms; and (3) communication technologies (e.g., online communities) to connect employees, discovering that they all create capabilities that influence in diverse ways the firm's exploration and exploitation learning dynamics. Replicating and extending March's (1991) organisational learning computational model, they found that knowledge repositories/portals promote exploitation, whereas electronic communities encourage exploration. In addition, effective combinations of IT-enabled learning mechanisms enhance the firm's ability to react to environmental conditions.

Roberts and Dinger (2018) focused on crowdsourcing-based technologies to underline the critical role of the design of virtual customer environments in supporting information flows among brands and consumers and influencing the firm's exploratory and exploitative innovation activities. Testing their model with managerial data from active virtual customer environments, they concluded that the use of one-way information exchange tools enables customers to test firm innovations, which enhances exploitative innovation through the refinement of current knowledge and incremental ideas. However, the use of two-way information exchange tools encourages the creation of new knowledge and radical ideas through the active interplay between firms and customers, resulting in improved exploratory innovation. They also reported a positive moderating impact of the absorptive capability on the relationship between one-way information exchange and exploitative innovation.

In another study conducted among 230 entrepreneurial SMEs, Cenamor et al. (2019) examined the effect of digital platform capability and network capability on financial performance, while exploitation and exploration were used as moderators. Their results showed that digital platform capability positively influences performance through network capability and that their association is negatively moderated by exploitation, but positively moderated by exploration. The authors also

argued that ambidexterity might be an impossible or ineffective goal and that firms can benefit more when they exclusively focus on either exploration or exploitation.

3.2.5.2 Online marketing mix decisions

Over the last two decades, much conceptual research has been generated around strategic aspects of digital marketing, with most researchers (e.g., Kannan and Li, 2017; Katsikeas et al., 2020; Varadarajan and Yadav, 2002; 2009; Yadav and Pavlou, 2014) focusing on the elements of the marketing mix (e.g., product, price, promotion, distribution) and proposing research agendas to initiate relevant empirical investigations. In an effort to reveal the role of digital technologies in facilitating the firm's strategic marketing choices and identify the most significant antecedents and outcomes of the digital marketing strategy, many conceptual frameworks were constructed in the literature. Industry structure (e.g., customer dispersion, channel structure), firm characteristics (e.g., skills, resources, capabilities), product aspects (e.g., product digitisability, product perishability), buyer's characteristics (e.g., empowered, better informed), and macro-environmental forces (e.g., regulatory, social, technological) were discussed among the main drivers of digital marketing strategy (e.g., Kannan and Li, 2017; Varadarajan and Yadav, 2002, 2009). Emphasis was especially placed on several organisational resources and capabilities (firm-related, consumer-related, macro-level) developed as a result of the technological evolution, the shift from traditional to digital media, the consumer preferences for digital media and data privacy and security, that can have a significant role in the implementation of digital marketing strategies (e.g., Gupta et al., 2020; Katsikeas et al., 2020). Researchers (e.g., Gupta et al., 2020; Kannan and Li, 2017; Varadarajan and Yadav, 2002, 2009) also discussed various outcomes that firms can enjoy by employing digital marketing strategies, with market performance (e.g., market share, customer value, customer satisfaction, customer equity) and financial performance (e.g., ROI, earnings growth) being the prominent ones.

On the other side, empirical research into digital marketing strategy is quite fragmented and limited, focusing on discrete topics regarding each marketing mix element. Researchers have revealed the significance of developing and implementing a digital marketing strategy for firms, highlighting the positive outcomes of achieving value-chain efficiencies, stronger customer relationships, better customer acquisition and retention performance, and decreasing various costs (Brodie et al., 2007; Sultan and Rohm, 2004). The following sections focus on empirical studies

on digital marketing strategy, categorised in product/service decisions online, online pricing decisions, multichannel management decisions and online marketing communication decisions.

3.2.5.2.1 Product/service online decisions

Research on the first element of the marketing mix discussed issues around product strategies that are commonly employed online, collaborative innovation and product customisation that online technologies and tools simplified and encouraged considerably, and online recommendation systems that significantly affect the online purchase of products and services.

3.2.5.2.1.1 Online product strategies

The internet gave rise to competitive product strategies, such as large-scale bundling, which enable sellers to extract value from selling a set of goods with price discrimination. Early researchers (Bakos and Brynjolfsson, 2007; Koukova et al. 2008) showed that large bundles could outbid smaller ones due to the higher value extracted from different products, while bundling of information goods online benefits bundlers as opposed to single-product competitors, discouraging the entry of other competitors. Catapano et al. (2022) recognised that the digitisation of physical products created multiple benefits for consumers, such as convenience, ease of access or functionality, and demonstrated that, while consumers are still more willing to purchase physical goods (e.g., print books) than digital goods (e.g., e-books), this difference decreases or reverses considering that digital products dominate physical ones on the convenience attribute. With digital and technological advances, free trial versions of digital products and services such as video games, software, music, mobile apps and e-books are also made available under the freemium model in order to increase revenue through product sales or subscription of digital products (Li et al., 2019). In this context, Li et al. (2019) investigated the effects of free samples of digital content on demand for digital products and services, finding that free samples of the entire content (as opposed to substitutes samples) can positively impact revenues, while higher-quality samples can considerably increase the sales of popular content.

3.2.5.2.1.2 Collaborative innovation and online product customisation

Digital marketing research (e.g., Elsharnouby and Mahrous, 2015; Helms et al., 2008; Liechty et al., 2001) highlighted issues around online co-creation (collaborative innovation) (i.e., active involvement of customers in value creation by providing online feedback and suggestions on the

firm's market offerings), and online mass customisation (i.e., fulfils unique customer needs for products/services). For example, Kamali and Loker's (2002) experimental study in a web-based retail context revealed that, the higher the online consumer involvement in product design, the more satisfied the consumers were with the retail website's navigation and usability. Similarly, Sawhney et al.'s (2005) case studies on retail firms demonstrated the crucial role of internet-based mechanisms for engaging customers in new product development by enabling important knowledge acquisition (e.g., through virtual communities, online polls, and online forums), emphasising the need for a fundamental redesign of marketing processes to accommodate such collaborative innovations and the facilitating role of online mediators (e.g., online innovation marketplaces). In another study, Elsharnouby and Mahrous (2015) found that the customers' willingness to participate in online product co-creation is affected by the website's efficiency (e.g., ease and speed in access and use), fulfilment (e.g., order delivery and item availability), compensation (e.g., in case of problems) and contact (e.g., assistance), along with their attitudes toward the website.

3.2.5.2.1.3 Online recommendation systems

Online recommendation systems used by online retailers and online stores, such as Amazon and Dell, have long attracted researchers' interest. They explain the automatic decision aids that have reshaped e-commerce by analysing customers' prior online behaviour (e.g., purchase histories) to identify and recommend products with high purchase probability that best suit and satisfy customers' preferences, thus offering added customer value and higher firm profits (Bodapati, 2008; Jiang et al., 2010; Mican et al., 2020). Research explains that such decision tools enable firms to achieve "add-on selling" by selling more products to current customers and maximise customer after-sales satisfaction (Bodapati, 2008; Jiang et al., 2010). However, it was also argued that, when online recommendations contradict consumers' initial impressions of product choice options, they give unsolicited advice that leads consumers to ignore or intentionally contradict agents' recommendations (Fitzsimons and Lehmann, 2004).

Based on data from a major online retailer, Banerjee et al. (2021) revealed that online recommendation systems, such as the Q&A technology of electronic commerce platforms that enables consumers to ask questions about a firm's products/services before a purchase and receive answers from the firm or other customers, can mitigate product fit uncertainty, achieving better

matches between products and consumers and accordingly improved product ratings. Mican et al. (2020) also explained that the effectiveness of online recommendation systems could be hindered by the increasing data privacy regulations and consumers' concerns about their privacy. Surveying 597 e-commerce users, they demonstrated that the perceived usefulness of online recommendation systems positively affects customers' willingness to consent to their data being collected, stored and processed by the recommendation system provider, which can increase the relevance of recommendations for e-commerce users.

3.2.5.2.2 Online pricing decisions

Research on the price element of the digital marketing strategy mix referred to issues related to price positioning and dispersion in internet retailing contexts, dynamic pricing on the internet and online pricing strategies used by retailers.

3.2.5.2.2.1 Price positioning and dispersion

Price dispersion for products and services in online markets, which is the different price distribution of products with the same measured attributes across online sellers at a specific time, was a topic highly discussed in the digital marketing literature, considering that it is larger on the internet than in traditional markets (Pan et al., 2004). Xing et al. (2006) compared price differences between two types of online retailers, namely online branches of multichannel retailers and multichannel retailers, and pure internet retailers, revealing that the former charge higher prices, but their prices go up slower than the latter. Moreover, for both types of retailers, prices increase over time, while price differences between them decrease in the long run. Zhuang et al. (2018) also studied the impact of retailer type (e.g., pure offline, pure online, dual channel) and consumer shopping risk (e.g., perceived risk of shopping and related transaction uncertainty) on price dispersion. Their findings showed greater price dispersion online under the conditions of a large and increasing number of pure online retailers and in the case where the online shopping risk decreases. They also highlighted the significance of dual channel retailers providing online price information to their customers even if they do not have any online sales, because such online information can support customer offline purchases.

Ba et al. (2012) proposed a model to explain the association between prices and online retailers' service and recognition levels. Their model predicted that, in the case of dominant and antipodal

positionings, a marginal change in service by the high-recognition e-tailer would be related to higher and lower price changes, respectively, compared to low-recognition e-tailers, and that e-tail prices are negatively linked to the service levels for products with high consumer service heterogeneity. Luo and Chung's (2010) investigation of online retailers' reputations and online prices revealed that retailers with a better reputation are charging higher prices online, while their reputation's influence on their pricing strategies was found to be more significant for higher-valued products. Similarly, Cao and Gruca (2004) found that market leaders are more likely to charge higher prices due to the better satisfaction ratings in both pre- and post-purchase stages, and that e-tailers with more satisfied customers regarding post-purchase service were charging considerably higher prices, while pre-purchase satisfaction differences did not influence e-tailers' price differences.

3.2.5.2.2.2 Online pricing strategies and dynamic pricing

Different online pricing strategies were examined in the literature, such as the dynamic pricing strategies of price-matching, behaviour-based dynamic e-coupons and loyalty programs, which have substantially grown with the increased prevalence of digital marketing (Haws and Bearden, 2006; Kannan and Kopalle, 2001). Many online retailers are applying dynamic pricing nowadays, such as Amazon, which frequently adjusts the prices across all main food categories sold by Amazon Fresh (Hillen and Fedoseeva, 2021). Xia and Monroe (2004), focusing on another dynamic pricing strategy, namely online price partitioning into a base price and several surcharges (e.g., shipping, taxes, other fees), conducted three experiments and found that an appropriate strategy for online price partitioning can considerably improve consumer purchase intentions, perceived value and price satisfaction, whereas the addition of multiple surcharges can diminish such effects.

In another study, Lambrecht and Misra (2017) investigated the charging of consumers by companies to access their content, suggesting that firms should offer more free and less paid content in high-demand periods. In an investigation of two pricing mechanisms for information goods, namely selling with up-front payment for unrestricted use and pay-per-use with tailored payments according to the usage, Balasubramanian et al. (2015) demonstrated the higher profits of the second mechanism in a monopoly setting, and the higher profits of the first mechanism in a duopoly setting. They showed that pay-per-use in a monopoly is not affected by the uncertainty in

consumer use frequency, but it decreases profits from selling with up-front payment, while, in a duopoly, both pricing mechanisms yield lower profits in the case of uncertain use frequency.

Kireyev et al. (2017) examined the "self-matching policy" strategy, according to which multichannel retailers offer consumers the lowest price from both their online and offline prices, and found that it can diminish competition online and result in price discrimination in-store, while the effectiveness of such a practice depends on the consumers' decision-making stage and their different preferences for online and offline channels. They also showed that a self-matching policy could benefit retailers when consumers use digital devices to find out online prices in stores. Sajeesh et al. (2021) adopted a game-theoretic model and duopolistic framework to examine the factors affecting online retailers' choice between two checkout strategies, namely flexible checkout strategy (e.g., consumers purchasing either as guests or by logging into their account), and restricted checkout strategy (e.g., consumers purchasing only after logging in to their account). They found that the restricted strategy is adopted in the case of high additional revenues due to targeted advertising, while the flexible strategy is adopted when convenience-conscious consumers and additional revenues from targeted advertising are relatively low.

3.2.5.2.3 Online channel decisions

This sub-stream explained several decisions that retailers have to make in regard to the place element of their digital marketing strategies, focusing on multichannel customer management and locational targeting.

3.2.5.2.3.1 Multichannel management decisions

"Multichannel marketing refers to the practice of simultaneously offering customers information, goods, services, and support through two or more synchronised channels" (Kushwaha and Shankar, 2013, p.67), while "multichannel customer management is the design, deployment, coordination, and evaluation of channels through which firms and customers interact, with the goal of enhancing customer value through effective customer acquisition, retention, and development" (Neslin et al., 2006, p.95). Multichannel customers represent the majority of today's consumers and are considered the most valuable segment for marketers as they provide higher revenues, a higher wallet share, and are more active than other customers; thus, managing customers according to which channels they prefer using is crucial for digital marketing strategy (Kumar and Venkatesan, 2005; Kushwaha and Shankar, 2013).

Previous literature on multichannel customer management (e.g., Ansari et al., 2008; Neslin and Shankar, 2009; Kushwaha and Shankar, 2013) shed light on topics related to the choice of the channels (e.g., website, catalogue, offline store), the allocation of marketing efforts, and the comparison between multichannel and single channel customers and their value (e.g., monetary). For example, Neslin and Shankar (2009) presented a model for multi-channel customer management, proposing five subsequent steps for the development and implementation of a multichannel strategy, namely: (1) customer analysis, (2) development of a multichannel strategy, (3) channel design, (4) strategy implementation, and (5) strategy evaluation, while Neslin et al. (2006) discussed the challenges in the management of multichannel environments, including data integration, understanding consumer behaviour, channel evaluation, allocation of resources across channels, and coordination of channel strategies.

Verhoef et al.'s (2015) conceptual study also explained that retailing is changing considerably, observing a move from multichannel retailing to omnichannel retailing. Specifically, they defined omnichannel management as "the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized" (p. 176). According to them, in omnichannel retailing, the channel focus is both on interactive and mass-communication channels, and far more channels are included (e.g., store, online website, mobile channels, social media customer touchpoints) than in multichannel retailing, which includes just the store, online website and catalogue channels. They also explain that channels in omnichannel retailing are well integrated, offering seamless retail experiences, and that channel management is more focused on cross-channel objectives (e.g., overall retail customer experience, total sales over channels) than on objectives focusing on individual channels (e.g., sales per channel, experience per channel).

3.2.5.2.3.2 Competitive locational targeting

Mobile technologies enable the daily targeting of consumers by time and location (e.g., GPS technologies). This refers to location-based mobile marketing that is often integrated with the firm's loyalty programmes using push notifications to deliver personalised branded messages to customers' mobile devices apps based on their real-time geographic locations (Bernritter et al., 2021; Luo et al., 2014; Wan et al., 2021). Offers and personalised content can be tailored to specific geographic locations or times to encourage customer engagement and purchases from the firm

(Chaffey and Ellis-Chadwick, 2022). The advances in mobile and digital technologies, along with the increased time consumers spend on their mobile devices, led digital marketers to use such mobile promotions to target potential customers close to their location (Fong et al., 2015).

Fong et al. (2015) conducted a randomised field experiment where mobile promotions were sent to consumers in competitive, focal and benchmark locations to examine the effectiveness of competitive locational targeting and revealed that it could take advantage of increased demand which would not be possible in other ways for the focal retailer. They also showed the effectiveness of competitive locational targeting for deep discount offers. In another study, Bernritter et al. (2021) focused on the combination of locational targeting for the development of successful location-based mobile marketing campaigns that can diminish consumers' reactance. Through a field study, a virtual reality experiment and two online experiments, they found that in-store, as opposed to out-store mobile ads are more effective in growing sales from consumers with low product category involvement and that, in order for out-store mobile ads to attract customers into stores, price promotions should be offered to shoppers with low product category involvement, while non-price promotions are more suitable for consumers with high product category involvement to increase purchase likelihood.

3.2.5.2.4 Online marketing communication decisions

Finally, most research into digital marketing strategy appears to exist around online marketing communication decisions, considering that retailers used to use the internet primarily for communication purposes, such as promoting interactive corporate and product information to customers, rather than supporting direct sales (Hart et al., 2000). Nowadays, digital marketing communications include multiple practices, such as digital display advertising, social media advertising, mobile marketing communications and email advertising, with the bulk of research mainly focusing on display advertising, content marketing communications and influencer marketing communications (e.g., Ghose and Adamopoulos, 2016; Hollebeek and Macky, 2019; Torres et al., 2019). Research also referred to the multiple challenges that retailers face today regarding their digital marketing communication practices, including finding the right time to communicate with online consumers, deciding on the right way of communication, and learning how to cultivate long-term relationships with online consumers (Villanova et al., 2021).

Research has shown that firms tend to use many communication channels, media and platforms synergistically to apply digital marketing communication practices, aiming to achieve objectives such as increased customer awareness, customer engagement, acquisition or retention of customers, and improved customer experience (Kim et al., 2021; Shankar et al., 2022). In fact, the positive impact of digital marketing communications on a firm's sales and customer equity (e.g., value equity, relationship equity, brand equity) has been long confirmed in the literature (e.g., Kim and Ko, 2012; McAlister et al., 2012; Sonnier et al., 2011). Specifically, much research interest was given to the positive effects of display advertising on customer visits to a retailer's website and the creation of customer leads and sales generation (e.g., Ghose and Adamopoulos, 2016; Hoban and Bucklin, 2015), and on the positive association between content marketing communications with customer trust, customer engagement, better customer relationships and increased web traffic (Dolega et al., 2021; Hollebeek and Macky, 2019; Santiago and Borges-Tiago, 2022).

Considering the continuous social media developments (e.g., Instagram, TikTok), a substantial amount of research (Giuffredi-kähr et al., 2022; Leung et al., 2022a; Torres et al., 2019) also focused on influencer marketing communications as a critical practice for retailers especially in reaching the appropriate consumer target groups. Multiple types of influencers were discussed in the literature, including: (1) *celebrity influencers*, who are celebrities with an enormous follower base, such as the Kardashians; (2) *mega influencers*, who are those with 1M or more followers who achieved celebrity through social media (e.g., Khaby Lame); (3) *macro influencers*, who have 100K-1M followers and they are dominant in specific subject domains; (4) *micro-influencers*, representing the most common form, having 10K-100K followers and being localised to their geographic base; and (5) *nano influencers*, the personally accessible influencers with fewer than 10K followers (Giuffredi-kähr et al., 2022). This communication practice was empirically found to positively affect consumers' brand attitudes, purchase intentions and trust, which enhances loyalty and marketing outcomes (Balaji et al., 2021; Torres et al., 2019; Yuon and Kim, 2021).

3.2.6 Online customer behaviour

Lastly, one of the largest streams of research in the digital marketing literature refers to the behaviour of online consumers, examining issues related to: (1) consumer online browsing (e.g., online information search) and buying behaviour using different online platforms; (2) the

dynamics of user-generated content and its different forms, motivations and outcomes; (3) consumer trust, risk perceptions and privacy concerns online; and (4) online customer engagement and its different forms, measurement, drivers and effects on firm performance.

3.2.6.1 Online browsing and buying behaviour

Early research examined the role of online shopping's interactive tools (e.g., recommendation agents) in affecting purchase decisions' quality and efficiency by assisting consumers in online screening of alternative products and facilitating thorough comparisons between selected alternatives (Häubl and Trifts, 2000), as well as the key elements of websites that influence consumer behaviour (e.g., decision to return) including design features, functionality and loading time (Hung et al., 2012; Weinberg, 2000). In addition, before the end of the first decade of 2000, marketing researchers (Ratchford et al., 2003; 2007) had already observed that online search for products was substituting most traditional search sources, while later studies (e.g., Seiler 2013) also demonstrated the central role of search costs in explaining online purchase behaviour.

Considerable research interest was also given to the motivations of consumers to engage in online shopping. Online convenience and perceived ease of use (e.g., consumers' time, efforts and costs related to online retail shopping), system security and trust, website characteristics (e.g., information quality and website design), social influence, and consumer attitudes towards online shopping were found to represent the strongest predictors of online shopping and purchase intentions (Duarte et al., 2018; Zerbini et al., 2022). Huang (2016) also shed light on the consumers' interest in content posted on social networking firm websites and on the firm's social network's perceived vividness (e.g., concurrency, resolution, colourfulness) that were found to positively affect consumers' perceived browsing activities and urge to buy.

3.2.6.2 User generated content

User-generated content (UGC) describes the "media content created by members of the general public and includes any form of online content created, initiated, circulated, and consumed by users" (Kim and Johnson, 2016, p.98). It usually takes the forms of online customer reviews, e-WOM, or consumer-to-consumer interactions in online communities and forums. Research on online customer reviews demonstrated that more negative than positive evaluations are posted online, while a large number of consumers post online reviews without making any purchases from the specific retailers (Anderson and Simester, 2014; Schweidel, 2012; Yang et al., 2019). In this

line of research, studies shed light on issues related to: (1) *two-sided reviews,* that is online customer reviews that include both positive and negative information in one single message (Wang et al., 2022b); (2) *deceptive or pseudo-reviews,* that is, online reviews that are generated and posted by users on e-commerce websites exaggerating about alleged product use (Anderson and Simester, 2014; de Gregorio et al., 2021), and (3) *online product ratings*, that is, scores given by customers according to their satisfaction levels (Moe and Schweidel, 2012).

A substantial amount of research was conducted on eWOM, which represents "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Hennig-Thurau et al., 2004, p.39). It also includes likes, comments, ratings, reviews, video testimonials, tweets, images and blog posts (Donthu et al., 2021). Early research (Brown et al., 2007; Hennig-Thurau et al., 2004) underlined the significance of WOM communication in online consumer interactions (particularly in online communities) and found that the consumers' desire for social interaction and economic incentives, their concern for other consumers, and the potential to improve their self-worth are key driving aspects of eWOM behaviour. Some prominent topics researched here referred to negative WOM, WOM in social networks, and online reviews and ratings, mainly revealing a positive association between eWOM and sales (Donthu et al., 2021; Herhausen et al., 2019; Rosario et al., 2016).

Consumer-to-consumer interactions were also extensively studied, with Trusov et al. (2010) explaining that, on average, one-fifth of an online user's "friends" (e.g., other site members) can affect the user's activity level on social networking sites. Yang and Li (2016), in their study of consumer co-creation in online communities, underscored the significance of social network ties among consumers in enabling the norm of reciprocity and shared language that accordingly affect the customer-generated content's popularity, defined as the peer consumers' online engagement and collaboration in exchanging and sharing knowledge (measured by the total number of comments). With regard to knowledge sharing in online Q&A communities, Wang et al. (2022a) found that knowledge-seeking behaviours of the online community users positively affect their social capital, which accordingly associates positively to the users' knowledge-contribution behaviours (e.g., idea-based, comment-based, responsibility-based), while Jin et al. (2015) revealed that users' self-presentation, peer recognition and social learning represent the key drivers for knowledge-contribution behaviours.

The effect of UGC on firm performance was also articulated in the literature. For example, brand-related UGC was found to activate consumers' emotional and cognitive responses, which can significantly influence consumer behavioural responses, such as impulse buying, future purchase intentions and brand engagement (Kim and Johnson, 2016; You and Joshi, 2020), while the significant impact of UGC on product development purposes by better understanding customer needs, was also highlighted (e.g., Ho-Dac, 2020; Timoshenko and Hauser, 2019).

3.2.6.3 Online customer trust and risk/privacy concerns

Consumers' trust, risk perceptions and privacy concerns in online contexts also received significant research attention. The early study of Forsythe et al. (2006) developed a scale to measure the perceived risks for consumers associated with online shopping, referring specifically to financial risks as the consumers' potential net loss of money, including their insecurities about online credit card usage, to the product risks as the consumers' loss in the case of low and unexpected product performance, and to the time risks as the inconvenience a consumer might experience during online transactions such as complex navigation and submitting orders or delays in receiving orders. Thus, several researchers (e.g., Hung et al., 2012; Mukherjee and Nath, 2007; Grewal et al., 2003; Wang et al., 2004) underlined the significance of clear online payment terms, privacy and security disclosures (e.g., information protection and safety features, assurances of security encryption), and money-back guarantees for generating consumer trust in online shopping.

A number of studies (Lu et al., 2016; McCole et al., 2010; Mukherjee and Nath, 2007; Wang et al., 2004) also found that the degree of risk and trust customers perceive when shopping online from retail websites and social commerce positively impacts their bookmarking intentions, willingness to disclose personal data, and to affect their perceptions and attitudes regarding online shopping, which in turn encourage positive customer behavioural intentions (e.g., online search and purchase, WOM, continued interaction). Bleier and Eisenbeiss (2015) also found that more trust in a retailer can enhance the perceived usefulness of their personalised ads without causing increased consumer reactance or privacy concerns, whereas less trust in a retailer triggers increased reactance and privacy concerns on banners with higher personalisation depth (i.e., the closeness of a banner ad to reflecting consumer interests), regardless of the personalisation breadth (i.e., how completely or exhaustively a banner ad reflects consumer interests).

Other researchers (e.g., Chari et al., 2016; De Vries, 2019; Smith et al., 2005) focused on consumer trust towards UGC, arguing that consumers can trust other consumers more than firms' marketing practices (e.g., ads appearing during their online shopping). For example, Smith et al. (2005) empirically found that online consumers tend to seek and accept peer recommendations during an online search, contributing to their decision-making regarding the products/services they purchase. They also showed that the expertise and rapport with peers who provide recommendations are crucial characteristics for developing trust towards the peer recommender, and, the higher the level of trust in the peer recommender, the greater their perceived impact on the choice decision. Chari et al. (2016) also confirmed that a high level of trust in Facebook friends can enhance trust in user-generated brand recommendations on Facebook, and this relationship is stronger for consumers with high than low levels of ad-scepticism, while they are more likely to trust their Facebook friends if they exhibit high benevolence and integrity.

3.2.6.4 Online customer engagement

Another important topic central to digital marketing research is customer engagement. Many researchers (e.g., Bazi et al., 2020; Eigenraam et al., 2018; Lim and Rasul, 2022) studied online customer engagement as a multidimensional construct consisting of cognitive, affective and behavioural dimensions, as well as considering various forms of digital customer engagement behaviours. Eigenraam et al. (2018) classify these behaviours into five groups, namely: (1) for fun practices (e.g., playing a game, participating in an online contest); (2) learning practices (e.g., viewing videos, watching pictures, signing up for updates); (3) customer feedback (e.g., completing customer surveys, suggesting service improvements, writing online recommendations); (4) work for a brand (e.g., offering assistance, making an online advertisement); and (5) talk about a brand (e.g., blogging, interacting with other consumers online, recommending to friends, engaging in online conversations).

Within the context of social media consumer engagement, Halloran and Lutz (2021) referred to some other types of digital customer engagement, such as putting likes and emoticons in a firm's social media posts, tagging others, and commenting on social media, with likes and emoticons representing a weak form of engagement, tagging others with a comment having a moderate strength, positive comments indicating a moderate form, and negative comments representing the highest indication of engaging customers online. Their results also showed that likes do not predict

purchase frequency, but instead, along with negative comments, they associate with lower store visits, while among all emoticons only the heart emoticon was associated with post-engagement purchase visits. Positive comments were also associated with increased purchase frequency, whereas negative comments were negatively related to future visits.

Shawky et al. (2020) also conducted interviews with social media practitioners and users to investigate the process of customer engagement on social media and proposed a framework with appropriate assessment measures. The first and lowest level of engagement behaviour is *connection*, which is a one-way firm-to-customers communication on social media, measured by the number of impressions, reaches and views; the second level is *interaction*, which represents a two-way communication among different actors on social media, measured by the number of likes, emojis, GIFs, inbox messages, comments and replies to comments; the third level refers to *loyalty*, which includes repeat interactions between actors over time, measured by the number of actors interacting with the firm; the fourth and highest level of engagement is *advocacy*, where actors are contributing to the success of the firm by sharing content within the firm's community or with actors outside the community, measured by the number of internal (e.g., initiating, co-creating communication) and external (e.g., e-WOM, WOM, tagging others, sharing posts, writing testimonials) advocacy activities.

Various drivers of digital customer engagement were identified in the marketing literature, including customer satisfaction, positive emotions and trust (de Oliveira Santini et al., 2020). Lim and Rasul's (2022) conceptual study grouped these drivers into: brand-based, customer-based, industry-based, marketer-based, message-based, platform-based, social-based and value-based, while Bazi et al. (2020) identified 13 different motivations driving consumers to engage with brands online, which can be classified into seven groups, namely: (1) perceived content relevancy (e.g., brand news, post quality, celebrity endorsement), (2) brand-customer relationship (e.g., brand love), (3) hedonic motives (e.g., entertainment), (4) aesthetics motives (e.g., design appeal), (5) socio-psychological motives (e.g., actual self-congruency, status signalling), (6) brand equity (e.g., perceived brand quality), and (7) technology aspects (e.g., ease of use, convenience).

Lee and Park (2022) also found stronger effects on customer engagement from owned media content (i.e., generated by the firm) compared to earned media content (i.e., generated by customers and other entities). Some researchers (e.g., de Oliveira Santini et al., 2020; Ho and

Chung, 2020; Lee and Park, 2022) also shed light on digital customer engagement's effects on firm performance, including WOM, customer equity (e.g., value equity, brand equity, relationship equity) and repurchase intention. Finally, Lim and Rasul's (2022) conceptual study revealed that customer engagement outcomes could be grouped into four categories: (1) those related to the firm's business performance; (2) those associated with the brand (e.g., brand attachment, brand awareness, brand loyalty); (3) those linked to the customer-based performance (e.g., customer satisfaction, customer lifetime value); and (4) outcomes related to social media (e.g., social media perceived quality, social media use in sales).

3.2.7 Concluding remarks

The above review of the literature has amply demonstrated the large volume and multifaceted nature of digital marketing research, which is growing continually with no signs of slowing down (Barsegyan, 2020; Busca and Bertrandias, 2020; Yadav and Pavlou, 2014). The introduction of new digital technologies and social media platforms, their new features and applications for marketing purposes, and the fast-changing trends and preferences in online consumer behaviour, are expected to result in the creation of additional research topics, in the future. However, despite the wealth of knowledge accumulated, this line of research suffers from various gaps, with the most important presented below.

First, in regard to the macro-environmental and micro-environmental influences on a firm's digital marketing practices, research is rather descriptive and explanatory, with limited exploratory investigations. Only few empirical studies exist about the specific effects of regulatory, technological and sociocultural environments on the firm's digital marketing strategy and its efforts to achieve a competitive advantage. At the same time, most studies in these areas examined consumer behaviour issues than strategic themes (from a firm's perspective). In addition, more empirical research is required to examine the role of competition and intermediaries in implementing digital marketing strategies, which was considerably ignored by the literature.

Second, while much has been written on the multiple different types of dynamic capabilities (e.g., social CRM capability, e-marketing capability, e-commerce marketing capability) that are necessary for the implementation of successful digital marketing strategies, this line of research tends to focus on specific areas of digital marketing rather than on the holistic digital marketing

field, hence failing to reflect its multidimensionality (e.g., social media marketing, mobile marketing, content marketing). As Homburg and Wielgos (2022) argue, due to the fact that most research focused on capabilities related to single digital marketing practices rather than the broad set of strategic digital marketing activities, there is still no clear understanding of whether digital marketing capabilities matter to firm performance. In addition, despite the fact that some researchers (e.g., Daniel and Wilson, 2003) provided hints that the dynamic capabilities of online firms can be useful in the creation of competitive advantage, there is only limited knowledge on these.

Third, while the strategic firm orientations/approaches of exploration, exploitation and ambidexterity have been long used in digital marketing practice, with retailers already creating value through the development of innovative and entirely new digital marketing skills and processes and the strengthening and improvement of their existing skills and practices in digital marketing (Ho and Lu, 2015), research efforts in these orientations/approaches are still minimal, with no conceptual or theoretical consensus about the digital element and its relation with marketing strategy. In particular, the focus of the extant research lies on discrete topics related to the digital context (e.g., crowdsourcing-based technologies, digital platform capability), while no clear understanding has emerged regarding the use of the explorative, exploitative and ambidextrous approaches within the firm's digital marketing strategy and the interplay with other capabilities used to support digital marketing practices. Most importantly, the available studies provide limited insights regarding the antecedents and outcomes of these strategic approaches in a digital marketing context, which causes a strong need for theoretical and empirical justification. Regarding the research in digital marketing mix decisions, conceptual studies seem to outweigh those of an empirical nature (e.g., Sajeesh et al., 2021), thus necessitating more empirical investigation on the subject. Notably, research on the topic is rather fragmented, analysing digital marketing strategy from discrete strategic areas rather than providing holistic examinations to include all elements of the marketing mix.

Fourth, despite repeated warnings posed by marketing researchers concerning the critical role of achieving and sustaining a competitive advantage in a digital context (e.g., Diaz et al., 2021; Lam et al., 2019), only a few empirical studies shed light on the subject, with the extant literature suffering from the absence of appropriate measurement scales of competitive advantage focusing on digital markets. Also, most available research did not examine specific types of competitive

advantage (e.g., differentiation versus low-cost) or explore how dynamic capabilities can be conducive to these. There is therefore limited understanding of how firms can better apply their capabilities in selecting specific strategic approaches to achieve competitive advantage in dynamically changing environments (Diaz et al., 2021; Javalgi et al., 2005).

Finally, with regard to online customer engagement, more research appears to focus on its drivers (e.g., Bazi et al., 2020; de Oliveira Santini et al., 2020) rather than its performance outcomes related to the firm (e.g., Cheng et al., 2021; Ho and Chung, 2020). Specifically, most studies examined outcomes related to either customer engagement elements (e.g., cognitive, affective, activation dimensions) or different performance dimensions (e.g., sales growth, customer relationship performance) instead of including both constructs. Hence, the extant literature tends to ignore the effects of customer engagement on firm performance, which might hinder the generation of useful insights for digital marketers.

3.3 Summary

This chapter reviewed the available published academic literature on digital marketing. Key definitions of digital marketing were initially provided, and then the chapter continued by examining the evolution of this line of research through six main digital marketing-related research streams (macro-environmental factors, micro-environmental aspects, organisational aspects, managerial characteristics, digital marketing strategy, digital customer behaviour). The focus of the literature review was on the business-to-consumer market and particularly on the retail sector. The review revealed that, although the extant literature on digital marketing issues covers a considerably broad range of topics and is currently experiencing growing interest from academic researchers in light of the field's fast advances, some critical gaps still appear to exist. These were discussed in the last section of the chapter. The following chapter presents and discusses the conceptual research model, explains its theoretical framework and constructs its hypothesised relationships.

CHAPTER FOUR

Conceptual model and hypotheses

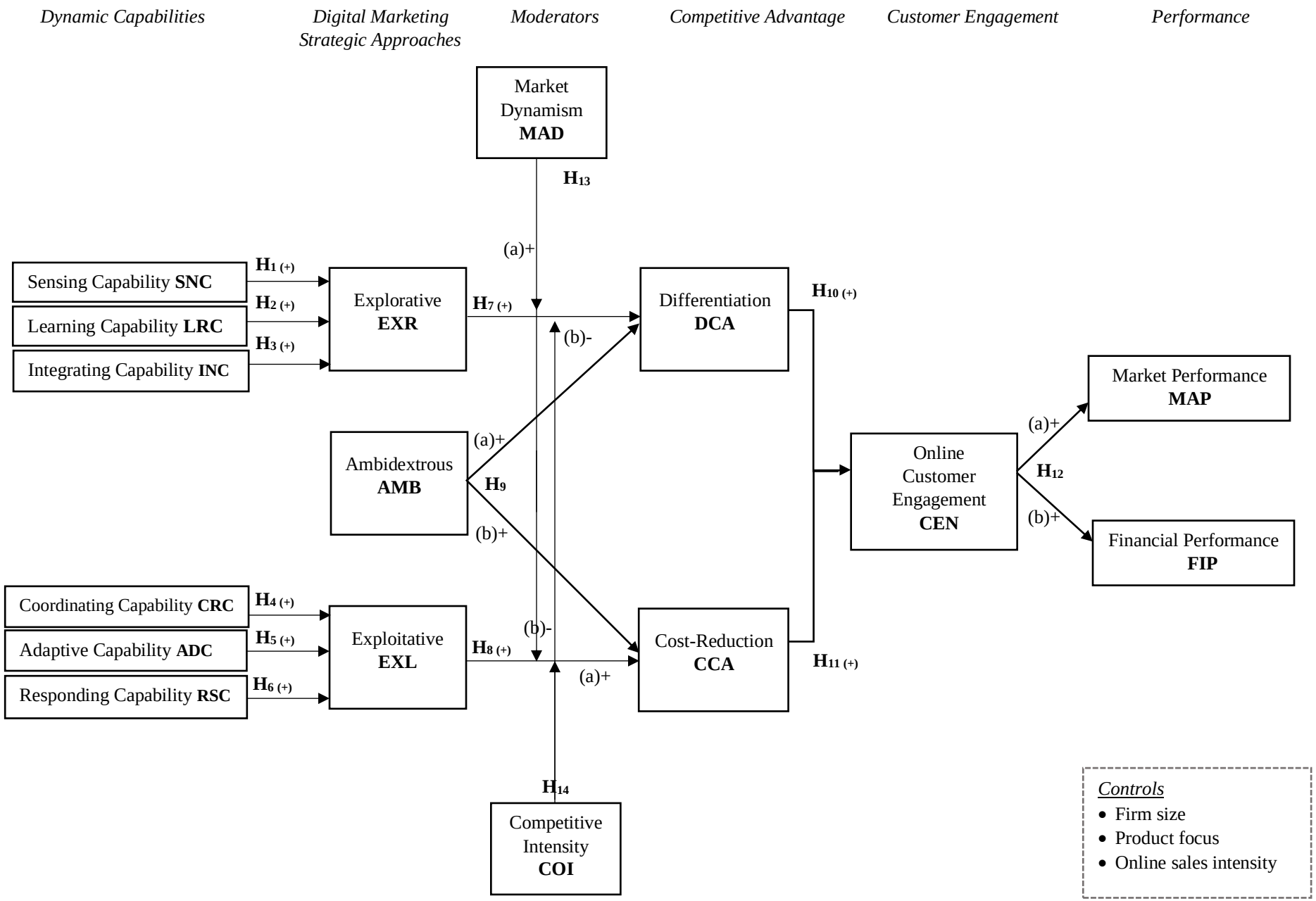
4.0 Introduction

The previous chapter reviewed the academic literature regarding digital marketing issues and summarised the research gaps. This chapter's primary goal is to describe the study's conceptual model and develop the associated research hypotheses. First, an overview of the research model is given, which presents and explains the thesis' conceptual model and the theoretical frameworks adopted for its development (e.g., dynamic capabilities theory, exploration-exploitation concepts of the organisational learning theory). Subsequently, the research hypotheses derived from the model are developed and justified through previous empirical research and theoretical arguments.

4.1 An overview of the conceptual model

Figure 4.1 presents this study's conceptual model, which includes six main groups of constructs, namely: dynamic capabilities, digital marketing strategic approaches, competitive advantage, online customer engagement, performance and moderators. The **dynamic capabilities** used in this model refer to sensing, learning, integrating, responding, adaptive, and coordinating. These are expected to influence the firm's explorative (e.g., continually introducing new and novel digital marketing practices) and exploitative (e.g., constantly improving and refining the firm's existing digital marketing processes) **digital marketing strategic approaches**. There is also the ambidextrous digital marketing strategic approach explaining the simultaneous application of both explorative and exploitative digital marketing activities. The adoption of each one of the three digital marketing strategic approaches is expected to influence the creation of a **competitive advantage** which can take the form of differentiation or cost reduction. The achievement of these competitive advantages is expected to positively affect **online customer engagement**, which refers to the emotional connection and interactions that customers have with the company online (Hollebeek et al., 2014; Kim and Johnson, 2016). Subsequently, online customer engagement is expected to positively impact the retail firm's **performance**, whether market-related or financial-related. Finally, the **moderating** roles of two external environmental factors, namely market dynamism and competitive intensity, are examined on the various associations between the two digital marketing strategic approaches and the two types of competitive advantage. The constructs' definitions and hypotheses are provided in **Table 4.1** and **Table 4.2** at the end of this chapter.

