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The Transformation of Digital Strategy and Value Creation in Omnichannel Organisations: The Case of the Gambling Industry

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Abstract

Digital transformation strategy (DTS) involves redesigning various organisational operations to encompass digital technologies and achieve business objectives. In this study, we explored digital strategy and value creation shifts in omnichannel organisations that aimed to deliver seamless online and on-premises (dual-mode) customer experiences. Using comprehensive data on the gambling industry, we focused on the long-term effects of dynamic relationships among multiple DTS events over time. Building on digital strategy and value-creation theory, we observed and analysed organisational changes linked to technological shifts in omnichannel organisations during turbulent times and disruptions. Herein, we discuss the balance between online and on-premises service channels in terms of a DTS pathway, viewing it as a dual-mode value-creation process. By exploring this dual-mode value-creation process, we contribute to DTS theory and omnichannel operations. Furthermore, we enhance theory by unveiling the impact of shifting digital strategy perspectives on the transformation of omnichannel organisations in dynamic and disruptive business environments. We also present strategic propositions for planning and realising DTS requirements for omnichannel service providers in a broad context.

Keywords: digital transformation strategy, value creation process, omnichannel, exploratory research, gambling industry

1   Introduction

Digital transformation (DT) has recently emerged as a major strategic focus for companies across different sectors. DT refers to developing and implementing strategies for using digital technologies (Bharadwaj *et al.*, 2013) to transform firms' traditional operational models (Li, 2020a), activities, processes, and capabilities (Correani *et al.,* 2020), while improving their efficiency, performance, profitability, and sustainability (Hess et al., 2016; Vial, 2019). Companies devise digital transformation strategies (DTSs) to redesign and reform their operations and create value (Correani et al., 2020). Previous studies have highlighted significant challenges that hinder DT initiatives (Hess et al., 2016; Vial, 2019; Hanelt et al., 2021), the success of which depends on companies successfully managing transitions from current states towards desired future states by using emerging intelligence to frequently evaluate and recalibrate their vision and strategies (Li, 2020a).

During disruptions, such as catastrophic events, transportation/logistics disturbances, and epidemic outbreaks, companies may be forced to digitally transform their operations and use multiple channels to reach their customers and survive (Queiroz et al., 2020). For example, the COVID-19 pandemic severely disrupted companies' operations, with many employees required to work remotely online (some for the first time). DT activities leverage digital technology to change an organisation's value proposition, reshape its overall organisational identity, and redefine its strategic focus (Wessel *et al.*, 2021). Environmental dynamism, social and technological evolutions, and various disruptions in recent decades have led businesses to develop digital strategies (Bharadwaj *et al.*, 2013; Karimi & Walter, 2015) and continuously realign and recalibrate their operations (Yeow *et al.*, 2018). However, as organisations shift towards digital strategies, any misalignments between those emergent strategies and the resources needed to

manage tensions and environmental dynamism should be thoroughly considered (Yeow *et al.*, 2018). Specifically, to align strategic responses during disruptions, it is vital to determine the current and desired future digital strategies and their fit with organisational settings, processes, capabilities, and operations (Karimi & Walter, 2015; Baiyere *et al.*, 2020).

DT is crucial for omnichannel organisations (Brynjolfsson et al., 2013; Bell et al., 2014), which, in recent years, have digitally transformed their on-premises (physical) and online operations and devised digital strategies that encompass both customers and the organisations themselves. During the COVID-19 pandemic, companies expanded their omnichannel services (Ivanov & Dolgui, 2020; Remko, 2020; Sharma *et al.*, 2020) in response to government restrictions. This expansion necessitated the extensive revision of existing DTSs for some companies and the introduction of online channels for others (Wimelius *et al.*, 2020). Hence, the transition to digital operations forced companies to reshape their DTSs and focus on omnichannel approaches (Tilson *et al.*, 2010) to maintain their businesses, which meant sustaining their existing operations while managing transitions to digital ways of working (Li, 2020a).

There is a need for more in-depth research to investigate the balance between on-premises and online channels. What remains unclear is how organisations form their omnichannel DTSs and how they create, operate, and transform their value-creation processes during periods of imbalance and change that force them to develop dual online and on-premises digital strategies (Bell et al., 2014; Gallino & Moreno, 2014). Thus, in this study, we investigated DTSs involving dual online and on-premises channels to examine the balance between those channels as a strategic response to disruptive events, and we considered, through a transformation lens, how DT unfolds to ensure the achievement of digital strategy and value creation. Our research questions were as follows: (1) how does a DTS, as a strategic response, sustain a balance during disruptive events in omnichannel

organisations? and (2) how do omnichannel organisations balance their digital strategy and value-creation efforts by adopting a dual approach? We addressed the first question by examining the gambling industry as an example of an industry with a dynamic business environment that has developed DTSs using an omnichannel approach. Regarding the second question, we focused on three key gambling operators in the United Kingdom (UK) and considered the shifting omnichannel balance of their strategic services. We applied an interpretive approach to DTS value creation, which enabled us to identify the main factors influencing the balance between online and on-premises channels in omnichannel organisations in dynamic environments over a period of 10 years.

We selected the gambling industry for two reasons. First, the market size of this industry has greatly increased, since gambling and betting activities in 2020 involved almost one in four adults (24%), compared to around one in six (17%) five years before, and end-customers now have now access to services via mobile devices (Gambling Commission, 2021). Second, the COVID-19 pandemic had a huge impact on commercial gambling/betting organisations because most of their operations were previously conducted on their premises, and they were forced to radically shift to digital strategies and an omnichannel approach to balance online and on-premises channels and reach customers differently. This meant that gambling providers had to rapidly transform their operations and value-creation processes. Therefore, we chose the gambling industry for omnichannel analysis due to the high relevance of DTSs to the industry and because it is an evolving industry with a high societal and individual impact (IBISWorld, 2022).

The structure of the paper is as follows. First, we present a literature review that explains the relevant theoretical background and framing of our study, The methodology section then covers the research design, process, and decisions that underpinned this work. This is followed by the

findings, including an initial exploration of the gambling industry and the events that triggered strategic responses in omnichannel organisations, together with an in-depth investigation of three cases in the UK gambling industry, which exemplify digital strategy shifts in omnichannel organisations' DTS value-creation pathways. Finally, we present our overall observations, as well as the implications for theory and practice, and we provide grounds for further research in the field.

2 Prior Research

2.1 Digital Transformation and Digital Strategy

Digital Transformation (DT) refers to achieving strategic objectives by leveraging the various new capabilities afforded by digital technologies (Bharadwaj *et al.*, 2013). This involves changing a company's operational models (Li, 2020a), activities, and processes (Correani *et al.*, 2020) to improve efficiency and performance (Hess *et al*., 2016; Vial, 2019). Vial (2019) defined DT as 'a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies' (p. 121). Vial (2019) identified three key aspects of DT: 1) the broad individual, organisational, and societal context; 2) improvement as the expected outcome of DT; and 3) the means of achieving DT (information, computing, communication, and connectivity technologies) as technology changes. Legner *et al.* (2017) considered the contextual aspect and expanded it to provide a clearer definition of DT. The second aspect (improvement) was still largely disregarded by mainstream DT studies at that time (Agarwal *et al.*, 2010; Kane *et al*., 2015; Westerman *et al*., 2014), and the third aspect (the achievement of DT) was based on the evolving role of digital technologies (p. 471), as articulated by Bharadwaj *et al*. (2013).