Figure 4.1 The conceptual model



4.1.1 Theoretical background

The conceptual model of this doctoral study is mainly based on two theories, namely dynamic capabilities (DCs) theory (Teece et al., 1997) and organisational learning theory (exploration, exploitation, ambidexterity) (March 1991), which were both originally developed in the strategic management literature. Their focus on the dynamic external conditions and the need for firms to achieve congruence with them fits well with this study's context of digital marketing, described by turbulence and fast change. While these theories were thoroughly discussed in Chapter two, the present chapter focuses on explaining why they provide a theoretical platform for the model.

4.1.1.1 Dynamic capabilities (DCs) theory

As indicated in Chapter two, DCs theory considers competitive advantage as a function of the firm's assets and their deployment and redeployment in dynamic markets (Teece et al., 1997). Dynamic capabilities are those strategic processes that enable firms to implement new strategies that create value by achieving congruence with the fast-changing environment (Eisenhardt and Martin, 2000; Teece, 2007). This theory has been previously used in marketing literature to explain the role of dynamic capabilities (e.g., sensing, reconfiguring) on marketing strategy and their impact on performance outcomes (e.g., Hunt and Madhavaram, 2020; Wilden and Gudergan, 2014). However, only in recent years have researchers been relying upon DCs theory to study digital marketing issues such as specific digital marketing dynamic capabilities (e.g., digital customer linking, digital market-sensing) that are necessary for firms competing in the online era (Li et al., 2022; Wang, 2020).

There are several reasons for selecting this theory for this research's conceptual model. *First,* this study focuses on digital marketing that entails high turbulence and dynamism, which is consistent with the context of strategic change described in this specific theory. The constant change in the online market's preferences and trends, coupled with the continuous introduction of new digital technologies, tools and platforms, demand firms to be in a state of continuous vigilance in order to remain competitive and successful (Barsegyan, 2020; Kannan and Li, 2017). This is in harmony with DCs theory, which suggests that, in dynamic and turbulent environments where decision-making is challenging, dynamic capabilities represent viable means enabling firms to manage the change and survive (Pavlou and El Sawy, 2011; Teece al., 1997). Hence, DCs theory is particularly relevant to this doctoral thesis.

Second, considering that most retail organisations today are already applying multiple digital marketing practices to a high degree, it is vital to provide some empirical evidence about the influence of dynamic capabilities on the firm's digital marketing strategy. DCs enable firms to evolve in turbulent, fast-changing markets, such as the digital market, by identifying and responding to new opportunities (Eisenhardt and Martin, 2000; Teece et al., 1997). Despite the strong coherence between the theory of dynamic capabilities and the context of digital marketing, only recently has research started studying dynamic capabilities along with digital marketing issues. Hence, it is insightful to transfer, extend and apply the theoretical concepts and ideas derived from the DCs theory to the digital marketing literature by empirically validating the significance of dynamic capabilities for digital marketing. This is also expected to trigger further relevant empirical investigations that can create value for digital marketing researchers and practitioners alike.

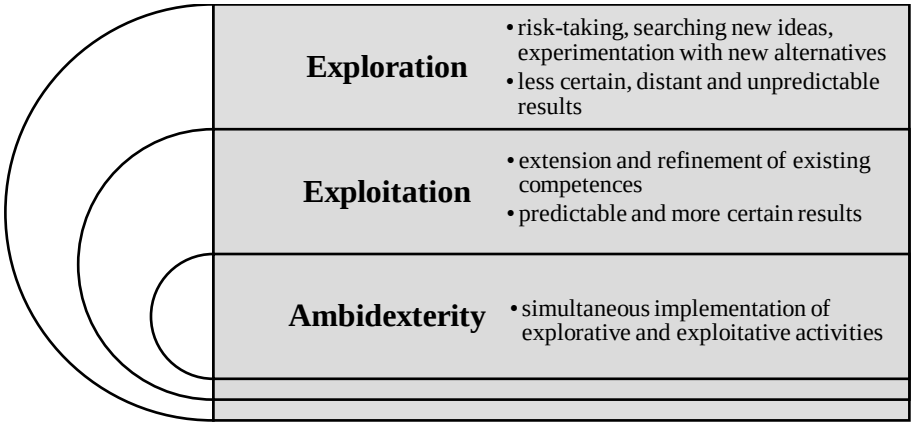
Third, it is of particular interest to shed light on specific digital marketing dynamic capabilities that can support organisations to achieve a competitive advantage and superior performance outcomes. As Homburg and Wielgos (2022) argued, there is still no clear understanding of whether digital marketing capabilities matter to organisations, considering that most investigations focused on firm capabilities related to single digital marketing practices rather than the holistic, broad set of digital marketing strategic activities. Thus, this study introduces specific digital marketing dynamic capabilities which can be applied in any digital marketing setting and support any practice within the multidimensional digital marketing field. More specifically, it tests the existing association between specific sets of dynamic capabilities (e.g., sensing, learning, integrating, responding, adaptive, coordinating) with different digital marketing strategic approaches (e.g., explorative, exploitative) and competitive advantage (e.g., differentiation, cost-reduction). Therefore, using the DCs theory will enable firms to better understand the value of developing more dynamic than classic marketing capabilities to withstand the ongoing digital transformation and remain competitive (Homburg and Wielgos, 2022).

4.1.1.2 Organisational learning theory

Organisational learning theory and more specifically the theoretical perspectives of exploration and exploitation, as suggested by March (1991), represent the second theory employed for this study. These are considered as the main adaptive processes that entail both internal and external

learning, enabling firms to tackle the changing market conditions and achieve sustainable competitive advantage and high performance (Benner and Tushman, 2003; Gupta et al., 2006). While exploration explains those firm behaviours that are described by search, risk-taking, discovery, experimentation, variation and innovation, often associated with distant and unpredictable returns, exploitation firm behaviours are described by improvement, efficiency, and extension and refinement of existing markets, technologies and skills, resulting in more immediate and predictable outcomes, benefitting organisations in the short term (Fang et al., 2010; Levitt and March, 1988; March, 1991) (**Figure 4.2**). Exploration enhances learning about new opportunities through new knowledge acquisition, whereas exploitation capitalises on the firm's available market information related to its existing experience (Kim and Atuahene-Gima, 2010).

Figure 4.2: Exploration, exploitation and ambidexterity perspectives



Source: Based on the work of March (1991)

An appropriate balance between exploration and exploitation is vital for the organisation's survival and its successful and sustainable performance, with the trade-off between the two strongly attracting the attention of business scholars throughout the years (Fang et al., 2010) (Wallis, 2009). The organisational learning literature refers to this balance or combination between the exploration of new opportunities and capabilities and the exploitation of existing markets and competencies as the ambidexterity perspective, the firm's ability to implement both explorative and exploitative activities simultaneously (Aulakh and Sarkar, 2005; Josephson et al., 2016; Judge and Blocker, 2008; O'Reilly and Tushman, 2013). In a strategic management context, it describes the balance between alterations in existing technologies and introductions of new ones (Levinthal and March,

1981; March, 1991; O'Reilly and Tushman, 2013), which is of central importance to the organisation's competitive advantage (Turner et al., 2013).

The discussion around exploration, exploitation and ambidexterity has been ongoing in business academic circles for many years. Apart from the plentiful theoretical discussions in the organisational learning field, exploration, exploitation and ambidexterity have been adopted by other disciplines, and hence studied empirically in multiple research streams, such as *innovation and new product development* (Rubera et al., 2012; Voss et al., 2008; Zhang et al., 2015); *entrepreneurship* (Abebe and Angriawan, 2014; Lisboa et al., 2011); *strategic management* (Gupta et al., 2006; Lubatkin et al., 2006; Mom et al., 2007); *strategic alliances* (Hoang and Rothaermel, 2010; Rothaermel and Deeds, 2004); and *strategic marketing* (Josephson et al., 2016; Kyriakopoulos and Moorman, 2004; Vorhies et al., 2011). However, only a few studies in the digital marketing field adopted those perspectives. The main aim was to examine the effects of different digital capabilities on firm performance (e.g., Benitez et al., 2018; Cenamor et al., 2019). Other studies considered marketing exploration and exploitation as fundamental dimensions for the firm's dynamic capabilities due to their ability to efficiently and effectively utilise marketing resources and adapt to the fast-changing environments (Easterby-Smith and Prieto, 2008; Vorhies et al., 2011).

The application of these concepts in this study's conceptual model by examining firms' explorative, exploitative and ambidextrous digital marketing strategic approaches in the dynamic digital environment is expected to contribute to the firms' efforts to remain competitive in terms of differentiation and cost-reduction advantages which can enhance online customer engagement, and market and financial performance. Exploration, exploitation and ambidexterity are believed to be quite relevant theoretical concepts to the dynamic context of digital marketing. Even though this is the first known study to rely on these theoretical perspectives to examine digital marketing issues explicitly, it is believed that these concepts can offer valuable insights and trigger further academic research. Thus, considered as key factors in enabling firms to create and maintain a competitive advantage (March 1991, Vorhies, 2011), explorative, exploitative and ambidextrous approaches are applied within this study to explain how retailers competing in the fast-changing digital era can achieve a competitive advantage based on their digital marketing practices.

Marketing researchers (e.g., Mu, 2015; Yalcinkaya et al., 2007) have already shed light on various resources (e.g., technological, market) and capabilities (e.g., marketing capability) as significant antecedents for the implementation of explorative and exploitative marketing strategies. At the same time, they have linked marketing exploration with results related to differentiation and innovativeness, such as the competitive advantage of differentiation (e.g., Kim and Atuahene-Gima, 2010; Lisboa et al., 2011; O'Cass et al., 2014), and marketing exploitation with mainly efficiency-based outcomes, such as the new product development's speed, or the products' objective quality and competitive advantage of cost efficiency (e.g., Auh and Menguc, 2005; O' Cass et al., 2014; Zhang et al., 2015). Moreover, contradictory findings exist in the literature about the outcomes of marketing ambidexterity, with some researchers (e.g., Lisboa et al., 2013; Mehrabi et al., 2019) supporting that it improves financial, innovation and new product development performance, and others (e.g., Ho and Lu, 2015; Zhang et al., 2015) supporting an opposite view, namely its adverse effects on firm performance. Thus, extending the theory's applicability is quite helpful by investigating whether these effects, mainly found in the context of new product development, can also be confirmed in the digital marketing context, where research on these approaches is still minimal.

4.2 Hypotheses formulation

4.2.1 Antecedents of digital marketing strategic approaches

Dynamic capabilities enable managers to modify their organisations to accommodate the continuous changes in their environments (Atkinson, 2013). Thus, firms develop dynamic capabilities to transform through continuous renewal and sustain their competitiveness while customer needs, competitors and technologies change (Hunt and Madhavaram, 2020; Teece, 2014). In fact, in order for firms to remain relevant in today's digital economy, they require strong digital marketing dynamic capabilities to rapidly create, implement and transform their digital marketing strategies (Teece and Linden, 2017; Warner and Wager, 2019). One of the advantages of these capabilities is that it is hard for competitors to replicate them, considering that they are built on idiosyncratic characteristics, history-honed routines and organisational culture (Teece, 2018). Their development is considered necessary for firms applying digital marketing practices, as they have a significant effect on their strategic decision-making, as well as on their digital

marketing strategy formulation and implementation (Atkinson, 2013; Homburg and Wielgos, 2022). For this reason, this study examines the role of six specific dynamic capabilities, namely sensing capability, learning capability, integrating capability, responding capability, adaptive capability and coordinating capability, oriented towards digital marketing, influencing the firm's digital marketing strategic approaches, whether explorative or exploitative.

4.2.1.1 Sensing capability and explorative digital marketing strategic approach

It is common for companies nowadays to engage in online sensing activities to acquire important information related to the continually changing digital marketing landscape and its impact on online consumer behaviour and intentions. Such insights can guide their actions appropriately (Day, 1994), so they can continue engaging with customers online and providing them with an up-to-date online experience. In particular, sensing enables firms to identify, interpret and pursue opportunities that appear in the digital market environment (Pavlou and El Sawy, 2011). In other words, sensing capability refers to the ability of the firm to scan and search the digital market environment in order to sense latent digital marketing changes, new trends and potential risks and opportunities related to digital marketing that can affect online customers, competitors and other external actors (Lin et al., 2016; Lindblom et al., 2008). Being vigilant about online market trends and new technologies, which can influence the firm's digital market offering in one way or another, is essential for the firm's survival and long-term success in the contemporary fast-changing digital era.

Today's tools and technologies for sensing digital market environments are numerous, readily available to firms, and come in many different forms (Chinakidzwa and Phiri, 2020). For example, social customer relationship management technologies, such as social media monitoring software, enable managers to engage in active sensing, acquiring rich information about customers and online market trends (Trainor, 2012). At the same time, social media sensing can be manifested through online audience feedback and two-way online conversations with customers to identify future preferences and innovation ideas (Mention et al., 2019). Marketing analytics also allow marketers to track users' behaviours, such as which keywords are better at attracting customers to the firm's website, leading to the discovery of novel trends (Gustavsen, 2022; Kingsnorth, 2019). Digital technologies can effortlessly allow companies to track market trends by relying on customer databases (Chinakidzwa and Phiri, 2020; Wang, 2020). Sensing the customers' online

needs and using this knowledge to form marketing messages and strategic decisions is crucial for adopting new digital marketing innovations (Zhou et al., 2019).

Sensing dynamic capability has an external focus relating mainly to the explorative digital marketing strategic approach, which refers to the approach dealing with introducing and developing new and innovative digital marketing practices that are quite different from existing ones (Helfat and Peteraf, 2015; Kindström et al., 2013; Olsen and Sallis, 2006). This is because the continuous scanning and monitoring of the digital market landscape enable higher alertness and understanding of new digital marketing trends, customer needs in a digital context, and changing digital technologies (Mention et al., 2019; Zhang and Wu, 2013; Zhou et al., 2019). Hence, firms can be in a better position to increase their market awareness and accurately project future market desires about digital marketing. This allows them to promptly capture new online opportunities and replace existing or create new digital marketing strategic processes that "break the mold" (Vorhies et al., 2011, p. 753).

Companies competent in environmental monitoring and gathering intelligence about digital marketing-related opportunities are in a better position to reduce uncertainty and anticipate new problems and challenges (Birkinshaw et al., 2008; Lin et al., 2016; Teece, 2007). Accordingly, understanding how the digital market environment will unravel in the future can enable them to provide unique digital market offerings that meet customers' online preferences (Bayighomog Likoum et al., 2020). However, organisations that fail to sense changes in online customer preferences and needs properly or to predict future digital opportunities, risk to inadequately cope with uncertainty, and thus become less innovative and lose focus on key areas that their digital marketing strategy should consider (Lin et al., 2016; Mention et al., 2019; Zhang and Whu, 2013).

Frequent sensing can trigger explorative business behaviours (Wilden and Gudergan, 2014; 2015), considering the sensing capability's proactive market-oriented nature concerned with the discovery and satisfaction of the latent, unarticulated and future customer wants beyond the scope of the company's experience (Atuahene-Gima, 2005; Narver et al., 2004; Ozdemir et al., 2017). The literature links proactive market-oriented activities with exploration (Brege and Kindstrom, 2021; Tsai et al., 2008; Zhou et al., 2005), underlying that proactive searching facilitates the discovery of novel combinations of knowledge and the adoption of differentiated processes based on changing trends (Zhang and Wu, 2013). Tan and Liu's (2014) investigation of 186 high-tech

firms in China found that proactive business behaviours, such as discovery, variation and focus on emerging, latent customer needs and market opportunities, are more likely to be associated with explorative rather than exploitative strategies. Likewise, Ozdemir et al. (2017) agreed that proactive market activities result in higher flexibility to develop novel customer solutions based on new market insights, which reflect explorative approaches.

Prior research has long uncovered the positive relationship between sensing capability and explorative business behaviours. For instance, the studies by Alshanty and Emeagwali (2019) and Najafi-Tavani et al. (2016) both confirmed the significant positive link between market scanning and the firm's innovativeness, while Zhou et al. (2019) showed sensing's direct positive impact on technological innovation. Similarly, Lin et al.'s (2016) study among 264 Chinese firms revealed the sensing capability's strong and positive effect in initiating novel activities through the ability to predict novel problems and opportunities for change. Innovativeness can also be reflected in the company's openness to adopt new concepts and procedures (Rakthin et al., 2016), such as introducing novel and bold digital marketing practices. Considering all the above, firms with strong sensing skills towards the external digital market environment are more likely to successfully adopt an explorative digital marketing strategic approach. Therefore, it is hypothesised that:

> ***H_1: The possession of a sensing capability is positively related to the firm's explorative digital marketing strategic approach.***

4.2.1.2 Learning capability and explorative digital marketing strategic approach

Learning capability is the firm's ability to acquire, disseminate, interpret, utilise and develop new knowledge with regard to changes, trends and new customer preferences in the dynamic context of digital marketing (Sinkula, 1994; Weerawardena et al., 2014). Like the sensing capability, the learning capability is oriented towards changes taking place in a digital marketing context (Weerawardena, 2003; 2006; 2014). However, while sensing and learning capabilities might present similarities in their scope, they are distinct in their context, considering that sensing emphasises the search for new information related to the digital market, while learning focuses on the utilisation of this information to develop new insight for the firm's digital market offering (Pavlou and El Sawy, 2011).

Evidently, in today's era of big data and online information pollution, solely sensing and searching for the correct knowledge in a digital context is not enough; companies are also required to develop and use rigorous processes of analysing and interpreting this sensed information (Hassani and Mosconi, 2022). Such processes can involve big data and marketing analytics or social media analytics, as well as more specific tools like text and data mining, machine translation, natural language processing and network analysis (Hassani and Mosconi, 2022; Meel and Vishwakarma, 2020; Ranjan and Foropon, 2021). Notably, digital market learning was found to frequently result in new product development decisions or improvements in the firm's innovativeness (Moe and Schweidel, 2017; Scuotto et al., 2017). A relevant example mentioned in the study of Hassani and Mosconi (2022) refers to General Electric's employment of social media analytics to produce thousands of new and novel ideas that reinforce explorative processes.

Learning dynamic capability also relates to the explorative digital marketing strategic approach that emphasises the development of novel and new digital marketing practices (e.g., extending to new channels and platforms, using new digital marketing technologies). This is because pursuing various learning activities relating to digital marketing can enable the firm to identify and experiment with new digital marketing strategic avenues (Ambrosini and Bowman, 2009). Accordingly, this can encourage firms to develop novel digital marketing procedures and conduct multiple digital marketing activities (e.g., social media marketing, content marketing, email marketing) in new and different ways. Market-focused learning capability was found to trigger organisational changes and enrich firms with the potential to innovate and grow (Mallen et al., 2016; Weerawardena et al., 2014).

A market-focused learning capability is characterised by proactiveness, experimentation, risk acceptance and interaction with the external environment (Chiva et al., 2007; Cohen and Levinthal, 1990), which are elements mainly associated with explorative strategies and approaches (Tan and Liu, 2014). Dealing with the utilisation and transformation of knowledge relating to future digital trends can create a deeper insight into customer needs, and thus boost the development of explorative processes (Liang and Frosen, 2020; Narver et al., 2004).

As with sensing, learning capability was found to positively associate with innovativeness, proactiveness and risk-taking (e.g., Cake et al., 2020; Liu et al., 2002; Real and Roldan, 2014) and to facilitate explorative strategic activities in organisations (Liang and Frösén, 2020; Lin et al.,

2013; Weerawardena et al., 2006). Prior research (e.g., Baker and Sinkula, 1999; Hurley and Hult, 1998; Roberts and Palmer, 2012; Slater and Narver, 1995; Weerawardena, 2003) has discussed the positive association between market learning capability and the generation of novel and radical ideas and changes in a firm's offerings and marketing approaches (e.g., firm innovativeness).

Taking into consideration that the explorative digital marketing strategic approach has commonalities with the concept of firm innovativeness as it deals with new ideas and the continuous introduction of new and novel digital marketing practices, it could be argued that a similar positive effect would be expected in the case of the association between the learning capability and the explorative approach. The above arguments indicate that firms possessing a learning capability are more likely to pursue explorative digital marketing strategies. Thus, the following hypothesis can be made:

H_2: The possession of a learning capability is positively related to the firm's explorative digital marketing strategic approach.

4.2.1.3 Integrating capability and explorative digital marketing strategic approach

An integrating capability refers to the firm's ability to achieve internal linkages, collective interaction, communication and information sharing between employees from different departments, as well as a shared understanding (Pavlou and El Sawy, 2011; Troy et al., 2008). Organisations that manage to create high levels of this shared understanding of their digital marketing operations are more likely to deal properly with and benefit from the continuous changes and developments occurring in the digital environment (Helfat and Peteraf, 2003).

Strategic integration requires common values and a shared vision (Raisch and Birkinshaw, 2008), implying that employees from different departments must interconnect their activities and converge their individual input into a collective level, with a focus on enhancing their company's digital market offering (Darawong, 2018; Okhuysen and Eisenhardt, 2002; Pavlou et El Sawy, 2011). Indeed, firms with advanced levels of integrating capabilities tend to encourage their employees to share knowledge with other employees during their decision-making processes (Basaglia et al., 2010) and subsequently interrelate their individual efforts with overall team activities (Darawong, 2018). The utilisation of social media and big data analytics can boost the organisation's integrating capability by offering important insights from the external digital market

environment. This knowledge can be combined with the employees' inputs to enhance their digital market offering (Mu, 2015).

The possession of an integrating capability is expected to be positively associated with the explorative digital marketing strategic approach, which involves the introduction of novel ways of online customer communication, building new customer acquisition online channels, and the presentation of bold or brand-new social media campaigns. The correct and successful application or development of such new and risky digital marketing procedures requires strong coordination and high communication among the different departments of the firm in order to achieve an overall agreement and consistency in decision-making regarding the digital marketing (Sethi, 2000).

The fact that interfunctional integration links opinions, ideas and insights from different organisational units suggests that knowledge from diverse sources needs to be exchanged, diffused and integrated within the explorative process of introducing and developing new digital marketing procedures (Atuahene-Gima, 2005; Mu, 2015; Troy et al., 2008). Through this collective interaction and communication, higher flexibility and trust can be developed among employees (Lin et al., 2016; Troy et al., 2008), which significantly encourages the generation of novel ideas and risk-taking in digital marketing (Clegg et al., 2002; Ellonen et al., 2008). Prior research associated firms' integrating capability with more explorative aspects such as experimentation, risk-taking and teamwork to develop novel ideas (Kim and Park, 2013), while firms in which it was absent were found to be more prone to conflicts and mistrust between different functions, resulting in ineffective utilisation of useful ideas and fewer innovative efforts (Mu et al., 2015).

The frequency of communication and how much digital marketing-related information is shared within the organisation can affect the integrating capability's effectiveness regarding the development of innovations in the firm's digital marketing practices (e.g., search engine marketing, email marketing, mobile marketing) (Troy et al., 2008). This capability was found to enhance organisational innovativeness (Lin et al., 2016), which can also be expected in the case of explorative digital marketing strategic approaches. This is because the employees' clear comprehension and awareness about who in the firm has specialised digital marketing skills and knowledge can considerably facilitate the development of specific new digital marketing procedures (Pavlou and El- Sawy, 2011; Song and Montoya-Weiss, 2001). By enhancing efficient knowledge exchange, collaboration and internal trust, and reducing conflicts within the

organisation's departments, a firm can better apply explorative digital marketing strategies. Hence, it is believed that:

H3: The possession of an integrating capability is positively related to the firm's explorative digital marketing strategic approach.

4.2.1.4 Responding capability and exploitative digital marketing strategic approach

Responding capability refers to the firm's ability to mobilise existing digital marketing activities to respond quickly and effectively to current customer needs, demands, complaints and previously sensed opportunities related to digital marketing (Garrison, 2009; Jayachandran et al., 2004; Roberts and Grover, 2012). Such responding enables companies to take physical action following their sensing and learning activities (Yang and Liu, 2012). Today's customers, especially in the online context, can choose from many options, and they are described as well-informed, tech-savvy, and much more empowered and communicative than in the past (Krishen et al., 2021; Newman, 2022). This makes them more demanding than ever regarding the interaction, experience and service they expect to receive online, which requires firms to have an even better responding capability (Jayachandran et al., 2004). The expertise and speed by which companies tend to satisfy customers' needs, wants and requirements relating to their digital marketing activities represent the two main dimensions of the responding capability (Zaheer and Zaheer, 1997; Jayachandran et al., 2004).

The responding capability is expected to positively influence the exploitative digital marketing strategic approach since this deals with continuous modifications and improvements of the firm's existing digital marketing processes (Vorhies et al., 2011). This can be explained by the responding capability's focus on the firm's existing competences to satisfy customer requirements (Zhou et al., 2005). Equally, the exploitative strategic approach is enhanced through the consistent focus on existing digital marketing processes to provide incremental and routine improvements to the firm's overall digital market offering (Vorhies et al., 2011). By capitalising on current and previously sensed market opportunities rather than on searching for new ones, the firm's responding capability aims to excel in a given situation by fulfilling what customers want and desire today (Brege and Kindstrom, 2021). Hence, companies possessing this capability tend to remain within their digital marketing domains and deal with information closely related to the scope of their

experience or preexisting knowledge base rather than proactively searching for new and latent knowledge (Kocak et al., 2017; Li et al., 2008; Tan and Liu, 2014).

Responding to digital marketing-related customer demands and expectations requires frequent, appropriate and rapid adjustments in the firm's digital marketing efforts and activities (Wei et al., 2014). This can strongly encourage and enhance the adoption of an exploitative strategic approach. For example, customers might contact a specific firm to make a complaint or ask a question about an online order they have recently placed. How quickly, effectively and appropriately these requests are accommodated, and further actions taken to improve the overall digital market offering, can indicate how competent this seller is in responding and exploiting specific opportunities. The ability to respond to the various market requirements and desires has been extensively discussed in the pertinent literature (e.g., Eshima and Anderson, 2017; Miocevic and Morgan, 2018; Yang and Liu, 2012), indicating that this is an essential driver for exploitative business behaviours aiming to deepen existing opportunities and competences in dynamic environments.

Responding capability is considered to be connected more with exploitative than explorative strategic concepts since it mainly focuses on the firm's present knowledge and experience and on understanding current customers and their expressed wants (Atuahene-Gima, 2005; Baker and Sinkula, 2007; Tan and Liu, 2014). Firms can satisfy their customers' needs and wants through incremental innovations designed to broaden their present knowledge and skills, improve established designs and channels, and expand current offerings (Li et al., 2008; Tan and Liu, 2014). Indeed, incremental innovations are described by proximity, refinement, efficiency and implementation, which are characteristics of exploitative approaches (Tan and Liu, 2014; Tsai et al., 2008; Zhang and Duan, 2010). Therefore, it can be hypothesised that:

> ***H4: The possession of a responding capability is positively related to the firm's exploitative digital marketing strategic approach.***

4.2.1.5 Adaptive capability and exploitative digital marketing strategic approach

Adaptive capability is the firm's problem-solving ability that meets customers' current demands and requirements related to digital marketing by properly customising, modifying or upgrading its existing digital marketing practices (e.g., social media marketing, mobile marketing, search engine

marketing, affiliate marketing) (Lu et al., 2010; Oktemgil and Greenley, 1997; Staber and Sydow, 2002). While the responding capability focuses on responding to and satisfying sensed customer requests related to the firm's online activities, the adaptive capability is more oriented towards applying specific adaptations and adjustments to the firm's digital marketing activities. Quickly and correctly tailoring and modifying digital marketing activities according to specific customer requests and preferences, enriches the firm with significant competence in sustaining its online customer base through individual personalised and customised online value offerings (Day, 2014; Oktemgil and Greenley, 1997). This ensures higher customer satisfaction and long-term customer relationships (Miocevic and Morgan, 2018; Oktemgil and Greenley, 1996).

A firm's ability to make digital marketing adjustments according to customer preferences and its inherent traits of flexibility, adaptability and quick problem-solving are expected to facilitate the adoption of an exploitative digital marketing strategic approach since the latter emphasises consistent, incremental and continuous improvements and modifications of its existing digital marketing processes (Vorhies et al., 2011; Wei and Lau, 2010). This is because firms with high levels of adaptive capability tend to have a greater awareness of existing and already sensed market opportunities, and thus a stronger understanding of the current market expectations, which encourages them to focus on more exploitative and incremental activities to satisfy established demands (Brege and Kindstrom, 2021; Eshima and Anderson, 2017).

Firms possessing high levels of adaptive capacity are thus experienced and skilled in adapting their online channels' functions and online content, display advertising or optimising their digital marketing expenditure according to what the customers want and prefer today (Chaffey and Patron, 2012; Miocevic and Morgan, 2018). Previous research in the strategic management field (e.g., Eshima and Anderson, 2017; Miocevic and Morgan, 2018; Yang and Liu, 2012) has broadly discussed and revealed the significance of proper and on-time adaptations of the firm's market offering on effectively exploiting market opportunities in dynamic environments. Also, adaptive processes that focus on issues within the firm's traditional scope have been repeatedly related to marketing exploitation strategies that aim to achieve incremental outcomes based on higher efficiency (Kyriakopoulos and Moorman, 2004; Slater and Narver, 1995). From the above analysis, it can be posited that:

H_5: The possession of an adaptive capability is positively related to the firm's exploitative digital marketing strategic approach.

4.2.1.6 Coordinating capability and exploitative digital marketing strategic approach

Coordinating capability refers to the firm's ability to assign the right people and resources to the right digital marketing tasks and to create an internal coordination, synchronisation and orchestration of the work of each employee involved in digital marketing (Kogut and Zander, 1992; Pavlou and El Sawy, 2011). Companies can usually manage this coordination through internet-based technologies such as a personalised interface (Rashidirad et al., 2017). Ensuring an appropriate allocation of resources and tools towards the company's digital marketing tasks and/or assigning digital marketing responsibilities to employees according to their task-relevant knowledge and skills is critical for companies aiming to effectively meet customers' needs and wants in today's dynamic digital contexts (Darawong, 2018; Rashidirad et al., 2017).

According to Pavlou and El Sawy (2011), some of the most significant activities associated with the coordinating capability are: assigning appropriate resources and suitable employees to the right tasks, identifying synergies between tasks and resources, and coordinating collective organisational activities. Coordinating capability deals mainly with the tasks' orchestration, as opposed to the integrating capability, which focuses on creating a shared understanding among employees (Crowston and Kammerer, 1998; Pavlou and El Sawy, 2011). High coordination between employees working on different digital marketing tasks within the organisation is necessary for firms to apply consistent efforts in their digital marketing activities so that the firm's message across all platforms is well-coordinated and coherent (Gustavsen, 2022).

The possession of a coordinating capability has a positive direct effect on adopting an exploitative digital marketing strategic approach, whereby the firm consistently, routinely and incrementally improves its digital marketing procedures. The logic behind this is that the proper coordination among employees, resources and tasks related to digital marketing enables a closer focus on each different responsibility and knowledge acquired, as well as a better ability to re-examine existing information or adapt current ideas for routinely refining and optimising the firm's current digital marketing processes (Vorhies et al., 2011). In fact, such incremental improvements, adjustments

and modifications can be more effectively exploited when each employee is responsible for a specific digital marketing task which is compatible with his/her expertise (Pavlou and El Sawy, 2011).

Exploitative digital marketing strategic processes are mainly based on the efficient comprehension of what customers want nowadays to continually offer them the desired benefits, as well as focus on changes increasing the efficiency of the firm's current marketing activities to keep the customers satisfied and continue buying from the company (Kyriakopoulos and Moorman, 2004; O'Cass et al., 2014; Pavlou and El Sawy, 2011). To successfully execute these routines, it is vital to ensure the appropriate orchestration and deployment of the firm's digital marketing tasks and activities (Pavlou and El Sawy, 2011). The coordinating capability's positive effect on project efficiency was revealed in Darawong's (2018) study, while Rashidirad et al. (2017) found that this capability enables firms to generate lock-in value, that is, the value created from motivating customers to repeat their purchases.

Considering that a coordinating capability can help to coordinate existing resources, competences and employees in performing digital marketing tasks that result in value-creating processes, it will also be expected to lead to better decisions concerning the exploitation of existing digital marketing activities (Atuahene-Gima, 2005; Helfat and Peteraf, 2003). The previous argumentation leads to the following hypothesis:

H_6: The possession of a coordinating capability is positively related to the firm's exploitative digital marketing strategic approach.

4.2.2 Digital marketing strategic approaches and competitive advantages

Today's digital era requires continuous experimentation with new and novel digital tools and online market trends, but also a strong focus on customers' current online needs and demands through various improvements and modifications to existing digital marketing activities (Herhausen et al., 2020; Krishen et al., 2021; Turner et al., 2013). Those efforts translate to explorative or exploitative digital marketing strategic approaches through which firms can gain a differentiation or cost-based competitive advantage.

4.2.2.1 Explorative digital marketing strategic approach and differentiation-based competitive advantage

An explorative digital marketing strategy is a strategic approach adopted by firms to continually introduce and develop new and innovative digital marketing processes that differ from existing procedures or challenge previous ones (Kyriakopoulos and Moorman, 2004; Vorhies et al., 2011). Today's retailers can become radically innovative and explorative online by doing things that no other company has done before, such as: applying extremely creative and attention-grabbing activities and campaigns online, uploading novel and entertaining online content, or using digital technologies to change completely the processes and procedures they use to interact with customers digitally (Mahoney, 2020). Ikea's print and digital catalogues have already transitioned into shoppable Pinterest-versions, Audi's 360-VR application lets customers visualise car designs or test drive cars from home, Alibaba, Ikea and Amazon are applying AR and VR technologies (e.g., VR kiosks, Buy + mobile VR platform, VR department store app) into their e-commerce services to enable customers decide whether products fit their existing rooms, and L'Oréal Paris and Sephora are currently using VR and AR to help their customers virtually test different cosmetic products on themselves through mobile apps (Blake, 2019; Cowan et al., 2021; Tan et al., 2022; Xi and Hamari, 2021).

Although traditional marketing explorative strategic approaches are often represented by novel organisational practices that require high risks and prohibitive costs to be implemented and are probably accompanied by uncertain short-term results (Kyriakopoulos and Moorman, 2004; March, 1991), in a digital context, this is not always the case. This is because the current low internet costs and the plethora of options and free tools offered online today enable businesses to be more easily explorative, exhibiting novel digital marketing efforts through creativity and innovative thinking. For instance, applying a clever, outstanding email marketing campaign that immediately attracts the receivers' attention because it is quite different and new from previous ones or the competitors' email marketing, does not always need to be expensive to be oriented towards exploration. Similarly, choosing to use and have an online presence in channels and platforms that most companies in the industry tend to avoid can be considered an explorative activity involving low costs or risks (Mahoney, 2020).

It is expected that companies that dare to introduce and use new, innovative or radically different digital marketing procedures, are seen as different compared to their competitors, having the ability to offer distinctive and better customer benefits online. Research has shown that innovation-related explorative activities lead to differentiation (Kaleka and Morgan, 2019). Specifically, the possession of an explorative strategic competence can enable innovations that are novel and distant from existing ones, encouraging the creation of new organisational practices characterised by differentiated competitive advantage (Ahuja and Lampert, 2001; Jansen et al., 2006).

For instance, Missguided's decision in 2016 to launch a unique, fully transactional Tinder-style mobile shopping app with a 'Swipe to Hype' function enabling users to swipe between their favourite fashion looks has distinguished the brand as fun and innovative, standing out from other fashion retailers with regular mobile apps (Davis, 2016; Stewart, 2016). Similarly, companies that proactively sensed the trend regarding the rise of voice searches in 2020 were in a better position to innovate based on that and differentiate themselves from other companies that did not consider this trend (Barseqyan, 2020). The earlier study of Yamakawa et al. (2011) also demonstrated that exploration is more beneficial for companies focusing on differentiation strategies because such strategies demand new processes to meet emerging opportunities and market changes.

This relationship between exploration and differentiation has been repeatedly established in previous research on new product development and innovation. Specifically, it was supported that explorative strategies enable firms to develop new products with unique customer benefits and advantages based on new solutions or differentiated and innovative features that no other company provides in the market (Jansen et al., 2006; Siren et al., 2012; Smith and Tushman, 2005). Having an explorative market competence encourages the development of products that can be ahead of the competition and provide completely new customer value (Lisboa et al., 2011). This is in harmony with Su et al. (2017), who underlined that a differentiation competitive advantage could be achieved by introducing radically new product features and/or novel marketing processes. Kim and Atuahene-Gima (2010) also found that explorative market learning enables the generation of differentiated product advantage by acquiring knowledge that differs from the firm's existing experience. Moreover, O'Cass et al.'s (2014) study among technology-intensive industrial firms

revealed that the explorative-based generation of new marketing routines allows new ways of marketing the product through differentiated sales, promotion, pricing and distribution. The following hypothesis can therefore be made:

> ***H7: The adoption of an explorative digital marketing strategic approach by the firm is positively associated with the creation of differentiation-based competitive advantage.***

4.2.2.2 Exploitative digital marketing strategic approach and cost-reduction-based competitive advantage

An exploitative digital marketing strategy is a strategic approach to incrementally and continually refining and improving the firm's existing digital marketing processes according to the expressed customer and market demands (Kyriakopoulos and Moorman, 2004; Vorhies et al., 2011). Responding to those current customer and market needs implies that the company provides incremental improvements to its digital marketing practices in terms of quality or cost-efficiency (Smith and Tushman, 2005). It is believed that exploitative strategies are adopted more easily than the explorative ones, possibly due to the involvement of lower costs and risks, the existence of more measurable, secure and predictable results and the great availability of different digital tools supporting this approach (Gupta et al., 2006; Siren et al., 2012). The optimisation of the firm's digital marketing expenditure, the routine improvements on the company's website and other channels, or the optimisation of the display advertising content are common exploitative tactics frequently adopted by companies competing in the digital context.

Looking back at the recent pandemic and lockdowns, which forced most businesses to shut down their physical operations, companies skilled in the exploitative digital marketing strategic approach were more able to properly deal with the situation and benefit from it. A case in point is PureGym in the UK, which successfully recognised its customers' need to continue their physical training during the lockdown, and thus chose accordingly to respond and exploit it by transforming its digital marketing channels into a virtual gym (Cording, 2020). Specifically, relying on its extensive experience and knowledge of IT and physical training, the company advanced an app with daily streaming live workout classes for anyone to participate in through its social media channels, modified the content in those channels to include short inspirational and educational videos, and

managed to create a continuous online dialogue with its customers that encouraged a constant refinement of its digital marketing activities and grew its brand's profile (Matthew, 2022).

The adoption of the exploitative digital marketing strategic approach by the firm is expected to create a cost-reduction competitive advantage by decreasing its operational and development costs (Porter, 1985). This is because exploitative practices aim to respond to current environmental conditions and satisfy existing customer needs by adapting the firm's practices or technologies (Lubatkin et al., 2006). Hence, improvements in the firm's current digital marketing efforts can result in operating efficiencies and reduced digital marketing costs, as in the case of simplifying online customer purchase procedures based on more efficient IT or reducing conversion costs, which might accordingly benefit customers with lower prices (Brady et al., 2002; Stone et al., 2007; Trainor et al., 2011).

This association between exploitation and cost-reduction advantage has been extensively examined in new product development literature, where incremental innovations, or refinements and improvements in automation and other organisational routines led to lower costs compared to competitors (Siren et al., 2012; Smith and Tushman, 2005). For example, Kim and Atuahene-Gima (2010) revealed that exploitative market learning results in cost efficiencies in developing new products through using existing market knowledge effectively. They describe cost efficiencies as the lower delivered costs of new products in comparison to the cost of similar products by competitors. Moreover, O'Cass et al. (2014) showed that exploitative strategies result in cost-efficient customer advantages since refinements and incremental improvements to existing marketing routines can drive additional cost reductions in new products' marketing. Furthermore, Yamakawa et al. (2011) explained that exploitation approaches offer a better fit with cost-efficiency strategies due to the mutual emphasis on existing processes and the goal to save costs and achieve efficiency. Evidently, marketing exploitation incrementally boosts efficiency through the capitalisation on existing successful practices, coupled with the constant upgrading, strengthening and improving of the firm's current marketing skills and processes (Ho and Lu, 2014). Thus, it can be hypothesised that:

> ***H8: The adoption of an exploitative digital marketing strategic approach by the firm is positively associated with the creation of cost-reduction-based competitive advantage.***

4.2.2.3 Ambidextrous digital marketing strategic approach, differentiation and cost-reduction-based competitive advantages

The ambidextrous digital marketing strategic approach refers to the simultaneous application of both explorative and exploitative digital marketing practices. In other words, firms that excel in introducing novel and new processes within their digital marketing activities (e.g., using new digital technologies to create new customer experience, working with new affiliate partners) and simultaneously refining their existing digital marketing practices (e.g., making website improvements, simplifying individual online customer journeys) can be perceived as ambidextrous (O'Reilly and Tushman, 2013). Nowadays, ambidexterity is becoming more and more imperative considering the continuous changes taking place in a digital context (e.g., rapid introduction of new social media platforms and digital technologies), forcing companies to simultaneously improve the efficiency of their marketing operations while at the same time develop radically new solutions to tackle heightened online market dynamism (Bican and Brem, 2020; Khanagha et al., 2014).

Although extant research did not study ambidexterity within the context of digital marketing strategy, there is plenty of available literature on ambidexterity coming from the areas of product innovation, strategic management and organisational behaviour (e.g., Gibson and Birkinshaw, 2004; Levinthal and March, 1981). Researchers mainly agree that organisations with high levels of both exploitation and exploration can enjoy greater benefits than their competitors who rely on only one of the two approaches (Sarkees et al., 2010). Indeed, evidence indicates that the ambidextrous strategic approach significantly enhances results in organisations, such as revenue growth, profitability and market share (e.g., Gibson and Birkinshaw, 2004; He and Wong, 2004; Sarkees et al., 2010). In addition, ambidexterity was found to be of central importance in creating a competitive advantage and securing the firm's short and long-term competitiveness (Benner and Tushman, 2003; Rosing and Zacher, 2017; Turner et al., 2013).

Considering the previous argumentation that the explorative digital marketing strategic approach helps to generate a differentiation-based competitive advantage, and the exploitative approach is conducive to the creation of a cost-reduction-based competitive advantage, it will be reasonable to expect that an ambidextrous digital marketing strategic approach can also be positively related to both types of competitive advantage (Menguc and Auh, 2008; Riccaboni and Moliterni, 2009;

Smith et al., 2010). Organisational theorists have long agreed that firms can sustain a competitive advantage in dynamic contexts (such as the digital context) using the ambidexterity approach, that is, exploring new skills according to environmental changes and exploiting current competences by managing well current business demands (e.g., Gibson and Birkinshaw, 2004; Leonard-Barton, 1992; Tushman and O'Reilly, 1996).

An effective ambidextrous strategy can thus meet the needs and desires of customers both in the short and long term (Sarkees et al., 2010), since the firm simultaneously explores new and exploits current customer markets through marketing programmes that aim to attract new customers and to retain and increase existing customer purchases (Voss and Voss, 2013). In addition, firms adopting ambidextrous digital marketing strategies tend to acquire and process much knowledge about the market environment, putting them in a better position to understand and meet the new and existing online customer needs and wants regarding their interaction with brands (Judge and Blocker, 2008; Jurksiene and Pundziene, 2016; Menguc and Auh, 2008). This implies that customers' current and latent online wants are better analysed and comprehended and that, as opposed to pursuing a solely explorative or exploitative approach, the ambidextrous approach can effectively translate this understanding into significant value for both customers and the firm, providing more competence in creating both types of competitive advantages (Sarkees et al., 2010).

The product innovation and strategic management literature repeatedly established this positive association between the ambidextrous strategy and differentiation and cost-leadership advantages. For example, Hughes et al. (2010), in their research among Mexican high-technology international new ventures, revealed that innovation ambidexterity enhances the firm's ability to adapt to new market opportunities and align with the existing ones, as well as positively relates to marketing differentiation advantage and cost leadership advantage. Hughes et al. (2010) also agreed that positional advantages could be created from both explorative and exploitative innovation activities. Moreover, Jurksiene and Pundziene (2016) investigated the link between dynamic capabilities, organisational ambidexterity and firm competitive advantage, indicating that organisational ambidexterity acts as an important mediator in this link. Furthermore, Martin et al. (2017) revealed a positive moderating effect of ambidextrous innovation on the relationship between marketing capabilities and positional advantage, whether cost leadership or differentiation. Based on the above argumentation, it can be hypothesised that:

H9: The adoption of an ambidextrous digital marketing strategic approach by the firm is positively associated with (a) the creation of differentiation-based competitive advantage and (b) the creation of cost-reduction-based competitive advantage.

4.2.3 Competitive advantage and online customer engagement

As Christensen (2001) stated, different types of competitive advantage are rooted in market positions, business models or processes and competencies of organisations. Competitive advantage is perceived as the firm's ability to stay ahead of the competition, resulting in superior performance that will ensure market leadership (Wang et al., 2010). Specifically, firms can achieve a competitive advantage when they can provide the same benefits as the competition but at a lower cost (e.g., cost advantage) or offer benefits that exceed those provided by competitors (e.g., differentiation advantage) (Wang et al., 2010). Firms competing in a digital context are also expected to achieve competitive advantages having a cost reduction or differentiation nature. These advantages can provide valuable benefits to customers, encouraging them to interact and engage more with the firm online. The anticipated positive associations between the differentiation-based or the cost-reduction-based competitive advantage and online customer engagement are discussed below.

4.2.3.1 Differentiation-based competitive advantage and online customer engagement

Differentiation-based competitive advantage refers to the firm's competence in delivering a digital market offering that distinguishes the organisation from its competitors by providing a unique, better value and different benefits to customers online (Kim and Atuahene-Gima, 2010; Li and Zhou, 2010; Song and Parry, 1997). This can be achieved in various ways in a digital context, such as by offering superior online service, providing completely different online content, or launching effective digital promotion and advertising that stands out from that of their competitors (Kim and Atuahene-Gima, 2010; Li and Zhou, 2010). Notably, while in the case of product differentiation advantage, it is implicit that the customer should be willing to pay more for the perceived differentiated value (Langerak, 2003), in a digital marketing context, this differentiation can be achieved more cheaply, thus not requiring the payment of a premium price by the customer.

A firm with a differentiation-based competitive advantage tends to perform value-adding activities in a unique way, resulting in perceived superiority and distinctive customer value and benefits (Langerak, 2003; Li and Zhou, 2010). In digital marketing terms, this means that customers think of the firm's digital market offering as superior to that of its competitors. This includes online content that is of higher quality than that of the competing firms, unique online presentation of the firm's products and services in terms of the visual display and textual attributes, extremely unique online customer support service based on new digital technologies, and substantially different digital marketing activities (e.g., social media marketing, email marketing, influencer marketing) from the competition that spark customer interest, attention and excitement (Li and Zhou, 2010; Song and Parry, 1997). The possession of differentiation-based competitive advantage implies that the company's digital market offering can meet customer requirements in a superior way to that of their competitors and/or provide customer solutions not offered by other competing firms (Kim and Atuahene-Gima, 2010; Song and Parry, 1997).

A differentiation-based competitive advantage associated with the firm's digital marketing activities is expected to enhance online customer engagement by providing new, novel and unique customer benefits and solutions not available with other companies' existing digital marketing practices (Teo and Pian, 2003). In other words, the significant customer value offered through this differentiation can be translated to a strong customer enthusiasm to engage with the company online (Brown et al., 2005; Chan et al., 2014; Yoo et al., 2013). This is because customers who perceive that the firm's digital marketing activities create unique benefits and better value for them tend to experience positive sentiments in their online exchanges with the company and interact with the firm by commenting and sharing its digital marketing content, providing online feedback and reviews for the firm's offerings, recommending the firm's offerings to other online consumers, and participating in online forums and communities related to the company's brand (Eigenraam et al., 2018; Hollebeek et al., 2014; Rose et al., 2012; Wu and Li, 2018). For example, Missguided launched a unique mobile shopping app in 2016 that encouraged many customers to engage with its brand, which had differentiated and innovative features aiming to deliver better and distinctive benefits.

Vivek et al. (2012) explained that consumers' motivations to engage with a company online depend on their expectations about the value they will receive through this relationship, with

differentiation competitive advantage providing superior value and benefits to customers. Similarly, Kumar and Pansari (2016) also argue that positive experiences and relationships with the firm drive customers to engage more with the company by purchasing, interacting, providing feedback and spreading their positive feelings through social media. In addition, an empirical study by Chan et al. (2014), investigating 276 online brand community members, revealed that when the members felt that, the online community was providing a valuable service seeking to build a strong relationship with them, they could show positive attitudes and strong emotional obligation towards the community, resulting in more willingness to engage. Based on the above argumentation, it can be posited that:

H_{10}: The possession by the firm of a differentiation-based competitive advantage is positively associated with online customer engagement.

4.2.3.2 Cost-reduction-based competitive advantage and online customer engagement

A cost-reduction-based competitive advantage refers to the firm's competence in delivering a digital market offering that enables higher operating efficiencies and higher cost reductions than its competitors (Li and Zhou, 2010; Kim and Atuahene-Gima, 2010). In other words, a firm can achieve a cost advantage in its digital marketing by operating at a lower cost than its competitors but offering a comparable digital market offering (Li and Zhou, 2010; Tan and Sousa, 2015; Zhou et al., 2009). Companies that enjoy this advantage can outperform their competing firms in fulfilling customer wants and achieving market success and superior profits (Kim and Atuahene-Gime, 2010; Liu and Atuahene-Gima, 2018).

In a digital context, companies can decrease their digital marketing costs and achieve a cost-reduction-based competitive advantage through multiple ways, such as applying higher efficiencies in their digital marketing operations and using digital marketing tools, platforms and online content efficiently (e.g., free website and platform tools, content dispersion in different forms, selection of the most effective online channels), better negotiating with partners and providers to secure lower costs, using automation mechanisms and specialised digital software for cost reduction, in-sourcing various digital marketing tasks, applying better online audience management efforts, aiming to drive more traffic through organic search results, and frequently

reviewing the digital marketing tactics and campaigns to examine possibilities for cost reduction (Kim and Atuahene-Gima, 2010; Li and Zhou, 2010).

Firms possessing a cost-reduction competitive advantage enjoy lower costs and greater efficiencies in the development and operation of their practices which can result in customer benefits (e.g., online discounts, lower online prices, easier website navigation, more efficient online communication with the firm) that can encourage positive online engagement behaviours. This is because customers feel more satisfied with the specific company and thus are willing to progress to the engagement stage faster (Pansari and Kumar, 2017). For instance, they are more willing to sign up for updates, consume content uploaded to the firm's online channels, complete an online customer review, or positively blog about the firm to others (Eigenraam et al., 2018).

Gummerus et al. (2012) stressed that these engagement behaviours are usually motivated by satisfying wants and benefits derived from the relationship with the company, while Kumar and Pansari (2016) argued that the level of engagement depends on how positive the attitude and behaviour are along with the level of connectedness. Similarly, Van Doorn et al. (2010) highlighted that customers would engage with a company when they get a lower price while obtaining a maximum benefit, regardless of whether the company realises its potential profit. Hence, when customers feel valued by the firm by paying lower prices or having an overall efficient online experience, they are excited and encouraged to interact more with it, provide feedback, references and positive e-word of mouth. This leads to the following hypothesis:

> ***H_{11}: The possession by the firm of a cost-reduction-based competitive advantage is positively associated with online customer engagement.***

4.2.4 Online customer engagement and firm performance

Intensifying competition, technological advancements and digital developments (including the exponential growth of social media) have made online customer engagement critical for firms' survival and success (Kumar and Pansari, 2016; Rietveld et al., 2020). Customer engagement represents a multidimensional concept widely studied in the management, marketing and information system management fields, while it has also been substantially explored within the new area of digital marketing (Chan et al., 2014; Pansari and Kumar, 2017). This is defined as the

"consumers' online behavioural manifestations of brand engagement that go beyond purchase" (Eigenraam et al., 2018, p. 104), or put differently, the intensity of customers' participation in emotional connections and online interactions with the company, its offerings and online activities (Hollebeek et al., 2014; Kim and Johnson, 2016; Vivek et al., 2012).

Online customer engagement is the main focus of numerous firms nowadays, with internet-based virtual environments enabling this engagement without geographical constraints, more speedily and without compromising the interaction's quality (Pansari and Kumar, 2017; Sawhney et al., 2005). Engaged customers tend to spend a great deal of time interacting with the company online, and are more willing to be digitally involved with it, learn more about it, talk positively about it, recommend it to their friends, and show with pride that they buy from it online (Hall-Phillips et al., 2016; Hollebeek et al., 2014; Kim and Johnson, 2016). Some examples of online customer engagement are writing a positive review for the company on an online platform, commenting on the firm's social media pages, and participating in the firm's brand communities (Beckers et al., 2018).

There are multiple ways in which customers engage with companies, which can be either *firm-initiated,* such as the firm's offerings, programmes and activities aiming to connect or engage customers online, or *customer-initiated,* like the interaction of customers through social media communities, user-generated online content and referrals provided to others (Beckers et al., 2018; Chan et al., 2014; Vivek et al., 2018). Firms that pursue strong efforts to engage their customers online are more likely to be perceived as successful and enjoy higher performance results than their competitors because engaged customers are more emotionally connected, committed and loyal (Brodie et al., 2013; Pansari and Kumar, 2017).

Engaged customers tend to offer constructive feedback to the company, positive referrals, and to recommend the products, services or even the whole company to other people especially through social media conversations, which can enhance both market and financial firm performance (Brodie et al., 2011; Pansari and Kumar, 2017). In fact, customer engagement within interactive, dynamic business environments has long been perceived as a strategic imperative for improving corporate performance (Brodie, 2011; Kumar et al., 2010; Pansari and Kumar, 2017). Even though setting the right principles for developing and maintaining a strong engagement with customers

online requires some investment, it can generate higher profits in the long term and, at the same time, contribute to the company's reputation and recognition (Verhoef et al., 2010).

4.2.4.1 Online customer engagement and market performance

The positive association between online customer engagement and the firm's market performance has been discussed in the academic literature, especially in the fields of social media marketing, digital advertising and online brand communities (Pansari and Kumar, 2017). Higher engagement means more customer interactions with the firm, which, when satisfying, can enhance customers' perceptions that the company has their interests at heart and boost their favourable attitudes towards the company (Vivek et al., 2012). Engaged customers also tend to offer meaningful feedback to the firm, which helps to enhance its market offerings and/or result in new ideas for new offerings that can improve market performance (Kumar and Bhagwat, 2010).

Specifically, positive associations were empirically revealed regarding the impact of customer engagement on new customer acquisition and retention (e.g., Hollebeek, 2011a; Trusov et al., 2009); customer satisfaction (e.g., Bowden, 2009; Gummerus et al., 2012; Jaakkola and Alexander 2014); customer trust (e.g., Hollebeek, 2011b; Pansari and Kumar, 2017); customer loyalty (e.g., Bowden, 2009; Hollebeek et al., 2016; Prendergast et al., 2010; Yoo et al., 2013); customer repurchases (e.g., Kumar, 2013); and market share (e.g., Pansari and Kumar, 2017).

In addition, Brodie et al. (2011; 2013) and Vivek et al. (2012) identified the outcomes of consumer empowerment and affective commitment apart from the customer engagement outcomes of customer loyalty, trust and satisfaction. Hollebeek et al. (2014) also found that consumer "self-brand connection" (e.g., the degree that consumers incorporate a focal brand into their self-concept) and "brand usage intent" (e.g., the differential response of individuals when choosing between focal brands and unbranded products) represent important results of the consumer brand engagement. Thus, it can be hypothesised that:

> ***H_{12a}: Online customer engagement is positively related to the firm's market performance.***

4.2.4.2 Online customer engagement and financial performance

Online customer engagement is also expected to improve the firm's financial performance. Highly engaged customers like to create online conversations about the company, also known as positive eWOM, and this can induce more buyers to connect and transact with it, thus considerably increasing its sales (Gopinath et al., 2014; Kumar et al., 2013; Rosario et al., 2016). Moreover, engaged customers offer important feedback to the firm, leading to enhanced market offerings that might appeal more to customers and increase purchases (Kumar and Bhagwat, 2010; Kumar and Pansari, 2016).

These direct and indirect effects of online customer engagement on financial firm performance have been discussed in the academic literature, with online customer engagement found to represent a strong driver of financial and economic results (Hollebeek et al., 2014; Yoon et al., 2018; Verhoef et al., 2010). In particular, positive associations were revealed regarding the impact of customer engagement on sales growth (Hollebeek et al., 2016), profitability and revenue (Bijmolt et al. 2010; Kumar, 2013). Kumar and Pansari (2016) emphasised specifically that engaged customers tend to purchase from the company, contributing to firm revenue, and to offer referrals, subsequently affecting the firm's profitability. Based on the above argumentation, it can be hypothesised that:

> ***H_{12b}: Online customer engagement is positively related to the firm's financial performance.***

4.2.5 Moderating influences

4.2.5.1 Market dynamism

Market dynamism has been commonly discussed as one of the most significant environmental factors influencing marketing strategy and the firm's efforts to realise a competitive advantage (e.g., Li, 2022; Molina-Castillo et al., 2011; Wang et al., 2015). It refers to the rate of change towards customers and their preferences and needs (Jaworski and Kohli, 1990; 1993), as well as the fluctuations that occur in the firm's marketing operations (Greenley, 1995; Qiu et al., 2020; Tsai and Yang, 2013). Researchers (e.g., Hult et al., 2004; Nie et al., 2022) argue that market dynamism boosts uncertainty and risk in business practices while reflecting the unpredictability of

the market, the speedily changing customer preferences and wide-ranging wants, and the constant focus on new offerings.

In a dynamic digital market, there are frequent and unpredictable changes in online customer wants. In particular, the daily advances in digital and mobile media, the nonstop introduction of new online channels, platforms and digital technologies, and the ongoing changes in digital trends strongly affect customer preferences and desires. These refer to which platforms they choose to use, to which digital marketing practices they are more likely to respond (e.g., social media content, mobile marketing, banner ads), or how they want to interact and transact with companies online (e.g., 24/7 online customer support, frequency of the emails received by the firm) (Li, 2022; Wang et al., 2015).

4.2.5.1.1 Market dynamism as a moderator of the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage

Firms that pursue explorative digital marketing strategies by creating and experimenting with new market knowledge and novel digital technologies are in a more advantageous position under unpredictable and dynamic digital market environments to capitalise on new digital marketing opportunities (Lisboa et al., 2013). In such turbulent environments, the company's efforts to access and process new knowledge and insights related to its digital market offering and to further take advantage of new online market opportunities through an explorative approach are more effective when maintaining a competitive advantage based on differentiation (Kim and Atuahene-Gima, 2010; O'Cass et al., 2014).

Prior research suggests that firms can identify, acquire and process new market knowledge more effectively in highly dynamic than static environments (Slater and Narver, 1995) and that they are more able to pursue numerous new and unexplored marketing opportunities when customer preferences are in flux (Lisboa et al., 2013). Volatile digital market conditions are characterised by high uncertainty, which causes the need to acquire more information and insights across various digital channels and enable the firm to make well-informed judgements and act with novelty ahead of their competitors to achieve differentiation (Li, 2022; Wang et al., 2015). Although in such conditions, there are plenty of new market opportunities, the risk of a mismatch between the firm's offerings and customers' needs is enhanced, which can be eliminated by adopting proactive

business behaviours such as being more innovative (Bayighomog Likoum et al., 2020; Santos-Vijande and Alvarez-Gonzalez, 2007).

To create better value for customers in a dynamic digital market, firms use digital technologies to continually forecast those shifting customer preferences and online trends and plan their strategic actions accordingly (Li, 2022). In fact, the higher the market dynamism, the more resource investment a firm requires for experimentation, research and development, and innovation (Cadogan et al., 2009; Donkor et al., 2018; Wang et al., 2015). Many researchers (e.g., Hult et al., 2004; Tsai and Yang, 2013) highlighted that unstable market environments demand creativity and strategic innovativeness from companies to fulfil the evolving, fast-changing customer preferences and provide new solutions effectively addressing market changes. Hence, adopting an exploration-oriented strategy is appropriate for developing new and novel digital marketing practices that can create a differentiation competitive advantage (Yang and Li, 2011).

Although only sporadic research (e.g., Li, 2022) has yet explored the moderating role of market dynamism within the digital context, this was discussed in relation to organisational innovation and new product development. Li's (2022) study on digital transformation among 223 Chinese companies clarified that, under high digital market dynamism, firms can better and faster differentiate themselves from the competition. Kim and Atuahene-Gima's (2010) study among 157 manufacturing companies also confirmed that the relationship between explorative market learning and new-product differentiation advantage becomes stronger under turbulent market environments. Equally, Yang and Li's (2011) empirical study in the Chinese market proved that exploration competence relates more positively to new product differentiation performance when environmental dynamism is high. Thus, the following hypothesis can be made:

> ***H_{13a}: Market dynamism has a positive moderating effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage.***

4.2.5.1.2 Market dynamism as a moderator of the link between the exploitative digital marketing strategic approach and cost-reduction-based competitive advantage

The relationship between the exploitative digital marketing strategic approach and the cost-reduction-based competitive advantage is expected to be weakened under high levels of online market dynamism. This is because the firm's adoption of an exploitative strategic approach tends to focus on previous market searches and existing knowledge and experience about customer preferences and wants regarding digital marketing. This quickly becomes outdated and unusable in turbulent digital market environments where customers continually search for new offerings, online trends and channels (Kim and Atuahene-Gima, 2010; Tsai and Yang, 2013). Hence, significant changes need to be made to satisfy these unpredictable and continually changing digital market requirements, decreasing the firm's ability to effectively modify and improve its digital marketing practices to achieve a cost-reduction-based competitive advantage (Lisboa et al., 2013).

Thus, the absence of up-to-date insights might delay the firm's development of new digital market offerings, which can erode and dilute its cost-reduction advantages (Kim and Atuahene-Gima, 2010). Indeed, in more turbulent digital markets, firms need to be market-oriented and continually change their digital market offerings to satisfy customers' fast-changing preferences, whereas, in more stable markets, firms require fewer adaptation efforts and face less pressure and risks in trying to create competitive advantage (Jaworksi and Kohli, 1993; Nie et al., 2022). The instability and unpredictability characterising dynamic markets pose greater challenges and pressures to the firm to constantly search for new digital opportunities with the aim of introducing new digital marketing practices (Lendowski et al., 2022; Nie et al., 2022; Wang et al., 2015). This implies that the exploitative approach will not be effective in this case.

On the contrary, exploitation-oriented strategies can better fit low-dynamic environments, enabling firms to achieve efficiency, reduce operational costs, upgrade sophistication, reduce error rate and extend their scope (Yang and Li, 2011). In more stable markets, changes in online customer preferences are more predictable. Thus, the continuous introduction of digital marketing innovations or the experimentation with novel digital marketing strategies will be not as crucial, but instead, the company can rely on its current and established experiences, processes and knowledge to satisfy its customers by making minor modifications and refinements to its offerings (Lisboa et al., 2013; Yang and Li, 2011). Hence, the following hypothesis can be made:

H_{13b}: Market dynamism has a negative moderating effect on the relationship between exploitative digital marketing strategic approach and cost-reduction competitive advantage.

4.2.5.2 Competitive intensity

Competitive intensity is generally described as the degree of interfirm competition in an industry (Tsai and Yang, 2013) and represents another largely examined aspect affecting firms' strategic efforts (Auh and Menguc, 2005; Kim and Atuahene-Gima, 2010). Competitive intensity usually focuses on competition in the product market within a sector, and it takes place through the existence of numerous competitors or when there are resource constraints and a lack of growth opportunities in the specific market (Auh and Menguc, 2005; Tsai and Yang, 2013). Importantly, it can explain the strength of competitors' power to affect a firm's actions (Barnett, 1997). Competitive intensity and the previously analysed market turbulence are perceived as the two most critical environmental contingencies influencing the effectiveness of a firm's strategic efforts to achieve a better market position (Kim and Atuahene-Gima, 2010; Tsai and Yang, 2013).

Retailers operating in a digital context where most firms are widely applying digital marketing practices and aiming to achieve a competitive advantage based on either low cost or differentiation can face keen competition (Fedoseeva et al., 2017). Digital technologies have in fact opened the way for many new internet fast-moving competitors, diminishing entry barriers and resulting in rapidly-evolving competitive situations (Hirt and Willmott, 2014). Different strategic settings might present various pressures from competitors online, demanding companies to comprehend the competitive context where they compete and to wisely choose the most effective way to operate (Jones and Linderman, 2014).

4.2.5.2.1 Competitive intensity as a moderator of the link between the explorative digital marketing strategic approach and the differentiation-based competitive advantage

The link between the explorative digital marketing strategic approach and the differentiation-based competitive advantage is expected to be weakened in a highly competitive environment. This is because such an environment requires prompt and immediate responses to competitive actions, including efforts to mimic and react to competitors' digital marketing activities and surpass them,

rather than exploring new market opportunities and rapidly introducing digital marketing innovations (Bendle and Vandenbosch, 2014; Grewal et al., 2001; Kim and Atuahene-Gima, 2010). This contrasts with the explorative strategy, which is based on search, variation and experimentation with new alternatives, driving distant and uncertain results that decrease the firm's ability to create a differentiation-based competitive advantage in times of intense online competition (March, 1991).

The explorative approach aims to continually introduce novel processes based on quickly arising new digital market opportunities. However, market environments with intense competition are characterised by a high number of competitors and the absence of potential growth opportunities (Auh and Menguc, 2005), reflecting aggressive promotional campaigns and homogeneous offerings, while the firm's results are more likely to depend on the competitors' behaviour (Abebe and Angriawan, 2014). Therefore, the continuous development of new and novel digital marketing practices is not necessary in the case of strong environmental competitiveness, considering the high homogeneity of these practices (Yang and Li, 2011). On the other hand, when competitive intensity is considerably low and the firm's digital market offerings are heterogeneous, the firm should apply explorative and innovative marketing strategies and experiment with new digital technologies (Yang and Li, 2011).

Although some prior research (e.g., Auh and Menguc, 2005; Hou et al., 2019; Olabode et al., 2022) indicates that highly competitive environments require explorative and innovative activities for a firm to differentiate itself from its competitors, such an approach might result in profit sacrifices and excessive costs that can finally have the reverse effect on the firm's effort to achieve a differentiation-based competitive advantage (Yang and Li, 2011). Risk-taking and a strong focus on novelty and creativity within the firm's digital market offering can delay the company's efforts to achieve a competitive edge of differentiation (Miller and Friesen, 1983; Yang and Li, 2011).

It is thus expected that the explorative digital marketing strategic approach, when applied in competitive, intense online environments, will not only be ineffective in realising a differentiation-based competitive advantage, but may be hazardous for the company, creating unnecessary risks and irrational expenses for innovations and marketing inefficiency (Yang and Li, 2011). Also taking into consideration that the outcomes of the explorative strategies are distant and uncertain, investing most efforts in explorative practices under conditions of intensifying online competition

could put the firm's current market position at risk and weaken the positive effect of the explorative digital marketing strategic approach and differentiation-based competitive advantage (Auh and Menguc, 2005). Thus, it is anticipated that:

> ***H_{14a}: Competitive intensity has a negative moderation effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage.***

4.2.5.2.2 Competitive intensity as a moderator of the link between exploitative digital marketing strategic approach and cost-reduction-based competitive advantage

As opposed to exploration, the exploitation-based digital marketing strategic approach that focuses on adjusting and improving the firm's current digital marketing practices can be more effective in competitive intense environments to achieve a cost-reduction advantage (Vorhies et al., 2011). This can be attributed to the exploitation's emphasis on the existing firm's digital marketing competences to bring predictable and proximate results, as well as on its safety-oriented and financially-focused properties (Kim and Atuahene-Gima, 2010).

Specifically, competitive intensity in a digital context reflects the fierce rivalry between companies online, stronger online competitors and competitor digital marketing practices (e.g., imitation and violent pricing, online promotions, display advertising and online service competition) (Cui et al. 2005; Tsai and Yang, 2013), intense use of specific digital marketing tools and techniques, and more homogeneous products and services (Yang and Li, 2011). In such environments, firms need to revise their online marketing strategies against competitors (Bayighomog Likoum, 2020) and continually refine and modify their existing core competences and processes to achieve higher efficiency and lower online prices (Jansen et al., 2006; Lumpkin and Dess, 2001). Therefore, engaging in exploitative digital marketing activities focusing on the achievement of higher cost efficiency than the cost efficiency achieved by competitors enables the firm to better respond to and successfully counter online competitive behaviour, at least in the short term (Auh and Menguc, 2005).

Evidently, the more intense the competition online, the more likely the firm's behaviour will be influenced by its competitors' activities and contingencies (Auh and Menguc, 2005). Hence, the

key to survival and the creation of a competitive advantage in competitively fierce digital markets lies in constantly modifying or expanding the firm's existing digital market offering and strategies to address competitive pressures and market demands (Li and Liu, 2014; Yang and Li, 2011). In these markets, the ease of online shopping and the vast availability of price comparison online tools are causing high pressure and competitive wars regarding prices and margins (Fedoseeva et al., 2017; Grewal et al., 2003; Hirt and Willmott, 2014). Thus, companies need to reduce costs through resource conservation, greater productivity and improvement of existing processes (Jones and Linderman, 2014; Luffman, 2003).

When there is low competition in the digital market, it is more likely that the company will perform well as the customers are "stuck" with the firm's offerings, and therefore high levels of exploitation might not act supportively for the firm and its customers. However, when online competition is high, customers can choose from numerous alternative options online to fulfil their needs (Jaworski and Kohli, 1993; Kohli and Jaworski, 1990). In that case, companies can apply the exploitative digital marketing strategic approach to counter their competitors' behaviour with similar actions such as online promotions, price-cutting online offers and social media advertising (Auh and Menguc, 2005; Hirt and Willmott, 2014) that can more effectively lead to the creation of a cost-reduction advantage. Kim and Atuahene-Gima (2010) verified that the link between exploitative market learning and new product cost-efficiency advantage becomes more effective under highly competitive environments. Hence, it can be postulated that:

> ***H_{14b}: Competitive intensity has a positive moderating impact on the relationship between exploitative digital marketing strategic approach and cost-reduction-based competitive advantage.***

4.2.6 Control variables

The study examines the influence of three organisational variables with a potential control on the market and financial performance: firm size, product focus and online sales intensity (e.g., the percentage of the firm's total sales accounted for its online sales). *Firm size*, measured as the number of total working employees (Nguyen et al., 2015), presents a major indicator of the firm's organisational processes, infrastructure, resources, skills, and the adoption of information and communication technologies (Coviello et al., 2000; Lee and Xia, 2006 Teo and Pian, 2003).

Notably, as discussed in Chapter two, there are competing research arguments for the effect of firm size in relation to digital marketing adoption and related outcomes (Braojos-Gomez et al., 2015). On the one hand, it has been posited that, because larger companies have the appropriate infrastructure for innovation adoption and possess the necessary resources and knowledge, they are more likely to capitalise on e-commerce and digital technologies (Bordonaba-Juste et al., 2012; Kacker and Perrigot, 2016; Zhou et al., 2015), quickly adopt new digital channels and tools to apply digital marketing practices efficiently (Braojos-Gomez et al., 2015; Taiminen and Karjaluoto, 2015), and allow for more specialisation which might indicate higher levels of expertise in digital marketing (Bachmann et al., 2021; Macher and Boerner, 2006). On the other hand, research (e.g., Petruzzelli et al., 2018; Zhu et al., 2004; Zhu and Kraemer, 2005) has argued that larger organisations may suffer from more bureaucratic structures, longer processes and inertia, delaying in this way digital marketing processes and digital value creation. In contrast, small firms are described as having more flexible structures, indicating higher agility in adopting digital technologies and a stronger ability to compete online as effectively as medium-sized and large firms (Braojos et al., 2019; Elia et al., 2021; Wang, 2020).

The firm's *product focus*, whether product or service, is another variable potentially controlling a firm's market and financial performance. This is because prior research revealed differences between firms selling products and those selling services, especially in marketing their offerings, which affects their positioning and competitive edge (Fryar, 1991). For example, retailers might require different skills, resources and tools, apply digital marketing activities at different levels, or spend different amounts of digital marketing budget to sell and market products versus services. Moreover, while research and development practices play an important role in the case of products, service firms tend to focus more on organisational innovations (Molina-Castillo et al., 2019).

Lastly, *online sales intensity* (i.e., the percentage of the firm's total sales accounted for online sales) might show how well the company performs online in terms of selling its products and services to online customers. A higher intensity denotes: (1) a higher level of digital marketing activities applied by the firm; (2) more opportunities to engage with customers online; and (3) more investment in training and other digital marketing programmes (Marchand et al., 2021; Zhu et al., 2004).

4.3 Summary

This chapter has dealt with this research's conceptual model and hypothesised relationships. First, an overview of the conceptual model was given, briefly explaining the model and its six parts, namely dynamic capabilities, digital marketing strategic approaches, competitive advantage, customer engagement, firm performance and moderators. Then, the two leading theories (e.g., dynamic capabilities' theory, organisational learning theory) on which the research model was based and which influence different parts of the model were presented, while the reasons for their selection were also clarified. Next, 14 hypotheses were established and discussed around the associations of the model's different constructs. These were derived from empirical research evidence within the literature. The following chapter will analyse the research methodological approaches used to empirically investigate this model and hypotheses.

Table 4.1: Summary of the hypothesised relationships

Hypothesis 1	The possession of a sensing capability is positively related to the firm's explorative digital marketing strategic approach.
Hypothesis 2	The possession of a learning capability is positively related to the firm's explorative digital marketing strategic approach.
Hypothesis 3	The possession of an integrating capability is positively related to the firm's explorative digital marketing strategic approach.
Hypothesis 4	The possession of a responding capability is positively related to the firm's exploitative digital marketing strategic approach.
Hypothesis 5	The possession of an adaptive capability is positively related to the firm's exploitative digital marketing strategic approach.
Hypothesis 6	The possession of a coordinating capability is positively related to the firm's exploitative digital marketing strategic approach.
Hypothesis 7	The adoption of an explorative digital marketing strategic approach by the firm is positively associated with the creation of differentiation-based competitive advantage.
Hypothesis 8	The adoption of an exploitative digital marketing strategic approach by the firm is positively associated with the creation of cost-reduction-based competitive advantage.
Hypothesis 9_a	The adoption of an ambidextrous digital marketing strategic approach by the firm is positively associated with the creation of differentiation-based competitive advantage.
Hypothesis 9_b	The adoption of an ambidextrous digital marketing strategic approach by the firm is positively associated with the creation of cost-reduction-based competitive advantage.
Hypothesis 10	The possession by the firm of a differentiation-based competitive advantage is positively associated with online customer engagement.
Hypothesis 11	The possession by the firm of a cost-reduction-based competitive advantage is positively associated with online customer engagement.
Hypothesis 12_a	Online customer engagement is positively related to the firm's market performance.
Hypothesis 12_b	Online customer engagement is positively related to the firm's financial performance.
Hypothesis 13_a	Market dynamism has a positive moderating effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage.
Hypothesis 13_b	Market dynamism has a negative moderating effect on the relationship between exploitative digital marketing strategic approach and cost-reduction competitive advantage.
Hypothesis 14_a	Competitive intensity has a negative moderation effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage.
Hypothesis 14_b	Competitive intensity has a positive moderating impact on the relationship between exploitative digital marketing strategic approach and cost-reduction-based competitive advantage.

Table 4.2: Definitions of the conceptual model's key constructs

Construct Category	Construct	Definition
Dynamic Capabilities	Sensing capability	The ability to scan and search the digital market environment with the aim to sense information about unarticulated, latent and future digital marketing changes, trends and customer preferences regarding the firm's digital market offering.
	Learning capability	The ability to assimilate, disseminate, interpret, utilise and develop new digital marketing knowledge regarding unarticulated, latent and future customer preferences, trends and opportunities in digital marketing.
	Integrating capability	The ability to create internal linkages and collective interaction within the firm, as well as a shared understanding about digital marketing tasks and responsibilities.
	Responding capability	The ability to respond effectively and quickly to already sensed customer needs, preferences and requests regarding the firm's digital market offering.
	Adaptive capability	The problem-solving ability that enables adaptation and modification to the firm's digital market offering, based on changes in relation to the digital market environment, customers' needs and competitive actions.
	Coordinating capability	The ability to assign the right people and resources to the right digital marketing tasks, creating an internal coordination and synchronisation of each employee's work in digital marketing.
Digital Marketing Strategic Approaches	Explorative digital marketing strategic approach	The strategic approach of continually introducing and developing new, novel and innovative digital marketing processes that differ from existing ones.
	Exploitative digital marketing strategic approach	The strategic approach of incrementally and continually refining and improving the firm's existing digital marketing processes.
	Ambidextrous digital marketing strategic approach	The strategic approach of pursuing simultaneously explorative and exploitative digital marketing processes.
Competitive Advantage	Differentiation-based competitive advantage	The firm's competence in delivering a digital market offering that differentiates it from its competitors by providing unique, better value and different benefits to customers.
	Cost-reduction-based competitive advantage	The firm's competence in delivering a digital market offering that enables higher operating efficiencies and higher cost-reductions compared to its competitors.
Customer Engagement	Online customer engagement	The emotional connection and interactions that customers have with the company online.
Performance	Market performance	The market (or customer) -related outcomes that a firm can achieve.
	Financial performance	The financial outcomes achieved by the company.
Moderators	Digital market dynamism	The rate of change in customers' online preferences and needs.
	Digital competitive intensity	The rate of pressure coming from the competing firms applying digital marketing practices.

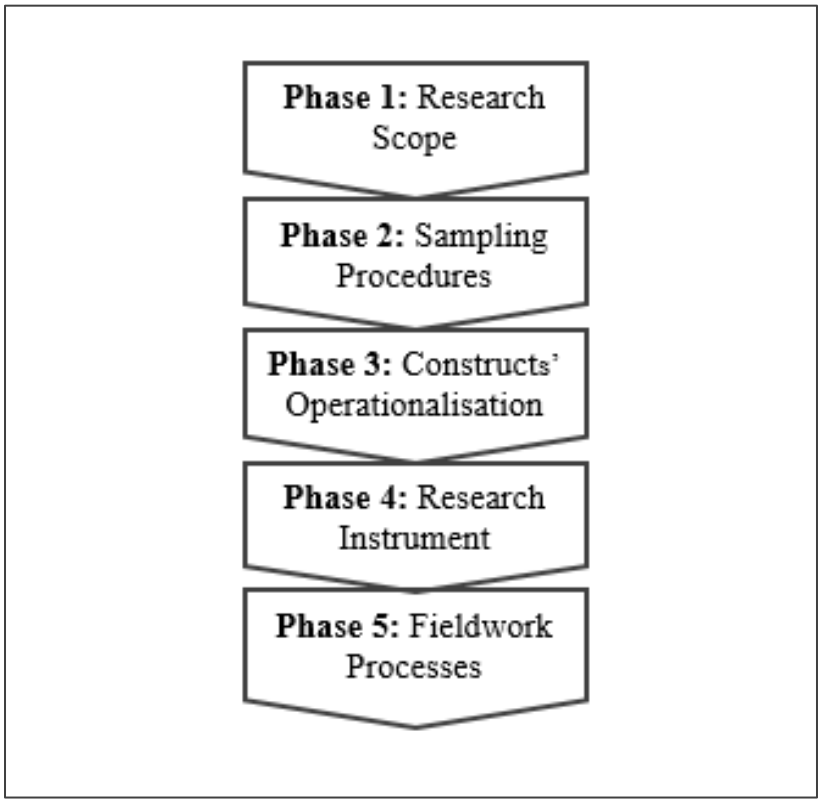
CHAPTER FIVE

Research methodology

5.0 Introduction

Having explained the conceptual model and developed the research hypotheses, this chapter discusses the methodology undertaken to carry out the empirical study, which comprises five successive phases (see **Figure 5.1**). *Phase one* discusses the research scope, giving attention to the study's geographic focus, with particular emphasis on the specific business sector covered, unit of analysis and key informants. *Phase two* deals with the procedures used to develop the sampling frame. *Phase three* refers to the operationalisation of the constructs incorporated in the conceptual model. *Phase four* explains the design of the questionnaire and its testing. *Phase five* provides details for the fieldwork procedures employed to collect the information required.