The notion of *digital strategy* has developed rapidly (Hess *et al*., 2016; Chanias *et al*., 2019). It has been used as an umbrella concept to refer to an organisation's information technology (IT) strategy, including digitisation, digitalisation, and DT for different functions and business processes, as well as the organisation's overall DTS (Kane *et al*., 2015; Hess *et al*., 2016; Chanias *et al*., 2019). More recently, digital strategy has been linked to business strategy facilitated, supported, or enabled by digital technologies (Li, 2022). DTSs are increasingly seen as strategic plans for achieving long-term business objectives by exploiting existing and emerging digital capabilities (Bharadwaj *et al.*, 2013; Ross *et al.*, 2017).

Early digital strategy studies focused on organisations' IT strategies and various business functions, primarily in terms of 'a functional-level strategy that must be aligned with the company's chosen business strategy' (Bharadwaj *et al.*, 2013). However, over the last decade, as the business infrastructure has become digitised, leading to increased interconnections among products, processes, and services, the critical role of digital technologies in transforming strategies, business processes, capabilities, products, services, and intercompany relationships has increasingly been recognised (Yeow *et al.*, 2018). Consequently, the role of a digital strategy has shifted from a functional-level strategy aligned with but subordinate to business strategy to one that reflects a fused IT (Bharadwaj *et al.*, 2013) and business strategy (Adner *et al.*, 2019; Wessel *et al.*, 2021; Li, 2022). New digital capabilities afforded by digital infrastructure and services allow companies to reevaluate their choices at different organisational levels to improve performance and competitiveness (Yeow *et al.*, 2018).

2.2   Conceptualising DT and the Value-Creation Process

According to Vial (2029), *'disruptions trigger strategic responses from the part of organisations, which occupy a central place in DT literature. Organisations use digital technologies to alter the*

value-creation pathways they have previously relied on to remain competitive' (Vial, 2019, p. 122). This understanding is illustrated in Figure 1 and will be extended to a discussion of omnichannel organisations' value transformation processes when disruptions trigger the use of technologies.

Figure 1 here

Figure 1. DT processes during disruptions (Vial, 2019)

Digital strategies involve deliberate choices about *value creation* and *capture* within a company and changing the structure of the economic relationships in which they are embedded (Bharadwaj *et al*., 2013; Ross *et al*., 2017; Park & Mithas, 2020). Therefore, instead of focusing on being competitive in a given market, digital strategies are concerned with choices that reshape the marketplace and the links of value chains and value networks, thereby changing the competition itself and how value is created and captured (Yeow *et al.*, 2018).

Competition-oriented organisations focus on digital strategies based on their ability to leverage digital technologies to accomplish their goals (Mithas *et al.*, 2013). Thus, their digital strategies become digital business strategies (DBSs), defined as 'organisational strategy[ies] formulated and executed by leveraging digital resources to create differential value' (Bharadwaj *et al*., 2013, p. 472). DBSs continuously align digital resources and capabilities to create differential value through transformation (Kane *et al.*, 2015). DTSs underpin the development and implementation of DT (Hess *et al*., 2016), and they generally align with former strategies rather than replace them (Chanias *et al.*, 2019). The exploration and exploitation of value through the affordances of digital technologies is a critical challenge for companies in designing their DTSs to achieve *value creation* (Chanias *et al.*, 2019; Vial, 2019).

Researchers increasingly agree about the value of having a digital strategy *(*Kane *et al*., 2015; Hess *et al*., 2016; *Chanias et al*., 2019; Correani *et al*., 2020; Hanelt *et al*., 2021; Kraus *et al., 2022)*, particularly during disruptions and turbulence when a *value transformation process* is required (Karimi & Walter, 2015; Vial, 2019; Li, 2020a, 2020b). A value transformation process includes four areas (Vial, 2019), as shown in Table 1: 1) value propositions, 2) value networks, 3) digital channels, and 4) agility and ambidexterity. Organisations should study these four areas to explore the potential of each DTS pathway and what kinds of decisions should be made to ensure the success of strategic responses in times of turbulence and disruption. Turbulence and disruption affect organisations' strategic choices as well as the availability of technological capabilities for formulating and transforming value-creation processes (Vial, 2019).

Table 1. Transforming a value-creation process (Vial, 2019)

Table 1 here

In this study, we explored omnichannel organisations' value transformation processes in the dynamic context of environmental disruptions. We focused explicitly on the gambling industry because it provided an exemplary case. The conceptual basis of the research and analysis is illustrated in Figure 1, which is elaborated on for omnichannel organisations. Based on our dataset, we explored the disruptions and turbulence that caused a recalibration of the value of digital strategies, focusing specifically on value transformation processes and how they were developed. The specific details of omnichannel organisations and their characteristics are presented in the following subsection to provide information about the context and the distinguishing differences in digital strategy formulation compared to other organisations.

2.3 Omnichannel Organisations

The rapid development of digital technologies, infrastructures, and services has facilitated the emergence of an electronic space that coexists and often augments and intertwines with our physical spaces and places (Li *et al.*, 2010). Furthermore, the capacity of digital technologies to redefine relationships between people in different places and resolve conflicts between the fixity of locations and the geographical flexibility of their use have been the main sources of strategic and organisational innovation (Li, 2020a). These developments have led to the proliferation of omnichannel services, particularly in retailing and other service industries (Brynjolfsson *et al.*, 2013; Jocevski, 2020), and they are relevant to heavily regulated industries, such as gambling, where significantly different rules apply in different regions, countries, and jurisdictions (Dwivedi *et al.*, 2022, 2023).

Omnichannel organisations use digital technologies to 1) break down the divide between online and on-premises channels by allowing customers to employ mobile devices to search for and compare products and services, 2) integrate multiple distribution channels (Verhoef *et al.*, 2015), and 3) provide easier customer access and more extensive engagement than single- or multichannel modes of operation (Sun *et al.*, 2020). Brynjolfsson *et al.* (2013) argued that omnichannel services provide a seamless and consistent customer experience, covering *'a full range of touchpoints and operate cross-channel management'*. Omnichannel platforms allow sellers to adapt their selling strategies based on customers' needs, and they give customers seamless access to services and products without losing information (Shen *et al.*, 2018). Verhoef *et al.* (2015) defined omnichannel organisation 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 are optimised' (p. 176). Omnichannel organisations differ from multichannel

organisations by integrating multiple channels to create a seamless customer experience underpinned by service consistency and transparency (Li *et al.*, 2018; Quach *et al.*, 2020).

Researchers examining omnichannel organisations have proposed methods for studying cross-channel competition between key stakeholders (Brynjolfsson *et al.*, 2009), the impact of implementing 'buy online and pick up in store' (BOPS) strategies (Gallino & Moreno, 2014), and the impact of omnichannel initiatives on demand and operational efficiency (Bell *et al.*, 2018). The literature has provided evidence of related product sale trade-offs (Bell *et al*., 2014) and, recently, the impact of store openings on online and on-premises sales (Singh *et al.*, 2020). Examples of this impact have been illustrated regarding the effectiveness of on-premises/online targeting and whether and how online shopping may complement or cannibalise on-premises sales (Luo *et al.*, 2020).

Researchers of omnichannel organisations have recently argued that research should focus on how companies choose, switch, and balance channels when selling new and used products and how they should manage their suppliers and reverse channel infrastructure in dematerialised organisations (Agrawal *et al*., 2021). The integration of brick-and-mortar and online stores into the new omnichannel paradigm focuses on four questions (Caro *et al*., 2020): 1) What is the contribution of on-premises versus online stores? 2) How effective are distribution strategies within last-mile logistics? 4) How can distribution be redesigned to account for the fulfilment of orders by multiple means (e.g., via a distribution centre, store, or even a competitor)? and 4) What inventory repositioning problems arise? Most omnichannel researchers have focused on product-centric markets (Zhou *et al.*, 2020). However, in service-centric markets, such as banking (and, in our case, gambling), it is essential to consider the interpersonal interactions that govern the

industry, since the coexistence of multiple service channels can make decision-making more complex and different from product-centric models (Zhou *et al.*, 2020).

The gambling industry has extended its presence from the on-premises to the electronic and virtual worlds (Gambling Commission, 2021). The metaverse customer experience has been facilitated by technological advances and significantly shaped by laws and regulations related to gambling in different jurisdictions (IBISWorld, 2022). Furthermore, studying omnichannel organisations is critical because digitalisation affects an industry's dual operation pathway (Luo *et al.*, 2020; Quach *et al.*, 2020; Sun *et al.*, 2020; Tueanrat *et al.*, 2021). Thus, the gambling industry provided an ideal context for researching omnichannel organisations' DT in turbulent business environments and discussing omnichannel digital strategy holistically as a balance between dual on-premises and online worlds.

3   Methodology

The research followed an evidence-based approach that allowed us to critically evaluate relevant, high-quality studies and practitioners' opinions and judgments (Tranfield *et al.*, 2003; Denyer & Tranfield, 2006). The study was multifaceted, deriving evidence from existing academic research and harnessing the explicit and tacit knowledge of professionals working in the field (Myers, 2019). The approach also corresponded to an elicitation study due to its exploratory qualitative research design (Patton, 2002).

3.1   Data Collection

The data collection was primarily based on the selection of appropriate field data from an industry (the gambling industry) that has been greatly disrupted in the last decade and has responded by introducing DTS initiatives. We followed the transformation of value-creation processes in

omnichannel organisations in the gambling industry by initially investigating various triggers of DTS responses that occurred within a decade (2010–2020) due to turbulence and disruption, and we examined how these generally affected omnichannel digital strategies. We discuss the perspectives of 14 key stakeholders with vast experience in IT and DTS initiatives in omnichannel organisations in the gambling industry. We then identify the key events affecting the UK gambling industry's omnichannel organisations to explain the DTS value-creation transformation based on three cases.

We collected the secondary data for our case examples through NVivo-based text mining (NVivo 12 data analysis software) from the websites of selected companies operating in the gambling industry, the UK Gambling Commission, and annual reports, public information, and news articles held in a selection of databases (IBISWorld, The Wall Street Journal, the Dow Jones Newswire, Factiva, and Nexis). We analysed the data using NVivo to identify the events and milestones in the disruptions. We used three case studies of the gambling industry for the exploratory analysis, which provided insight into omnichannel organisations. When exploring the industry specifics of omnichannel organisations, we expected to note 'surprising' observations (Siggelkow, 2007) within the referenced decade, which we considered to be any changes that occurred outside the companies' stable operations in recent years due to digitalisation patterns and unexpected changes in the internal and external environment (i.e. the pandemic's effects, regulatory and technological changes, and/or new trends and operating models). Through the three cases, we aimed to understand the transformation of omnichannel value-creation processes (innovative service offerings, digitalised services, and outcomes) within the selected key companies (Siggelkow, 2007).

The study was conducted in two phases. In the first phase, we investigated the gambling industry worldwide. We argue that capturing knowledge in an elicitation study requires an expert sample of participants (Myers, 2019); hence, we applied a purposeful key informant sampling technique (Suri, 2011). We reviewed the digital strategies over a 10-year period and identified key events. We invited 14 key stakeholders (Table 2) with vast experience in digital strategy and operations within the UK gambling industry to discuss the findings of our initial exploration, and each provided information-rich insights based on experience. The stakeholders shared their expert knowledge of digital strategy developed via omnichannel business models in the UK gambling industry and their experience with multiple business companies worldwide over the preceding years. We conducted informal conversations, as these provided better opportunities to align the participants' knowledge with our observations of the DTS activities.

Table 2. List of interviews

Table 2 here

In the second phase, we focused on the UK market, examining three key companies as exemplary cases of omnichannel DTSs. We selected the three cases primarily based on the gambling company's market share in the UK, which is one of the largest gambling markets in the world. We employed a rigorous selection process, then compared the cases and examined the operators' DTS pathways. The selected companies operated in the same country, followed the same regulatory requirements (for licensing), and were omnichannel service organisations. All three organisations are publicly traded gambling operators, and the observation timeframe selected was 2010–2020.

3.2 Data Analysis

We applied an interpretative field research approach (Walsham, 2006) to investigate the impact of various disruptions/events on omnichannel organisations' DTS responses, specifically considering

channel balance. As presented in Table 3, the research design combined observations, discussions, and stakeholder interviews with insights gained from secondary data to achieve a holistic view of the DTSs. Specifically, in our analysis, we explored how DTSs were triggered by disruptions at the industry level and how these disruptions/triggers influenced the DTS balance and, consequently, the transformation of value creation in each of our cases (Kaplan & Duchon, 1988; Venkatesh *et al.*, 2013).

We based our study on an abductive process that allowed us to observe interesting events that triggered omnichannel strategic service responses in the gambling industry and to explore the manifestation of DTSs within the last decade. The abductive approach was appropriate because the DTS research required long-term observations (Orlikowski & Baroudi, 1991) to identify the transformational potential of value creation in organisations and provide evidence of digital changes during the defined timeframe (Gable, 1994).

Table 3. Overview of the collected data

Table 3 here

We applied the principle of the hermeneutic circle in our analysis to iterate understanding and interpretation (Klein & Myers, 1999) of the DTS value-creation process. We used the circle to consider individual example cases of omnichannel gambling organizations and the gambling industry to which they belonged (Myers, 1997; Klein & Myers, 1999). We collected data from both primary and secondary sources (i.e., interviews with key stakeholders, observations, and archival data; Table 3) to inform our narrative analysis (Myers, 2019). The data informed our understanding of all stages of the DTS value-creation process (Figure 1).

In our analysis, we identified themes in our data, coded them using qualitative methods, and applied compare-and-contrast techniques to triangulate our data sources (Boyatzis, 1998; Braun & Clarke, 2006). We analysed the primary and secondary data to identify major emerging themes (Braun & Clarke, 2006). We then examined these themes in greater detail by iteratively reading and comparing the material. Additionally, we rechecked the consistency of our coding to classify and organise the subthemes across our dataset. Finally, we conducted a reliability analysis by summarising our findings, evaluating them, cross-checking them with our research team, and confirming them with the interview participants (the coding scheme is presented in Appendix A1).

We applied Pettigrew's (1987, 2012) logic of *context and action* to explain the transformation process for value creation, and we obtained insights through the analysis and by reflecting on the findings. We started the analysis at the industry level of the UK gambling industry to explain how the industry has evolved over the last decade (the period of this study). We then traced and defined the various changes and disruptions that triggered omnichannel strategic responses during the last decade. We achieved this by analysing our secondary data and the interview material while following the coding scheme and selecting excerpts that supported each of the findings. We later confirmed the narrative with the interview participants as it unfolded. We explored omnichannel strategic responses in depth through the three cases of UK omnichannel gambling operators to investigate their strategic responses to the disruptions, the way they applied DTSs that combined online and on-premises channels, and how they balanced this combination to create valuable outcomes. Finally, we identified relevant, representative reflections in the dataset to illustrate emerging themes, relate our findings to the existing literature on DTS value-creation processes, and provide a framework for proposed further research and practice for omnichannel organisations.

4 Findings

The following sections explain the context, observations, discussions, and cases based on a narrative approach, supported by indicative excerpts (D1–D14) and illustrations drawn from the discussions that enhanced our observations based on the secondary data.