Figure 5.1: Phases of the research design and methodology



Source: Compiled by the author

5.1 Research scope

Various issues concerning the scope of this study, such as its geographic scope, its specific industry focus, the unit of analysis examined, and the methods employed to select the most appropriate key informants, are explained and discussed in this section.

5.1.1 Geographic scope

The United Kingdom was considered an ideal country for this research to take place for three primary reasons: first, the digital marketing field in the United Kingdom is considered one of the biggest growing industries, with digital marketing expenditure levelling up by 18.71% from 2020 to 2021 (Guttmann, 2021a). More and more UK-based companies are now allocating most of their marketing spending to dynamic digital channels, using multimedia more extensively for their marketing strategies (Guttmann, 2021b; Statista Research Department, 2022). The UK also represents the largest digital ad market in Europe, and one of the leading countries that spend on digital advertising worldwide (Statista Research Department, 2022). Despite the significant decreases in marketing budgets across industries in the country due to the recent coronavirus pandemic, digital expenditure continues to grow exponentially, with a prediction that 25.8% of this will be spent solely on digital marketing by 2026 (Statista Research Department, 2022).

Second, the UK is the most advanced market regarding e-commerce among all European countries (Sabanoglu, 2020) and the third largest in the world (Coppola, 2021c). It has the highest shopping penetration rate, with £693 billion in e-commerce sales made by firms only in 2019, which has shown a steady upward trend since 2015 (Coppola, 2021a). British consumers also seem to embrace this digital trend, as indicated by the fact that: (1) more than 92% of the British adult population in 2020 were internet users; (2) there are projections of around 50.89 million individual monthly active social media users in the country in 2025 (Office for National Statistics, 2021); and (3) the large majority of British consumers tend to use online channels for their purchases (Coppola, 2021b; Office for National Statistics, 2021).

Third, the UK has a vast number of marketing professionals specialising in digital marketing, reaching 243.000 marketers in 2020 (Clark, 2021). The recent coronavirus pandemic, coupled with continuous digital advancements and new trends, has been responsible for many companies in the

country improving their online presence and taking their digital marketing practices more seriously, dramatically increasing the demand for such professionals in the last few years.

5.1.2 Industry selection

The degree of using digital marketing tends to vary among firms across different industries, depending on the nature of the products they sell, how frequent and close their interaction is with their customers, and the brand image they want to be associated with (Braunold, 2020). This study focuses on the retail sector due to its high involvement in digital marketing activities and its high growth in the UK. For example, the total value of UK retail sales in 2021 was £421bn, with 3 million employees and 30% of retail sales made online, with this proportion expected to reach 33.5% by 2025 (Retail Economics, 2022a). Specifically, this industry: (1) comprises firms that sell goods and/or services directly to consumers, which means that their digital marketing activities need to have a strong focus and clear targeting; (2) is ranked in the top position with regard to digital marketing spending (Fisher, 2021); and (3) has recorded significant online sales with an upwards trend over time (Coppola, 2021c; Lewis, 2021).

The specific retail sectors that provided the focus of this study are the following: (1) *food, beverages and tobacco,* which includes restaurants, supermarkets, grocery, convenience and department stores; (2) *wearing apparel and accessories*, which comprises retailers selling clothing, footwear, jewellery and watches; (3) *health and beauty*, which covers firms offering pharmaceutical, medical or orthopaedic goods, as well as cosmetics, toiletries and beauty products; (4) *information and communication equipment*, which includes retailers selling computers, peripheral units and software, telecommunications equipment, audio and video equipment; (5) *household equipment*, which covers companies that sell textiles, paints, carpets, furniture, electrical household appliances and construction goods; (6) *cultural and recreation goods*, which includes retailers selling books, newspapers, music, games, toys and sporting equipment; (7) *automotive*, which contains sellers of cars and motors, servicing, vehicle parts and accessories, and automotive fuel; and (8) *garden-related materials,* which includes retailers of flowers, plants, seeds, fertilisers, pet animals and pet food **(see Table 5.1)**.

Table 5.1: Categorisation of retail firms included in the study

No	Title of the category	Details of retail sales
1.	Food, beverages & tobacco	Restaurants, supermarkets, grocery, convenience and department stores
2.	Wearing apparel & accessories	Clothing, footwear, jewellery, watches
3.	Health & beauty	Pharmaceutical, medical or orthopaedic goods, cosmetics, toiletries and beauty products
4.	Information & communication equipment	Computers, peripheral units, software, audio and video equipment, telecommunications equipment
5.	Household equipment	Textiles, paints, carpets, furniture, electrical household appliances, construction goods
6.	Cultural & recreation goods	Books, newspapers, music, games, toys and sporting equipment
7.	Automotive	Car and motor sales, servicing, vehicle parts and accessories sales, automotive fuel
8.	Garden-related materials	Flowers, plants, seeds, fertilisers, pet animals, pet food

Source: Adopted by FAME

According to Retail Economics (2022a), in 2021, there were 316,400 retail outlets and 220,685 VAT-registered retailers in the UK. Statista also portrayed the number of retail chains by sector in the UK in 2021, with fashion & clothing representing the leading sector with 117 retail chains, followed by consumer electronics with 55 retail chains, homeware with 43 chains, footwear & leather with 42 chains, and furniture & decoration with 41 chains (**Table 5.2**) (Sabanoglu, 2022a). Supermarket chains were found to be the UK's leading retailers for 2021-2022 based on their sales, with Tesco, Sainsbury's, Asda and Morrisons representing the "Big Four" in the UK grocery retail market, and their sales constituting over 55% of that market (Sabanoglu, 2022b). Amazon, Aldi, Coop, M&S, Lidl and Boots are also considered among the top 10 UK retailers (Retail Economics, 2022b).

Table 5.2: Number of retail chains in the UK

Retail chain characteristic	Number of retail chains in the UK
Fashion & Clothing	117
Consumer Electronics	55
Homeware	43
Footwear & Leather	42
Furniture & Decoration	41
DIY & Gardening	36
Personal Care	34
Sport & Leisure	32
Jewellery & Watches	30
Food	28
Toys & Games	24
Car Parts & Accessories	21
Telecom	20
Pet Care	20
Books & Magazines	17
Petrol	16
Baby Wear	13
Optical	10

Source: Adopted from Sabanoglu (2022)

5.1.3 Unit of analysis

With regard to the unit of analysis, the focus was on large retailers, that is, firms with 250 or more employees, defined by the UK Office for National Statistics (2021). This was justified by the fact that, as opposed to their smaller counterparts, large retailers are more likely to: (1) have a marketing department and even a more specialised digital marketing team; (2) have the resources, capabilities and budget to apply digital marketing activities and implement effective digital marketing strategies; and (3) employ a higher number of professionals specialising in digital marketing (Coviello et al., 2000; Kacker and Perrigot, 2016; Van Huy et al., 2012; Zhou et al., 2015).

5.1.4 Key informants

Eligible key informants in this study have come from different digital marketing positions and were recruited based on certain criteria, namely: their suitability to respond to the survey, their current role and job position in the company, their knowledge about their company's digital marketing activities, and their involvement in and responsibility with digital marketing practices (McDaniel and Gates, 2018). A number of measures were adopted to ensure the respondents' suitability for the study and reduce the possibility of measurement error. Firstly, efforts were made for the informants to differ in their title and positional status to eliminate the possibility of positional bias (Philips, 1981). The survey was aimed particularly at marketing or digital marketing directors and managers, digital marketing executives and coordinators, social media managers, or e-commerce executives. Although holding different positions, it was ensured that key informants were closely related to the studied phenomena to reduce response errors (Kumar et al., 1993). To further ensure their suitability to provide high-quality information, key informants were rated about: (1) their knowledge of their company's digital marketing activities; (2) their involvement with their company's digital marketing activities; (3) their responsibility for their organisation's digital marketing practices; and (4) their confidence in answering the questions in the survey (Philips, 1981).

5.2 Sampling procedures

5.2.1 Qualitative research

Qualitative research was applied at the early stages of the study to provide significant insights and a better understanding of the problem's environmental context, as well as provide direction for the following research (Malhotra, 2015; McGivern, 2006; Parasuraman, 2007). Such research was exploratory and inductive (McDaniel and Gates, 1999; 2018) and took the form of in-depth interviews that enabled a critical and rich exploration of the study's topic and tangential issues. This took the form of preliminary semi-structured, in-depth interviews with 15 digital marketing managers and strategists from various sectors in the UK (including retail) recruited through the LinkedIn business platform.

Due to pandemic-related restrictions, informal discussions with these individuals were conducted in an online, face-to-face interaction (e.g., Zoom, Teams, Skype). These preliminary interviews contributed to: (1) generate valuable insights and managerial views about the digital marketing strategic issues under examination; (2) enable a better configuration of the hypothesised associations of constructs in the conceptual model; (3) confirm the applicability of the conceptual model in business practice terms; and (4) verify and improve the operationalisation of the constructs' measurement. **Appendix II** provides a summary of the insights gained from this qualitative research.

5.2.2 Quantitative research

The quantitative part of this research had a single cross-sectional design, which collected meaningful quantitative data at a single time-period (Malhotra, 2004; Parasuraman, 2007). Several reasons justified the choice of this method: (1) it offers easy replication and direct comparison of the results; (2) it enables the researcher to quantify the frequency of specific behaviours, motivations and attitudes through the investigation of large respondent samples; and (3) it encourages the interpretation of numerical data into valuable narrative information (Hair et al., 2003; Malhotra, 2009; Wilson, 2006). In particular, a large-scale online survey which included a structured questionnaire was administered to a large sample of retailers in the United Kingdom. This method was employed as it represents a simple and practical research technique that enables generalisation of the results, data standardisation, prompt, inexpensive and efficient information

gathering for addressing the research objectives, as well as the use of advanced statistical analysis (Malhotra and Peterson, 2006; Shiu et al., 2009; Zikmund, 2003).

5.2.2.1 Research instrument

Considering that the key informants for this study were busy marketing professionals with limited free time and flexibility, a self-completion survey was deemed more appropriate for them to take part in the survey by completing the questionnaire at their convenience (McGiven, 2006). This self-administered research method is considered extremely effective and inexpensive, ideal for structured questionnaires, and enabling the researcher to reach a widely dispersed population (McGiven, 2006). However, in such a survey type, questions have to be explicit and short, encouraging higher completion rates (Proctor, 2005), while the lack of interaction between researcher and respondents can result in honest responses, free of interviewer bias or error (Fricker and Schonlau, 2002; McDaniel and Gates, 1999; Wright, 2005).

A structured, detailed questionnaire was developed with the Qualtrics web-based software. Nowadays, the online questionnaire is seen as the most common form of self-completion survey, and a major player in collecting data, enabling higher response rates than mail or telephone surveys (McDaniel and Gates, 2018; Wilson, 2019). This was considered the best method to collect information for the study because of: (1) today's widespread use of the internet (Proctor, 2005) and the continuous increase of the internet population (McGiven, 2006; Wilson, 2019); (2) the resistance of people regarding telephone or mail surveys (McDaniel and Gates, 2018); and (3) the fact that, due to the pandemic, most marketing employees in the UK had to work online from home. Data acquired from internet surveys are also considered of higher quality, while this method's benefits include the lower costs, the opportunities for personalisation, the high speed for the surveys' development and distribution, and their stimulating and engaging mode (McDaniel, 2013; Wilson, 2019). In addition, internet surveys enable data acquisition from large numbers of participants and flexibility in their completion at the respondents' convenience (Wilson, 2019).

5.2.3 Sampling frame

FAME (Forecasting Analysis and Modeling Environment), the financial database that includes data for more than 9 million firms in the United Kingdom, allowing for an extensive search by multiple criteria and trends (FAME, 1994), was used to define the sampling frame for this study.

Considering that all companies in the dataset are operating in the United Kingdom, the research sample was drawn using six major criteria: (1) the companies needed to be active; (2) they should belong to the retail industry; (3) they should be defined as large retailers, that is, to have at least 250 employees; (4) they must have a registered phone number (to ensure communication with them); (5) they should have a website, as this could be a first indication that they apply digital marketing practices; and (6) they should provide their financial accounts for at least the last two years. The outcome of this filtering was to identify 1034 firms that were eligible to participate in this study.

5.3 Scale development

To identify and develop the most appropriate scale items for this research's constructs, it was necessary to review the pertinent academic literature on digital marketing, dynamic capabilities, marketing exploration, exploitation and ambidexterity. The measurement of constructs was based on scales used in previous studies published in reputable, high-ranked academic journals, demonstrating high reliability values. These scales were operationalised in other research settings, and thus they had to be adapted to appropriately reflect the digital marketing context of this study. Only appropriate constructs that satisfied the Cronbach's alpha criterion (>.70) (e.g., Nunnally, 1978) were extracted from previous studies.

Regarding the antecedent variables, appropriate scales were derived from articles in business and management journals. In detail, the sensing capability was measured by a six-item scale, adapted from studies by both Pavlou and El Sawy (2011) and Roberts and Grover (2012). Learning capability, integrating capability and coordinating capability were measured by a five-item scale each, adapted from the empirical study of Pavlou and El Sawy (2011). Responding capability was measured with a six-item scale derived from the scale used by Jayachandran et al. (2004) and adaptive capability was measured with a five-item scale sourced from Lu et al. (2010) and Monferrer et al. (2015).

The explorative and exploitative digital marketing strategic approaches were measured by four-item scales adapted from Vorhies et al. (2011). Following recommendations in the literature (Davvetas et al., 2020; Davvetas et al., 2022; Hughes et al., 2010), the construct of the ambidextrous digital marketing strategic approach was calculated through the interaction technique relying on methods and procedures recommended by Ping Junior (Ping, 1996).

Furthermore, the competitive advantages of digital marketing differentiation and cost reduction were jointly composed by adapting the items of Kim and Atuahene-Gima (2010), Langerak (2003), Li and Zhou (2010), and Song and Parry (1997), resulting in six items in each scale.

Online customer engagement was operationalised by a seven-item scale based on the studies of Hall-Phillips et al. (2016), Hollebeek et al. (2014), and Kim and Johnson (2016). Although these specific scales were initially constructed for consumer research, in the present study, the scale was developed accordingly to be responded to by the companies that took part in the survey. The variables of customer/market and financial performances were influenced by the marketplace and financial performance constructs, respectively, as used in the Varadarajan and Yadav's (2002, 2009) conceptual study about digital marketing strategy. Market performance was measured by a six-item scale derived from the empirical studies of Brodie et al. (2007) and Trainor et al. (2011), and financial performance was also measured by a six-item scale derived from Trainor et al. (2011).

The moderators of market dynamism and competitive intensity were measured by six-item scales based on the scale provided by Jaworski and Kohli (1993). The control variable of firm size was measured by the number of total working employees as proposed by Nguyen et al. (2015), including ranges from 250-499 employees to more than 10,000 employees. For product focus, key informants should select whether their firm focus was on products, services or both. Online sales intensity (e.g., percentage of the firm's total sales accounted for its online sales) was based on a multiple-choice scale including various percentage ranges, varying from "less than 5%" to "90-100%".

5.3.1 Scale refinement

As a last step, the adapted scales were reviewed and discussed in terms of their comprehension, cohesion and relevance with a small group of academics with experience in marketing research. Their valuable feedback drove certain corrections and modifications, improving the overall scales. A list with the revised and adapted items for each construct, their scale anchors, literature source and reliabilities can be found in **Appendix III.**

5.4 Research instrument

5.4.1 Questionnaire design

The research instrument was a structured questionnaire consisting of six main parts: (1) *dynamic capabilities* – including the six dynamic capabilities, representing the antecedent constructs comprising 32 pre-coded statements; (2) *digital marketing strategic approaches* – containing the three primary constructs of the exploratory, the exploitative and the ambidextrous digital marketing strategic approaches, with eight pre-coded statements; (3) *competitive advantages* – consisting of the differentiation and cost-reduction competitive advantages with 12 pre-coded statements; (4) *customer engagement* – containing the construct of online customer engagement with seven pre-coded statements; (5) *performance* – including the constructs of market performance and financial performance, incorporating 12 pre-coded statements; and (6) *moderators* – containing market dynamism and competitive intensity with 12 pre-coded statements.

Statements in the questionnaire were measured on a 7-point Likert scale where 1 is "strongly disagree", and 7 is "strongly agree", aiming to achieve consistency and simplify the process of responding (Malhotra and Peterson, 2006). However, for market and financial performance, respondents were asked to rate their firm's performance in comparison to that of their main competitors based on a seven-point scale ranging from 1 – "much lower" and 7 – "much higher". Questions regarding firm characteristics and respondents' demographics were asked at the end to avoid any possible irritation or reluctance to answer and ensure that the main questions were completed (McDaniel, 2013; Parasuraman et al., 2007). Also, respondents had the option to include their email at the end of the questionnaire to receive a summary of the study's results.

5.4.2 Questionnaire layout

The first screen when opening the online questionnaire link provided an appropriate introduction to the researcher and her university, as well as to the study's aims and scope, the required time for completion, and information about the ethical aspects related to the confidentiality and anonymity of the respondents. This has helped to enable trust, a higher response rate, and a stronger willingness from respondents to provide accurate and truthful answers (McDaniel, 2013; Wilson, 2012). In the second block (screen) of the electronic questionnaire, a note was placed to ensure

that the respondent was the appropriate person to answer it. General instructions were also provided on how to respond to the questionnaire. In the following block, a screening opening question was placed about whether the company conducts any digital marketing activities (including online sales). This question was intended to identify the target and qualified respondents (McDaniel and Gates, 1999), and exclude those employed in organisations that do not apply digital marketing activities (it was also highlighted from the initial communication with them that the study was strictly focused on retailers practising digital marketing). Another simple opening question was whether those activities are taking place in-house, through outsourcing or a combination of the two. This question aimed to attract respondents' interest, gaining their confidence and cooperation (Malhotra, 2004; McDaniel, 2013). The subsequent blocks with the main questions followed a logical order, divided into different numbered parts, with brief transitional phrases and relevant branching instructions between switching topics to guide participants and encourage complete responses (Malhotra, 2004; Malhotra and Birks, 2003).

Efforts were made for the questionnaire to have a reasonable length to achieve an acceptable response rate, encourage objective responses and avoid dissatisfaction, fatigue and reluctance to complete it (Malhotra, 2004; McGivern, 2006). Moreover, a requirement was added to each block forcing participants to respond to avoid returning questionnaires with missing data. Although this might have prevented some participants from completing the survey, only full responses were obtained at the end, which made further analysis much easier and faster. Personal (unique) links were sent to each participant in an effort to: (1) monitor response rates (e.g., identify the uncompleted surveys to send follow-up reminders); (2) prevent respondents from completing the questionnaire more than once; and (3) prevent others outside the specifically selected sample from responding (McGivern, 2006; Wilson, 2019).

5.4.3 Addressing common method variance (CMV)

Common method variance describes "the variance that is attributable to the measurement method rather than to the constructs the measures represent" (Podsakoff et al., 2003, p. 879), and it can cause serious problems for a study's validity and reliability. The threat of common method variance in the present study is high considering its: (1) self-completion form, (2) single cross-sectional design, and (3) same response technique for both independent and dependent variables

(Kock et al., 2021). The risk is that correlations might be inflated due to common method variance, which can negatively influence the study's empirical findings and conclusions (Kock et al., 2021; Lindell and Whitney, 2001).

To reduce the possibility of bias in completing the questionnaire, the following procedural remedies were applied: (1) adequate amount of time, effort and care was given to the questionnaire's development, using and adapting scale items from reliable sources (Podsakoff et al., 2003) ; (2) the items used for this research questions were reviewed in terms of comprehension and clarity, while vague concepts, unfamiliar terms and complicated syntax were avoided in order for questions to be specific, simple and concise (Lindell and Whitney, 2001; Tehseen et al., 2017); (3) different sources were used to measure the independent and dependent variables, aiming to prevent respondents from predicting the observed links between independent and dependent constructs, and to reduce the influence of implicit theories, consistency motifs and social desirability tendencies (Podsakoff et al., 2003; Tehseen et al., 2017); and (4) the respondents' anonymity and confidentiality were protected and this was clearly mentioned in every communication with them (Williams et al., 2010).

5.4.4 Administering the online questionnaire

The questionnaire was developed using Qualtrics, a web software that applies a simple and professional presentation, with neutral colours and a quite easy and friendly structure and flow for the user to respond from any device such as a computer, tablet or mobile phone. The questions in each block were presented in user-friendly font text, allowing respondents to press an arrow at the end of the block to move to the next page. Questions used precise wording and different typefaces to separate instructions from questions and were carefully divided into blocks and pages, with enough spacing between different questions and statements to reduce respondents' errors and fatigue and retain their concentration (McDaniel, 2013). The questionnaire's clarity, quality and professional appearance aimed to make participants realise the project's significance (Malhotra and Birks, 2003; Proctor, 2005).

5.4.5 Cover letter

Firms in the sample selected were initially contacted by email, which invited them to participate in the study, explained its objectives and stressed the importance of their contribution (Parasuraman et al., 2007). The companies were asked whether they agreed to participate in the study. If they agreed, they were also asked for the contact details (e.g., name, email) of the most appropriate employee who could respond to the questionnaire. Then, a new email with a personalised cover letter was sent to those digital marketing employees. In cases where the communication solely happened through LinkedIn (discussed in section 5.5.1.2), a personalised message similar to the cover letter mentioned above was sent to those who accepted the connection-invitation.

Personalised cover letters (or personalised messages) can significantly increase the response rate in self-completion surveys (McGivern, 2006). In particular, the email/LinkedIn message sent to this study's key informants was concise, objective and carefully tailored to each respondent. It also provided reassurance about confidentiality and anonymity issues. In addition, it contained information about the research and survey, the required time for its completion, the deadline to complete it (within two weeks from the time they received the link), and general instructions on how to respond to the questions (McGivern, 2006; Parasuraman et al., 2007).

5.4.6 Questionnaire pre-testing

The study's questionnaire was pre-tested with digital marketing managers and executives working in the retail sector in the UK. This was deemed necessary to identify problems encountered in responding, such as ambivalent questions and/or confusing instructions, in order to correct them before launching the full-scale study (Malhotra, 2004; Proctor, 2005). The pre-testing took place in May 2021, and participants were recruited through LinkedIn using a personalised, friendly message. The questionnaire used for the pre-testing included an additional section where respondents could write their general impressions and note any issues that needed improvement. A total of 70 digital marketing practitioners were initially contacted, with only 28 agreeing to participate in the pre-testing. The remainder either did not respond or refused to take part due to personal reasons, such as lack of available time. Of the 28 managers who agreed to participate, only 17 completed the survey. The pre-testing provided useful insights to correct issues relating to

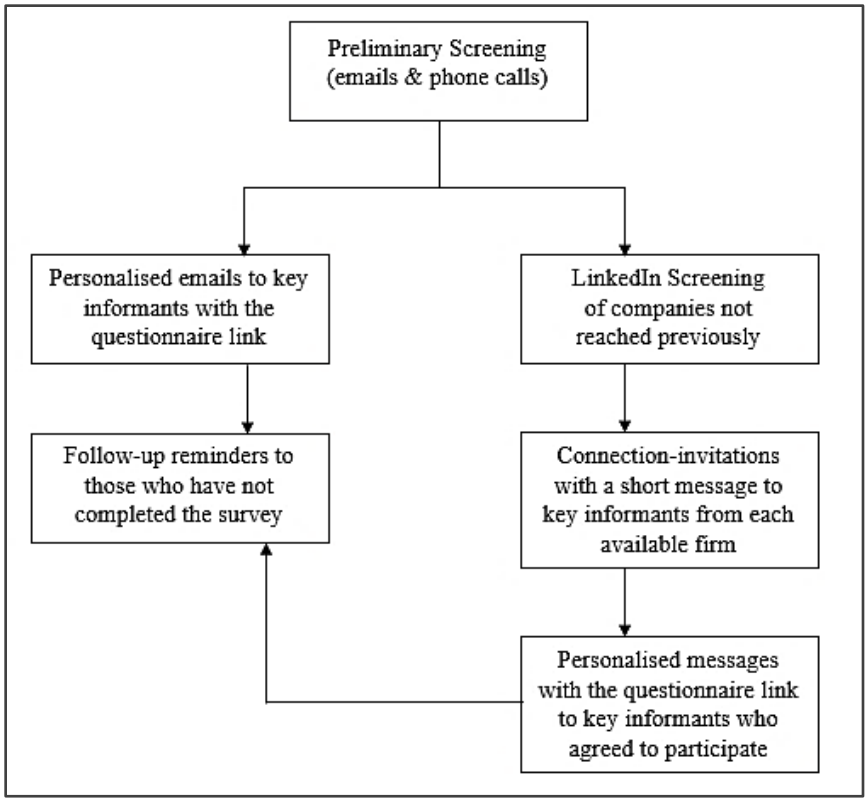
the structure and flow, which were corrected to provide a comprehensive, easier-to-respond questionnaire.

5.5 Fieldwork procedures

5.5.1 Contacting key informants and securing participation

The fieldwork procedures of the full-scale study lasted eight months, from May 2021 until December 2021. **Figure 5.2** provides a summary of the process followed to contact the key informants of this research and secure their participation.

Figure 5.2 Steps in the fieldwork process



Source: Compiled by the researcher

5.5.1.1 Preliminary email and telephone screenings

As mentioned earlier, the initial search from the FAME database resulted in 1034 firms fulfilling the eligibility criteria set. A preliminary contact of these firms by telephone or email revealed that 114 of them were repetitive entries (e.g., double entries or subsidiaries), 59 companies did not

belong in the retail industry (i.e., wholesalers), and 23 companies had ceased operations (e.g., permanently closed or bought by other organisations), while another 48 were excluded as they did not carry out any digital marketing activities. As a result, the initial sample was reduced to 790 firms. These firms were contacted by email and/or phone to explore their willingness to participate in the study and to indicate the most appropriate person to answer the questionnaire. 29 companies could not participate in the research due to a corporate policy forbidding them to take part in external surveys, and 31 firms politely declined to take part for several reasons (e.g., too busy at that time on other projects, no interest in the study). Key informants indicated by each company were then contacted by email with a personalised cover letter (as described in section 5.4.5). This aimed to explain to potential participants the value of their contribution, maximising the response rate (Jobber et al., 1985).

5.5.1.2 LinkedIn as a contact tool

Contacting large retailers was quite challenging, as such companies tend to be constantly busier than smaller ones, while communication with specific departments was not always possible. For this reason, LinkedIn (which represents the largest business professional network) was used as a good alternative contact tool in reaching, contacting and recruiting marketing professionals from the retail companies in the specified sample that could not be reached through emails or phone calls. In fact, using LinkedIn as a research contact tool is becoming more and more common practice in recent marketing studies (e.g., Cho and Lam, 2021; Di Gregorio et al., 2019; Musarra et al., 2023).

The process followed in using this platform was the following: firstly, all companies that were not reached through phone calls or emails in the previous stages were searched on LinkedIn. From those, 77 firms could not be found on LinkedIn, and, also considering that they could not be reached by email or phone previously, they were eventually considered unavailable for unknown reasons (e.g., perhaps due to incorrect details) and removed from the research sample. Then, a second LinkedIn search within each of the rest of the companies was conducted using two filters: (1) the job location of employees, which should be in the United Kingdom; and (2) their job position, which should relate to marketing or more specifically to digital marketing. This resulted in the exclusion of another 34 firms that did not have a marketing team or whose marketing employees were located in different countries, considering that some companies had branches in

other locations. This left the overall research sample with 619 available retail companies, as summarised in **Table 5.3**.

The use of LinkedIn aimed to select employees in senior marketing positions (e.g., digital marketing directors, marketing executives) rather than people in junior or assistant positions. For every firm found on LinkedIn, a connection-invitation associated with a short, personalised LinkedIn (InMail) message was sent to six to ten marketing employees from each company, informing them about the research and politely asking for their cooperation. Due to the platform's limitations when contacting people outside your immediate network, this first message was short and focused, indicating that further information would follow if they accepted the connection-invitation. In most cases, only one of the employees contacted responded positively and was sent another more extensive message explaining the research's topic and aims and the importance of their participation in the study.

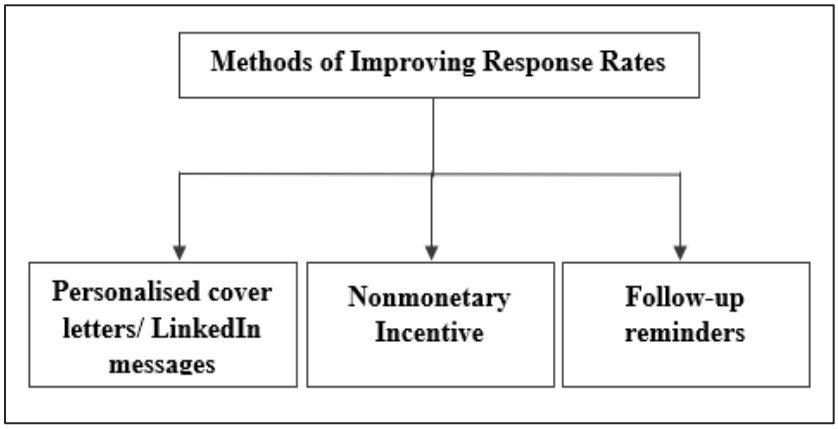
Table 5.3: Preliminary screenings of the sample

Sample details	**Individual number**	**Total**
Total sample of the retail firms identified (from FAME database)		**1034**
Companies with double entry	114	
Companies with no retail status	59	
Companies with ceased operations	23	-196
Total available companies after pre-screening		**838**
Companies with no digital marketing activities	48	
Companies with policy not to participate in surveys	29	
Companies not willing to participate due to limited time	31	-108
Total available companies after screening		**730**
Companies unavailable on LinkedIn	77	
Companies on LinkedIn reporting no marketing employees	34	-111
Total available companies after overall screening (emails, calls, LinkedIn)		**619**

5.5.2 Response rate improvement

There are multiple ways to boost response rates in self-completion surveys, such as prior notifications, monetary and nonmonetary incentives, follow-up reminders, and other facilitators, including personalised cover letters and emails (Malhotra, 2015; McGivern, 2006). Most methods were applied in this research (see **Figure 5.3**), such as the personalised cover letters and LinkedIn messages discussed in detail previously, as well as the reminders and incentives explained in the following section.

Figure 5.3: Methods used to improve response rates



Source: Adapted from Malhotra (2012, p. 232)

5.5.2.1 Follow-up reminders

Two weeks after the initial sending of emails/messages, there were follow-up reminders to those firms that did not complete the survey in the set time-period, in which the significance of their help was highlighted. Four waves of emails/messages and calls during the data collection period were used to persuade respondents to complete the questionnaire. Using telephone calls, emails and LinkedIn proved helpful in communicating with respondents and considerably increased their willingness to respond (Dillman, 2000; Malhotra, 2015).

5.5.2.2 Incentives

As an incentive to participate in this study, participants were promised a summary of the findings upon completion of the study. Although monetary incentives and especially prepaid money/vouchers have been proven more effective than nonmonetary ones (Malhotra, 2015), participants showed appreciation for this nonmonetary "reward", as this could add significantly to their digital marketing knowledge.

5.5.2.3 Response rate

Altogether, 269 questionnaires were completed, resulting in a response rate of 43.46%, which is higher than the response reported in other related studies (e.g., Ho et al., 2020; Jean and Kim, 2020). This satisfactory response rate can be attributed to: (1) the significant amount of time and energy put into persuading firms to respond; (2) the multiple communication modes used to recruit and persuade key informants to complete the survey; and (3) the attractive and contemporary nature of the topic of the study. Of those survey responses, 20 were excluded as they failed the

informant competency tests by scoring below 4 (e.g., set as the mid-point) in more than one of the four items used (**Table 5.4**). An additional seven responses were dropped due to problems in properly answering the questions (e.g., irregular response patterns, extremely short answer times). Hence, the final usable research sample was reduced to 242 firms.

However, it is worth mentioning that around 130 questionnaires remained uncompleted due to multiple reasons. Specifically, some of those participants justified their decision not to complete the survey based on their limited free time due to increased professional responsibilities that unexpectedly appeared in their timetables. Others realised they were not a good fit for the research after reading the questions (considering their responsibilities regarding their company's digital marketing activities), and therefore could not contribute to the questionnaire. Furthermore, some felt that the questions asked sensitive and confidential information in terms of their company's digital marketing strategy and operations, and hence declined to continue the survey. For key informants who did not give an explanation for not completing the questionnaire, possible reasons could relate to: (1) the fact that many of them were changing jobs and positions and thus they were not able to complete the surveys they started; and (2) the period of the data collection (e.g., summer and autumn months) where most employees were on holidays or starting new projects. The difficulty of collecting data during the summer months was highlighted in the literature (Losch et al., 2002).

5.5.3 Key informants' quality

Table 5.4 presents the results for key informant competency for firms comprising the final sample. For the first criterion (i.e., degree of knowledgeability about their firm's digital marketing activities), 5.8% of the key informants rated themselves with number 4, 13.2% rated themselves with number 5, 23.6% rated themselves with 6, and 57.4% rated their knowledgeability with 7 (i.e., very high). For the second key informant suitability criterion (i.e., degree of involvement with their firm's digital marketing activities), most respondents rated themselves with the numbers 6 (22.3%) and 7 (62.8%). Similarly, for the third criterion (i.e., degree of responsibility for their firm's digital marketing activities), 21.1% of key informants rated themselves with the number 6, and 58.3% rated themselves with the highest score. For the fourth criterion (i.e., degree of confidence in answering this survey's questions), most key informants (49.2%) rated themselves with 7. The mean composite rating for informant quality was 6.31 (s.d.=0.69), (n=242). This is an

indication that key informants who participated in this research were knowledgeable enough about their companies' digital marketing activities, their involvement and responsibility in those activities were high, and, at the same time, they felt confident enough to answer this survey's questions.

Table 5.4: Descriptive results for key informant suitability

		Response scale							Descriptive results	
Item code	**Items**	**Very low (1) %**	**(2) %**	**(3) %**	**(4) %**	**(5) %**	**(6) %**	**Very high (7) %**	**Mean**	**SD**
KIS	***Key informant suitability***									
KIS1	Degree of knowledgeability about your firm's digital marketing activities	-	-	-	5.8	13.2	23.6	57.4	6.33	.914
KIS2	Degree of involvement with your firm's digital marketing activities	-	-	-	2.9	12.0	22.3	62.8	6.45	.815
KIS3	Degree of responsibility for your firm's digital marketing activities	-	-	-	8.3	12.4	21.1	58.3	6.29	.977
KIS4	Degree of confidence in answering this survey's questions	-	-	-	6.6	17.8	26.4	49.2	6.18	.951

Note: The scale mean score was 6.31 (s.d.=0.69)

5.5.4 Job position

Table 5.5 shows that most respondents in this research held the position of marketing or digital marketing director/manager (57.4%). Key informants with marketing or digital marketing executive/coordinator and social media director/manager positions represented 12.4% and 9.1% of the total, respectively.

Table 5.5: Key informants' job positions

Informant job title	Frequency	% of total companies
Marketing or Digital Marketing Director/Manager	139	57.4
Marketing or Digital Marketing Executive/Coordinator	30	12.4
Social Media Director/Manager	22	9.1
Digital Director	19	7.9
Brand Manager	9	3.7
E-Commerce Executive	7	2.9
Online Sales Director/Manager	7	2.9
Commercial Director	6	2.5
Chief Executive Officer (CEO)	3	1.2
Total	242	100.0

5.5.5 Key informants' experience

On average, key informants had been working in their current positions for three years, with 25.7% of them being in the same position for more than three years (**Table 5.6**). Respondents had been working for the same firm for five years on average, with 42.6% of the sample working in the same company for more than three years (**Table 5.7**).

Table 5.6: Key informants' experience in their current position

Years in position	Frequency	% of total companies
1-3 years	177	73.1
4-6 years	36	14.9
7-9 years	14	5.8
10-12 years	7	2.9
13-15 years	4	1.7
16 years and above	1	0.4
Not specified	3	1.2
Total	242	100.0

Note: The mean score was 3.08 years

Table 5.7: Key informants' experience in the company

Overall years in the company	Frequency	% of total companies
1-3 years	136	56.2
4-6 years	51	21.1
7-9 years	15	6.2
10-12 years	14	5.8
13-15 years	13	5.4
16 years and above	10	4.1
Not specified	3	1.2
Total	242	100.0

Note: The mean score was 4.85 years

5.5.6 Sample profile structure

An evaluation of the questionnaire's demographics section was conducted to outline the demographic profile of retailers participating in the study, as well as the quality of the data. **Table 5.8** presents the structure of the study's sample. With regard to the number of employees, 23.6% of the companies had 250-499 employees, 20.7% had 500-999 employees, 28.9% had 1000-4999 employees, 9.1% had 5000-9999 employees, and 17.8% had 10,000 and above employees. With regard to the number of employees specialising in digital marketing, the majority (31%) had up to five employees, 18.6% of firms had 6-9 employees, 19% of them had 10-24 employees, 11.2% of

them had 25-49 employees, 7.9% had 50-99%, while only 12.4% of firms had 100 and more employees specialised in digital marketing.

Most companies (47.1%) were established more than 50 years ago, while only six firms were founded in the last five years. In terms of their experience in digital marketing, the majority (29.3%) had 10-14 years of experience. More than three-fifths (62.4%) of the participants considered only consumers as their primary market, whereas the remainder targeted both consumers and businesses buyers. With regard to product firms, 53.3% of the respondents sold products, 42.6% focused on both products and services, while the remainder (4.1%) focused on services. More than a third of the participants (34.4%) operated in the automotive retail sector, followed by the 'wearing apparel & accessories' and 'household equipment' sectors, represented by 21.1% and 15.3% of the total, respectively. Concerning online sales intensity, only 16.1% of firms spent less than 5%, while the majority (22.3%) spent 20-39% of their total sales. Finally, regarding the percentage of the firm's total marketing budget accounted for its digital marketing activities, most firms (26%) said that 20-39% of their total marketing budget solely accounted for their digital marketing activities, while an equally significant percentage of firms (25.6%) spent more than half of their total budget on such activities.