4.1 Industry-Level Context

Over the last decade, the ease of gambling through online portals, combined with the addictive nature of gambling, has boosted the revenues of the gambling industry. The emergence and popularity of remote (online) gambling and betting services has been a strong driver of growth. Online gambling enables consumers to access services easily and conveniently with more information to hand, allowing them to make more informed decisions about their wagers and thus increasing their winning odds and betting frequency. The proliferation of mobile devices has intensified this trend by allowing consumers to place bets 'on the go' (live betting) directly from their mobile devices. This has rapidly increased the number of bets and transactions made online.

The industry's dual (online and on-premises) tension appeared during the transition from in-person operating models to digital ones. Multiple factors rapidly transformed the gambling industry and allowed a new era to emerge. A feature of the gambling industry is that providers must comply with existing legislation in different localities. Legal frameworks, gambling policies, and regulations have triggered change throughout the last 20 years, influencing how the industry operates and influencing companies' business development plans. In some cases, the uncertainty caused by regulation changes appears to be a key factor encouraging gambling providers to postpone DTS investments and implementation plans.

The digital strategy shifts in the omnichannel reference companies were prompted by multiple events during the transitional DTS period that sometimes led to the companies providing exclusively digital online services (under pressure from disruptive events or DTS changes) to enhance value creation. These complex and dynamic events provided interesting findings regarding the switch to digital operations. However, companies have also tried to stabilise their physical positions during change by offering new on-premises digital services. Therefore, the different events could be contradictory or complementary, depending on the circumstances. The transition from omnichannel to digital operations required a dual strategic balance between two opposites existing within a unified whole: an internal boundary that highlighted the opposing elements and an external boundary demonstrating the synergy between them.

4.2 Triggers of Strategic Responses to Disruptive Events in the UK Gambling Industry

During the last decade, various events and disruptions have occurred that triggered the recalibration efforts of omnichannel gambling organisations' strategies and operations. These events and disruptions, as well as the necessary adjustments to strategy and operations, are represented through the themes presented in the following sections.

Theme 1: External disruptions and the intensity of digitalisation in omnichannel organisations

Advances in digital technology and the wide use of the internet have unlocked omnichannel opportunities in several industries, thereby leading them to offer new services. In gambling—one of the oldest activities in the world and a major commercial industry—the legalisation of online gambling and live betting has revolutionised the industry*: 'The gambling industry, especially in the UK, is a highly regulated one ... There are tight legal frameworks and strict laws to minimise potential harm to society' (D4).*

Technological advances in operations have made omnichannel shifts possible. Technologically enabled services (such as virtual and augmented reality applications) have allowed customers to access online services anywhere, anytime, using their mobile devices: *'Such technologically enabled services facilitate a seamless metaverse customer experience, encapsulating different service provision channels across multiple touchpoints' (D7).*

The advent and adoption of new technologies have made omnichannel services available to a broader market (geographically and operationally) while providing companies with the necessary customer data to customise services and track addictions, if any. The shift to omnichannel service provision became the norm for the gambling industry during the COVID-19 pandemic. Companies faced a rapid transformation of their activities towards omnichannel service provision, which affected their operations and business models.

The pathway towards omnichannel service provision is not without challenges. The limited availability of licences in the gambling industry and the constant need to comply with new/existing legislation have created operational barriers: *'As the implementation of new technology is subject to legislation, the cost of changing/updating technology is high, rendering investments in technology uncertain' (D2).*

Furthermore, other challenges had to be considered: *'The aim of companies to integrate their provision of omnichannel services has created a further barrier, as due to such investments being risky, the necessary technology is not yet in place' (D13).*

Companies have engaged in mergers and acquisitions (M&As) to deal with these challenges in the struggle to secure viable profit margins. Several events in terms of gambling regulations and

technological advances have triggered the digitalisation of the gambling industry and resulted in the unavoidable evolution of omnichannel organisations within the last decade.

Theme 2: M&As with a digital focus

Starting up omnichannel services requires considerable capital investment and digital infrastructure.

Transforming the omnichannel approach has had a significant digital focus in the gambling industry. This was evident in the multiple mergers and acquisitions among digital infrastructure providers. Companies with a digital focus were merged with or acquired by gambling companies to boost their digital omnichannel presence and transform their operations (D7).

To create a business with the potential to achieve a sustainable competitive advantage, new entrants invested heavily in technology (software and platforms) to match the extensive coverage achieved by industry giants. Such investments are costly and highly risky (as mentioned in Section 4.1).; hence, companies engage in M&As in three different ways:

1) A merger with an IT vendor to co-create and implement an IT strategy by providing all the necessary IT infrastructure and support for the adoption of technology.

2) An acquisition by a large, established service provider to provide 'the necessary resources and capabilities for "bricks and mortar" operations and infrastructure. IT [helps companies] survive and prosper in providing omnichannel services through digitally enabled operations' (D5). Such a move can enable new entrants to achieve better market share and presence through single-market (country-wise) or global scope (multinational) M&As.

3)   Acquiring online start-ups to provide fresh, innovative ideas and technological solutions for online and omnichannel service provision, while helping established companies obtain more licences than others and operate in more than one country, area, or sector.

In the gambling industry, high merger activity over the past five years suggests that it has been difficult for companies to consolidate their positions and increase their market shares. Mergers occurred between gambling operators with high levels of DT, between gambling operators and gambling technology vendors, or between established operators and newly founded start-ups. Since the gambling industry is highly regulated, any gambling service provision must be covered by a licence. Hence, M&A activities provide a way to obtain licences for various services while operating in multiple locations and online.

Theme 3: Technological advances and innovative services

Technological innovations enable companies to offer omnichannel services by establishing new processes or digitalising existing ones that enable customers to access their services anytime and anywhere. These advances have enabled companies to launch new services and enhance the omnichannel customer experience. Technology-enabled omnichannel services facilitate investment activity for the digitalisation of on-premises and online operations. Thus, companies have invested in big data and software to identify and exploit trends by, for example, gathering data on consumers' betting preferences and habits. This has allowed them to tailor advertisements and personalised offers to customers:

> *The data evolution has facilitated more informed decisions about the omnichannel services of gambling and explained gambling behaviour in various ways (D5).*

In the gambling industry, services need to be fun and accessible to customers, profitable for companies, and transparent from a legislative perspective. Technological innovations, such as augmented and virtual reality, can be used to improve operations by providing interactive gambling and lifelike playing experiences (e.g., a casino experience in an online or virtual environment). Analytical tools have become increasingly popular, improving odds-betting calculations, and providing customers with more attractive odds, resulting in greater payoffs.

> *There are many new and innovative services nowadays, and they increase with the use of augmented reality and mobile phones for gambling. Now, there is an opportunity to gamble in-store in a digitalised way or even on the go from our phones, but in a way that feels like we have the in-store experience. The digital transformation of gambling operations is now more evident than ever before (D1).*

Moreover, technological applications, such as multiple safe payment, self-exclusion, and gambling security options using cryptocurrency and blockchains, maintain the privacy of sport bettors while allowing sport bookmakers to operate at lower costs—applications such as fingerprint recognition and facial recognition help build trust and keep information secure.

Theme 4: Omnichannel organisations and DTS shifts.