Table 5.8: Sample profile structure

Demographic characteristics	Number of firms	% of total firms
Number of full-time employees		
250-499	57	23.6
500-999	50	20.7
1000-4999	70	28.9
5000-9999	22	9.1
10000 and above	43	17.8
Number of marketing/digital marketing employees		
Up to 5	75	31.0
6-9	45	18.6
10-24	46	19.0
25-49	27	11.2
50-99	19	7.9
100 and above	30	12.4
Firm's age		
Less than 5 years	6	2.5
5-14 years	16	6.6
15-29 years	55	22.7
30-49 years	51	21.1
50 years or more	114	47.1
Firm's experience in digital marketing		
Less than 3 years	16	6.6
3-5 years	34	14.0
6-9 years	57	23.6
10-14 years	71	29.3
15-19 years	37	15.3
20 years or more	27	11.2
Primary market		
Consumers	151	62.4
Both consumers & businesses	91	37.6
Firm's main focus		
Products	129	53.3
Services	10	4.1
Both products and services	103	42.6
Firm's retail sector		
Food, beverages & tobacco	34	13.6
Wearing apparel & accessories	51	21.1
Health & beauty	17	7.0
Information & communication equipment	8	3.3
Household equipment	37	15.3
Cultural & recreation goods	14	5.8
Automotive	79	34.4
Garden-related materials	2	0.4
% Online sales intensity		
Less than 5%	39	16.1
5-9%	24	9.9
10-19%	40	16.5
20-39%	54	22.3
40-49%	24	9.9
50-69%	33	13.6
70-89%	12	5.0
90-100%	16	6.6
% of the firm's total marketing budget accounted for its digital marketing activities		
Less than 5%	21	8.7
5-9%	37	15.3
10-19%	34	14.0
20-39%	63	26.0
40-49%	25	10.3
50% or more	62	25.6

5.5.7 Controlling for non-response bias

Non-response bias refers to the systematic error that occurs when some of the preselected potential participants do not respond to the questionnaire, and, as a result, the final sample differs from the planned one (Malhotra, 2004; Shiu et al., 2009). This was tested in the current study using two methods. The first method followed Mentzer and Flint's (1997) guidelines. Certain demographic characteristics (i.e., number of full-time employees, annual sales turnover) of 30 randomly selected non-responding companies were gathered using secondary data (e.g., FAME database). Then, independent sample t-tests were used to compare the t-values of those 30 non-responding companies with another 30 randomly selected firms which responded to the current research. The results of this analysis showed no significant differences at the level of 0.5, indicating low possibility for non-response bias.

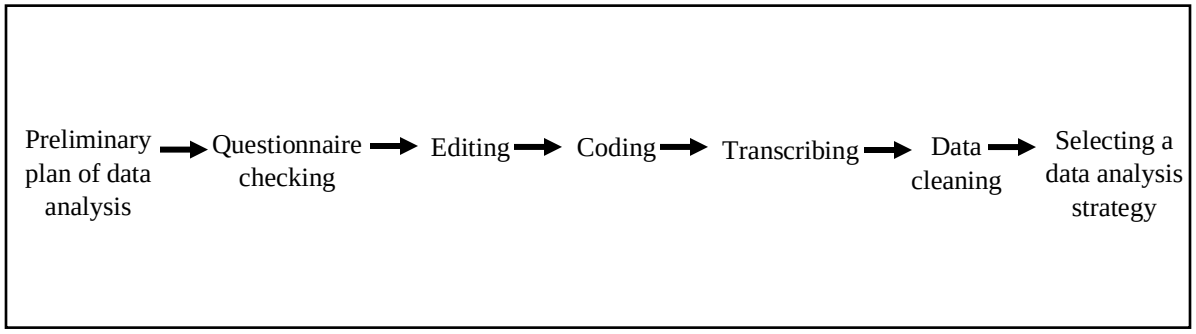
The second method followed Armstrong and Overton's (1977) procedures, by comparing the main research constructs (i.e., explorative and exploitative digital marketing strategic approaches, differentiation and cost-reduction competitive advantage, online customer engagement, market performance, financial performance) and certain demographics (i.e., number of full-time employees, annual sales turnover) of early versus late respondents. Taking into consideration Armstrong and Overton's argument that late respondents in a questionnaire might present similarities to non-respondents regarding their answers, two groups were created and compared, comprising the early respondents (25% of the sample) and the late respondents (25% of the sample) in turn. Independent sample t-tests were used to compare their mean scores, revealing no significant differences at the 0.05 level. The following results were provided: explorative digital marketing strategic approach (t=1.191, p=.236), exploitative digital marketing strategic approach (t=1.663, p=0.99), differentiation advantage (t=-.186, p=.852), cost-reduction advantage (t=.301, p=.764), online customer engagement (t=1.111, p=.269), market performance (t=-.693, p=.490), financial performance (t=-.114, p=.910), number of employees (t=-.207, p=.837). In brief, both methods reveal that the research does not suffer from non-response bias, showing that the sample was representative of the population from which it was extracted.

5.5.8 Data editing, coding and transcribing

With the completion of the data collection, the following steps were taken to prepare the data for statistical analysis, as demonstrated by Malhotra (2009) (see **Figure 5.4**). First, questionnaires

were checked for completeness. Using personal links, Qualtrics enabled the monitoring of each response even in advance of their recording. Hence, questionnaires with only a small part left incomplete were directly identified, and respondents were contacted to answer the remaining questions, increasing the number of completed questionnaires.

Figure 5.4: Data preparation procedures



Source: Adopted from Malhotra (2009), p. 402

Second, all questionnaires were carefully edited, and answers provided were reviewed or inspected one by one to discard any inconsistent and ambiguous ones to secure high-quality data (Ghauri and Gronhaug, 2002; McDaniel and Gates, 1999). Third, coding took place, assigning numeric codes to each question's statement, although most questions were already pre-coded considering their closed-ended form (McDaniel and Gates, 1999). Fourth, the step of transcribing was unnecessary, considering the online form of the survey and the direct entry of data into the computer (Malhotra, 2009).

Fifth, the data were cleaned through thorough and extensive consistency checks to identify logically inconsistent data or extreme values (Malhotra, 2009). As a result, responses with the same patterns of answers were removed, as this was a sign that respondents did not take the task seriously. Finally, the validated, edited and coded responses were entered in SPSS for statistical analysis using the AMOS software; more details about the analysis undertaken (e.g., descriptive, validity, reliability, causal) are provided in the following chapter.

5.6 Ethical considerations

This study is strongly driven by the ethical guidelines and standards of the Leeds University Business School. Enough efforts were made for all participants to be treated with respect and sensitivity (McGivern, 2006). Sampling and fieldwork procedures were implemented with detail

and care to ensure participants' anonymity, while all responses in both qualitative and quantitative research were treated with the highest confidentiality. Regarding the preliminary in-depth interviews, the necessary consent form was completed by the participants in advance. This consent form included information about the use of the data obtained (e.g., not to be transmitted to any third party, only for this study's purposes), while participants were reassured about their right to withdraw from the study at any time (McGivern, 2006). Consent was also obtained in the quantitative research undertaken, as respondents were required to consent to complete the survey by ticking an introductory box referring to ethical issues, as suggested by the University of Leeds's guidelines. Considering that it was necessary to recontact key informants in cases of no-completion of the questionnaire or any other related issues, personal data were stored in a different place from the main data record, as suggested by McGivern, (2006).

5.7 Summary

This chapter has explained the methodological approaches adopted for this study. In terms of the research scope, the study took place in the United Kingdom, focusing on the retail industry and, more specifically, on large retail firms (selling products and/or services) that conduct digital marketing activities. Quantitative research was the main methodology used, based on a large-scale, structured, self-administered web survey, developed with Qualtrics. Qualitative research taking the form of in-depth interviews with digital marketing practitioners was also conducted to confirm the structure of the conceptual model, ensure practical applicability and verify the measurement scales of constructs. The research sample was derived from FAME, a financial database of major businesses in the United Kingdom, taking into consideration various eligibility criteria like the company size and industry sector. Initially, 1034 companies were identified, resulting in 838 companies after a general pre-screening, and finally 619 available companies after a formal screening. Key informants from each company, working in various digital marketing positions, were contacted, resulting in a total of 269 questionnaires being returned, with only 242 being suitable for further analysis (response rate of 39.09%). Constructs for this study were operationalised based on items adapted from previous studies, published in reputable academic journals with high reliability values. These were measured using a 7-point Likert type scale. All ethical guidelines and standards proposed by the University of Leeds were considered, respecting

anonymity and confidentiality issues. The next chapter performs a descriptive analysis to summarise the characteristics of the sample and further validity, reliability and causal analysis to assess the quality of the measures and investigate the research hypotheses.

CHAPTER SIX

Descriptive analysis, data purification and measure validation

6.0 Introduction

Following the previous explanatory chapter about the research methodology, this chapter outlines this study's descriptive analysis, data purification and measure validation for all variables included in the conceptual model. It starts by presenting the percentage scores of each construct and item with the values of their means and standard deviations. Then, the constructs' items are purified through item-total correlation. It continues by presenting the confirmatory factor analysis results (e.g., measurement models A & B) aiming to verify the constructs' factor structure and consistency. This is followed by the constructs' validity and reliability analysis, including content, predictive and construct validity. Construct validity tests about nomological, convergent and discriminant validity were employed. Data were also examined for scale reliability and common method variance. The chapter ends by describing the causal analysis presented in the next chapter.

6.1 Descriptive analysis

SPSS was the main software used in the descriptive analysis. Average mean scores and standard deviations for each construct's items were calculated, and frequency tables were produced to depict trends within the dataset and examine whether data are represented by a normal distribution. The R items were reversed before these procedures took place. Key informants were asked to state the degree of their agreement or disagreement with each of the statements comprising each construct by selecting one of the seven alternatives, where 1 was equal to "strongly disagree", and 7 was equal to "strongly agree". Only for the performance constructs (e.g., market, financial), 1 was equal to "much lower" and 7 was equal to "much higher". The descriptive properties of all constructs are reported in **Table 6.1**, demonstrating significant variation among responses for each variable and standard deviations among the correct values (>1.0). This suggests good variability and spreading of the derived responses.

In detail, the descriptive analysis reveals high means and standard deviations for the dynamic capabilities' constructs, meaning that, on average, respondents believe that their firms apply high levels of sensing, learning, integrating, responding, adaptive and coordinating capabilities, with the mean of each construct's item scoring above 4.0 (midpoint of the scale). The descriptive properties also show that the examined retailers tend to apply the exploitative digital marketing strategic approach to a higher degree than the explorative digital marketing approach, considering

the higher means in the second case. This suggests that they focus on refining and improving their existing digital marketing processes rather than continually introducing novel and new ones.

Most firms in the sample are moderately rated in terms of their competitive advantage, which might indicate the need for stronger efforts in delivering a differentiated digital market offering and higher operating efficiencies and cost reductions. In contrast, respondents had a significant tendency to rate online customer engagement statements with very high scores, suggesting strong engagement with customers online. There was also a trend with respondents providing answers towards the upper half of the scale for both market and financial performance. It is also demonstrated that market dynamism and competitive intensity were perceived as high, considering most of the items' mean scores are above 4. This strengthens the belief that contemporary digital environments are fast-changing and turbulent, facing fierce competition.

Table 6.1 Constructs' descriptive results

		Response Scale							Descriptive Results	
		Strongly disagree						Strongly Agree		
Item code	Items	(1) %	(2) %	(3) %	(4) %	(5) %	(6) %	(7) %	Mean	SD
SNC	**Sensing capability**									
SNC1	We frequently scan the environment to identify new opportunities related to digital marketing.	0.4	0.8	7.4	4.5	22.3	31.8	32.6	5.74	1.25
SNC2	We periodically review the likely effect of changes in our digital market environment on customers.	0.0	2.1	6.6	9.1	27.3	28.9	26.0	5.52	1.27
SNC3	We continuously try to discover additional needs and preferences of our customers for our digital market offering, of which they are unaware.	1.2	3.3	6.2	16.5	25.6	24.0	23.1	5.26	1.42
SNC4	We extrapolate key digital marketing trends to gain insights into what customers in our current market will need in the future.	0.4	4.5	7.0	14.9	22.3	26.9	24.0	5.31	1.43
SNC5	We attempt to develop new digital ways of looking at our customers and their needs.	0.0	3.3	5.8	7.9	21.1	33.9	28.1	5.61	1.31
SNC6	We sense our customers' needs and preferences about our digital market offering, even before they are aware of them.	0.8	8.3	11.2	21.9	26.9	18.6	12.4	4.71	1.47
LRC	**Learning capability**									
LRC1	We have effective routines to identify, value, and import new information and knowledge from our digital market environment.	0.0	3.7	9.1	19.8	29.8	23.1	14.5	5.03	1.31
LRC2	We have adequate routines to assimilate new information and knowledge from our online market environment.	1.2	5.4	7.9	19.4	31.8	24.4	9.9	4.88	1.35
LRC3	We are effective in transforming existing information into new insight for our digital market offering.	0	3.3	7.4	17.4	31.8	27.3	12.8	5.11	1.24
LRC4	We are effective in utilising knowledge into new digital marketing practices.	0.4	1.2	3.7	14.5	34.3	27.7	18.2	5.37	1.16
LRC5	We can effectively develop new knowledge that has the potential to influence our digital market offering.	0.0	1.2	4.5	14.9	31.8	30.2	17.4	5.37	1.14
INC	**Integrating capability**									
INC1	Employees from different departments in our firm are forthcoming in contributing their individual input to our company's digital market offering.	5.4	10.3	15.3	15.3	21.1	19.4	13.2	4.48	1.74
INC2	Employees in our company have a global understanding of each other's tasks and responsibilities.	7.9	14.0	15.3	15.7	22.3	15.7	9.1	4.14	1.76
INC3	Our employees are fully aware who in the firm has specialised digital marketing skills and knowledge.	2.9	9.1	8.3	8.3	18.2	24.4	28.9	5.19	1.75
INC4	Our firm's employees carefully interrelate their actions to each other to meet changing conditions in the digital marketing scene.	3.7	7.0	17.8	22.7	27.3	14.9	6.6	4.34	1.47
INC5	Employees from different departments in our firm manage to successfully interconnect their activities to enhance our digital offering.	5.0	10.3	13.6	24.4	21.9	18.2	6.6	4.29	1.57
	Responding capability									
RSC1	We are quick to respond to our customers' current needs affecting our digital market offering.	0.0	1.2	6.2	13.2	29.3	27.3	22.7	5.43	1.22
RSC2	Customer complaints regarding our digital market offering are not quickly responded to in our firm. (R)	5.0	4.1	6.2	10.7	12.8	33.1	28.1	5.34	1.69
RSC3	When we find that our customers are unhappy with the appropriateness of our digital market offering, we take corrective action immediately.	0.0	2.9	6.6	9.9	17.4	28.1	35.1	5.67	1.37
RSC4	We can easily satisfy the current needs and preferences of our customers with our digital market offering.	0.0	4.1	5.8	13.6	30.6	31.4	14.5	5.23	1.26
RSC5	We can satisfy our customers' existing needs and preferences with our digital market offering, much better than our competitors.	0.0	3.3	6.6	20.2	30.6	22.7	16.5	5.12	1.28
RSC6	We have a reputation for effectively meeting customers' current demands about our digital market offering.	0.4	2.9	8.7	20.2	26.0	26.9	14.9	5.09	1.32
ADC	**Adaptive capability**									
ADC1	We can tailor our digital market offering according to our customers' expressed requests.	1.7	7.4	9.9	16.9	28.5	21.9	13.6	4.83	1.50
ADC2	We can quickly modify our digital market offering according to the changing customers' needs and preferences.	1.7	5.8	7.0	16.9	23.1	26.4	19.0	5.10	1.50
ADC3	We adapt our digital market offering adequately to changes in competitors' digital market offerings.	2.1	6.2	7.9	15.7	26.0	26.0	16.1	5.00	1.51
ADC4	We are capable of adapting properly our digital marketing activities to withstand the occurred changes in our online market environment.	0.4	2.9	4.5	16.1	29.8	25.6	20.7	5.31	1.29
ADC5	We are able to find alternative ways of completing our digital marketing tasks.	0.4	2.1	4.1	16.9	31.4	26.0	19.0	5.31	1.23
CRC	**Coordinating capability**									
CRC1	We ensure that the output of each employee's work in digital marketing is synchronised with the work of other employees in our firm.	3.3	2.9	12.8	19.4	26.9	23.6	11.2	4.79	1.46
CRC2	We ensure an appropriate allocation of various resources and tools to our digital marketing tasks.	2.5	6.6	7.0	11.6	22.7	33.9	15.7	5.10	1.54
CRC3	Employees in our firm are assigned to digital marketing tasks according to their task-relevant knowledge and skills.	1.7	2.5	5.0	9.1	17.4	31.8	32.6	5.64	1.41
CRC4	We ensure that there is compatibility between employees' expertise and work processes in relation to digital marketing.	0.8	3.3	4.1	7.4	26.4	33.5	24.4	5.53	1.31
CRC5	Overall, our employees are well coordinated in performing the firm's digital marketing tasks.	0.4	2.1	4.5	11.2	21.9	35.1	24.8	5.57	1.26
EXR	**Explorative digital marketing strategic approach**									
EXR1	We continually develop new digital marketing procedures (e.g., extending to new online channels) that are very different from others developed in the past.	1.2	7.4	7.4	14.0	26.4	27.3	16.1	5.03	1.49
EXR2	We routinely introduce new digital marketing procedures (e.g., based on new digital technologies) which are daring, risky, or bold.	5.0	6.6	13.6	21.9	23.1	20.2	9.5	4.50	1.58
EXR3	We consistently use market knowledge to develop new digital marketing processes (e.g., working with new affiliate partners), which deliver different outputs from the existing processes.	1.7	3.7	6.6	20.7	25.6	23.1	18.6	5.09	1.43
EXR4	We use marketing knowledge to "break the mold" and create new digital marketing processes not used before, e.g., new forms of online customer communication).	3.3	9.5	14.5	16.5	24.4	19.8	12.0	4.57	1.62
EXL	**Exploitative digital marketing strategic approach**									
EXL1	We consistently re-examine information from previous projects and/or studies to modify existing digital marketing processes (e.g., improving the online channels' functions).	0.4	3.7	3.3	12.4	28.9	24.4	26.9	5.46	1.33
EXL2	We routinely adapt existing ideas (e.g., online content adaptation) when developing new digital marketing processes.	0.0	1.7	2.9	8.7	36.8	31.4	18.6	5.49	1.08
EXL3	We incrementally and routinely improve our existing digital marketing procedures (e.g., digital marketing optimisation).	0.4	2.9	4.1	8.7	22.3	31.8	29.8	5.64	1.30
EXL4	We focus changes in our digital marketing procedures (e.g., optimising the digital marketing expenditure) on improving efficiency.	0.0	2.5	1.7	10.3	23.1	31.8	30.6	5.72	1.19

DCA	**Differentiation-based competitive advantage**									
DCA1	Compared to our competitors' digital market offerings, our offering provides more unique benefits to customers (e.g., entertainment, personalised experience, etc.)	4.1	9.1	15.7	25.6	20.2	14.5	10.7	4.35	1.59
DCA2	Our company creates digital marketing content which is of higher quality than that of other competing firms.	1.2	5.8	14.9	19.0	23.6	16.9	18.6	4.83	1.55
DCA3	Our digital market offering is clearly superior to competitors' offerings in terms of meeting customers' needs and preferences.	1.2	8.7	14.9	24.4	22.7	16.9	11.2	4.54	1.49
DCA4	Product presentation (e.g., in terms of visual display and textual attributes) in our digital channels is unique.	4.5	9.5	16.5	19.4	21.9	16.1	12.0	4.41	1.66
DCA5	Our firm's digital market offering provides customer solutions not available by other competing firms.	8.7	12.4	17.8	25.2	12.8	12.0	11.2	4.02	1.76
DCA6	Our digital market offering is unique and would be difficult to be replicated by other firms.	15.7	17.8	19.8	13.6	12.8	10.3	9.9	3.61	1.90
CCA	**Cost-reduction-based competitive advantage**									
CCA1	Compared with our main competitors, we achieve higher efficiencies in our digital marketing operations (e.g., dispersing content in different channels/forms).	3.3	8.3	10.7	25.6	21.9	17.4	12.8	4.58	1.57
CCA2	Our company achieves cost benefits from the efficient use of digital marketing tools (e.g., exploiting free usage) and platforms (e.g., targeting the right customer groups).	0.8	3.3	9.9	16.9	26.0	23.1	19.8	5.13	1.42
CCA3	Using automation mechanisms (e.g., machine learning) and digital software (e.g., artificial intelligence) has decreased our digital marketing costs.	10.3	9.9	8.7	23.6	18.6	19.0	9.9	4.27	1.79
CCA4	We are realising cost reductions in our digital marketing expenditure through better negotiations with our partners (e.g., ad servers) and providers (e.g., analytics service providers).	4.5	5.0	8.7	22.3	27.7	20.2	11.6	4.71	1.53
CCA5	Our company enjoys higher cost advantages than competitors, in performing its digital marketing processes and delivering its offering.	3.3	5.4	10.7	38.8	19.8	13.2	8.7	4.41	1.40
CCA6	We provide superior customer value than our competitors by charging customers lower prices online for our products.	12.4	16.5	13.2	26.0	13.6	9.1	9.1	3.76	1.78
CEN	**Online customer engagement**									
CEN1	Interacting with our company online, gets customers thinking about our products/services.	0.4	2.1	3.3	5.0	21.9	27.7	39.7	5.88	1.24
CEN2	Interacting with our company online, stimulates customers' interest to learn more about our products/services.	0.4	2.1	2.9	5.8	25.6	29.3	33.9	5.78	1.22
CEN3	Customers spend a lot of time interacting with our company online.	0.8	5.0	10.3	11.6	30.6	21.5	20.2	5.12	1.46
CEN4	Our customers are actively participating in our company's online activities (i.e., social media channels, product reviews).	2.5	3.7	8.3	12.8	28.1	25.6	19.0	5.13	1.48
CEN5	Our customers are proud to interact with our company online.	0.8	4.1	4.5	24.4	27.3	18.6	20.2	5.10	1.39
CEN6	Our customers do not like to talk positively about our company with others online. (R)	4.1	5.0	9.1	19.4	15.3	27.3	19.8	4.98	1.66
CEN7	Our customers tend to recommend our company online to anyone who sought their advice about our company.	0.8	1.7	7.9	21.5	31.4	23.6	13.2	5.05	1.26
MAP	**Market performance**									
MAP1	Customer satisfaction	0.8	0.8	2.5	20.7	31.0	28.1	16.1	5.29	1.17
MAP2	Customer retention/loyalty	0.4	0.8	6.6	13.2	30.6	31.4	16.9	5.35	1.19
MAP3	New customer acquisition	1.7	1.7	7.4	14.5	22.7	29.8	22.3	5.33	1.39
MAP4	Customer lifetime value	0.4	1.2	6.2	18.6	31.4	25.2	16.9	5.23	1.22
MAP5	Customer share	1.2	4.5	4.5	29.8	30.6	20.2	9.1	4.81	1.27
MAP6	Market share	1.2	6.2	10.7	20.2	26.4	23.6	11.6	4.81	1.44
FIP	**Financial performance**									
FIP1	Sales turnover	0.4	3.7	5.8	18.6	30.6	24.8	16.1	5.14	1.30
FIP2	Sales growth	0.0	1.2	2.9	15.7	32.6	27.3	20.2	5.43	1.14
FIP3	Profits	0.0	2.5	2.5	23.1	26.4	26.9	18.6	5.29	1.22
FIP4	Profit growth	0.0	1.2	3.3	21.5	26.0	28.5	19.4	5.36	1.18
FIP5	Return-On-Investment (ROI)	0.0	1.7	3.7	16.9	28.9	28.5	20.2	5.40	1.19
FIP6	Return-On-Assets (ROA)	0.4	1.7	4.1	28.5	26.4	23.6	15.3	5.11	1.23
MAD	**Market dynamism**									
MAD1	In our kind of business, customer preferences regarding digital marketing trends change quite a bit over time.	2.9	6.6	12.0	19.0	23.1	22.7	13.6	4.76	1.57
MAD2	Our customers tend to have new needs regarding digital market offerings all the time.	3.7	8.3	14.9	19.4	22.7	19.0	12.0	4.54	1.61
MAD3	Sometimes our customers are very price-sensitive in their online purchases, but on other occasions, price is relatively unimportant.	7.0	3.7	5.4	16.9	24.0	21.5	21.5	4.98	1.71
MAD4	We are witnessing demand for our products and services online from customers who never bought them before.	0.4	0.8	5.0	12.8	30.2	24.8	26.0	5.50	1.23
MAD5	New customers tend to have needs about our digital market offering that are very different from those of our existing customers.	5.8	8.7	11.2	18.2	27.3	21.1	7.9	4.47	1.61
MAD6	We cater to many of the same customers online that we used to in the past. (R)	14.0	26.4	22.3	18.2	9.9	5.4	3.7	3.14	1.57
COI	**Competitive intensity**									
COI1	Competition in our industry from other companies using digital marketing approaches is cutthroat.	3.7	6.2	10.3	14.5	23.6	23.1	18.6	4.92	1.64
COI2	There are many online "advertising wars" in our industry by companies that apply digital marketing activities.	8.3	7.4	11.2	17.4	25.2	16.1	14.5	4.50	1.77
COI3	Any type of digital market offering that one competitor provides, others can match readily.	2.9	4.1	4.5	18.6	35.1	21.5	13.2	4.96	1.40
COI4	Price competition between companies that use digital marketing approaches is a hallmark of our industry.	7.0	7.4	9.5	16.5	26.0	20.2	13.2	4.61	1.71
COI5	One hears of a new competitive move from a firm that uses digital marketing almost every day.	9.1	14.9	15.7	22.7	20.7	11.2	5.8	3.88	1.66
COI6	Our competitors that apply online marketing activities are relatively weak. (R)	4.1	6.6	12.4	17.8	19.4	24.8	14.9	4.76	1.65

6.2 Item-total correlation analysis

An item-total correlation analysis was conducted using SPSS. The objective was to explore whether the items within each construct correlate with each other, thus sharing a common core or, in other words, internal consistency for the aspect they were supposed to measure (Gerbing and Anderson, 1988). Both item-to-total correlation and corrected-to-total correlation analyses were performed (Olsson, 1979). Analytically, item-to-total correlation explains the process of correlating the constructs' means with each item within the same construct, excluding those items with an inter-item correlation value below the threshold of .40 (Clark and Watson, 1995). The analysis was repeated every time an item was eliminated to check for additional changes. This investigation showed high internal consistency for most constructs considering the large number of variables and items. As 12 items ([a]) had to be removed, the corrected item-total correlation scores were then examined through the reliability outputs, leading to the reduction of four more items that exhibited scores below .50, as suggested by Bearden et al. (1989) and Hair et al. (2013). As before, the analysis was repeated every time an item was dropped. Overall, both item-to-total and corrected-to-total correlation analyses drove the elimination of 16 items from nine constructs, as presented in **Table 6.2**.

Table 6.2: Items dropped during the item-total correlation analysis

Construct	Item	r
Sensing capability	SNC6 - We sense our customers' needs and preferences about our digital market offering, even before they are aware of them.	.418**
Integrating capability	INC1 - Employees from different departments in our firm are forthcoming in contributing their individual input to our company's digital market offering.	.494**
Responding capability	RSC2 - Customer complaints regarding our digital market offering are not quickly responded to in our firm.	.125[a]
	RSC3 - When we find that our customers are unhappy with the appropriateness of our digital market offering, we take corrective action immediately.	.496**
Coordinating capability	CRC1 - We ensure that the output of each employee's work in digital marketing is synchronised with the work of other employees in our company.	.488*
Cost-reduction-based competitive advantage	CCA1 - Compared with our main competitors, we achieve higher efficiencies in our digital marketing operations (e.g., dispersing content in different channels/forms).	.339**[a]
	CCA2 - Our company achieves cost benefits from the efficient use of digital marketing tools (e.g., exploiting free usage) and platforms (e.g., targeting the right customer groups)	.350**[a]
	CCA6 - We provide superior customer value than our competitors by charging customers lower prices online for our products.	.306**[a]
Online customer engagement	CEN6 - Our customers do not like to talk positively about our company with others online.	.174**[a]
	CEN7 - Our customers tend to recommend our company online to anyone who sought their advice about our company.	.468**
Market performance	MAP3 - New customer acquisition.	.270**[a]
Marketing dynamism	MAD3 - Sometimes our customers are very price-sensitive in their online purchases, but on other occasions, price is relatively unimportant.	.100[a]
	MAD4 - We are witnessing demand for our products and services online from customers who never bought them before.	221**[a]
	MAD5 - New customers tend to have needs and preferences about our digital market offering that are very different from those of our existing customers.	267**[a]
	MAD6 - We cater to many of the same customers online that we used to in the past.	.057[a]
Competitive intensity	COI3 - Any type of digital market offering that one competitor provides, others can match readily.	.354**[a]
	COI6 - Our competitors that apply online marketing activities are relatively weak.	.122[a]

**p<.01; *p<.05; a: Item removed

6.3 Confirmatory factor analysis (CFA)

Given that the measurement of the constructs relied on adapted items from already established scales in previous academic studies, a confirmatory factor analysis (CFA) which represents a multivariate technique using fit indices was employed using the statistical software of AMOS. It was performed to validate the measures, verify the factor structure of the study's observed variables, and examine if the given data set fits the measurement model well (Anderson and Gerbing, 1988, McDonald and Ho, 2002). Global fit indices of the CFA model were assessed through the chi-square statistic (χ^2) that compares the observed and estimated covariance matrices; the normed chi-square (χ^2/df), which is the division of the chi-square to the degrees of freedom; the Standardised Root Mean Residual (SRMR), which represents the standardised residuals' average among observed and estimated covariance and variance terms; and the Root Mean Square Error of Approximation (RMSEA) showing how well a model fits the population, computing both

model complexity and sample size (Hair et al., 2006). Additionally, multiple measures from the incremental fit indices were observed, such as the Normed Fit Index (NFI); the Incremental Fit Index (IFI); the Tucker Lewis Index (TLI); and the Comparative Fit Index (CFI). According to Hair et al. (2006), such measures examine the fit of a specified model in relation to some alternative baseline model.

CFA analysis was conducted using two confirmatory factor models, taking into consideration the large number of constructs and the distinct parameters to be estimated, as well as the significant constraints with regard to sample size. Dividing constructs into two or more smaller models appears to be commonly applied in academic research relating to strategic marketing issues (e.g., Kohli and Jaworski, 1994; Morgan et al., 2012). Specifically, the first measurement model included the six dynamic capabilities that represent the antecedents of the digital marketing strategic approaches, the two digital marketing strategic approaches and the two competitive advantages. The second measurement model included the constructs related to online customer engagement, performance (e.g., market and financial), and moderators (e.g., market dynamism, competitive intensity). The results of the two measurement models led to the reduction of some additional items exhibiting lack of significance ($t<2.58$; $p<.01$); lack of standardised factor loadings' significance ($b<.05$); or absence of strong linear relationship ($R^2<.4$) (Hair et al., 2018).

6.3.1 Results of the measurement model A

The first measurement model included ten constructs, namely sensing capability (SNC), learning capability (LRC), integrating capability (INC), responding capability (RSC), adaptive capability (ADC), coordinating capability (CRC), explorative digital marketing strategic approach (EXR), exploitative digital marketing strategic approach (EXL), differentiation-based competitive advantage (DCA), and cost-reduction-based competitive advantage (CCA). As shown in **Table 6.3**, eight items were eliminated from this model, as they failed in one or more of the three criteria set regarding statistical significance.

Table 6.3: Items dropped during confirmatory factor analysis (CFA) – Model A

Construct	Item	Reason for exclusion
Sensing capability	SNC3 - We continuously try to discover additional needs and preferences of our customers for our digital market offering, of which they are unaware.	R-Squared below .4
Learning capability	LRC1 - We have effective routines to identify, value, and import new information and knowledge from our digital market environment.	R-Squared below .4
	LRC2 - We have adequate routines to assimilate new information and knowledge from our online market environment.	R-Squared below .4
Adaptive capability	ADC1 - We can tailor our digital market offering according to our customers' expressed requests.	Loading below .5
	ADC5 - We are able to find alternative ways of completing our digital marketing tasks.	R-Squared below .4
Differentiation-based competitive advantage	DCA4 - Product presentation (e.g., in terms of visual display and textual attributes) in our digital channels is unique.	Loading below .5
	DCA6 - Our digital market offering is unique, and would be difficult to be replicated by other firms.	R-Squared below .4
Cost-reduction-based competitive advantage	CCA5 - Our company enjoys higher cost advantages than competing firms, in performing its digital marketing processes and delivering its offering.	Loading below .5

Table 6.4 presents the confirmatory factor analysis results for measurement model A. From the Goodness-of-Fit Statistics, it is clear that the chi-square is significant, as p=.00, and the chi-square divided by the degrees of freedom equals 1.53, which is below the proposed threshold value of 3.00 (Bagozzi and Yi, 1988). Similarly, the comparative fit indices, in addition to RMSEA and SRMR, are also all within the acceptable levels (IFI=.93; TLI=.92; CFI=.93; RMSEA= .047; SRMR=.05). All constructs in measurement model A consist of three indicators or more, apart from the construct of the cost-reduction-based competitive advantage that remained with only two items. The standardised loadings for each item in the ten constructs included in measurement model A ranged from .60 to .90, with an exception for the CCA4 item that had a standardised loading equal to .55. Nevertheless, all loadings surpass the threshold value of .50 and t-values are high (all t-values are higher than 8.66, except for the value of CCA4) and significant (at $p < .01$) (Hair et al., 2018). Hence, it is concluded that the fit to the specified model is good, while validity seems obvious in the structure of the constructs.

Table 6.4: Results of measurement model A

Factors	Standardised Loadings [a]
Sensing capability (F1)	
SNC1 - We frequently scan the environment to identify new opportunities related to digital marketing.	.79 [b]
SNC2 - We periodically review the likely effect of changes in our digital market environment on customers.	.71 (10.67)
SNC4 - We extrapolate key digital marketing trends to gain insights into what customers in our current market will need in the future.	.70 (10.60)
SNC5 - We attempt to develop new digital ways of looking at our customers and their needs.	.63 (9.48)
Learning capability (F2)	
LRC3 - We are effective in transforming existing information into new insight for our digital market offering.	.76 [b]
LRC4 - We are effective in utilising knowledge into new digital marketing practices.	.83 (12.26)
LRC5 - We can effectively develop new knowledge that has the potential to influence our digital market offering.	.78 (11.61)
Integrating capability (F3)	
INC2 - Employees in our company have a global understanding of each other's tasks and responsibilities	.71 [b]
INC3 - Our employees are fully aware who in the firm has specialised digital marketing skills and knowledge.	.65 (9.11)
INC4 - Our firm's employees carefully interrelate their actions to each other to meet changing conditions in the digital marketing scene.	.83 (11.24)
INC5 - Employees from different departments in our firm manage to successfully interconnect their activities to enhance our digital offering.	.77 (10.72)
Responding capability (F4)	
RSC1 - We are quick to respond to our customers' current needs affecting our digital market offering.	.63 [b]
RSC4 - We can easily satisfy the current needs and preferences of our customers with our digital market offering.	.74 (8.96)
RSC5 - We can satisfy our customers' existing needs and preferences with our digital market offering, much better than our competitors.	.76 (9.12)
RSC6 - We have a reputation for effectively meeting customers' current demands about our digital market offering.	.76 (9.18)
Adaptive capability (F5)	
ADC2 - We can quickly modify our digital market offering according to the changing customers' needs and preferences.	.74 [b]
ADC3 - We adapt our digital market offering adequately to changes in competitors' digital market offerings.	.75 (10.87)
ADC4 - We are capable of adapting properly our digital marketing activities to withstand the occurred changes in our online market environment.	.83 (11.97)
Coordinating capability (F6)	
CRC2 - We ensure an appropriate allocation of various resources and tools to our digital marketing tasks.	.60 [b]
CRC3 - Employees in our firm are assigned to digital marketing tasks according to their task-relevant knowledge and skills.	.77 (9.02)
CRC4 - We ensure that there is compatibility between employees' expertise and work processes in relation to digital marketing.	.83 (9.36)
CRC5 - Overall, our employees are well coordinated in performing the firm's digital marketing tasks.	.73 (8.66)
Explorative digital marketing strategic approach (F7)	
EXR1 - We continually develop new digital marketing procedures (e.g., extending to new online channels) that are very different from others developed in the past.	.73 [b]
EXR2 - We routinely introduce new digital marketing procedures (e.g., based on new digital technologies) which are daring, risky, or bold.	.80 (11.59)
EXR3 - We consistently use market knowledge to develop new digital marketing processes (e.g., working with new affiliate partners), which deliver different outputs from the existing processes.	.77 (11.31)
EXR4 - We use marketing knowledge to "break the mold" and create new digital marketing processes not used before e.g., new forms of online customer communication).	.76 (11.10)
Exploitative digital marketing strategic approach (F8)	
EXL1 - We consistently re-examine information from previous projects and/or studies to modify existing digital marketing processes (e.g., improving the online channels' functions).	.66 [b]
EXL2 - We routinely adapt existing ideas (e.g., online content adaptation) when developing new digital marketing processes.	.66 (8.92)
EXL3 - We incrementally and routinely improve our existing digital marketing procedures (e.g., digital marketing optimisation).	.84 (10.43)
EXL4 - We focus changes in our digital marketing procedures (e.g., optimising the digital marketing expenditure) on improving efficiency.	.71 (9.34)
Differentiation-based competitive advantage (F9)	
DCA1 - Compared to our competitors' digital market offerings, our offering provides more unique benefits to customers (e.g., entertainment, personalised experience, etc.)	.77 [b]
DCA2 - Our company creates digital marketing content which is of higher quality than that of other competing firms.	.85 (13.73)
DCA3 - Our digital market offering is clearly superior to competitors' offerings in terms of meeting customers' needs and preferences.	.90 (14.55)
DCA5 - Our firm's digital market offering provides customer solutions not available by other competing firms.	.66 (10.36)
Cost-reduction-based competitive advantage (F10)	
CCA3 - Using automation mechanisms (e.g., machine learning) and digital software (e.g., artificial intelligence) has decreased our digital marketing costs.	.85 [b]
CCA4 - We are realising cost reductions in our digital marketing expenditure through better negotiations with our partners (e.g., ad servers) and providers (e.g., analytics service providers).	.55 (5.39)

Goodness-of-Fit Statistics: χ^2 (549) = 839.108, χ^2/df= 1.53; p=.00; IFI=.93; TLI=.92; CFI=.93; RMSEA= .047; SRMR=.05

[a] t-values from the unstandardised solution are in parentheses, [b] Item fixed to set scale

6.3.2 Results of measurement model B

The second measurement model focuses on the remaining five constructs of the conceptual model, namely online customer engagement (CEN), market performance (MAP), financial (FIP) performance, market dynamism (MAD), and competitive intensity (COI). Four more items were dropped from measurement model B, considering the previously discussed measurement criteria (see **Table 6.5**).

Table 6.5: Items dropped during confirmatory factor analysis (CFA) – Model B

Construct	Item	Reason for exclusion
Online customer engagement	CEN1 - Interacting with our company online, gets customers thinking about our products/ services.	Loading below .5
Market performance	MAP5 - Customer share (i.e., percentage of a customer's purchasing budget allocated to your firm within a specific product category)	Loading below .5
	MAP6 - Market share	R-Squared below .4
Financial performance	FIP1 - Sales turnover	Loading below .5

Table 6.6 exhibits the confirmatory factor results for the Measurement Model B, demonstrating a significant chi-square statistic (p=.00), a chi-square to the degrees of freedom ratio below the threshold value (χ^2/df= 1.92), and generally a satisfactory model fit (GFI=.90; NFI=.90; IFI=.95; TLI=.94; CFI=.95; RMSEA= .062; SRMR=.05). All five constructs are represented by three or more indicators, while, at the same time, all standardised loadings were above the recommended value of 0.5 (ideally 0.7) (e.g., Hair et al., 2010), ranging from .57 to .96. T-values are also high (t ≥8.03).

Table 6.6: Measurement Model B

Factors	Standardised Loadings [a]
Online customer engagement (F1)	
CEN2 - Interacting with our company online, stimulates customers' interest to learn more about our products/ services.	.57 [b]
CEN3 - Customers spend a lot of time interacting with our company online.	.71 (8.03)
CEN4 - Our customers are actively participating in our company's online activities (i.e., social media channels, product reviews).	.81 (8.53)
CEN5 - Our customers are proud to interact with our company online.	.77 (8.37)
Market performance (F2)	
MAP1 - Customer satisfaction	.69 [b]
MAP2 - Customer retention/loyalty	.87 (10.92)
MAP4 - Customer lifetime value	.77 (10.33)
Financial performance (F3)	
FP2 - Sales growth	.78 [b]
FP3 - Profits	.85 (14.90)
FP4 - Profit growth	.96 (17.24)
FP5 - Return-On-Investment (ROI)	.77 (13.18)
FP6 - Return-On-Assets (ROA)	.77 (13.05)
Market dynamism (F4)	
MAD1 - In our kind of business, customer preferences regarding digital marketing trends change quite a bit over time.	.90 [b]
MAD2 - Our customers tend to have new needs regarding digital market offerings all the time.	.88 (8.59)
Competitive intensity (F5)	
COI1 - Competition in our industry from other companies using digital marketing approaches is cutthroat.	.77 [b]
COI2 - There are many online "advertising wars" in our industry by companies that apply digital marketing activities.	.75 (10.40)
COI4 - Price competition between companies that use digital marketing approaches is a hallmark of our industry.	.68 (9.55)
COI5 - One hears of a new competitive move from a firm that uses digital marketing almost every day.	.68 (9.51)

Goodness-of-Fit Statistics

χ^2 (125) = 240.581, χ^2/df= 1.92; p=.00 ; GFI=.90; NFI=.90; IFI=.95; TLI=.94; CFI=.95; RMSEA= .06; SRMR=.05

6.4 Validity and reliability analysis

Scales were examined regarding their validity and reliability to confirm their adequacy and consistency (Wilson, 2019). Validity refers to the extent a rating scale can actually reflect what it aims to measure and to the extent the scores' variations reflect true variations in what is being measured (Ghauri and Gronhaug, 2002; Parasuraman et al., 2007; Wilson, 2019). It can be categorised into three different groups: (1) content or face validity, describing whether the content of the measurement scale is reasonable, covering well all relevant aspects of the issue (Ghauri and Gronhaug, 2002); (2) predictive or criterion validity, which indicates the degree that the attitude measure in the scale can predict other related characteristics (Parasuraman et al., 2007); and (3) construct validity, explaining whether the items of a scale can reflect the underlying theories that they were intended to measure (Hair et al., 2006; Wilson, 2019).

6.4.1 Content validity, predictive validity, construct validity

As discussed in Chapter five, content validity was addressed by discussing the scales and their specific items with a small group of academics experienced in marketing strategy research. Predictive validity, which can be assessed by correlating the research variables with a related construct not presented in the model, was not addressed, considering that it is not useful to the current research project. Construct validity, which tests a scale concerning the theoretical hypotheses about the nature of the specific variable, is examined through: (1) nomological validity; (2) convergent validity; and (3) discriminant validity (Malhotra, 2004; Pallant, 2020).

6.4.2 Nomological, convergent and discriminant validity

6.4.2.1 Nomological validity

Nomological validity refers to the correlation among different but related constructs in theoretically predicted ways (Hair et al., 2006). It is usually examined through the correlation matrix of the constructs included in the conceptual model. Significant, sensible and theoretically justified correlations' values indicate nomological validity. This study's correlation matrix (**Table 7.1** in the next chapter) shows that all correlations among the constructs are logical and theoretically relevant. For instance, dynamic capabilities exhibit high positive correlations with the two digital marketing strategic approaches they were supposed to affect, and these two constructs correlate highly and significantly with both competitive advantages and the construct of online customer engagement, as expected theoretically (Kim and Atuahene-Gima, 2010). Thus, it is proposed that the research's conceptual model is constructed based on theory and that nomological validity exists in this study.

6.4.2.2 Convergent validity

Convergent validity describes the common variance that the indicators of a particular construct share, and it was assessed by observing the values of Factor Loadings, Variance Extracted (VE), Average Variance Extracted (AVE) and Composite Reliability (CR) (Hair et al., 2006). Specifically, VE refers to the total of all squared factor loadings divided by the number of items (Hair et al., 2006), AVE describes the variance captured by each construct regarding the amount of variance that occurred from measurement error (Fornell and Larcker, 1981), and CR demonstrates the reliability of constructs computed from the squared sum of factor loadings for

every variable and the sum of the error variance terms for a construct (Hair et al., 2006, p. 777). Satisfactory convergent validity exists when, according to a rule of thumb, factor loadings have higher values than 0.50 and ideally 0.70, AVE and VE exceed the value of 0.50, and CR is higher than 0.60 (Hair et al., 2006). The following formulas presented in **Figure 6.1** were used to calculate those statistics, where λ = indicator loadings and ε = indicator error variances.

Figure 6.1: Formulas for VE, AVE and CR

$$VE = \frac{(\sum_{i=1}^{n} \lambda_i^2)}{n}$$

$$AVE = \frac{(\sum_{i=1}^{n} \lambda_i^2)}{(\sum_{i=1}^{n} \lambda_i^2) + (\sum_{i=1}^{n} \varepsilon_i)}$$

$$CR = \frac{(\sum_{i=1}^{n} \lambda_i)^2}{(\sum_{i=1}^{n} \lambda_i)^2 + (\sum_{i=1}^{n} \varepsilon_i)}$$

Source: Adopted from Hair et al. (2006, p. 777)

Table 6.4 and **Table 6.6** show that standardised factor loadings for all constructs' items are above .50, while most of them are even above .70. Additionally, the AVE values appear to range from .50 to .79; the VE values range from .70 to .89; and, finally, the CR values are all higher than .80, with the only exemption the CCA4 that had a CR value of .67. Those results can clearly explain that convergent validity is present in every construct under examination, which means that the indicators of each variable tend to share a high amount of variance in common (Hair et al., 2006).

6.4.2.3 Discriminant validity

Discriminant validity examines whether specific scales in the model are actually distinct from other constructs that were expected to differ (Hair et al., 2006; Wilson, 2019). It was assessed through three commonly used tests. The first and easiest way refers to the initial observation of the correlation matrix (**Table 7.1** in the next chapter) to inspect whether there are correlation values higher than .70. In this study, no two constructs have correlation coefficients higher than .70, as the highest correlation observed is 0.56, between ADC and RSC specifically. This indicates that each construct in this study shares less than 50% variation with any other construct; hence, the variables are sufficiently different. A second way proposed by Anderson and Gerbing (1988) and Hair et al. (2006) compares the fit of two models in the CFA: the original model with a second model where the correlation between the constructs is set equal to 1. Discriminant validity exists

when the original model's fit is significantly better than the fit of the second model. Performing this test for every pair of constructs in the model, it was revealed that the original model's fit was always better than the new model's fit, thus indicating the existence of discriminant validity. A better third test proposed by Former and Larcker (1981) suggests that good evidence of discriminant validity exists when the Average Variance Extracted (AVE) is higher than the squared correlation estimate of the two constructs. The results of this test demonstrated that all squared correlations were lower than each individual AVE. This means that the latent constructs used in this study explain their indicators in a better way than they explain other constructs in the same conceptual model (Hair et al., 2006). The scores of VE, AVE, CR, as well as the squared correlation matrix for both measurement models A and B are presented in **Table 6.7** and **Table 6.8**.

Table 6.7: VE, AVE, CR & squared correlation matrix for measurement model A

		1	2	3	4	5	6	7	8	9	10
1	**SNC**	1.00									
2	**LRC**	.44**	1.00								
3	**INC**	.13**	.28**	1.00							
4	**RSC**	.27**	.18**	.27**	1.00						
5	**ADC**	.12**	.32**	.27**	.45**	1.00					
6	**CRC**	.21**	.19**	.28**	.28**	.26**	1.00				
7	**EXR**	.35**	.23**	.13**	.24**	.38**	.22**	1.00			
8	**EXL**	.32**	.22**	.10**	.23**	.27**	.34**	.37**	1.00		
9	**DCA**	.09**	.11**	.20**	.30**	.28**	.15**	.33**	.33**	1.00	
10	**CCA**	.14**	.05**	.11**	.16**	.09**	.12**	.29**	.15**	.13**	1.00
VE		.71	.79	.74	.72	.77	.73	.76	.72	.79	.70
AVE		.50	.63	.55	.52	.60	.55	.59	.53	.64	.52
CR		.80	.83	.83	.81	.82	.83	.85	.82	.88	.67

**p<.01;*p<.05

Note: SNC= sensing capability; LRC= learning capability; INC= integrating capability; RSC= responding capability; ADC= adaptive capability; CRC= coordinating capability; EXR= explorative digital marketing strategic approach; EXL= exploitative digital marketing strategic approach; DCA= differentiation-based competitive advantage; CCA=cost-reduction-based competitive advantage

Table 6.8: VE, AVE, CR & squared correlation matrix for measurement model B

		11	12	13	14	15
11	**CEN**	1.00				
12	**MAP**	.37**	1.00			
13	**FIP**	.11**	.19**	1.00		
14	**MAD**	.07**	.06**	.04**	1.00	
15	**COI**	.01	.00	.02	.12**	1.00
VE		.72	.78	.83	.89	.72
AVE		.52	.61	.69	.79	.52
CR		.81	.82	.92	.88	.81

**p<.01; *p<.05

Note: CEN= online customer engagement; MAP= market performance;
FIP= financial performance; MAD= market dynamism; COI= competitive intensity

6.4.3 Scale reliability

Scale reliability demonstrates the shared variance/internal consistency between the items of the latent constructs (Fornell and Larcker, 1981; Parasuraman et al., 2007). Importantly, it can be examined through reliability analysis conducted in SPSS, which can offer the Cronbach's alpha values for each construct (Cronbach, 1951). According to Nunnally et al. (1994), the threshold value of Cronbach's alpha should be between 0.70 and 0.95. The reliability scores for each construct in this study are presented in **Table 6.9**. All Cronbach's alphas are higher than .80, except for cost-competitive advantage, which had a=.64, slightly lower than the recommended threshold value of 0.70 (Nunnally and Bernstein, 1994). However, according to Churchill (1979), Cronbach's alphas lower than .70 but higher than .60 are still acceptable; hence, the construct of cost-reduction-based competitive advantage was kept in the model. In summary, it can be concluded that the scales used to measure the constructs of this research are described by internal consistency, reliability and validity.

6.4.4 Measurement model and summary statistics

The statistics for both measurement models, including the standardised loadings, the t-values, the means, and the standard deviations for each individual scale item, as well as the Cronbach's alphas, the Composite Reliabilities (CR or ρ), the Average Variances Extracted (AVEs), the mean scores and the standard deviations for each scale, are summarised in **Table 6.9**.

Table 6.9: Measurement model and summary statistics

Constructs	Scale items	Standard-ised load-ings	t-value	α	ρ	AVE	Mean score	Standard deviation	Item mean	Standard deviation
Model A										
Sensing capability (SNC)	SNC1	.79	*	.80	.80	.50	5.54	1.04	5.74	1.25
	SNC2	.71	10.67						5.52	1.27
	SNC4	.70	10.60						5.31	1.43
	SNC5	.63	9.48						5.61	1.31
Learning capability (LRC)	LRC3	.76	*	.83	.83	.63	5.28	1.02	5.11	1.24
	LRC4	.83	12.26						5.37	1.16
	LRC5	.78	11.61						5.37	1.14
Integrating capability (INC)	INC2	.71	*	.82	.83	.55	4.49	1.33	4.14	1.76
	INC3	.65	9.11						5.19	1.75
	INC4	.83	11.24						4.34	1.47
	INC5	.77	10.72						4.29	1.57
Responding capability (RSC)	RSC1	.63	*	.81	.81	.52	5.22	1.02	5.43	1.22
	RSC4	.74	8.96						5.23	1.26
	RSC5	.76	9.12						5.12	1.28
	RSC6	.76	9.18						5.09	1.32
Adaptive capability (ADC)	ADC2	.74	*	.82	.82	.60	5.14	1.23	5.10	1.50
	ADC3	.75	10.87						5.00	1.51
	ADC4	.83	11.97						5.31	1.29
Coordinating capability (CRC)	CRC2	.60	*	.81	.83	.55	5.46	1.10	5.10	1.54
	CRC3	.77	9.02						5.64	1.41
	CRC4	.83	9.36						5.53	1.31
	CRC5	.73	8.66						5.57	1.26
Explorative digital marketing approach (EXR)	EXR1	.73	*	.85	.85	.59	4.80	1.27	5.03	1.49
	EXR2	.80	11.59						4.50	1.58
	EXR3	.77	11.31						5.09	1.43
	EXR4	.76	11.10						4.57	1.62
Exploitative digital marketing approach (EXL)	EXL1	.66	*	.81	.82	.53	5.58	0.98	5.46	1.33
	EXL2	.68	8.92						5.49	1.08
	EXL3	.84	10.43						5.64	1.30
	EXL4	.71	9.34						5.72	1.19
Differentiation-based competitive advantage (DCA)	DCA1	.77	*	.86	.88	.64	4.43	1.35	4.35	1.59
	DCA2	.85	13.73						4.83	1.55
	DCA3	.90	14.55						4.54	1.49
	DCA5	.66	10.36						4.02	1.76
Cost-reduction-based competitive advantage (CCA)	CCA3	.85	*	.64	.67	.52	4.49	1.42	4.27	1.79
	CCA4	.55	5.39						4.71	1.53
Goodness-of-Fit Statistics										
χ^2 (549) = 839.108, χ^2/df= 1.53; p=.00; IFI=.93; TLI=.92; CFI=.93; RMSEA= .047; SRMR=.05										
Model B										
Online customer engagement (CEN)	CEN2	.57	*	.81	.81	.52	5.28	1.11	5.78	1.22
	CEN3	.71	8.03						5.12	1.46
	CEN4	.81	8.53						5.13	1.48
	CEN5	.77	8.37						5.10	1.39
Market performance (MAP)	MAP1	.69	*	.81	.82	.61	5.29	1.02	5.29	1.17
	MAP2	.87	10.92						5.35	1.19
	MAP4	.77	10.33						5.23	1.22
Financial performance (FIP)	FIP2	.78	*	.92	.92	.69	5.31	1.03	5.43	1.14
	FIP3	.85	14.90						5.29	1.22
	FIP4	.96	17.24						5.36	1.18
	FIP5	.77	13.18						5.40	1.19
	FIP6	.77	13.05						5.11	1.23
Market dynamism (MAD)	MAD1	.90	*	.88	.88	.79	4.65	1.50	4.76	1.57
	MAD2	.88	8.59						4.54	1.61
Competitive intensity (COI)	COI1	.77	*	.81	.81	.52	4.48	1.35	4.92	1.64
	COI2	.75	10.40						4.50	1.77
	COI4	.68	9.55						4.61	1.71
	COI5	.68	9.51						3.88	1.66
Goodness-of-Fit Statistics										
χ^2 (125) = 240.581, χ^2/df= 1.92; p=.00; GFI=.90; NFI=.90; IFI=.95; TLI=.94; CFI=.95; RMSEA= .06; SRMR=.05										

6.5 Common method variance

To check for common method variance bias, qualitative efforts were made while designing the questionnaire (discussed in Chapter five), and three ex-post statistical remedies were also applied. First, Harman's single-factor technique was adopted, which proposes the conduction of an exploratory factor analysis, including all indicators with the same scale (Harman, 1967). According to Podsakoff and Organ (1986), common method variance bias exists when a single factor arises from the unrotated factor solution or when the first factor explains most of the constructs' variance. A principal component analysis with varimax rotation showed the emergence of 13 factors with eigenvalues greater than 1.0, together accounting for 69% of the total variance, and with the variance extracted from the first factor being 27%, which is much lower than the recommended threshold of 50% (Harman, 1967). Although Harman's single-factor technique is frequently applied in academic research, it is argued to be subjected to multiple limitations that make it relatively ineffective to rely on (Chang et al., 2010). For instance, it is believed to become increasingly less conservative when the constructs increase, while it is unclear how many factors should emerge or how much of the variance should be extracted by the first factor for it to be recognised as a general factor (Podsakoff and Organ, 1986).

Second, the common latent factor technique was conducted through the CFA. All items from the manifest variables were loaded on a single factor using CFA (Podsakoff et al. 2003), resulting in a very poor fit to the data ($\chi^2(1377) = 5072.36$, $p < .01$; GFI=.52; NFI=.39; RFI=.36; IFI=.46; TLI=.44; CFI=.46; RMSEA =.11; SRMR=.0978) which is considerably worse than the statistical fit of both measurement models used, indicating that common method variance is not a problem. However, this method has also received criticism for reflecting the variance also caused by links between constructs that were not hypothesised (Podsakoff et al., 2003).

Third, the partial correlation technique suggested by Lindell and Whitney (2001) was also applied, where the second-smallest positive correlation between the constructs, which is .05, was used as a proxy for common method bias, considering that a marker variable was not included in the questionnaire in advance (Malhotra et al., 2006). This is a common technique applied by marketing researchers to check for common method bias (e.g., Leonidou and Skarmeas, 2017; Olabode et al., 2022). The following equation was used to compute the common method bias-adjusted correlations between the constructs: $r_A = (r_u - r_M)/(1-r_M)$, where: r_A = CMB-adjusted correlation,

r_u = original correlation, and r_M = marker variable. Correlations presented no difference in their statistical significance due to minor differences between original and CMB-adjusted correlations ($\Delta r \leq .04$), suggesting that common method bias did not affect the results. Based on the results of the above three tests, it can be concluded that this research does not suffer from common method variance bias.

6.6 Analytical tools

The hypothesised relationships between the constructs are tested in the next chapter through structural equation modelling (SEM). This choice was based on four key reasons: (1) SEM relies on both observed and unobserved measurements, enabling the evaluation of theoretical models in a comprehensive and clear way (Anderson and Gerbing, 1988; Byrne, 2016); (2) compared to other traditional multivariate procedures (i.e., regression, linear model), SEM offers explicit estimates of the measurement error (Byrne, 2016); (3) it enables the estimation of complex model structures including constructs that simultaneously represent independent and dependent variables, and accordingly the estimation of both direct and indirect effects, with statistical efficiency (Davvetas et al., 2020; Hair et al., 2006); and (4) the increased popularity in the use of this analytical method among quantitative studies in social sciences and the marketing field specifically suggests its significant value for modelling multivariate relations (Bagozzi and Yi, 1988; Byrne, 2016; Davvetas et al., 2020).

AMOS statistical software, which stands for "Analysis of Moment Structures" (Arbuckle, 1997), was chosen for this study's SEM, mainly considering its simplicity in its use and user-friendly characteristics. AMOS does not need syntax or difficult programming language compared to other statistical software packages. Instead, its wide range of drawing tools (i.e., icons or buttons) enable a comprehensive activity around analysis (Byrne, 2016). Through AMOS, SEM models and path diagrams presenting hypothesised relationships can be simply and quickly formulated, specified and tested, while results can be easily interpreted (Byrne, 2016). AMOS's friendly graphical user interface, including various practical modelling tools, but also its extensive bootstrapping facilities and special process for maximum likelihood (Kline, 1998), encourage more and more marketing researchers today to choose this software for their studies (i.e., Liang and Gao, 2020; Tan and Sousa, 2015).

6.7 Summary

This chapter presented and explained the descriptive results for each construct included in this doctoral research's conceptual model and the procedures followed to purify data and assess the validity of all measures used. At first, it outlined the percentage frequencies, and the average mean scores and standard deviation for all items asked in the questionnaire. These indicated significant variation for each variable and standard deviations with values above 1.0, which signify good variability and spreading of the derived responses. Next, item-to-total correlation and corrected-to-total correlation analyses resulted in the elimination of 16 items from nine constructs. Confirmatory factor analysis was then conducted in two measurement models, revealing a good fit to the specified models and validity in the structure of the constructs. Twelve more items were dropped based on this analysis. Validity and reliability analyses were also performed, including construct validity and scale reliability, demonstrating that the measures used in this study are reliable, consistent and valid. In particular, nomological validity analysis showed significant, sensible and theoretically justified correlations' values. Convergent validity analysis demonstrated factor loadings', AVE's and VE's values higher than 0.50 and CR values higher than 0.60. Discriminant validity analysis showed that the latent constructs used in this study explain their indicators better than they explain other constructs in the same conceptual model. Scale reliability revealed high Cronbach's alpha values for all constructs. The chapter also checked for common method variance, applying three ex-post remedies, showing that the research does not suffer from this bias. Lastly, the structural equation modelling analysis of the next chapter was briefly described.

CHAPTER SEVEN

Hypotheses testing and discussion of results

7.0 Introduction

This chapter explores the hypothesised relationships between the constructs used in this study. It starts by presenting and discussing the correlation matrix and the mean scores and standard deviations for each latent variable in the conceptual model. Next, a discussion around the testing of the research hypotheses using structural equation modelling (SEM) based on the AMOS software follows. The chapter then describes which hypotheses are supported or not, depending on their significance levels (p-values) and directions. Finally, supported and rejected hypotheses are discussed based on input from previous theoretical and empirical research.

7.1 Correlation matrix

A bivariate correlation analysis was conducted using SPSS to define the correlation coefficients between the latent constructs included in the conceptual model. **Table 7.1** presents the results of the correlation matrix. The highest correlations were found between responding (RSC) and adaptive (ADC) capabilities ($r = .56$; $p < .01$) and between sensing (SNC) and learning (LRC) capabilities ($r = .54$; $p < .01$). These were expected for both associations, considering the similarities in the constructs' nature. Notably, similar high correlation coefficients between these dynamic capabilities were also reported in Pavlou and El Sawy's (2011) study. The correlation between explorative and exploitative digital marketing strategic approaches is also high ($r = .51$; $p < .01$). Overall, high and significant correlations were reported for most hypothesised links, giving the first indication for potential associations. However, only four correlations appear to slightly exceed the .50 value, which indicates the absence of multicollinearity problems. Additionally, the mean scores ranging from 4.43 to 5.58 and the standard deviation values ranging from .98 to 1.50 demonstrate adequate levels of variability and spreading between the data.

Table 7.1: Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. SNC	1.00														
2. LRC	.54**	1.00													
3. INC	.27**	.43**	1.00												
4. RSC	.43**	.36**	.35**	1.00											
5. ADC	.27**	.45**	.42**	.56**	1.00										
6. CRC	.40**	.38**	.48**	.40**	.43**	1.00									
7. EXR	.50**	.41**	.28**	.41**	.51**	.41**	1.00								
8. EXL	.45**	.39**	.29**	.41**	.42**	.49**	.51**	1.00							
9. DCA	.26**	.29**	.40**	.44**	.45**	.37**	.52**	.43**	1.00						
10. CCA	.29**	.19**	.19**	.29**	.26**	.28**	.43**	.33**	.34**	1.00					
11. CEN	.40**	.31**	.32**	.43**	.43**	.44**	.46**	.48**	.46**	.27**	1.00				
12. MAP	.23**	.31**	.30**	.41**	.37**	.36**	.31**	.28**	.44**	.12	.53**	1.00			
13. FIP	.26**	.26**	.29**	.37**	.40**	.25**	.32**	.34**	.39**	.25**	.32**	.40**	1.00		
14. MAD	.26**	.20**	.23**	.23**	.14*	.16*	.18**	.13*	.20**	.10	.23**	.22**	.18**	1.00	
15. COI	.26**	.12	.13*	.18**	.13*	.04	.16*	.11	.05	.19**	.07	.04	.12	.29**	1.00
Mean	5.54	5.28	4.49	5.22	5.14	5.46	4.80	5.58	4.43	4.49	5.28	5.29	5.31	4.65	4.48
S.D.	1.04	1.02	1.33	1.02	1.23	1.10	1.27	0.98	1.35	1.42	1.11	1.02	1.03	1.50	1.35

**p < .01; *p < .05

Note: SNC= sensing capability; LRC= learning capability; INC= integrating capability; RSC= responding capability; ADC= adaptive capability; CRC= coordinating capability; EXR= explorative digital marketing strategic approach; EXL= exploitative digital marketing strategic approach; DCA= differentiation-based competitive advantage; CCA=cost-reduction-based competitive advantage; CEN= online customer engagement; MAP= market performance; FIP= financial performance; MAD= market dynamism; COI= competitive intensity

7.2 Structural model results

A significant chi-square (χ^2 (1889) =3261.973, p<.001) was revealed from the structural equation model analysis, along with a satisfactory normed chi-square and acceptable comparative and absolute fit indices (e.g., χ^2/df= 1.73; GFI=.73; IFI=.83; TLI=.81; CFI=.83; RMSEA=.055). **Table 7.2** outlines the model's standardised path coefficients with their corresponding t-values (unstandardised) and p-values, showing whether the hypotheses were accepted or rejected. The results confirmed that ten out of the fourteen hypothesised relationships investigated were statistically significant and with the correct sign.

7.2.1 Main effects

The structural model results (**Table 7.2**) demonstrate that four out of the six hypothesised relationships concerning the role of dynamic capabilities were supported. Sensing (β=.51, t=4.86, p<.01) and integrating capability (β=.23, t=2.89, p<.01) were found to be significantly associated with the explorative digital marketing approach, whereas learning capability was not found to relate significantly with this strategic approach (β=.05, t=.44, p>.05). Moreover, significant positive associations were found for both responding (β=.23, t=2.29, p<.05) and coordinating capability (β=.42, t=4.65, p<.01) and exploitative digital marketing approach. In contrast, no significant relationship was revealed between adaptive capability and exploitative approach (β=.16, t=1.51, p>.05). These results lead to the acceptance of H1, H3, H4 and H6 and the rejection of H2 and H5.

Regarding the digital marketing strategic approaches, empirical support was found for two of the three hypotheses. As predicted, significant associations were observed between the explorative digital marketing strategic approach and differentiation-based competitive advantage (β=.60, t=7.34, p<.01) and between the exploitative digital marketing strategic approach and cost-reduction-based competitive advantage (β=.51, t=5.30, p<.01). In contrast, the ambidextrous digital marketing strategic approach was not found to relate significantly to either the differentiation (β= -.0 1, t=-.18, p>.05) or the cost-reduction competitive advantages (β=.09, t= -1.19, p>.05). Henceforth, H7 and H8 are accepted, while H9a and H9b are rejected. The results also indicate that both the differentiation (β=.54, t=6.17, p<.01) and cost-reduction competitive advantages (β=.24, t=2.95, p<.01) are significantly associated with online customer engagement, hence accepting both H10 and H11. Concerning customer engagement, it appears that this related

significantly to both market performance (β=.67, t=6.53, p<.01) and financial performance (β=.40, t=5.02, p<.01), providing support for H12a and H12b, respectively.

Table 7.2: Structural model results – main, moderating and control effects

Hypothesis	Hypothesised path	Standardised path coefficients	*t* value	*p* value
Main effects				
H1	Sensing capability → explorative digital marketing strategic approach	.51	4.86	**.00**
H2	Learning capability → explorative digital marketing strategic approach	.05	.44	.66
H3	Integrating capability → explorative digital strategic marketing approach	.23	2.89	**.00**
H4	Responding capability → exploitative digital strategic marketing approach	.23	2.29	**.02**
H5	Adaptive capability → exploitative digital strategic marketing approach	.16	1.51	.13
H6	Coordinating capability → exploitative digital strategic marketing approach	.42	4.65	**.00**
H7	Explorative digital marketing strategic approach → differentiation-based comp. advantage	.60	7.34	**.00**
H8	Exploitative digital strategic marketing approach → cost-reduction comp. advantage	.51	5.30	**.00**
H9a	Ambidextrous digital marketing strategic approach → differentiation-based advantage	-.01	-.18	.86
H9b	Ambidextrous digital marketing strategic approach → cost-reduction advantage	.09	1.19	.24
H10	Differentiation-based comp. advantage→ customer engagement	.54	6.17	**.00**
H11	Cost-reduction comp. advantage → customer engagement	.24	2.95	**.00**
H12a	Customer engagement → market performance	.67	6.53	**.00**
H12b	Customer engagement → financial performance	.40	5.02	**.00**
Moderation effects (interactions)				
H13a	Market dynamism → differentiation-based competitive advantage	.12	1.77	**.08**
	Market dynamism x explorative digital marketing strategic approach → Differentiation-based competitive advantage	.01	.16	.87
H13b	Market dynamism → cost-reduction-based competitive advantage	-.01	-.05	.96
	Market dynamism x exploitative digital marketing strategic approach → cost-reduction-based competitive advantage	-.17	-2.13	**.03**
H14a	Competitive intensity → differentiation-based competitive advantage	-.12	-1.63	.10
	Competitive intensity x explorative digital marketing strategic approach → differentiation-based competitive advantage	-.01	-.11	.92
H14b	Competitive intensity → cost-reduction-based competitive advantage	.24	2.67	**.01**
	Competitive intensity x exploitative digital marketing strategic approach→ cost-reduction-based competitive advantage	.10	1.25	.21
Control effects				
	Firm size → market performance	-.16	-2.81	**.01**
	Firm size → financial performance	.02	.29	.77
	Product focus→market performance	.15	2.60	**.01**
	Product focus→ financial performance	-.04	-.62	.53
	Online sales intensity→ market performance	-.12	-2.03	**.04**
	Online sales intensity→ financial performance	.11	1.76	.08

Fit statistics: χ^2=3261.973; df=1889; p=.00; χ^2/df= 1.73; GFI=.73; IFI=.83; TLI=.81; CFI=.83; RMSEA=.055; SRMR= .095

7.2.2 Moderating effects

Ping's (1995) interaction approach examining the cross-product effect among each moderating construct and the related hypothesis was applied to test the moderating influences of market dynamism and competitive intensity. The analysis revealed that market dynamism had a significant negative moderating effect on the link between exploitative digital marketing strategic approach and cost-reduction-based competitive advantage (β=-.17, t=-2.13, p<.05), but no moderating effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage (β=.01, t=.16, p>.05), rejecting H13a and supporting H13b. With regard to competitive intensity, this did not have any moderating effect either on the link between explorative approach and differentiation advantage (β= -.01, t= -.11, p>.05), or between exploitative approach and cost-reduction advantage (β=.10, t=1.25, p>.05), thus rejecting H14a and H14b respectively.

7.2.3 Control effects

With regard to control variables, firm size, firm focus and online sales intensity exhibited strong effects on market performance but not on financial performance. Specifically, while the effect of firm size on financial performance was not significant (β=.02, t=.29, p>0.5), that effect on market performance was significant and with a negative sign (β=-.16, t=-2.81, p=<.01), meaning that, the larger the size of the online retailer, the lower the market-related performance outcomes. Firm focus, that is, whether focusing on products or services, also had a significant control effect on market performance (β=.15, t=-2.60, p=<.01) but no effect on financial performance (β=-.04, t=-.62, p>0.5). Online sales intensity, that is, the percentage of the firm's total online sales, also had a significant negative effect on market performance (β=-.12, t=-2.03, p=<.05). No significance was found for the same control variable regarding its effects on financial performance (β=.11, t=1.76, p>0.5).

7.3 Discussion of findings

This section summarises the study's results (see **Table 7.3**) by discussing, explaining and comparing the findings with previous theoretical and empirical research on strategic marketing issues. Firstly, the theories on which the research conceptual model was grounded are discussed, followed by a discussion of the findings for each of the six antecedent dynamic capabilities. Then,

the results of the association of each of the three digital marketing strategic approaches with the competitive advantages are commented on. Subsequently, the findings regarding the relationship between competitive advantages and online customer engagement and between online customer engagement and performance are explained. The last part discusses the moderating effects on the links between strategic approaches and competitive advantages.

Table 7.3: Summary of results

Hypotheses		Findings
H1:	The possession of a sensing capability is positively related to the firm's explorative digital marketing strategic approach.	Supported
H2:	The possession of a learning capability is positively related to the firm's explorative digital marketing strategic approach.	Not Supported
H3:	The possession of an integrating capability is positively related to the firm's explorative digital marketing strategic approach.	Supported
H4:	The possession of a responding capability is positively related to the firm's exploitative digital marketing strategic approach.	Supported
H5:	The possession of an adaptive capability is positively related to the firm's exploitative digital marketing strategic approach.	Not Supported
H6:	The possession of a coordinating capability is positively related to the firm's exploitative digital marketing strategic approach.	Supported
H7:	The adoption of an explorative digital marketing strategic approach by the firm is positively associated with the creation of differentiation-based competitive advantage.	Supported
H8:	The adoption of an exploitative digital marketing strategic approach by the firm is positively associated with the creation of cost-reduction-based competitive advantage.	Supported
H9:	(a) The adoption of an ambidextrous digital marketing strategic approach by the firm is positively associated with the creation of differentiation-based competitive advantage.	Not Supported
	(b) The adoption of an ambidextrous digital marketing strategic approach by the firm is positively associated with the creation of cost-reduction-based competitive advantage.	Not Supported
H10:	The possession by the firm of a differentiation-based competitive advantage is positively associated with online customer engagement.	Supported
H11:	The possession by the firm of a cost-reduction-based competitive advantage is positively associated with online customer engagement.	Supported
H12:	(a) Online customer engagement is positively related to the firm's market performance.	Supported
	(b) Online customer engagement is positively related to the firm's financial performance.	Supported
H13:	(a) Market dynamism has a positive moderating effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage.	Not Supported
	(b) Market dynamism has a negative moderating effect on the relationship between exploitative digital marketing strategic approach and cost-reduction competitive advantage.	Supported
H14:	(a) Competitive intensity has a negative moderation effect on the relationship between explorative digital marketing strategic approach and differentiation-based competitive advantage.	Not Supported
	(b) Competitive intensity has a positive moderating impact on the relationship between exploitative digital marketing strategic approach and cost-reduction-based competitive advantage.	Not Supported

7.3.1 Paradigmatic theoretical findings

The results offer empirical support for using the organisational learning perspective (e.g., exploration, exploitation, ambidexterity) and dynamic capabilities theory as the major theoretical frameworks of this research's conceptual model. In congruence with both theories, the empirical findings reveal that most of the dynamic capabilities studied (e.g., sensing, integrating, responding, coordinating) indeed acted as the driving factors for the two strategic digital marketing approaches adopted by retail firms (e.g., explorative, exploitative) to achieve competitive advantage (e.g., differentiation, cost-reduction) in fast-changing environments such as the digital context. However, the results showed no support for the effect of the ambidextrous digital marketing strategic approach towards competitive advantage, as expected according to the theory.

Nowadays, firms are already building dynamic capabilities to enable digital transformation, achieve better competitiveness, improve customer experience and enhance performance (e.g., Homburg and Wielgos, 2022; Magistretti et al., 2021; Warner and Wager, 2019). In this regard, continually growing marketing research is based on the dynamic capabilities theory, recognising it as one of the most relevant and active theoretical frameworks in the strategic management and marketing literature (Matarazzo et al., 2021; Warner and Wager, 2019). Researchers use it to describe how companies respond and adapt to fast digital, technological and market changes (Eisenhardt and Martin, 2000; Teece, 2007). Nevertheless, this doctoral study is among the first to empirically confirm the value of various dynamic capabilities adapted to the digital marketing context and their contribution to a firm's strategic approaches and competitive advantage.

Digital marketing managers have long comprehended the value of the explorative and exploitative strategic elements within their digital marketing efforts. Firms are applying different online marketing activities to differentiate themselves from the competition or lower costs in their digital marketing operations. However, apart from some limited research on information technology and virtual customer environments (e.g., Benitez et al., 2018; Roberts and Dinger, 2018), to the researcher's knowledge, there is no other available study in the literature investigating those theoretical strategic concepts within digital marketing contexts. Therefore, the empirical validation of this study's conceptual model is expected to support digital marketing practitioners in performing explorative and exploitative digital marketing strategies and trigger further valuable research in such strategic topics.

7.3.2 Dynamic capabilities as antecedents in digital marketing strategic approaches

7.3.2.1 Sensing capability and explorative digital marketing strategic approach

With regard to sensing capability, the study confirms that retail companies that proactively scan and monitor the digital market environment are more competent in applying the explorative digital marketing strategic approach. Sensing and being vigilant about digital marketing developments and the unarticulated and latent customer wants and preferences can encourage the adoption or introduction of digital marketing practices that "break the mold" and are very different from the ones introduced before (Vorhies et al., 2011). Hence, online retailers that continuously search for consumer keywords online and/or try to be aware of their customers' preferred digital channels, modes of online interaction, and popular social media and online trends (e.g., TikTok) are in a better position to introduce daring and unique digital marketing innovations within their digital marketing activities (e.g., social media marketing, search engine marketing, email marketing and influencer marketing).

Using available digital sensing tools and technologies (e.g., social media monitoring software, marketing analytics, keyword research tools), digital marketers can identify hidden trends, untapped customer needs, and opportunities for brand-new digital marketing introductions (Chinakidzwa and Phiri, 2020; Trainor, 2012). This is also in agreement with the findings of this study's qualitative phase, where digital marketing managers indicated digital market scanning and an ability to project future trends in digital marketing as the main drivers of explorative digital marketing efforts. Some examples include the use of virtual and augmented reality technologies to market their offerings, extending to new and different digital channels, introducing innovations in websites and mobile apps, or applying novel social media campaigns. This finding reinforces previous research findings (e.g., Tan and Liu, 2014; Zhou et al., 2005) showing a strong association between proactive market-oriented sensing activities and marketing exploration.

7.3.2.2 Integrating capability and explorative digital marketing strategic approach

This study also demonstrated empirically that the consistent development of bold and novel digital marketing procedures requires strong internal linkages, collective interaction and relevant information sharing between the firm's employees. The exchange of diverse knowledge and insights among different departments in the retail organisation can facilitate such explorative digital marketing practices due to the emergence of numerous unique ideas and opportunities that

can contribute to introducing new processes and innovations. Hence, it is expected that firms with an integrating capability can achieve a better understanding, agreement and consistency in decision-making regarding their digital market offering, which can facilitate their explorative strategic efforts (Darawong, 2018; Mu, 2015).

This finding conforms with Weick and Robert's (1993) postulation that firms with an integrating capability can react more effectively to novel conditions. In essence, the high interaction between the different teams and employees in the retail firms can yield higher levels of trust, and therefore greater levels of willingness to undertake risks and proceed with innovations regarding digital marketing (Chandler, 2000; Clegg et al., 2002). This is because a shared understanding of digital marketing tasks and responsibilities within the firm simplifies its explorative strategic approach (Hernandez-Linares et al., 2021; Pavlou and El-Sawy, 2011). The positive association between trust and innovativeness has long been established in the literature, with Semercioz et al. (2011) finding a positive relationship between coworkers' trust and strategic innovativeness and Brattstrom et al. (2015) showing a strong association between trust within organisational teams and radical innovation.

7.3.2.3 Learning capability and explorative digital marketing strategic approach

Contrary to multiple previous empirical results in other contexts (e.g., Real and Roldan, 2014; Weerawardena, 2003), and although finding a positive direction as expected, not enough evidence was found to support that learning capability influences the adoption of an explorative digital marketing strategic approach by retailers. One possible explanation for this finding is that learning capabilities do not operate in the same way and/or do not have the same desirable effects in the digital marketing context compared to offline traditional marketing and the new product development settings where most research about learning capability has been conducted. Different processes, tools, resources and costs are involved in the two settings. While in the offline context, a learning capability increases the degree of new products' compatibility with customer needs, enhancing the adoption of explorative processes (Pavlou and El Sawy, 2011; Weerawardena, 2003), in an online context, market preferences, customer wants and trends are changing faster, possibly weakening the integration of market insights into actionable knowledge for the development of novel digital marketing practices (Endres et al., 2020; Weerawardena et al., 2015). Hence, knowledge derived from the continually changing digital environment might quickly

become outdated and difficult to integrate into explorative digital marketing strategies, making the firm's learning capability ineffective in an online context.

Another possible explanation for this non-significant result can be the potential weakness of the participant firms to appropriately utilise available tools and processes to learn in an online context and sustain digital marketing-related information. For example, some of these retailers may not have the proper procedures in place to retain, analyse and interpret the knowledge acquired from the external online environment, or enough expertise and resources (e.g., budget, digital/technological infrastructure, specialised personnel) to develop and use learning processes (e.g., big data, social media analytics, data mining), failing in this way to exploit the full potential of a learning capability. Moreover, in light of the fact that most firms in this study adopted the exploitative approach more extensively than the explorative one, this shows higher investment of resources and time in this approach, possibly reflecting the prevalence of better skills and experience to conduct improvements and modifications rather than introducing new practices in digital marketing strategies.