The evolution of technology has blurred the divide between online and 'bricks and mortar' operations: *'Omnichannel platforms are moving away from the current multichannel or cross-channel formats whereby operators adapt various systems for each channel, and there is no coherent and integrated data analytics strategy for a single channel' (D12).*

When companies face challenges administering multiple systems that should be integrated into a single platform, advanced technology encourages a dynamic DTS approach to facilitate accurate decision-making and provide solutions to various problems. For instance, in the gambling industry, smart gambling software gives operators the ability to track (suspicious) customer behaviour and protect both customers and companies. Regarding data management, DTS options allowing for real-time transactional data processing enable operators to manage fraudulent activities and comply with regulatory frameworks. Identifying risks facilitates immediate responsive actions to mitigate those risks:

> *What we have seen over the last few years in the industry is the increased popularity of online and mobile services; people can access gambling services on the go from anywhere (D9).*

> *Despite the popularity of digital services in gambling, there are multiple challenges in integrating multiple platforms. When gambling companies offer omnichannel services, they introduce great complexity regarding the platforms and how to deal with multiple data sources and systems (D11).*

Omnichannel DTSs rely on data analytics and tailored services to improve the customer experience through personalised offerings. Registered customers create profiles for omnichannel services, and operators can easily monitor their behaviour, verify their preferences, and develop marketing and business strategies to enhance offers in line with the customer's expectations. Omnichannel organisations allow the on-premises experience to evolve into a smart service experience based on technology-enabled platforms that successfully integrate online and on-premises gambling services while providing complete customer behaviour analysis. Through the interconnectivity of

gambling technology, the aim of a DTS is to provide an enhanced customer experience through omnichannel services and a seamless flow of information, communication, and operations. For gambling operators, developing omnichannel DTSs is both a major challenge and an opportunity to enhance and expand their market shares and the quality of their dual-mode operations. Our analysis at the gambling industry level suggests that DTS responses to disruptive events are manifested as follows in omnichannel organisations:

- In a highly regulated industry, regulations allow the entry of new companies with an online presence, allowing operators to expand the services of physical stores in digitalised ways.

- M&As expand companies' digital services when they collaborate with digital platform vendors or even migrate their operations to competitors while expanding their market scope worldwide.

- The increase in the rate of investments in technology and intangible assets relevant to digitalisation has enabled companies to strengthen their supply chain relationships with technology providers. Technological advances have increased service offerings to provide an enhanced customer experience.

- All these manifestations have resulted in omnichannel services gaining a more substantial online presence, reducing the revenue of in-store operations, and limiting their on-premises presence.

4.3 Strategic Responses of UK Gambling Operators and the DTS Omnichannel Balance

In the following sections, we describe three exemplary cases of UK gambling operators and examine their change tensions to provide in-depth insights into the impact of DTSs on value-creation transformation processes for omnichannel organisations that have experienced digital

shifts of services (if any). The corresponding value of the transition from online to on-premises services, and vice versa, creates dual online and on-premises services and corresponding changes in the DTS balance. This on-premises and online (omnichannel) duality is a feature of DTSs that influences digital strategy shifts and the DTS value-creation pathway. Operators can shift to on-premises or online services or maintain an omnichannel strategy.

4.3.1 Exemplary Cases: UK Gambling Operators

We present three cases of major UK gambling operators as indicative examples of transformative value creation while maintaining a dual balance of their DTS pathways. Triangulating the information from secondary data sources and discussions with stakeholders who had vast experience in the field provided us with background information about DT advances within the gambling industry. The three cases we selected were Flutter Entertainment plc, Entain plc, and William Hill plc, which had market shares of 12.5%, 12.1%, and 8.0%, respectively. Each gambling operator adopted a slightly different digitalisation and DTS omnichannel pathway, as we will show in the following sections for each case.

Case A: Flutter Entertainment plc is an international omnichannel gambling operator formed by a merger between Paddy Power plc and Betfair plc. The merger resulted in the company becoming the most prominent gambling operator (in the UK), with the most substantial online and on-premises presence within the gambling industry. Follow-up M&As expanded the company's operations worldwide through online gambling channels, with a particular focus on integration and maximising economies of scale. Flutter Entertainment has invested heavily in technology and product development to strengthen its online revenue streams (the company's central focus). The company's DTS incorporated a new product development plan for digitalised service offerings, a

multimillion-pound digital marketing campaign, and the use of big data. Approximately 52% of company revenue is derived from online gambling services.

Case B: Entain plc (formerly known as GVC Holdings) is a UK-based international gambling company with omnichannel services. The company offers extensive services via online and on-premises channels through both its Ladbrokes and Coral brands. The company was known mainly for the solid on-premises presence of its UK-wide retail shops. Following a 2018 regulation change limiting fixed-odds betting terminals, Entain closed approximately 450 Ladbrokes Coral establishments and developed an alternative strategy to retain its omnichannel services. The DTS was necessary due to regulatory changes, which forced Entain to strengthen its online presence. In 2018, with the acquisition of Ladbrokes Coral, the company's DTS focused heavily on its online gambling services and collaboration with the more prominent gambling IT vendor, Playtech. A long-term agreement ensured that future Entain brands would operate online through Playtech services, further establishing the company's online presence.

Case C: William Hill plc provides omnichannel gambling services as both a high-street bookmaker (on premises) and online. William Hill based its omnichannel services on a DTS designed to balance both online and on-premises services with digital service offerings. However, the most significant revenue is generated by its online presence. The DTS led to the launch of new digital service offerings, including new mobile gambling applications, single wallet payments, personalised odds based on social media, and targeted and personalised interactions with customers through online platforms. Additionally, it strengthened the company's relationships with the most prominent IT gambling software supplier (Playtech) to further its digitalisation pathway and stabilise its omnichannel services.

4.3.2   DTS Pathways in Omnichannel Organisations Focusing on Value Creation

Analysing each case through a DTS lens provided insight into the different digital strategies, despite all three companies pursuing the same objective—determining a DTS pathway. The dual omnichannel organisation of each gambling operator enhanced the companies' revenue streams. Although the three companies generated considerable percentages of their revenue through online channels, their on-premises presence remained strong and continued to attract and engage customers.

The Case A DTS pathway followed an exploratory digital strategy focused on value creation, as the company had strengthened its solid online presence through M&As to expand its scope. Despite its strong on-premises presence, the company's strategy over the last 10 years has focused on digitalisation to expand the company's online channels worldwide and engage more markets. In Case A, the company introduced new online avenues and service offerings while exploring new markets and audiences. It maintained a familiar balance between on-premises and online services while focusing on maintaining and enhancing its online services.

The DTS of Case B company, due to external regulatory events, focused on change to keep overall revenues stable, which manifested in terms of value creation, since the company had to maintain stable omnichannel services while shifting the balance between on-premises and online revenue streams to boost value creation. This stability was inevitably disrupted by regulatory changes and their effects on the on-premises channel. Hence, the company focused on gaining ground through online revenue channels. The DTS change was enforced, and the company shifted its strategy towards online services, although it had a strong on-premises presence before the legal change. Mergers and collaborations with key field stakeholders supported the company's DTS, enabling it to maintain its omnichannel services with a stronger online focus.

The Case C company also enhanced its omnichannel services through a DTS while maintaining both online and on-premises revenue stability. However, it introduced radical innovation and changes into its service offerings. In Case C, the company followed a DTS pathway that focused on digitalising both revenue channels through innovative service offerings supported by new technological trends. Therefore, the focus of its DTS pathway was on value creation with a balance between the two revenue streams, with a digital focus and a DTS for both.

4.3.3   The DTS Balance in Omnichannel Organisations

The stakeholders adopted different DTS pathways in the three cases to sustain omnichannel services throughout the decade. The three companies succeeded in maintaining both online and on-premises channels. However, they had to either strengthen one of these (Cases A and B) or maintain a balance (Case C) by exploiting both capabilities through a digital pathway. Table 4 shows each company's stance regarding the different DTS pathways followed to sustain both their online and on-premises presences while balancing omnichannel services through change. Although they followed different DTS pathways, all three companies retained their omnichannel services. However, as seen in Table 4, the DTS focus shifted to maintain the omnichannel presence via one pathway or both.