7.3.2.4 Responding capability and exploitative digital marketing strategic approach

Responding capability is confirmed to positively influence the adoption of the exploitative digital marketing strategic approach, meaning that retail firms that respond quickly and effectively to current online customer needs and opportunities are more likely to modify and improve their existing digital marketing procedures consistently. The digital marketers interviewed also mentioned that the firm's understanding and quick responsiveness to its current customers' online wants and requests is necessary for excelling in exploitative digital marketing activities, such as optimising the digital marketing expenditure and display advertising content or conducting functional modifications and advances on the firm's website, social media channels and mobile app.

This finding enhances the postulation by several scholars (e.g., Brege and Kindstrom, 2021; Lee, 2010; Wei et al., 2014) associating the firm's market responsiveness with more exploitative organisational efforts such as adjusting and modifying the firm's offerings. Focusing on articulated customer preferences and already sensed trends and opportunities in digital marketing enables firms to satisfy those demands more effectively through routine improvements and modifications (Brege and Kindstrom, 2021). Past empirical research in management and product innovation (e.g.,

Jayachandra et al., 2004; Lee, 2010; Tan and Liu, 2014) supports this association. It is thus affirmed that concentrating on existing competencies to respond quickly and effectively to current customer demands and complaints about its digital market offering (e.g., product problems, product use, questions about delivery, purchase interest), enhances the firm's experience in applying frequent and appropriate adjustments in its digital marketing practices (Wei et al., 2014).

7.3.2.5 Coordinating capability and exploitative digital marketing strategic approach

The coordinating capability was also found to positively influence the exploitative digital marketing strategic approach. This reveals that, in firms where the right people and resources are assigned to the right digital marketing tasks and where an appropriate allocation of related resources and tools is ensured towards the different digital marketing responsibilities, the likelihood of successfully adopting and applying the exploitative approach is higher. This is in harmony with the assertion that achieving coordination, synchronisation and orchestration within a firm enables a greater focus on specific digital marketing tasks and assignments (Pavlou and El Sawy, 2011). Digital marketers can thus apply consistent efforts in their digital marketing activities so that the firm's message and offering across all platforms is well-coordinated and coherent (Gustavsen, 2022).

This finding supports prior empirical evidence stressing the connection between coordinating capability and exploitative business behaviours (e.g., Darawong, 2018; Rashidirad et al., 2017; Helfat and Peteraf, 2003). Retail firms with a high level of coordinating capability are more capable of focusing changes in their digital marketing procedures on increasing efficiency (e.g., increasing conversion rates and reducing costs of acquisition), which is a key aspect of the exploitative approach (Vorhies et al., 2011). This is because coordination within the firm enables more commitment and better decisions in refining existing competencies and creating superior customer value (Atuahene-Gima, 2005; Zahra et al., 2000).

7.3.2.6 Adaptive capability and exploitative digital marketing strategic approach

No significant relationship (but with a positive sign as expected) was found between adaptive capability and the exploitative approach, despite the empirical support of this association (e.g., Brege and Kindstrom, 2021; Eshima and Anderson, 2017; Miocevic and Morgan, 2018) and the input from the study's qualitative phase where most digital marketers recognised the importance

of refinement and adaptive skills in implementing exploitative digital marketing operations. This can be partly attributed to contextual differences between digital and offline marketing approaches, since an adaptive capability may not operate in the same way in these two settings. The dynamic nature of digital marketing, including rapid advances in social and digital media, software and digital technologies, coupled with unpredictable changes in online consumer behaviour (Kannan and Li, 2017; Lamberton and Stephen, 2016) may reduce the firm's ability to effectively adapt its digital marketing activities.

Another possible explanation is that adaptive capabilities used in online contexts vary according to the size of the retail firm, the different sectors and products offered, and the level of technological and digital changes encountered (Ates and Acur, 2022; Lobo and Whyte, 2017), thus affecting the association between adaptive capability and the exploitative digital marketing strategic approach. Hence, retailers in sectors where consumer purchases happen more occasionally (e.g., automotive) may require lower levels of this capability, compared to retailers in sectors where online consumer interaction is more frequent and intensive and the online customer requests and demands are increased (e.g., wearing apparel, food & beverages, and health & beauty) (Mohsin, 2022; Smith, 2020). Considering also that adaptive capability deals with modifications, adaptations and changes in the firm's digital marketing activities to achieve congruence with the digital market's current demands (Brege and Kindstrom, 2021), the focus on a specific snapshot of the year by this study might have impeded the creation of a holistic picture about this capability's functions.

7.3.3 Digital marketing strategic approaches and competitive advantages

7.3.3.1 Explorative digital marketing strategic approach and differentiation-based competitive advantage

By challenging prior digital marketing practices and methods, explorative digital marketing strategies frequently result in breakthroughs and radical innovations (Ngo et al., 2019). As predicted, the explorative digital marketing strategic approach is positively associated with the differentiation advantage, revealing that customers are more likely to differentiate a retailer's digital market offering and perceive it as unique when the firm dares to develop and introduce novel and radically different digital marketing procedures. Moreover, firms nowadays can be

explorative regarding digital marketing issues without necessarily having to spend large amounts of money, considering the current low internet costs and the multiple options of free online tools offered today. Practices that grab customer attention, like extreme social media, online advertising campaigns and novel entertaining online content, extending to unusual digital channels (e.g., ASOS extending to Spotify) or using unique digital technologies to interact with customers (e.g., VR department store app, AR e-commerce app) can distinguish the firm from its competitors by providing innovative customer solutions and benefits (Mahoney, 2020; Xi and Hamari, 2021).

For example, retail brands such as Apple, L'Oréal, and Superdrug frequently create short videos and reels related to their business, and posting them on specific social media channels, such as TikTok and Instagram, which excites customers. Moreover, retail organisations (e.g., Burberry, John Lewis, IKEA, ASOS) that allow customers to test their products virtually by launching augmented reality features using mobile apps or digital channels provide a wholly new and differentiated online customer experience against other companies that prefer common ways of displaying their products online. Explorative digital marketing practices that help to differentiate firms from their competitors can also happen in the metaverse, including advertising and billboard placements in virtual spaces or even retail offerings that can be used solely in such areas (Amis, 2022). For example, Gucci has launched digital sneakers for augmented reality or online gaming platforms (Campbell, 2021), while Boohoo partnered with Paris Hilton to promote its activities on Roblox, a global gaming platform (Iddenden, 2022).

7.3.3.2 Exploitative digital marketing strategic approach and cost-reduction-based competitive advantage

Exploitative marketing strategies are usually more widely applied than explorative ones due to the lower costs and risks involved and their measurable and predictable outcomes (Kyriakopoulos and Moorman, 2004). O'Cass et al. (2014) highlight that the main objective of this strategy is to enhance the efficiency of the firm's current marketing activities by decreasing costs while at the same time improving quality. This is achieved by capitalising on existing and well-proven practices and constantly upgrading and improving the firm's current marketing skills and processes (Ho and Lu, 2014). The results of this study support these arguments within the context of digital marketing strategy, stressing that retail firms that are exploitative in their strategic digital

marketing activities have higher chances of achieving a cost-reduction-based competitive advantage, compared to those who are not. This is because they are in a better position to achieve more efficiencies, cost benefits and cost reductions that can also benefit their online customers (Stone et al., 2007).

The retail firm's adoption of exploitative activities, such as augmenting online channels' functions (e.g., customer navigation, order placement, online purchases' safety improvement), as well as optimising existing digital marketing activities (e.g., display advertising, email marketing, search engine), help to boost its efficiency and effectiveness around digital marketing activities. For example, online UK fashion retailers, such as ASOS, SHEIN, Boohoo and Pretty Little Thing, are consistently modifying and updating their commercial online sites by adding, removing or adjusting sections, modifying the various search filters for customers and promoting personalised offerings to different users. All these aim to simplify the customer journey towards online navigation and purchase, as well as provide a better online customer experience (e.g., less time spent on finding what they are searching for). Advancements in automation mechanisms and digital software, like machine learning and artificial intelligence, have also been employed by retail organisations to decrease digital marketing costs. Some good examples are "chatbots" and "virtual shopping assistants" on certain retail websites (e.g., Burberry, Victoria's Secret, Currys), which can facilitate customer service and personalisation while at the same time reducing additional costs (Przegalinska et al., 2019).

By focusing on accumulated expertise and knowledge to conduct continuous improvements, increased familiarities are enabled within existing firm activities, errors in problem-solving are diminished, and resources are used more efficiently (Li et al., 2010; Morgan and Berthon, 2008; O'Cass et al., 2014). All these can translate into lower prices offered to customers than those offered by the firm's competitors (Langerak, 2003; O'Cass et al., 2014). Participants in the qualitative survey referred to the numerous opportunities to achieve cost-reduction advantage in digital marketing, including the availability of free digital marketing tools, the existence of automation mechanisms and other software, and the ability to better negotiate with ad servers and providers.

7.3.3.3 Ambidextrous digital marketing strategic approach and competitive advantage

Contrary to what was predicted, the ambidextrous digital marketing strategic approach, that is, the simultaneous application of exploration and exploitation, did not have a significant effect on either differentiation or the cost-reduction competitive advantage. This is a surprising result considering that ambidexterity was repeatedly stressed to be essential in dynamic environments (Bican and Brem, 2020; Gibson and Birkinshaw, 2004; Tushman and O'Reilly, 1996), with many researchers (e.g., Menguc and Auh, 2008; Rosing and Zacher, 2017; Turner et al., 2013) emphasising its importance in gaining a sustainable competitive advantage.

One possible justification for this finding refers to the complexity in the simultaneous application of exploration and exploitation that could disorientate marketers in their digital marketing efforts. Specifically, firms aiming to adopt an ambidextrous strategy risk suffering strategy confusion, especially regarding resource allocation and deployment, resulting in coordination difficulties and unnecessary costs (Hughes et al., 2010; Mu et al., 2022; Wu et al., 2020). For example, Menguc and Auh (2008) agreed that ambidexterity could create cultural divisions and friction within the organisation, while Solis-Molina et al. (2018) referred to the existence of trade-offs between exploitation and exploration that could decrease effectiveness at an organisational level. Firms differ regarding their context, needs, objectives, orientation and competitive focus (He and Wong, 2004; Wei et al., 2014; Wu et al., 2020), hence, running the risk of severe resource shortages to manage ambidexterity (Wei et al., 2014).

Although ambidextrous efforts can be essential for the firm's long-term success, there are contradictory arguments in the extant literature about the influence on firms' current performance (Josephson et al., 2016; Wei et al., 2014). Many researchers who empirically examined the association between ambidexterity and competitive advantage derived non-significant results (e.g., Menguc and Auh, 2008; Ngo et al., 2019) or even negative results (e.g., Wei et al., 2014; Wu et al., 2020), suggesting that firms perform better when pursuing strategies that emphasise one or the other approach rather than combining the two together (e.g., Thornhill and White, 2007; Voss and Voss, 2013).

7.3.4 Competitive advantages and online customer engagement

7.3.4.1 Differentiation-based competitive advantage and online customer engagement

According to Porter (1985), the competitive advantage of differentiation is linked to the value customers receive by perceiving specific attractive attributes in the firm's offering. Such offerings are meaningfully different from those offered by competitors in a way that customers are convinced of their superiority (Chen et al., 2023; Sahi et al., 2022). In the digital marketing context, this superiority is demonstrated through differences related to the firm's digital market offering and unique benefits provided to customers online. This study has empirically confirmed the significant association between the differentiation-based competitive advantage and online customer engagement, indicating that retailers competent in creating a differentiation-based advantage through their digital marketing activities (e.g., unique online product presentation, online content of higher quality than that of competitors, digital marketing-related customer solutions and benefits not available by competing firms) can more easily engage their customers online.

This finding is consistent with the theoretical assertion that a competitive advantage based on differentiation can result in distinctive and unique customer value and new and novel customer benefits and solutions (Langerak, 2003; Teo and Pian, 2003). Such benefits can strongly motivate customer engagement, especially online (e.g., on digital platforms), where there are multiple opportunities for customer interaction and participation, like playing advergames or participating in social media contests, reading and creating reviews and referrals, providing online feedback, and interacting (e.g., watching, liking, commenting, sharing) with online brand content (Agnihotri, 2020; Eigenraam et al., 2018; Hollebeek et al., 2014).

Uniqueness and newness are embodied in the differentiation competitive advantage, with customers recognising the differences between the value-added attributes of a firm's offering and those provided by its competitors (Kaleka and Berthon, 2006). This means that firms with such advantages can build unique images for their offerings, satisfying their customers by creating strong bonds with them (Al-alak and Trabjeh, 2011). In fact, satisfying relationships centred on trust, commitment and strong positive emotions between customers and firms in the digital context (e.g., social media platforms) have been found among the most significant drivers of online customer engagement (e.g., de Oliveira Santini et al., 2020; Pansari and Kumar, 2017; Sashi,

2012). The interactive nature of digital media tends to facilitate firms' processes in creating and sustaining such trustworthy and emotional bonds (Agnihotri, 2020).

7.3.4.2 Cost-reduction-based competitive advantage and online customer engagement

The ability to provide a market offering at a lower cost than that of the firm's competitors describes the cost-reduction-based competitive advantage, and it is usually observed in organisations that achieve efficiency through their repetitive experience (Porter, 1985). Hughes et al. (2010) also explain that low-cost advantages are based on the product or service's price-perceived value proposition. This study has empirically verified the significant association between cost-reduction-based competitive advantage and online customer engagement, which means that retail companies with higher operating efficiencies and cost reductions in digital marketing compared to their competitors are more likely to achieve strong engagement with their customers online.

Customers are engaged with a firm when their brand-related cognitive, emotional and behavioural activity is positive (Eigenraam et al., 2018). In other words, when customers experience positive sentiments while exchanging with a firm online, they tend to feel more attached to it and thus express different types of engagement behaviours (e.g., participating in online conversations, signing up for updates, commenting on and sharing social media content, recommending the firm's offerings to others) (Agnihotri, 2020; Eigenraam et al., 2018; Perez-Vega et al., 2021). Considering that the firm achieves lower costs and efficiencies within the development and operation of its digital marketing activities, cost benefits like providing discounts and lower prices, special offers, vouchers and free gifts related to its main offerings through online sales can make customers feel valued by the company (Edelman et al., 2016; Langerak, 2009).

Consumers' motivation to engage with a company online depends on their expectations about the value they will receive through this relationship (Vivek et al., 2012). Therefore, the retail firm's ability to operate at a lower cost than its competitors by providing a comparable or even better digital market offering (Li and Zhou, 2010; Zhou et al., 2009) can result in the provision of significant cost benefits for customers, which can lead to increased customer engagement (Gummerus et al., 2012; Li and Li, 2008). Engaged customers in the digital context are usually the ones that spend a great deal of time and feel proud interacting with the firm online, are stimulated to learn more about the firm's products and services, and talk positively about this experience with

their friends and other consumers (Hollebeek et al., 2014; Kim and Johnson, 2016; Vivek et al., 2018).

7.3.5 Online customer engagement and firm performance

7.3.5.1 Online customer engagement and market performance

This study's empirical results have validated the significant positive effect of online customer engagement on retailers' market performance. This implies that successful firms in market terms are typically more associated with customers who are vigorously participating in their online activities, significantly interacting with the company digitally, and are emotionally connected with their offerings online, compared to their counterparts with low market performance (Hollebeek et al., 2014; Vivek et al., 2012). Prior research (e.g., Brodie, 2011; de Oliveira et al., 2020; Pansari and Kumar, 2017) has also recognised online customer engagement's strategic value for the market performance of firms operating in dynamically changing and interactive business environments. Specifically, marketing researchers (e.g., Gummerus et al., 2012; Jaakkola and Alexander 2014; Yoo et al., 2013) found empirical support for the association between online customer engagement and several market performance measures such as new customer acquisition, customer satisfaction, customer trust, customer loyalty and market share.

7.3.5.2 Online customer engagement and financial performance

This study has also confirmed the significant positive association between online customer engagement and financial performance, meaning that retailers that have achieved high levels of online customer engagement are more likely to perform better in financial terms. Customers who are continually stimulated to learn more about the firm's products and services, spread positive WOM for it, spend adequate time interacting with the firm online and are proudly doing that, are more likely to have repeated purchases, invite others to buy from the firm, and boost the firm's sales and profit growth (De Vries and Carlson, 2014; Kumar and Bhagwat, 2010; Vivek et al., 2012). Marketing research has confirmed the positive direct association between online customer engagement and the firm's financial performance (e.g., Hollebeek, 2014; Kumar and Pansari, 2016; Yoon et al., 2018). Some of the most studied measures of financial performance that online customer engagement was found to associate with include repurchase, as well as sales, sales growth and profitability (Kumar and Pansari, 2016; Verhoef et al., 2010).

7.3.6 Moderating effects

7.3.6.1 The moderating role of market dynamism

Markets characterised by high dynamism are described by continuous and fast change towards customers and frequent fluctuations in customer preferences (Jaworski and Kohli, 1990). Companies that compete in today's turbulent digital landscape tend to face changing needs and wants regarding their customers' preferred online platforms, the content and advertisements they like to view online, or how they want to interact and transact with other consumers or firms digitally. These fluctuations result from daily advances in digital and mobile media, ongoing changing digital trends (e.g., video reels, Instagram notes and stories, social media shopping), and the continuous introduction of new online channels and platforms (Gupta et al., 2020; Lamberton and Stephen, 2016). Hence, firms have to vigorously try to monitor such changes and act upon them to compete successfully in this fast-paced setting.

The fact that market dynamism was proved to have a negative effect on the relationship between the exploitative approach and cost competitive advantage supports the notion that a firm's existing knowledge and experience of customer preferences quickly become outdated and obsolete in turbulent market environments (Achrol, 1991; Kim and Atuahene-Gima, 2010; Yang and Li, 2011), which diminishes the exploitative strategy's competence to achieve cost reductions and efficiencies. Due to the continuous changes in customer preferences and needs in the digital context, digital marketing practitioners face challenges when applying exploitative strategies, as those strategic efforts are not based on up-to-date insights but on previously sensed knowledge (Kim and Atuahene-Gima, 2010; Lendowski et al., 2022). As a result, their efforts to create a cost-based competitive advantage will be diluted. Thus, the exploitative approach can be more effective in stable than dynamic market environments due to the fact that customers' needs and wants are static and predictable and only minor refinements are required (Jaworksi and Kohli, 1993; Lisboa et al., 2013).

While market dynamism was found to moderate the exploitative approach-cost competitive advantage association, this does not seem to be the case for the explorative digital marketing strategic approach-differentiation-based competitive advantage link, even though many empirical studies (e.g., Kim and Atuahene-Gima, 2010; Li, 2022; Tsai and Yang, 2013) have previously backed this and similar strategic arguments in the new product development context, and many

theoretical assertions (e.g., Cadogan et al., 2009; Hult et al., 2004; Slater and Narver, 1995) have stressed the need for experimentation, creativity and strategic innovativeness in unstable market conditions. This result indicates that the strong relationship between the explorative digital marketing strategic approach and differentiation advantage can exist in online markets regardless of market dynamism conditions. It suggests that retail firms that apply explorative digital marketing practices, such as continually extending to new online channels or routinely introducing new forms of online customer communication and innovative digital marketing procedures based on new digital technologies, can strongly differentiate themselves from their competitors, irrespective of market turbulence levels.

The non-significant moderation effect can be explained by the fact that the digital marketing context in itself can be characterised by high dynamism due to the continuous introduction of new-age technologies and digital platforms, the frenetic pace of digital trends, and the constant advances in social media networks and other digital channels (Gupta et al., 2020; Kannan and Li, 2017; Lamberton and Stephen, 2016). All these considerably affect customers with continuous emergence of new preferences about online channels (e.g., TikTok, mobile apps), their interaction and communication with brands online (e.g., chatbots, 24/7 online customer support agents, social media messaging), or their higher price sensitivity in online purchases (e.g., price comparison tools). This is particularly true for the online retail sector, where consumer purchases are frequent and continue to grow significantly (Chevalier, 2022). Consequently, higher turbulence in this already dynamic field can complicate firms' digital marketing efforts instead of providing new opportunities for exploration and differentiation, weakening the association between the explorative approach and the differentiation advantage (Cadogan et al., 2009). In that case, digital marketers can find it difficult to keep pace with the continuous digital marketing-related opportunities and capitalise on them. It is therefore likely that firms lose focus when facing extreme online market turbulence, becoming unable to take advantage of the correct opportunities to introduce those new digital marketing practices that can differentiate them from the competition.

7.3.6.2 The moderating role of competitive intensity

In a digital context, where most retailers are already competing with advanced digital marketing approaches and new competitors are emerging as powerful rivals due to digital technologies, the pressures on prices and margins can be intense, causing more competitive wars online (Hirt and

Willmott, 2014). Although prior literature has considerably stressed the strong effect of competitive intensity on corporate strategic efforts (e.g., Auh and Menguc, 2005), this research has found that neither the association between the explorative digital marketing strategic approach and the differentiation-based competitive advantage nor the relationships between the exploitative digital marketing strategic approach and the cost-reduction-based competitive advantage is affected by competitive intensity. Those results are unexpected in light of the empirical evidence supporting these relationships (e.g., Auh and Menguc, 2005; Yang and Li, 2011).

A possible explanation for the first link is that firms take into consideration the competitive moves apart from the market opportunities while developing novel digital marketing practices through their explorative strategies. In fact, the intense competition increases the firm's need to collect and analyse insights about its competitors' moves while innovating (Tsai and Yang, 2013). Therefore, if the competitors' actions also influence these novel digital marketing introductions, the effectiveness of the explorative strategic efforts on differentiation can be increased under intense competition, and this could mitigate the anticipated negative moderating effect of competitive intensity. Kim and Atuahene-Gima (2010) also found that competitive intensity does not significantly moderate the link between exploratory market learning and differentiation competitive advantage while hypothesising a negative effect.

Another explanation might relate to prospect theory, which proposes that companies should embrace more risk and innovate in their products and processes when they perceive fierce rivalry in their environment (Kahneman and Tversky, 1979; Zahra, 1993). Jones and Linderman (2014) posited that firms should become more innovative to remain competitive in intense competition, while Abebe and Angriawan (2014) argued that entrepreneurial firms operating in such conditions pursue more explorative than exploitative activities. Tsai and Yang (2013) revealed that firm innovativeness could be effective under intense external competition, considering that competitive threats can be translated into beneficial opportunities. Janssen et al. (2004) also agreed that companies could innovate successfully to overcome the increased competition. Additionally, other researchers suggested that explorative efforts characterised by creativity and innovativeness, can counterattack tough competition, as they can distinguish the firm from others through its unique offerings (Donkor et al., 2018).

Finally, this study demonstrates that the link between a firm's exploitative digital marketing practices and its ability to achieve a cost advantage, is not strengthened by increased competition in the market. Notably, similar were the findings of Yang and Li's (2011) study, which found that competition does not improve the association between exploitation and competitive advantage. This could be possibly justified by the duration of the competitive intensity in the retail sector, as, during long-term competitive intensity, firms can be stuck in endless improvements and adjustments of their offerings (Jansen et al., 2006; Levinthal and March, 1993). Auh and Menguc (2005), in supporting this argument, argue that exploitative strategies are not enough under long-term competitive rivalry, and some explorative practices need to be pursued too. Thus, it is possible that, in highly competitive markets, companies should not only emphasise costs but also create new processes (Donaldson, 2001; Ward and Duray, 2000).

7.4 Summary

This chapter discussed the results derived from the testing of the research hypotheses. The correlation matrix was first presented, revealing that the research constructs do not suffer from multicollinearity problems. Then, the main, moderating and control effects resulting from the hypotheses' testing through the structural equation modelling (SEM) in AMOS were presented and explained. Notably, an acceptable fit was demonstrated, and most hypotheses were supported. Fourteen hypotheses were investigated, of which H2, H5, H9, H13a and H14 were rejected as they were not significant. An in-depth discussion was conducted around both supported and rejected hypotheses, relying on previous theoretical and empirical research. The next and final chapter deals with the conclusions and implications of this study's empirical outcomes, limitations and most significant future research avenues.

CHAPTER EIGHT

Conclusions, implications, limitations and future research

8.0 Introduction

This final chapter derives conclusions from the study findings. It also discusses the implications of this study for marketing researchers and managers, particularly those specialising in digital marketing issues. Finally, the limitations of the study are presented, along with suggestions for future research.

8.1 Conclusions

The fast-paced, changing and turbulent digital landscape where firms and organisations compete today along with the realisation that digital marketing has already become the most potent form of marketing has been the focus of this thesis. In essence, the unstoppable introductions and advances in digital technologies, mobile platforms and social media channels, together with the recent pandemic and the growing internet use by consumers for purchasing, entertainment and socialisation purposes, are forcing firms to carefully develop and apply different digital marketing strategies for attracting new customers and sustaining their current customer base. Thus, companies engage in explorative marketing strategies by introducing new digital marketing procedures through experimentation with latent market trends and preferences together with exploitative marketing strategies, aiming to improve their existing digital marketing activities to remain focused on their customers' needs and wants.

As a result, much research has been published over the last two decades to comprehend digital marketing issues. Particular research interest was shown in examining six broad streams identified in the digital marketing field, namely macro-environmental factors, micro-environmental aspects, organisational aspects, managerial characteristics, digital marketing strategy, and digital customer behaviour. However, this literature, especially the empirical investigations regarding digital marketing strategic issues, has several gaps and limitations. In light of this, this doctoral thesis has developed a conceptual model examining the antecedents and the outcomes of a digital marketing strategic approach based on the concepts of exploration, exploitation and ambidexterity. The integrated model was then empirically tested using a sample of 242 large retail organisations based in the United Kingdom.

Grounded on two inter-related theories, namely *dynamic capabilities* and *organisational learning,* this research has examined six dynamic capabilities as the drivers of digital marketing strategic

approaches, while the associations among these approaches and competitive advantage have also been explored. The study findings have verified the significance of certain dynamic capabilities (e.g., sensing, integrating, responding, coordinating) in influencing these digital marketing strategic approaches as well as the conducive role of both explorative and exploitative digital marketing strategic approaches to create a competitive advantage based on either differentiation or cost reduction. These two types of advantage were subsequently found to improve online customer engagement, which ultimately resulted in heightened market and financial performance. The study also examined the role of two external environment factors, namely market dynamism and competitive intensity, on the association between digital marketing strategic approaches and competitive advantages, providing limited support.

Analytically, the study's findings first highlight the significant positive impact of both sensing and integrating capabilities on adopting the explorative digital marketing strategic approach. This implies that retail firms that perform sensing activities through scanning and monitoring the digital environment to identify future trends and latent customer preferences are more open to adopting an explorative digital marketing strategic approach. This is mainly because sensing reduces uncertainty and strengthens the firm's risk-taking and innovative behaviour (Lin et al., 2016; Zhang and Whu, 2013). Hence, a proactive and alert attitude towards digital marketing through the projection and discovery of digital opportunities (even before they arise), enables companies to introduce unique processes and offerings in their digital marketing operations that can be daring or "break the mold" (Mention et al., 2019; Narver et al., 2004; Zhou et al., 2019).

Similarly, retailers with high levels of integrating capabilities appear more willing to adopt the explorative strategic approach in digital marketing. This is because they have already established solid internal linkages and cooperation, collective interaction and a shared understanding between employees of diverse departments regarding the firm's digital marketing responsibilities, which can considerably enhance the development of new digital marketing procedures and offerings. Knowledge exchange and interaction between different departments (e.g., marketing, research and development, finance, operations, human resources) can offer useful insights about various new and unarticulated digital marketing opportunities (Basaglia et al., 2010; Darawong, 2018). This will subsequently help to increase trust and flexibility within the digital retail organisation that

provides a fertile ground for taking risks and advancing innovations (Chandler, 2000; Clegg et al., 2002).

However, the study revealed that, contrary to what was hypothesised, no significant association between learning capability and the adoption of an explorative approach was found. This was justified by the fact that the possession of a learning capability may not operate equally or have the same desirable effects in both digital and offline marketing contexts. Operating in the highly turbulent digital context, where market preferences are changing faster and more unpredictably compared to operating offline, possibly causes inefficiencies by quickly making knowledge obsolete (Endres et al., 2020). Thus, retailers may find it difficult to appropriately value, import, assimilate and timely transform new information from the digital market for explorative purposes. In addition, they may not have the appropriate procedures in place or possess the required expertise and resources (e.g., budget, digital, technological infrastructure, specialised personnel) to sustain the digital marketing-related knowledge.

This study also highlighted the critical role of responding and coordinating capabilities in adopting the exploitative digital marketing strategic approach. In particular, retailers that can quickly and effectively respond to their customers' existing online needs and sensed opportunities regarding their digital market offering are more capable in pursuing an exploitative digital marketing strategy, such as continually optimising digital marketing campaigns (e.g., social media, email, display advertising), conducting website adjustments or improving online customer communication processes (e.g., 24/7 online customer support). This is because having a responding capability is mainly oriented towards the firm's existing competencies to satisfy customer requirements (Zhou et al., 2005), while the adoption of an exploitative approach capitalises on the firm's current digital marketing activities to maximise efficiency by providing incremental and routine improvements (Ho and Lu, 2015; Vorhies et al., 2011).

Likewise, retail organisations with high levels of coordination and synchronisation within their employees' digital marketing responsibilities and duties were found to be more able to pursue the exploitative approach and achieve consistency in their digital marketing activities (Gustavsen, 2022). Thus, it becomes clear that assigning and allocating the right people, resources and tools to the right digital marketing tasks enables online retailers to exhibit greater focus on each task and demonstrate further commitment to refining existing competencies (Atuahene-Gima, 2005).

Hence, the appropriate orchestration and deployment of digital marketing tasks, by capitalising on the expertise of the various employees, can support the firm to pursue an exploitative digital marketing strategy.

The findings indicate that the possession of an adaptive capability does not significantly affect the exploitative digital marketing strategic approach despite the previous empirical evidence that supported such association (e.g., Brege and Kindstrom, 2021; Eshima and Anderson, 2017; Miocevic and Morgan, 2018). This is explained by the fact that an adaptive capability may not be effective in a digital context, considering the rapid changes made, which can lead the firm to lose focus and disorientate from its actual aim. Also, adaptive capabilities used in online contexts may vary among firms in different retail sectors (Ates and Acur, 2022; Lobo and Whyte, 2017), with some retailers requiring a lower level of this capability depending on the degree of the interaction with online customers. Furthermore, the fact that this research looked at a specific snapshot of the year rather than a collection of different years, might also contributed to this non-significant finding.

This research also provides insights into the significant role that explorative and exploitative digital marketing strategic approaches play in creating a competitive advantage based on differentiation and cost reduction. Retail firms that pursue explorative digital marketing strategic activities, such as launching extreme social media campaigns, creating and uploading novel entertaining online content, or continually discovering unique ways to interact with customers online (e.g., using AR and VR technologies), can be distinguished from the competition. This is because they provide their customers with innovative and different solutions and benefits that they cannot receive from other online retailers (Ahuja and Lampert, 2001; Jansen et al., 2006). Firms therefore differentiate themselves in customers' minds due to the unique value they provide.

Adopting an exploitative digital marketing approach, such as regularly optimising the firm's pay-per-click advertising, content marketing, email marketing and affiliate marketing activities, or automating repetitive digital marketing tasks (e.g., lead generation, retention programmes, audience segmentation and targeting) were found to lead to cost competitive advantage through higher operational efficiencies and cost reductions (O'Cass et al., 2014; Stone et al., 2007). In addition, the exploitative approach's focus on current and known expertise increases the familiarities within the firm's existing digital marketing activities and decreases errors in problem-

solving related to digital marketing decisions (Li et al., 2010; Morgan and Berthon, 2008; O'Cass et al., 2014), which provide customers with reduced costs and better prices online.

An interesting finding is related to the non-significant association between the ambidextrous digital marketing strategic approach and the competitive advantages of differentiation and cost reduction. Ambidexterity, that is, the simultaneous application of both explorative and exploitative digital marketing practices, was not confirmed to lead to a competitive advantage, either differentiation or cost-based. While much previous research (e.g., Hughes et al., 2010; Menguc and Auh, 2008; Rosing and Zacher, 2017; Turner et al., 2013) suggested that ambidextrous strategies play a significant positive role in the creation of competitive advantage, there are some studies contradicting this argument, supporting that ambidexterity harms or does not influence competitive advantage (e.g., Josephson et al., 2016; Lubatkin et al., 2006; Voss and Voss, 2013; Wei et al., 2014). This finding can possibly be explained by the complexity of the simultaneous use of both strategic approaches. This is because firms that combine both risk suffering strategy confusion regarding resource allocation and deployment (Hughes et al., 2010; Wei et al., 2014), cultural divisions and friction within the organisation (Menguc and Auh, 2008), and multiple challenges in managing and securing a strategic combination (Mu et al., 2022; Wu et al., 2020).

The critical role played by both the differentiation and the cost-reduction competitive advantages in the creation of online customer engagement is also confirmed by this research. Regarding the differentiation-based competitive advantage, this finding demonstrates that retail firms with unique digital market offerings can more easily engage their customers online. Compared to their competitors, these firms have unique online product presentation, online content of higher quality, substantially different digital marketing activities (e.g., social media marketing, email marketing, influencer marketing), and digital marketing-related solutions and benefits (Li and Zhou, 2010). All these excite customers and motivate them to engage with the retail firm online. In essence, the superiority, uniqueness and newness of the firm's digital market offering perceived by customers encourage various online engagement behaviours, such as interacting with the firm (e.g., watching, liking, commenting, sharing brand content), creating reviews and referrals, and participating in social media contests (Agnihotri, 2020; Eigenraam et al., 2018; Hollebeek et al., 2014).

Retailers possessing a cost-reduction competitive advantage are also in a better position to engage their customers online considering the cost benefits they offer to customers and the lower prices

they can charge. Such low prices reflect lower costs in the firm's digital marketing operations achieved through using the correct online channels and marketing practices that result in quality leads, utilising free alternative online tools instead of premium tools where possible (e.g., SEO tools, analytics tools, social media), appropriately balancing in-house and outsourcing digital marketing activities, focusing on referral marketing, and relying on automation tools and digital software for certain tasks (e.g., chatbots, email autoresponder) (Smale, 2018). These cost benefits surpass the ones offered by competitors, thus offering significant value to customers, and prompting them to engage more with the company online, such as inducing them to learn more about the firm's products and services, creating an account or subscribing to the company, spreading positive word-of-mouth, and providing valuable feedback and insight to the company (Briglia, 2020; Gummerus et al., 2012; Li and Li, 2008).

Of great interest are the findings regarding the performance implications of online customer engagement, with high levels of online customer engagement found to lead to heightened market and financial performance. This is due to the continuous and meaningful interaction between customers and the firm online, which drives customers to numerous actions in favour of the company, such as providing positive online word of mouth or recommending it to others. Customers who actively participate in the company's online activities and who feel proud to interact with the company online are the ones who will repeat and increase their purchases from the company, remain loyal to it and attract new buyers (Kumar and Bhagwat, 2010; Vivek et al., 2012). Therefore, organisations aiming to achieve high market and financial performance levels will have to make extra efforts to engage their customers online.

This study underlines that market dynamism does not significantly moderate the positive link between the explorative digital marketing strategic approach and the differentiation competitive advantage, despite the considerable amount of prior empirical evidence which revealed a positive moderating effect of market dynamism (e.g., Cadogan et al., 2009; Kim and Atuahene-Gima, 2010; Li, 2022; Tsai and Yang, 2013). This could be justified by the turbulent context of digital marketing itself and the situation-specific characteristics of the retail industry which can disorientate rather than support digital marketers' efforts and make it difficult to identify and exploit new digital marketing-related opportunities to achieve a differentiation advantage. However, as expected, market dynamism was found to negatively moderate the association

between an exploitative digital marketing strategic approach and cost-reduction competitive advantage, which means that high levels of market dynamism diminish the effectiveness of exploitative digital marketing strategy to generate a low-cost advantage. This is justified by the fact that the exploitative approach is based on existing and previously sensed knowledge which can quickly become obsolete in a dynamically changing market, and reduce the retailer's competence to achieve cost reductions and efficiencies.

Finally, the study's results did not find enough evidence to support that the intensity of competition has a significant moderation effect on either of the two associations between the explorative approach and differentiation advantage, or between the exploitative approach and cost-reduction advantage. The non-significant moderation effect on the first link might be explained by the fact that, in intense competition, firms also consider the competitive moves apart from the digital market opportunities while applying their explorative digital marketing strategies, embracing more risk and innovativeness (e.g., Abebe and Angriawan., 2014; Auh and Menguc, 2005). This could mean that the effectiveness of the explorative strategic efforts on differentiation would be increased rather than decreased, and thus mitigate the expected negative moderation. On the other side, the non-significant moderation on the second link might relate to the competitive intensity's duration in the industry, suggesting that the exploitative approach might lose rather than increase its effectiveness during long-term competitive intensity, considering that firms may be stuck in endless refinements and adjustments of their digital market offerings.

As the digital environment continues advancing at such a fast pace, and more and more organisations are competing today in the digital context, it is considered more than essential for firms to carefully choose and utilise their digital marketing strategies to remain competitive and successful. The qualitative and quantitative insights gained from this study have shown that retailers today are indeed pursuing such strategic approaches to differentiate their digital market offering or to achieve digital marketing cost efficiencies. This study has amply demonstrated that the appropriate choice of digital-marketing-related dynamic capabilities and the correct utilisation of each of the explorative or exploitative digital marketing strategic approaches, depending on the firm's goals and resources, enables firms to achieve a competitive advantage and further online customer engagement, leading to superior market and financial performance.

8.2 Implications

The findings derived from this study's empirical investigation provide useful implications for both theory and practice. This section presents and explains the different implications for each group.

8.2.1 Theoretical implications

Anchored on the dynamic capabilities theory (Teece et al., 1997), this study has confirmed the role of certain dynamic capabilities in influencing the firm's strategic efforts to address rapidly changing environments and achieve a competitive advantage. Specifically, the results lend support to the view that sensing, integrating, responding, and coordinating dynamic capabilities are necessary for firms competing in the dynamic digital context, by positively influencing their explorative and exploitative digital marketing strategic approaches. Contrary to most studies in the digital marketing field that examined dynamic capabilities oriented towards specific digital marketing activities (e.g., social media capability, website capability), this study has confirmed the effects of dynamic capabilities that are applicable to any digital marketing activity and can support digital marketing strategy holistically.

The use also of the organisational learning theory (March, 1991) to understand the role of the explorative and exploitative digital marketing strategic approaches in contributing to competitive advantage and heightened performance was also confirmed. However, an intriguing theoretical issue related to organisational learning theory refers to the ambidextrous digital marketing strategic approach: while in other contexts (e.g., export marketing, organisational innovation) ambidexterity was found to be positively related to the creation of competitive advantage, in a digital marketing context this association turned out to be non-significant for both differentiation and cost reduction advantage. This suggests that the theoretical assumptions for ambidexterity developed in other contexts do not necessarily apply in a digital marketing setting.

Notably, the study has complemented these theories by adding the construct of customer engagement and recognising different dimensions of firm performance (e.g., market, financial), providing more insights for strategic marketing research. This contributed to the extension of the scope and applicability of the paradigms from the strategic management field where they were initially developed and used, to the context of digital marketing. Marketing researchers can thus rely on these theoretical results to advance their conceptual frameworks about the development

and implementation of different digital marketing strategies and their effects on customer engagement and performance.

Although customer engagement is a crucial dimension in digital marketing research (e.g., social media networks, online brand communities), its scale was mainly developed within a consumer behaviour domain (e.g., Eigenraam et al., 2021; Hall-Phillips et al., 2016; Kim and Johnson, 2016). Therefore, this study introduced a new operationalisation of the customer engagement construct by adapting previous scales derived from consumer research. This enabled the examination of this important construct from a managerial perspective (rather than a consumer angle) to fit the purpose of this study where the unit of analysis is the online retail firm.