Table 4. DTS effects in each case

Table 4 here

In each case, the digital strategy shift necessitated maintaining a balance between online and on-premises value streams while keeping the focus on value creation throughout the DT. However, technology imposed either opposing or supporting transformational forces. The DTSs involved a planned strategy of radical change for Case A and Case C, respectively, regarding omnichannel services. However, in Case B, although change was enforced and unexpected, the company found

a solution to stabilise services following regulatory change by shutting down many of its on-premises services.

We observed that in Case A, the company further explored the online option and invested in the vital digitalisation of online services via collaborations and investments with IT vendors. The on-premises presence still made services available; however, these were volatile (especially during the pandemic). Therefore, the company could not rely solely on the revenue from on-premises services, although some digitalisation investments followed technological trends for on-premises gambling services. In Case B, the focus of the DTS changed because the company relied heavily on its on-premises presence to maintain a loyal customer base and engagement. Despite its online services, the company became best known for its on-premises services, especially in the UK. When the disruption occurred, the strategy shifted to engaging customers online and offering more online options. This shift in focus for Case B maintained the stability of the omnichannel services, which had been disturbed by regulatory changes to on-premises services. Finally, in Case C, the company focused on strengthening and balancing both channels during the past decade, investing in technology enhancements and new digital offerings via both channels, and keeping a balance to exploit digital capabilities while staying up to date with the latest technological trends.

Table 5. The DTS balance in omnichannel organisations focusing on value

Table 5 here

Based on the preceding analysis, Table 5 shows three ways for omnichannel organisations to maintain a DTS balance, while the fourth involves changing the focus exclusively to online services to sustain the company's viability. The overall strategic balance of DTS value-creation processes is illustrated in Figure 2, which enhances the initial conceptual framework by providing more detail for omnichannel organisations facing disruption.

Figure 2. A strategic balance of DTS value transformation processes for omnichannel organisations

5 Discussion

The analysis and findings show how the omnichannel organisations responded strategically by developing DTSs to balance online and on-premises channels and reach customers. Omnichannel organisations focused on the value transformation processes in their DTSs in terms of the overall change regarding 1) the value propositions, 2) the value networks, 3) the digital channels, and 4) agility and ambidexterity in the UK gambling industry.

Value propositions for omnichannel gambling organisations rely heavily on the provision of new service offerings (Vargo & Lusch, 2008; Barrett *et al.*, 2015) to attract more customers and generate interest in both online and on-premises revenue-generating activities. Omnichannel gambling organisations can apply a range of new technologies to collect customer data through marketing analytics (Erevelles *et al*., 2016), enhance the overall gambling experience, and provide more innovative services based on customer-tailored services (Ng *et al.*, 2015) and responsible gaming. Other value propositions utilise augmented reality (Li, 2020a, 2022) to support innovative digital services (Huang *et al.*, 2017; Nambisan *et al.*, 2019; Appio *et al.*, 2021) and both online and on-premises ways of reaching customers, enabling customers to enjoy a transformed experience via both.

Value networks have been redefined in omnichannel organisations, as observed in our gambling industry examples. Multiple M&As among technology and gambling organisations have enabled operators to acquire more digital capabilities and data insight (Yeow *et al.,* 2018), with a view to fostering collaboration and value co-creation based on customer demand and feedback for

innovative products. The value networks of competitors and collaborators have been reshaped, creating complex relationships among multiple stakeholders with potentially competing interests (Vial, 2019). Their roles within value networks are continuously changing to support the value-creation processes underpinning DTS efforts (Vial, 2019; Hanelt *et al.*, 2021).

Digital channels provide opportunities for omnichannel organisations to manage the overall change necessitated by their DTS efforts. They also engage more customers through continuous interactions on social media, marketing campaigns for both online and on-premises services (Huang *et al.*, 2017), advertising of one channel on the other, and attracting customers to both (Gu & Tayi, 2017). Moreover, technological advances, such as internet of things (IoT) technologies and applications for gambling, enable organisations to capture activity data in real time, direct interactions with customers, and obtain information about each new application while upgrading the customer experience and services.

Agility in omnichannel organisations is a means by which they can adapt to changes and environmental dynamism while sustaining growth and identifying new opportunities for innovation (Gu & Tayi, 2017; Huang *et al.*, 2017; Yeow *et al.*, 2018). Ambidexterity can be employed to achieve an omnichannel DTS balance in various ways, as depicted in Table 5. Through their DTS pathways, omnichannel organisations can maximise their digital online and on-premises capabilities while maintaining their strategic balance (Andriopoulos & Lewis, 2010; Wimelius *et al.*, 2020). The ability to move from one channel to the other and add value for both through a DTS allows omnichannel organisations to maintain their existing operations without jeopardising their DTS efforts (Andriopoulos & Lewis, 2009, 2010).

6 Implications for Research and Practice

6.1 Research Implications

An enhanced customer experience imposes greater demands on omnichannel organisations in service industries (e.g., the gambling industry). This study highlights the importance of digitalisation in influencing dual operational pathways in the industry (Bell et al., 2014; Gallino & Moreno, 2014), since the penetration of digital technologies has resulted in omnichannel organisations adopting digital strategies that affect on-premises and online operations. Since organisations must have digital strategies in place (Bharadwaj *et al*., 2013; Karimi & Walter, 2015) to continuously realign and recalibrate their operations and processes (Yeow *et al.*, 2018), our study offers insights into how companies can develop digital strategies to enhance the customer experience, adopt digital technologies, and switch to omnichannel and/or exclusively digital operations during periods of imbalance and change (Bell *et al*., 2014; Gallino & Moreno, 2014, Li, 2020). In addition, the research period covered the time during which the mechanisms and outcomes of DTS shifts affected omnichannel business environments. Specifically, we have shown how companies put their digital strategies into practice to maintain their existing operations while managing the transition to digital ways of working (Tilson *et al*., 2010; Li, 2020). Therefore, this research contributes to a more nuanced understanding of the DT of omnichannel services and challenges traditional linear approaches regarding the use of digital technologies to facilitate changes in organisations' strategies and operations in the emerging and rapidly evolving cyber-physical environment. The key insights have been presented herein within the framework of a strategic DTS pathway for omnichannel services and the effects of DT on the overall omnichannel strategy.

Finally, we extend the DTS background in terms of the evolution of omnichannel services and the transformation of online and on-premises services due to technological interventions. Before any DTS decisions are made, the stability–change tensions in the omnichannel balance must be considered (Quach *et al.*, 2020). DTSs often lead to complete digitalisation of services and an exit strategy from the omnichannel services model. A shift towards an online channel can be triggered by crises, prompting companies to improve their revenue streams to survive; thus, a DTS can be a driving force (Hansen & Sia, 2015; Sun *et al.*, 2020).

6.2 Managerial Implications

Our exploration and empirically obtained insights challenge traditional thinking about DTSs and value transformation processes in omnichannel organisations. Our study 1) illustrates how leading players in the gambling industries can effectively deploy rapidly evolving digital capabilities to transform their DTS formulation and achieve omnichannel service optimisation; 2) shows that various DTSs provide eclectic options to help stakeholders identify the optimal pathway for redesigning the balance of IT investments across two channels; and 3) provides guidelines for further consideration and a series of workable future actions for business leaders and policymakers. The guidelines can be summarised in five areas, as follows:

6.2.1 Regulatory Context

Understanding and evaluating the regulatory context, industry-specific barriers/triggers, and technological infrastructure are crucial. The executive management team should conduct a situational assessment of the external and internal factors that could accelerate the DTS pathway or hinder digitalisation efforts. Situational awareness often relies on senior managers' skills, education, experience, and instincts regarding market turbulence. Forecasting methods and

analytics provide predictive insights that enable companies to avoid many risks. A thorough analysis of the industrial landscape is necessary before any DTS initiative is undertaken.