The combination of dynamic capabilities and organisational learning theoretical paradigms was found to be relevant for research on digital marketing strategy, mainly considering the fast-advancing and turbulent context of digital marketing. However, more academic studies must be conducted to confirm the prominence and dominance of those paradigms in the literature on strategic digital marketing. For example, new research capitalising on these theories could examine further crucial aspects related to the digital context, such as the customers' trust and risk perceptions around online buying or the different regulatory frameworks among markets (e.g., data security, and information protection laws, GDPR, cookies). It would also be valuable if those paradigms were employed in other digital-related fields like online marketing communications or digital business management, to examine the effects of dynamic capabilities and the strategic approaches of exploration, exploitation, and ambidexterity on firms' competitive positions and digital-oriented performance.

8.2.2 Managerial implications

The fourth and fifth industrial revolutions, which are strongly characterised by the digital element, are evolving at an exponential pace, providing severe disruption in most firms and organisations (Noble et al., 2022; Schwab, 2016). The constant developments in social media and mobile platforms, the continuous introduction of new digital technologies, and the turbulence describing customer preferences within the online context have justifiably raised many concerns for marketing practitioners regarding their digital marketing strategies and their necessity, drivers, different approaches and results. The findings of this study have various useful implications for

marketing practitioners that can contribute to creating and delivering competitive digital marketing strategies in an environment where increasing digitalisation and the burgeoning growth of online customer population considerably influence business dynamics.

Firstly, this study stresses the necessity for large retailers to have a well-defined digital marketing strategy, since its absence frequently results in budget allocations to incorrect digital channels, ineffective digital marketing campaigns and lower levels of online customer engagement (Chaffey, 2020; Mazzini, 2020). The empirical findings of this study prove that the effectiveness of different types of digital marketing strategic approaches by the firm will depend on the possession of specific dynamic capabilities. Henceforth, by relying on a well-defined and well-analysed digital marketing strategy, companies that are aware of what they want to achieve can more easily stay focused on their efforts, overcome challenges, and remain competitive.

The findings also suggest that certain dynamic capabilities, namely those pertaining to sensing, integrating, responding and coordinating, are the most influential in adopting and implementing explorative and exploitative digital marketing strategies. Therefore, digital marketers who choose to adopt explorative strategies (e.g., creating highly innovative interactive online content, applying AR and VR technologies to the firm's e-commerce services, launching unique mobile apps, applying novel video marketing in social video platforms) are advised to be extra vigilant by scanning the external digital market environment to sense the latent, unarticulated trends and customer preferences. They must also cultivate a climate of shared understanding, collective interaction and internal linkages among the firm's employees and their digital marketing tasks. By developing high levels of sensing and integrating capabilities, digital marketing teams can more easily take risks and innovate, which is pivotal for successfully pursuing an explorative digital marketing strategic approach.

On the other side, digital marketing managers who aim to apply exploitative firm strategies (e.g., optimising keywords and ad placements, automating email marketing and social media post scheduling and advertising, modifying the website's design and improving its functionality) should focus on quickly and effectively responding to their customers' needs related to their digital market offering and also on synchronising and coordinating each employee's work in digital marketing. Capitalising on current market opportunities to satisfy already stated customer needs, and ensuring

that the right people and resources are assigned to the right digital marketing tasks, is crucial for successfully adopting the exploitative digital marketing strategic approach.

Digital marketers can choose between the explorative and exploitative digital marketing strategic approaches, depending on the competitive advantage they aim to achieve. Specifically, when aiming to differentiate themselves from their competitors, it is recommended they adopt an explorative approach in order to introduce novel and radically different digital market offerings. For example, they should emphasise their strategic marketing efforts on activities such as brand storytelling with creative ways in different online channels, creating unique online quizzes, social media polls and VR ads, extending to new digital channels, running novel influencer marketing campaigns, or promoting their brands using augmented reality and metaverse features. Such activities tend to provide customers with a unique value and better benefits that cannot be obtained from other firms.

Digital marketers seeking to achieve significantly higher cost efficiencies than their competitors, are advised to adopt the exploitative digital marketing strategic approach to achieve consistent and incremental improvements and modifications in their current digital marketing processes. By applying exploitative strategic marketing efforts such as routinely improving their search engine rankings through different SEO tools like performance testers, keyword analysers and planners, improving the website's loading time and consistently updating its sections, making consistent minor changes to online campaigns, and using software and Google analytics to optimise digital marketing expenditure, digital marketers can achieve familiarities within existing digital activities, reduce errors and costs, and use resources more efficiently. In this way, they can offer their online customers lower prices and other cost-related benefits.

However, when adopting and pursuing the ambidextrous digital marketing strategic approach, digital marketers cannot achieve either a differentiation or a cost-reduction competitive advantage because the simultaneous application of both exploration and exploitation can cause complexities, disorientation and confusion (Mu et al., 2022; Wu et al., 2020). Hence, to maintain high levels of competitiveness, digital marketers should aim to have the right balance of exploration and exploitation in their digital marketing strategies, which should depend on their firm's objectives, orientation and resource availability (e.g., product/service offered online, online price, digital promotion activities, online channels, online distribution).

The possession of a competitive advantage based on either differentiation or cost-reduction elements is of paramount importance for retailers in successfully engaging customers online. Some key strategic efforts for digital marketers who aim to differentiating their digital market offering is to create and upload online content which is of higher quality than that of their competitors, uniquely present the firm's offerings through digital channels, and provide customers with inimitable online value and new benefits. On the other hand, the achievement of cost-reduction advantage should emphasise the efficient use of digital marketing tools, platforms and channels, employment of automation mechanisms to decrease costs, efficient application of digital marketing practices such as hiring micro and nano influencers instead of celebrity or mega influencers or using free tools and packages for keyword research and email marketing instead of costly software, re-purposing older content in different mediums, and better negotiations with partners and providers that will help to lower prices for customers.

Managers should strongly aim to engage their customers online, considering the significance of online customer engagement in achieving improved market and financial performance. Operating in a customer-centric era, where customers are more digital than ever and daily interacting with firms across numerous platforms and channels, it is crucial for organisations to invest in connecting and engaging with customers online. Digitalisation enables marketers to run multiple online programmes and activities (e.g., through social media) to initiate and strengthen customers' engagement. It is also vital to encourage customers to engage other new customers through online user-generated content, such as writing reviews or recommending the firm online. Devoting efforts to achieve and sustain a strong emotional connection with customers online will ensure superior performance outcomes, as engaged customers not only buy more but also buy more often, attract new customers, and contribute to the firm's growth in sales and profitability (Hyken, 2021; Kumar and Pansari, 2016).

8.3 Limitations and future research directions

The findings of this study should be seen within the context of a number of limitations, which can provide fruitful future research directions. *First,* the fact that data collection exclusively focused on firms based in the United Kingdom and operating in the retail sector may create generalisability concerns. Although every possible effort was made to obtain a representative sample, there is a

need to replicate this study in other countries and industry settings. For example, it would be useful to investigate this research's hypotheses on other service-related sectors, such as hospitality, financial services and education, as well as extend the geographical focus of the study to include emerging economies (e.g., China, South Africa) and developing countries (e.g., India, Pakistan) where digital marketing practice may be conducted differently.

Second, to ensure that data were obtained from organisations with an established marketing department or a team with practitioners specialised in digital marketing and with enough resources and budget to invest in strategic digital marketing practices, only large retail organisations (e.g., with more than 250 employees) were included in the research sample (Bachmann et al., 2021; Braojos-Gomez et al., 2015). However, smaller retailers represent powerful players nowadays, considering the plentiful digitalisation incentives and pressures towards them to apply digital marketing practices (Elia et al., 2021; Hirt and Willmott, 2014). The recent global pandemic also forced many smaller-sized retailers to undergo a digital transformation (Cisco, 2020). Hence, it would be illuminating to extend research to understand the digital marketing practices of retailers of smaller size.

Third, due to time restrictions regarding this project's completion, this study used a cross-sectional design by collecting data at a single point in time. Although this approach enabled the examination of multiple outcomes and an in-depth investigation of digital marketing phenomena, it does not take into consideration time lags between the constructs of the conceptual model. For example, dynamic capabilities (e.g., learning, adaptive) take time to develop and enhance the firm's digital marketing strategic approaches, strategic approaches take time to develop into competitive advantage and so on. Given the fast-changing nature of digital marketing, a comprehensive longitudinal design and panel data collection is therefore recommended to grasp these time differences in implementing the various points of the model.

Fourth, while substantial efforts were made and specific actions were taken (e.g., key informant competency tests, consideration of positional status and years of experience) to recruit the most appropriate respondents dealing with the firm's digital marketing operations and reduce the possibility for measurement error and positional bias, it is understood that multiple key informant studies are superior to the single key informants design used in this study (Bou-Llusar et al., 2016). Hence, further research should consider collecting data from multiple key informants from the

same firm, in order to secure a consistency in their views regarding digital marketing practices of their organisation.

Fifth, in light of the limited availability and restricted access of databases focused on the marketing activities of large retailers in the United Kingdom, this study was solely based on the subjective view provided by managers using a structured questionnaire. However, further research should also capitalise on objective data derived from specialised databases focusing on digital information and performance indicators, as well as information derived from company reports, corporate websites, and firms' financial statements and statistics.

Sixth, only the combined approach of ambidexterity (i.e., explorative and exploitative activities are conducted simultaneously), as opposed to the balanced one (i.e., balanced levels of exploration and exploitation), was examined in this study. Due to statistical limitations (e.g., perfect linear dependency) when testing a construct measured with items derived from other constructs already included in the same structural equation model, the interaction technique relying on methods and procedures recommended by Ping (1996) was applied, which perceived the ambidextrous digital marketing strategic approach as the simultaneous adoption and implementation of both explorative and exploitative strategic approaches on equal levels. However, considering that most retailers tend to balance rather than combine different levels of explorative and exploitative digital marketing activities (Ngo et al., 2019), future research should empirically explore the role of ambidexterity in a digital marketing context using a balanced perspective. This can be statistically possible when analysing the construct independently without the presence of the other two constructs in the same structural model.

Seventh, this study focused on the outcomes of digital marketing strategies in terms of differentiation and cost-reduction competitive advantages. It also studied online customer engagement and market and financial firm performance. Future research could also consider investigating other outcomes of digital marketing activity such as traffic, leads, reach, conversion rates, likes and subscribers. Such measures can also be used to further operationalise and refine the core construct of online customer engagement or to create a brand-new construct referring to digital marketing performance. Exploring the effects of such measures on market and financial performance can provide valuable insights for academics and practitioners alike.

Eighth, considering that digital marketing activities differ markedly in the business-to-consumer (B2C) and the business-to-business (B2B) markets (Iankova et al., 2019; Swani et al., 2014), it would be illuminating to extend the analysis to business-to-business interactions by focusing, for example, on issues like trust, top management commitment and trading partner relationships. Future research could also explore other digital marketing aspects (e.g., digital marketing communication channels) as well as test the conceptual model of this study in specific digital contexts such as social media networks and mobile platforms.

Finally, it will be interesting to further explain the retailers' online marketing activities in international markets, especially taking into consideration that the internet and digital technologies are giving a strong impetus towards retail internationalisation (Treadgold and Reynolds, 2020). For example, future studies could investigate the dilemma of standardising or adapting the digital marketing strategy in international markets and its effects on customer engagement and firm performance. In doing so, it would be worthwhile to explore the moderating impact of various country-specific factors (e.g., socio-cultural, economic, technological) on the association between digital marketing strategic approaches and performance outcomes.

8.4 Summary

This final chapter has discussed the main conclusions derived from the research findings, underscoring the significance of retail firms properly utilising specific dynamic capabilities and digital marketing strategic approaches for the creation of competitive advantage and improved firm performance. Implications for theory and practice were also provided. Finally, the key limitations of the study were presented, while various useful directions for future research are provided that would overcome these limitations. To conclude, this doctoral thesis has proposed, developed and empirically examined a conceptual model focusing on the drivers and outcomes of a digital marketing strategic approach based on exploration, exploitation and ambidexterity concepts.

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APPENDICES

Appendix I: Indicative studies on marketing exploration, exploitation, and ambidexterity

No	Study	Research Objectives	Theory	Variables	Methodology & sample	Key Findings
1	Kyriakopoulos and Moorman (2004) International Journal of Research in Marketing	To examine whether a company's market orientation enables effective combination of marketing exploitation and exploration.	Resource-Based-View Dynamic Capabilities	*Independent:* marketing exploitation strategies, marketing exploration strategies *Dependent:* new product financial performance (at the project level) *Moderator:* market orientation *Controls:* firm resource level, project type	Quantitative : Mailed questionnaire survey Data from 340 Dutch companies in the food processing industry	• Strong market orientation enables combination of high levels of exploration and exploitation, improving new product financial performance. • In contrast, companies with a weak market orientation that combine both approaches result in negative new product financial performance outcomes.
2	Menguc and Auh (2008) Industrial Marketing Management	To analyse the connection between ambidexterity and firm performance for prospectors' and defenders' companies at different degrees of market orientation.	Resource-Based-View Dynamic capabilities	*Independent:* exploration, exploitation, ambidexterity *Dependent:* firm performance *Moderator:* market Orientation *Controls:* firm size, environmental uncertainty, CEO background, firm type, operations' type	Quantitative : Mailed questionnaire survey Data from 260 companies in manufacturing industries	• Ambidexterity does not impact negatively either on prospectors' or defenders' performance. • Market orientation connects positively with ambidexterity in prospectors' companies, but the opposite happens for defenders. • Exploration has a much more positive impact than exploitation on both prospectors' and defenders' performance.
3	Kim and Atuahene-Gima (2010 Journal of Product Innovation Management	To examine whether exploratory market learning results in new product differentiation and whether exploitative market learning enhances new product efficiency, considering the moderators of environmental dynamism and market competitiveness	Organisational learning theory Source-Position-Performance	*Independent:* exploratory market learning, exploitative market learning *Mediators:* new product differentiation, new product cost efficiency *Moderators:* environmental turbulence, competitive intensity *Dependent:* new product performance *Controls:* market entry time, market maturity, firm size	Quantitative Survey data from 157 manufacturing firms in China	• Exploratory market learning enables the creation of the differentiated advantage for the new products and this link is positively moderated by environmental turbulence. • Exploitative market learning drives to the cost-efficient advantage of the NPD and this link is positively moderated by competitive intensity. • Exploratory and exploitative market learning should be pursued in parallel.
4	Molina-Castillo et al. (2011) Industrial Marketing Management	To explore the links between exploitation and objective quality and exploration and innovativeness to the firm, considering the moderating influences of competitive intensity and market turbulence.	Resource-Based-View Dynamic Capabilities Discovery/ creation theory	*Independent:* competence exploitation, competence exploration *Moderators:* market turbulence, competitive intensity *Dependent:* objective quality, innovativeness to the firm, speed to market, market performance	Quantitative : Cross-sectional questionnaire survey Data from 197 manufacturing organisations	• Exploitation enhances product objective quality and exploration boosts the product innovativeness. • Successful new product development and launch requires both exploration and exploitation. • High degree of market dynamism impacts positively on the exploitation outcomes, whereas fewer competitors might enhance exploration.
5	Vorhies et al. (2011) Journal of the Academy of	To analyse how marketing exploration and exploitation can enhance current and create new	Organisational Learning, Resource-Based-View,	*Independent:* market knowledge development, marketing exploration, marketing exploitation *Dependent:*	Quantitative questionnaire survey	• Marketing exploration and exploitation improve the brand management and CRM capabilities resulting in higher objective financial performance.

	Marketing Science	customer-oriented marketing capabilities; and examine if marketing ambidexterity is possible.	Dynamic Capabilities,	customer-focused marketing capabilities (brand management, CRM), objective financial performance *Controls:* type market, firm size, number of mktg employees, firm age, diversification, financial resources	Secondary and primary data from the Chief marketing executives of 44 business unit companies	• The combination of marketing exploration and exploitation might impact negatively on customer-oriented marketing capabilities. • Marketing exploration negatively moderates the link between marketing exploitation and marketing capabilities, while marketing exploitation negatively moderates the link between marketing exploration and marketing capabilities.
6	Lisboa et al. (2013) International Marketing Review	To examine the linear, moderated, complementary, and non-linear influences of the exploratory and exploitative export market strategies on export performance.	Resource-advantage theory	*Independent:* export market exploitation, export market exploration *Moderator:* export market turbulence *Dependent:* export performance *Controls:* slack resources, firm size, export experience	Quantitative: online questionnaire survey Data of 267 Portuguese export manufacturing companies	• Export market exploitation improves export performance, whereas export market exploration decreases it as it requires important financial and other investments, having uncertain benefits. • Export market exploration enhances export performance in high export market turbulence. • An appropriate balance of exploration and exploitation in export market strategies improves performance, as exploitation enables learning about the foreign markets/customers, decreases mistakes, achieves efficiency, while exploration develops new knowledge, new solutions and new opportunities.
7	O'Cass et al. (2014) Industrial Marketing Management	To analyse companies in intense technological industries that apply exploratory and exploitative strategies at the operational-level using exploratory and exploitative capabilities in new product development settings.	N/A	*Independent:* exploratory strategy, exploitative strategy *Mediator:* differentiation, cost efficiency, exploratory marketing, exploitative marketing, exploratory product innovation, exploitative product innovation, *Dependent:* new product differentiation, new product performance, new product cost efficiency *Controls:* structural differentiation, cross functional integration, environmental turbulence, firm size	Quantitative: Questionnaire survey, Data from 132 senior and mid-level managers from companies in technology-intense industries.	• Successful development and marketing of new products depends on both exploration and exploitation. • The effective application of exploratory and exploitative strategies requires the integration between exploratory product innovation and exploratory marketing, but also between exploitative product innovation and exploitative marketing. • Exploratory and exploitative capabilities benefit the new product market performance, resulting in the advantages of differentiation and cost efficiency.
8	Ho and Lu (2015) Journal of Business Research	To explore the individual and joint influences of marketing ambidexterity on market performance and whether the cooperation between companies and suppliers moderates that link.	RBV Knowledge-based view	*Independent:* marketing exploitation, marketing exploration *Moderators:* supplier collaboration *Dependent:* market performance *Controls:* market volatility, market competitiveness, absorptive capacity, firm size, firm age	Quantitative: Survey Data from informants from 220 companies.	• The simultaneous implementation of marketing exploration and exploitation has a negative impact on the company's market performance. • Cooperation with suppliers improves the influence of marketing exploration but diminishes the marketing exploitation's influence on market performance.
9	Zhang et al. (2015) International Journal of	To investigate the different impacts and interplay of market exploration and exploitation on new product outcomes,	Knowledge-based view	*Independent:* market exploration, market exploitation, their interaction *Dependent:*	Quantitative: Online questionnaire survey	• Market exploration enables new product innovativeness, while market exploitation benefits NPD speed.

	Research in Marketing	considering the contingent influence of customer need tacitness.		new product development speed, new product innovativeness, new product financial performance *Moderator:* customer need tacitness *Controls:* diverse customer needs, R&D intensity, firm size, type of the firm (B2C or other)	Data from 341 members of the product development and management association	• Their joint influences diminish the speed of NPD and do not influence significantly the NP innovativeness. • Customer need tacitness enhances the influence of market exploration on innovativeness and the speed of the NPD, whereas weakens the market exploitation's impact on the NP innovativeness.
10	Mu (2015) Industrial Marketing Management	To investigate whether marketing capability from an outside-in perspective enable companies to adapt to external environmental conditions using exploration and exploitation and whether this enhances NPD performance.	N/A	*Independent:* marketing capability *Mediators:* exploration, exploitation *Dependent:* NPD performance *Moderators:* decentralization, customer-based structure, inter-functional integration *Controls:* firm size, firm age, R&D, industry, differentiation, cost focus, environmental dynamism	Quantitative: Mailed cross-sectional questionnaire-survey Data from USA (n=324) and China (n=569)	• Marketing capability positively influences NPD performance. • Exploitation and exploration act as mediators on the positive link of marketing capability and NPD performance. • Customer-based structure, decentralization and interfunctional integration are positive moderators on the link between marketing capability and NPD performance.
11	Josephson et al. (2016) Journal of the Academy of Marketing Science	To investigate the impact of firm antecedents and industry contexts on the shift in the firm's strategic marketing ambidexterity and its influence of firm financial results.	Dynamic capabilities theory	*Independent:* firm maturity, financial slack, strategic slack *Mediator:* strategic marketing ambidexterity *Dependent:* financial performance (firm risk, firm return) *Moderator:* industry competitiveness *Controls:* operational slack, firm size, firm capital intensity, misery index, and manufacturing inventories	Quantitative: Panel regression analysis Data from 1999 to 2011 on publicly traded US firms	• Firm maturity and strategic slack encourage a shift toward exploitation and increased financial slack encourages a shift toward exploration. • The industry competitiveness moderates the above links. • Shifts in strategic marketing ambidexterity toward exploitation enhance return and firm-idiosyncratic risk.
12	Mehrabi et al. (2019) Industrial Marketing Management	To examine whether it is beneficial to have higher combined or balanced levels of ambidexterity, and investigate which internal and external factors might influence these two ambidexterity forms.	Resource-based-view Contingency theory	*Independent:* entrepreneurial orientation *Mediator:* customer management capability, new product development capability *Moderator:* environmental dynamism *Dependent:* customer relationship performance, new product performance *Controls:* firm age, firm size, competitive intensity, primary market (B2B, B2C, both), public or private firm	Quantitative: Online survey panel Data from 141 US-based manufacturing firms	• Entrepreneurial orientation influences differentially the balance between exploration-exploitation within customer management and new product development in dynamic contexts. • Performance improves in higher levels of combined ambidexterity in both customer management and NPD, and decreases when NPD ambidexterity emphasises on exploration.
13	Ho et al. (2020) Journal of Business Research	To study how firm-level absorptive capacity moderates the link between marketing ambidexterity and firm performance.	Organisational learning theory	*Independent:* marketing ambidexterity *Moderator:* absorptive capacity *Dependent:* sales growth *Controls:* market volatility, market competitiveness	Quantitative Survey and archival financial data from 318 private firms.	• Marketing ambidexterity increases sales growth in firms which have strong absorptive capacity and it decreases firm sales growth in weak levels of absorptive capacity. • Organisational knowledge processing is very important to ensure beneficial outcomes of the marketing ambidexterity.

Appendix II: Summary of the qualitative research's insights

General Information	
Number of interviews	15 in-depth interviews
Execution period	13/11/2020 – 28/11/2020
Participants' recruitment	LinkedIn
Average duration per interview	35 minutes
Participants' job positions	➢ Digital marketing managers (6) ➢ Digital marketing strategists/consultants (6) ➢ Founders/directors of digital marketing agencies (2) ➢ Performance marketing director (1)
Industries	➢ Retail ➢ Information technology ➢ Digital marketing, consulting and branding ➢ Telecommunications ➢ Mechanical and industrial engineering

OVERALL NOTES/ SUMMARY

Key capabilities in digital marketing
Customer-focused capabilities: • Information acquisition about target customers (e.g., online consumer behaviour, customers' feelings, wants, preferences), customers' listening • Ability to understand, analyse and use the acquired customer insights • Ability to connect and communicate with customers (the right customers, on the right time)
External-focused capabilities: • Market scanning, market research • Ability to diagnose and analyse market opportunities and challenges • Openness to new trends and opportunities, risk-taking • "Test and learn" capabilities, adapting and adjusting capabilities
Internal-focused capabilities: • Having the right persons for the right digital marketing tasks • Clear objectives in using digital marketing • Good understanding and focus on the company's objectives and purpose • In-house knowledge and expertise in digital marketing tasks (e.g., segmentation, ability to create a digital marketing strategy, ability to focus on certain channels, creative execution) • Digital marketing resources (e.g., budget, technology)

Digital marketing strategic approaches:

Overall, it seems that companies tend to apply the exploitative digital marketing strategic approach in higher degree/frequency (70%-90%) than the explorative approach (10%-30%) due to the higher costs, risks and unpredictable returns that associate with exploration. In practice, the two approaches are not mutually exclusive, but also not simultaneously combined. In contrast, an appropriate balance between the two exists according to the firm's objectives, resources (e.g., budget), ability to use digital technologies, their target markets, the industry (e.g., electronics, technology-based industries vs logistics industry), and the external environment's conditions.

EXPLORATIVE	EXPLOITATIVE
Demonstrated as: (examples)	
• Extending to new/different digital channels, new platforms, new areas & online strategies (e.g., selling on Amazon) • Use of new digital marketing technologies (e.g., Video, Virtual Reality, Augmented Reality, Artificial Intelligence, voice search) • New ways of online customer communication • Working with new affiliate partners • Brand-new social media campaigns • Building new customer acquisition channels • Influencer marketing, digital PR, native advertising • Social media purchase stores • Customer messaging through chatbots/WhatsApp	• Optimizing the digital marketing spent • Optimizing existing tactics/strategies (e.g., optimizing ads' content) • Focus on current practices and on their impact, modifying and making improvements (e.g., website's improvements, changing the visuals of a call-to-action online activity/ad) • Learning and testing within current processes • Improving/simplifying the individual online customer journeys (e.g., reducing the number of steps in a customer's flow) • Increasing the frequency of different display ads • Working on well-known avenues
Characteristics:	
• Higher digital market costs *(not always)* • Higher risks • Results tracked in the long-term than short-term/ not easily tracked/measured - unpredictable returns • More efforts are required to justify its necessity	• Lower costs • Lower risks • Measurable, predictable, consistent returns • Easier approval by the finance team
Associated words and phrases:	
• Innovating, new ideas, novel, no one has done it before, stand out in customers' eyes • Modern, sexy, flashy, sparkling, extreme • Challenging, exciting	• Efficient, safe option, easier • Corrective actions, refining, adapting • Consistent • Sticking on what works for the company
Required capabilities:	
• Digital market scanning & research (e.g., spot digital opportunities) • Ability to project next likely trends and digital marketing changes, innovation thinking • Knowledge and skills to understand new trends/ platforms/channels and perform new tasks • Openness to change, risk-taking, experimentation • Ability to test new things (test & learn) • Tech capabilities, systems & tools to explore new digital avenues, quick decision making & execution • Appropriate infrastructure and flexibility	• Scanning for efficient ways to spend the digital marketing budget • Research of competitors' practices • Risk averse leadership team • Knowledge to understand acquired data • Understanding and knowledge about consumer behaviour and wants • CRM systems, good communication with customers • Employees' mindset towards refinement
Associated results/competitive advantages	
• Being the first in the market • Differentiation from the competition • Brand's improvement • Increase on brand's reach and traffic • Higher customer experience, attracts more customers	• Higher efficiency & lower costs (reduction of conversion costs and other digital mark. costs) • Consistent and sustained level growth • Effectiveness, optimization • Learning from others' mistakes and creating an understanding on best practices
AMBIDEXTROUS DIGITAL MARKETING STRATEGIC APPROACH:	
Good practice in digital marketing especially considering the continually changing landscape. Most frequently found in companies with heavily secure tech infrastructures (e.g., amazon, google) that can fund and apply both approaches.	
Required capabilities: • Internal communication and cooperation (among different teams) • Good understanding of targeted customers and selected digital channels	

- General/shared understanding between the team
- Clear responsibilities of digital marketing employees
- Sharing of different ideas and opinions
- Trust and encouragement from the senior level to junior marketing staff
- Dedication of digital marketing employees that can both improve and innovate

To achieve a competitive advantage in digital marketing requires:

- Aligning the digital marketing strategy with the company's USP, objectives, mission
- Understanding the target audience & their feelings – emotional attachment with customers
- Observing competitors' digital marketing practices – constant learning

COMPETITIVE ADVANTAGE	
Differentiation-based	**Cost-reduction based**
• Implementing completely different digital marketing practices than the competitors (stand out from competition) • Different way of online customer communication • Talking about different things online than the competitors • Different ways for online products' presentation (e.g., visuals, colours) • Practices that spark interest, excitement and attract attention • Disruptive digital marketing practices • User driven content, up to date • Different, novel, crazy, extremely successful, sparkly • Embracing the new digital opportunities • Online brand storytelling, friendly, community sense • Based on proper research and key trends	• Use of free digital marketing tools/versions (e.g., social media posting, free website tools, free platforms) • Automation mechanisms & other digital mechanisms/software for dig. marketing cost reduction (e.g., machine learning for task automation) • Better negotiations with partners/providers • Efficient use of content –dispersion in different channels/platforms/forms • Selection of the most effective digital channels/ platforms & implement efficient campaigns • In-sourcing digital marketing tasks/processes • Audience management (better focus and targeting of online customers, better management of the frequency of ads/messages towards customers) • Focus on the conversion rates' cost, the numbers of the data driven attributions and on ROAs • Frequent review of the digital marketing tactics/ campaigns, digital channels' integration • Creation of digital marketing processes that are easy for customers to use and interact • Exciting ads/practices that lead to quick sign ups Driving more traffic through organic search results

Online customer engagement

Ways to measure it:

- Social media interactions and content consumed (e.g., likes/shares/posts/watching videos)
- Time that consumers stay on the company's website/blog etc.
- Traffic on website, purchase intent
- Cost per acquisition/per lead, website conversion rates, clicks
- Active customer responding to the company's online communication

Engaged customers drive to:

- Customers' trust, positive Word-of-mouth & referrals
- Increased brand awareness
- Stronger brand performance (e.g., market, financial)

Overall, the interviewees believe that firms with differentiation-based competitive advantage in their digital marketing can more likely enjoy high digital customer engagement than firms that focus on digital marketing cost-reduction. Moreover, it was argued that excellence in digital marketing can considerably improve firm's overall performance (e.g., customers' generation, profitability, brand's strength). Considering specifically the digital customer engagement, most participants agreed that customers that are engaged with the company online can bring new customers (e.g., through WOM, referrals) and therefore improve firm's overall performance (e.g., increased sales, customers' trust, increased brand awareness).

Other influences on digital marketing
External influences on digital marketing strategy: • Economic environment (e.g., current economic state, financial regulations in digital payments) • Political environment (e.g., Brexit, elections, governmental pressures) • Legal environment (e.g., security, privacy, legal issues, copyrights, data rights, GDPR) • Digital and technology regulations/policies, big techs (e.g., Apple, Google) • Social environment: Boycotts and social influences (e.g., BLM, gender) • Market dynamism: changing digital trends & customer preferences/wants about digital marketing • Competitive intensity
COVID19 influences: "huge impact on digital marketing activities" • Push towards digital marketing/digital (it highlighted the significance of digital marketing) • More companies went digital, digital transformation, increase in digital agencies & digital startups • Changed online customer's consumption of digital media • Complicated digital marketing • Increased online shopping

Appendix III Operationalisation of constructs

Construct	**Scale anchors**	**Scale Items**		**Scale source**
		Dynamic Capabilities		
Sensing Capability	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	SNC1	We frequently scan the environment to identify new opportunities related to digital marketing.	Pavlou and El Sawy (2011) Decision Sciences Roberts and Grover (2012) Journal of Management Information Systems
		SNC2	We periodically review the likely effect of changes in our digital market environment on customers.	
		SNC3	We continuously try to discover additional needs and preferences of our customers for our digital market offering, of which they are unaware.	
		SNC4	We extrapolate key digital marketing trends to gain insights into what customers in our current market will need in the future.	
		SNC5	We attempt to develop new digital ways of looking at our customers and their needs.	
		SNC6	We sense our customers' needs and preferences about our digital market offering, even before they are aware of them.	
Learning Capability	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	LRC1	We have effective routines to identify, value, and import new information and knowledge from our digital market environment.	Pavlou and El Sawy (2011) Decision Sciences
		LRC2	We have adequate routines to assimilate new information and knowledge from our online market environment.	
		LRC3	We are effective in transforming existing information into new insight for our digital market offering.	
		LRC4	We are effective in utilizing knowledge into new digital marketing practices.	
		LRC5	We can effectively develop new knowledge that has the potential to influence our digital market offering.	

Integrating Capability	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	INC1	Employees from different departments in our firm are forthcoming in contributing their individual input to our company's digital market offering.	Pavlou and El Sawy (2011) Decision Sciences
		INC2	Employees in our company have a global understanding of each other's tasks and responsibilities	
		INC3	Our employees are fully aware who in the firm has specialized digital marketing skills and knowledge.	
		INC4	Our firm's employees carefully interrelate their actions to each other to meet changing conditions in the digital marketing scene.	
		INC5	Employees from different departments in our firm manage to successfully interconnect their activities to enhance our digital market offering.	
Responding Capability	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	RSC1	We are quick to respond to our customers' current needs affecting our digital market offering.	Jayachandran et al. (2004) Journal of the Academy of Marketing Science
		RSC2	Customer complaints regarding our digital market offering are not quickly responded to in our firm.	
		RSC3	When we find that our customers are unhappy with the appropriateness of our digital market offering, we take corrective action immediately.	
		RSC4	We can easily satisfy the current needs and preferences of our customers with our digital market offering.	
		RSC5	We can satisfy our customers' existing needs and preferences with our digital market offering, much better than our competitors.	
		RSC6	We have a reputation for effectively meeting customers' current demands about our digital market offering.	
Adaptive capability	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	ADC1	We can tailor our digital market offering according to our customers' expressed requests.	Lu et al. (2010) Journal of International Business Studies Krohmer et al. (2002) Journal of Business Research Monferrer et al., (2015) European Journal of International Management
		ADC2	We can quickly modify our digital market offering according to the changing customers' needs and preferences.	
		ADC3	We adapt our digital market offering adequately to changes in competitors' digital market offerings.	
		ADC4	We are capable of adapting properly our digital marketing activities to withstand the occurred changes in our online market environment.	
		ADC5	We are able to find alternative ways of completing our digital marketing tasks.	
Coordinating Capability	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	CRC1	We ensure that the output of each employee's work in digital marketing is synchronized with the work of other employees in our company.	Pavlou and El Sawy (2011) Decision Sciences
		CRC2	We ensure an appropriate allocation of various resources and tools to our digital marketing tasks.	
		CRC3	Employees in our firm are assigned to digital marketing tasks according to their task-relevant knowledge and skills.	
		CRC4	We ensure that there is compatibility between employees' expertise and work processes in relation to digital marketing.	
		CRC5	Overall, our employees are well coordinated in performing the firm's digital marketing tasks.	
Digital Marketing Strategic Approaches				
Explorative Digital Marketing Strategic approach	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	EXR1	We continually develop new digital marketing procedures (e.g., extending to new online channels) that are very different from others developed in the past.	Vorhies et al. (2011) Journal of the Academy of Marketing Science
		EXR2	We routinely introduce new digital marketing procedures (e.g., based on new digital technologies) which are daring, risky, or bold.	
		EXR3	We consistently use market knowledge to develop new digital marketing processes (e.g., working with new affiliate partners), which deliver different outputs from the existing processes.	

		EXR4	We use marketing knowledge to "break the mold" and create new digital marketing processes not used before e.g., new forms of online customer communication).	
Exploitative Digital Marketing Strategic Approach	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	EXL1	We consistently re-examine information from previous projects and/or studies to modify existing digital marketing processes (e.g., improving the online channels' functions).	Vorhies et al. (2011) Journal of the Academy of Marketing Science
		EXL2	We routinely adapt existing ideas (e.g., online content adaptation) when developing new digital marketing processes.	
		EXL3	We incrementally and routinely improve our existing digital marketing procedures (e.g., digital marketing optimization).	
		EXL4	We focus changes in our digital marketing procedures (e.g., optimizing the digital marketing expenditure) on improving efficiency.	
Ambidextrous Digital Marketing Strategic approach	Not applicable	Not measured through scale items. Interaction technique relied on methods and procedures recommended by Ping Junior		Based on Ping (1996) Journal of Management
Competitive Advantages				
Differentiation-based Competitive Advantage	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	DCA1	Compared to our competitors' digital market offerings, our offering provides more unique benefits to customers (e.g., entertainment, personalized experience, etc.)	Li and Zhou, (2010) Journal of Business Research Kim and Atuahene-Gima (2010) Journal of Product Innovation Management Song and Parry (1997) Journal of Marketing
		DCA2	Our company creates digital marketing content which is of higher quality than that of other competing firms.	
		DCA3	Our digital market offering is clearly superior to competitors' offerings in terms of meeting customers' needs and preferences.	
		DCA4	Product presentation (e.g., in terms of visual display and textual attributes) in our digital channels is unique.	
		DCA5	Our firm's digital market offering provides customer solutions not available by other competing firms.	
		DCA6	Our digital market offering is unique and would be difficult to be replicated by other firms.	
Cost-reduction-based Competitive Advantage	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	CCA1	Compared with our main competitors, we achieve higher efficiencies in our digital marketing operations (e.g., dispersing content in different channels/forms).	Kim and Atuahene-Gima (2010) Journal of Product Innovation Management Li and Zhou, (2010) Journal of Business Research Langerak (2003) Journal of Strategic Marketing
		CCA2	Our company achieves cost benefits from the efficient use of digital marketing tools (e.g., exploiting free usage) and platforms (e.g., targeting the right customer groups).	
		CCA3	Using automation mechanisms (e.g., machine learning) and digital software (e.g., artificial intelligence) has decreased our digital marketing costs.	
		CCA4	We are realising cost reductions in our digital marketing expenditure through better negotiations with our partners (e.g., ad servers) and providers (e.g., analytics service providers)	
		CCA5	Our company enjoys higher cost advantages than competing firms, in performing its digital marketing processes and delivering its offering.	
		CCA6	We provide superior customer value than our competitors by charging customers lower prices online for our products.	
Customer engagement				
Online Customer Engagement	Seven-point Likert-type scale anchored: (1 = "strongly disagree,"	CEN1	Interacting with our company online, gets customers thinking about our products/ services.	Hollebeek et al. (2014) Journal of Interactive Marketing Kim and Johnson, (2016) Computers
		CEN2	Interacting with our company online, stimulates customers' interest to learn more about our products/ services.	
		CEN3	Customers spend a lot of time interacting with our company online.	

	7 = "strongly agree")	CEN4	Our customers are actively participating in our company's online activities (e.g., social media channels, product reviews).	in Human Behaviour Hall-Phillips et al. (2016) Journal of Business Research
		CEN5	Our customers are proud to interact with our company online.	
		CEN6	Our customers do not like to talk positively about our company with others online.	
		CEN7	Our customers tend to recommend our company online to anyone who sought their advice about our company.	
Firm performance				
Market Performance	Seven-point Likert-type scale anchored: (1 = "much lower", 7 = "much higher") compared to competition	MAP1	Customer satisfaction	Brodie et al. (2007) Journal of Interactive Marketing Trainor et al. (2011) Industrial Marketing Management Javalgi et al. (2005) International Marketing Review
		MAP2	Customer retention/loyalty	
		MAP3	New customer acquisition	
		MAP4	Customer lifetime value	
		MAP5	Customer share	
		MAP6	Market share	
Financial Performance	Seven-point Likert-type scale anchored: (1 = "much lower", 7 = "much higher") compared to competition	FIP1	Sales turnover	Trainor et al. (2011) Industrial Marketing Management
		FIP2	Sales growth	
		FIP3	Profits	
		FIP4	Profit growth	
		FIP5	Return-on-Investment (ROI)	
		FIP6	Return-on-Assets (ROA)	
Moderators				
Market Dynamism	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	MAD1	In our kind of business, customer preferences regarding digital marketing trends change quite a bit over time.	Jaworski and Kohli (1993) Journal of Marketing
		MAD2	Our customers tend to have new needs regarding digital market offerings all the time.	
		MAD3	Sometimes our customers are very price-sensitive in their online purchases, but on other occasions, price is relatively unimportant.	
		MAD4	We are witnessing demand for our products and services online from customers who never bought them before.	
		MAD5	New customers tend to have needs and preferences about our digital market offering that are very different from those of our existing customers.	
		MAD6	We cater to many of the same customers online that we used to in the past.	
Competitive Intensity	Seven-point Likert-type scale anchored: (1 = "strongly disagree," 7 = "strongly agree")	COI1	Competition in our industry from other companies using digital marketing approaches is cutthroat.	Jaworski and Kohli (1993) Journal of Marketing
		COI2	There are many online "advertising wars" in our industry by companies that apply digital marketing activities.	
		COI3	Any type of digital market offering that one competitor provides, others can match readily.	
		COI4	Price competition between companies that use digital marketing approaches is a hallmark of our industry.	
		COI5	One hears of a new competitive move from a firm that uses digital marketing almost every day.	
		COI6	Our competitors that apply online marketing activities are relatively weak.	