6.2.2 Developing Strategies for DT Investments and M&A Activity

Senior managers should have a clear vision, an understanding of current resources, and realistic financial targets prior to any DTS planning and investment in a channel. Alternative ways to maximise IT spending could be to initiate M&A activity with a digital focus. DTSs can be realised by merging with other, more digitalised companies or obtaining experience and support from IT vendors through acquisition activities. Strategies involving targeted M&A activity can boost the performance of both online and on-premises channels and lead to successful DTS pathways for omnichannel providers.

6.2.3 Having a Clear DTS for Dual Omnichannel Services

A clear DTS for dual omnichannel services should be in place to support a successful value-creation process. Organisations should define strategies for integrating both channels and allocating the right market share for each, depending on the customer base and marketing endeavours. Omnichannel platforms integrate multiple data and systems to provide seamless operations and services for relevant stakeholder activity. Maintaining a balance between the two channels depends on each organisation's DTS goals and the channels' viability and reputation. Developing new services and encouraging engagement provide a solid omnichannel presence via a stable DTS strategy.

6.2.4 Maintaining an Omnichannel Focus in Turbulent Times

Organisations should be prepared for turbulence and unprecedented events, but there should also be some space for flexibility. There are many cases of an omnichannel focus being changed to a

mainly online or on-premises-only focus. Such changes are usually driven by a revenue decrease in one of the two channels. The change of an omnichannel focus to only one channel while shifting the DTS pathway in that direction may be a temporary or the most viable solution in organisations. However, when companies shift the balance of omnichannel services in one direction, the solution may be permanent for those organisations.

By following these guidelines, companies will be able to benefit from easier customer access through an omnichannel presence, proximity to key markets, the business expertise of operators, market research and services targeted towards customers with high disposable income, and a vast and expanding product range offering multiple revenue streams.

7   Conclusions and Future Research

This paper has explored the DTS value-creation processes of omnichannel organisations in dynamic and turbulent business environments, drawing data from the UK gambling industry. We have discussed how three major omnichannel organisations followed their DTS value-creation pathways and how these pathways manifested in each company over 10 years (2010–2020). We contribute to DTS theory and omnichannel organisations by unveiling the impact of omnichannel organisations' shifting DTS responses in dynamic and disruptive environments and by showing how omnichannel DTS value creation unfolds holistically as a dual strategic balance. We have also offered guidelines for omnichannel service providers to plan and pursue their DTS pathways.

Several limitations of this work should be mentioned. A key limitation is our limited focus on UK gambling providers, which precluded an investigation of the impact of laws and restrictions imposed by the government and the UK Gambling Commission on the growth and transformation of that industry. Another limitation is limited access to data about the sector due to confidentiality

constraints. Better access to industry data could have provided us with a view of real-time changes and their impact on operations in terms of technology adoption and omnichannel services. Another critical limitation is that some countries offer gambling services without requiring a physical presence; thus, UK-based companies may offer services in other countries if they pay for local licences and comply with local laws and restrictions.

Future research on DTSs within the omnichannel services domain could explore the impact of DTS initiatives cross-sectionally (geographically and across industries) and focus on the effects of relevant decision-making and their impact on technological investments. Dual omnichannel DTS balances could be analysed through alternative research avenues outside the DTS scope to extract details about the right balance of online and on-premises services and the antecedents for a successful mix. Our study investigated duality only in omnichannel services; future research could explore both online and on-premises services, product pathways, and associated DTS changes throughout the years. Finally, investigating the omnichannel customer experience in the metaverse could provide an important new area for future research (Dwivedi *et al.*, 2022, 2023).

Acknowledgements

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Table 1. Transforming a value-creation process (Vial, 2019).

Value Creation Transformation	Definition
Value proposition	Digital technologies enable the proposition and development of new products and services based on customers' requirements. These products and services are provided with additional services after the purchase and propose a new value creation process (Anderson *et al.*, 2006; Frow & Payne, 2011; Vial, 2019).
Value Network	Digital technologies enable the redefinition of value networks. Value networks depend heavily on users' feedback; therefore, organisations incentivise customer engagement and enable the co-creation of value (Lusch *et al.*, 2010; Yeow *et al.*, 2018; Vial, 2019).
Digital Channels	Organisations use digital technologies to implement changes to their distribution and sales channels. Organisations create new customer-facing channels and also allow the emergence of algorithmic decision-making afforded by digital technologies, which allow them effectively to coordinate activities across their operations through technology (Choudhury & Karahanna, 2008; Brynjolfsson *et al.*, 2009; Verhoef *et al.*, 2015; Vial, 2019). This area is still in its infancy as new channels or hybrid modes evolve in line with the technological trends (e.g., omnichannel, multichannel etc.) (Vial, 2019).
Agility and Ambidexterity	Digital technologies can foster adaptability to changes in dynamic environmental conditions by contributing to organisational agility by recalibrating existing resources and developing innovative solutions (Andriopoulos & Lewis, 2009; 2010; Vial, 2019; Li, 2020a). Organisations also successfully combine the exploration of digital innovation with the exploitation of existing resources, applying ambidexterity and bimodality choices for the use of their dynamic capabilities (Andriopoulos & Lewis, 2010; Bell *et al.*, 2014; Vial, 2019; Park & Mithas, 2020)

Table 2. List of interviews.

Participant Name	Position	Experience in DT projects
D1	Project Manager DT 1	4 years
D2	Project Manager DT 2	5 years
D3	Head of IT 1	8 years
D4	Head of IT 2	12 years
D5	CEO 1	7 years
D6	CEO 2	5 years
D7	DT Managing Director 1	6 years
D8	DT Managing Director 2	8 years
D9	DT Consultant 1	13 years
D10	DT Consultant 2	6 years
D11	DT Consultant 3	4 years
D12	Member of DT Project 1	5 years
D13	Member of DT Project 2	9 years
D14	Member of DT Project 3	7 years

Table 3. Overview of the collected data.

Type	Category	Amount
Interactions	*TOTAL*	*63 (appx. 23.9 hours)*
	Discussions	35 (appx. 15.6 hours)
	Interviews	28 (appx. 8.3 hours)
Observations	*TOTAL*	*3 (appx. 18.2 hours)*
Archival Data	*TOTAL*	*257 sources*
	Public/Open Information and Data	183 sources
	Internal/ Private Information and Data	74 sources

Table 4. DTS effects in each case.

Case	Stronger channel for customer engagement	Stronger value for the DTS
A	ONLINE	ONLINE
B	ON-PREMISES	ONLINE
C	OMNICHANNEL	OMNICHANNEL

Table 5. The DTS balance in omnichannel organisations focusing on value.

	The focus of DTS for omnichannel organisations	Effects of DTS
Exploitation digital strategy with a value focus	Exploiting the capabilities of omnichannel services in both channels	Sustaining omnichannel service while enhancing both channels with new technological trends
Changing the omnichannel strategic balance	Following the online channel for providing digital services	Keeping only online services and shutting down on-premises services.
Sustaining the omnichannel strategic balance	Although the strength was on on-premises services, there is a change of focus to the online channel with new digital service offerings and investments in IT.	Sustaining omnichannel presence while shifting the focus on online services and keeping on-premises services for customer engagement, loyalty schemes, and marketing purposes.

Exploration of digital strategy with a value focus	The strength was online services, and the firm keeps strengthening the online channel with new digital service offerings and investments in IT.	Sustaining an omnichannel presence with a strong online focus and keeping on-premises services for customer engagement and marketing purposes.

Figures

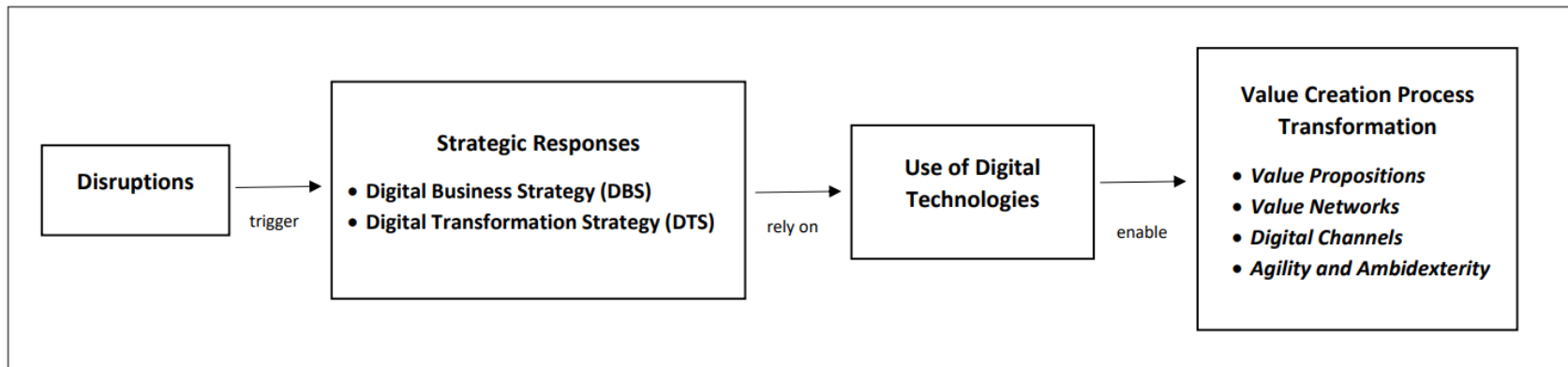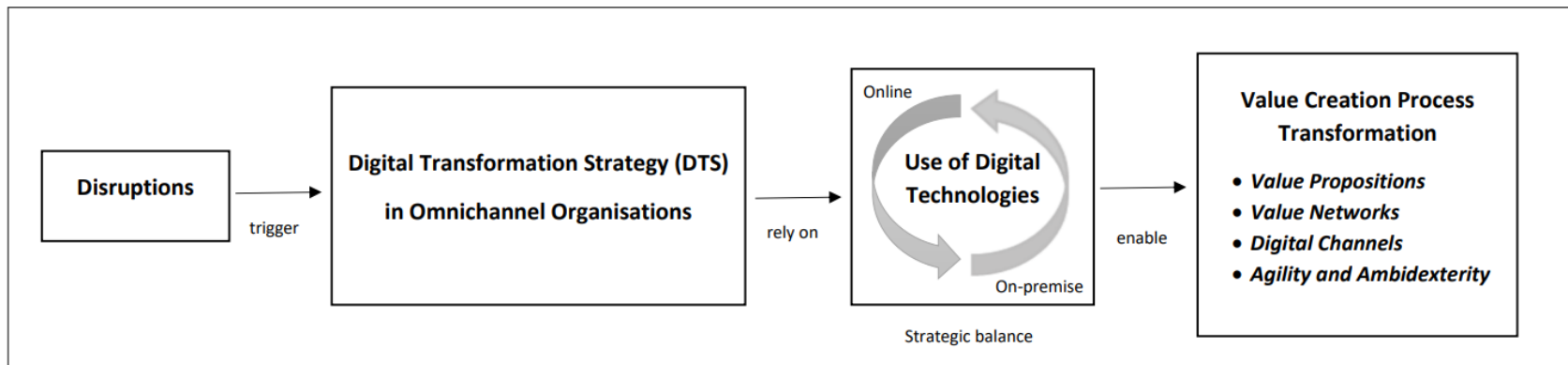**Figure 1.** DT processes during disruptions (Vial, 2019).

Figure 2. A strategic balance of DTS value transformation processes for omnichannel organisations.

Appendix

Table A1. Data Coding Structure

Themes	Subthemes	• Codes
External Events	**Triggers of digitalization**	• Changes in license regulations. • Legalization of the online channel. • Technological advances in gambling software. • Online services as the only resource through crises and disruptions (i.e., pandemic).
	Challenges	• Market entry barriers – limited availability of licenses. • Cost of technological infrastructure. • Compliance with regulatory frameworks. • Integration of omnichannel services.
	Opportunities	• Open to a broader market (geographically, operationally etc.). • Control of the way customers can access gambling (online and on-premises). • Data and information about each customer and their gambling patterns (addiction, etc.).
Mergers and Acquisitions	**Merger with an IT vendor**	• Development of an IT strategy through the merger with an IT supplier. • Enhancement of the IT infrastructure for both on-premises and online.
	Acquisition from a large provider	• Acquisition with a 'giant' to achieve better on-premises locations and accessibility. • Better market share. • Presence in a single market (country-wise) or global scope (multinational mergers and acquisitions).
	Acquisition of an online start-up	• Innovative ideas for online services. • Expanding the capacity for online licenses.
Technological Advances	**Enhanced online and smart on-premises services**	• New games and applications for the on-premises experience. • Easier access to online and on-premises services provides a hybrid experience.

and Innovative Services		Accessibility and transparency tools for customer profiles.
	Mobile services	• Mobile gaming helps players to enjoy gaming on the move. • Real-time betting experience.
	Augmented and virtual reality services	• Experience through interactive gambling. • Real life-like playing experience. • Virtual services provide a casino experience while online or even a virtual environment while on-premises.
	Blockchain applications and multiple payment options	• Enhanced security for online payments. • Cryptocurrency and blockchain services. • Fingerprint recognition and facial recognition help in building trust and keeping information secure. • Single wallets enable consumers to easily access their money across multiple games or services.
	Data analytics for enhancement and development of the services	• Analytics on the use of each service and the overall experience. • Identify the use for each service and develop alternative planning for problematic areas. • Control of the money spent and the revenues of each channel.
	Real-time tracking of customer behaviour	• Gathering customer information on betting preferences and gambling habits. • Tracking customer malicious or addictive behaviour- providing information about relevant interventions. • Compliance information and control. • Crime and money laundering prevention.
Digital Shift of Omnichannel (cannibalization of on-premises with online)	**Increased popularity of online and mobile services**	• Customers are gambling online due to the easiness of use and flexibility of services on the go. • Real-time customer experience and better satisfaction. • Disruptions of on-premises services forced operators to close many of their physical stores.
	Challenges of multiple system administration/ integration	• Gambling operators follow online paths only due to the complexity of multiple systems and their administration.

		• High administrative costs for omnichannel platforms facilitate the shift to online-only applications and services. • Cost of maintaining both channels.
	Digitalization strategies	• Smart stores with virtual and augmented reality applications can replace the online experience while gambling on-premises. • High investments in IT and mergers with IT vendors expand the online market in multiple countries and various operations.
	Transparency of operations	• Blockchain applications are more accessible in online services. • Better visibility and tracking of transactions in online activity. • More straightforward observations on customer gambling behaviour.