

RESILIENCE IN THE TIMES OF CRISIS BY RETAIL SECTOR LEVERAGING DIGITAL TECHNOLOGIES: A LITERATURE REVIEW

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ABSTRACT

COVID-19, the once-in-a-century pandemic has had a profound impact on every industry, and our lives like never before. The lockdown announced by the government to check the spreading of the disease stalled many businesses to a great extent. Consequently, the US GDP for 2Q2020 (Apr-Jun) plunged by 9%, and the UK GDP contracted by 20% (GDP Growth - Second quarter of 2020, OECD, 2020). Such a contraction was never heard of in the last decade. Against this backdrop, it will be interesting to see how businesses fared through the crisis, what measures they took to buck the macro-environment headwinds, and what technologies did they chose to survive. The vicious circle leading to economic depression has set on a roll. Retail is one of the important sectors of the economy. This paper proposes a crisis combating strategy or resilience for retail business through digitalization. In this regard, the paper reviews recent research in this area with some focus on retail in the UK.

Keywords: Crisis, Retail, Digitalization, Strategy.

Introduction

COVID-19, the once-in-a-century pandemic has had a profound impact on every industry, and our lives like never before. The vicious circle leading to economic depression has set on a roll. Lower consumption-reduced demand-falling prices-supply cut-job cuts-lower spending-lower consumption – all the blocks look like a perfect fit. Against this backdrop, it will be interesting to see how businesses fared through the crisis, what measures they took to buck the macro-environment headwinds, and what technologies did they chose to survive. Retail is one of the important sectors of the economy. This paper proposes a crisis combating strategy for retail business through digitalization. In this regard, the paper reviews some of the recent research in this area. The literature review was focused on the concept of leveraging digital technologies used to combat crises like Covid-19 to attain economic sustainability. The sectorial focus was on the retail industry. One important investigation planned was an evaluation of the effectiveness of various digital technologies to sustain the economic performance of the retail companies with special reference to UK retail companies.

Literature review

The studies related to digitalization and retail on various parameters leading to economic sustainability was done to include those related

to improving operational efficiency, creating competitive advantage, value creation through reshaping, realignment, redefining, integrating and collaboration, cost efficiency, operational flexibility, and customer-focus.

A number of studies in recent times are focused on the transformation based on digitalization in the Retail sector. (Gajjar, 2020; Sachs, 2019; Weber, Schütte, 2019; Jain, Werth, 2019; Iftikhar et al, 2019; Lagorio, Pinto, 2020; Kutnjak et al, 2019; Aithal, Aithal, 2019; Kaplan, Tewes, 2019; Esch et al, 2019; Dyk, Belle, 2019; Vojvodić, 2019; Gawankar et al, 2020; Hänninen et al., 2019; Jin, Shin, 2020).

A study by Hanninen et al. (2019), argues that retail is going through a significant transformation as platform-based multi-sided marketplaces, similar to Amazon, Alibaba, eBay, JD.com, and Rakuten, are testing incumbent retailers. From the flourishing brick and mortar stores and the advancement of malls, shopping centers, and retail chains all through the 1900s, retail has become progressively digitized as multi-sided marketplaces are joining online and offline to make a more refined and customized client experience. Researchers develop a framework on how multi-sided marketplaces are coordinating their front and backstage operations to make a more customized, helpful, and fast shopping experience.

In their study, Koncar et al. (2020), observe that retailing will change in the next decade, more than in the past half-century. The most compelling motivation for this is precisely the digitization that is significantly changing service industries. Affected by digitalization there is a general transformation of retailers' business strategy. The issue and objective of this examination are to distinguish key digitized retail techniques that have the possibility of market success. New advanced strategies and devices empower retailers to associate directly with buyers, improve the shopping experience, and track customers at each point in the purchasing cycle. Advanced transformation is changing retailing by changing the plans of action of retailers. Retailers who effectively execute a digital strategy get an opportunity in another market game, the individuals who don't focus on new patterns hazard losing the fight with the competition and time. Digitization includes innovation as well as the new perspective for maintaining a business. Because of the examination, proposals of digital techniques will be introduced to change the retail business strategy in the modern digitized era.

In their study, Barsch et al. (2019), believe that contenders and clients put Local Owner-Operated Retail Outlets (LOOROs) under digitalization pressure. Neighborhood Shopping Platforms (LSP), unequivocally utilize the locational quality of LOOROs and appear to be a promising vehicle to enable LOOROs to defeat their complex digitalization challenges. In this assessment, with the examination of 27 LSPs in Germany, Switzerland, and the U.S., authors dissect LSPs as neighborhood relatives of e-commercial centers and determine a usefulness based typology. Moreover, the authors examine how LSPs tackle LOORO's locational preferences. Despite their obvious function as inter-organizational administration centers and a low-level section choice to web-based business for LOOROs, research outcomes show that LSPs right now unduly revolve around region empowered administrations that help the online channel, while neglecting the capability of the region based administrations and the neighborhood stores as a Point of Sale (PoS).

In a study by Ohlin (2019), the researcher contends that, with an expanded degree of digitization in the retail area, retail officeholders need to alter their plan of action to suit modern times. Web-based business and other advanced tools have changed the retail business and occupant retailers need to respond to the progressions to stay relevant. While past examination has inspected the idea of the digital devices in retail or the overall impact of advanced change on the area, the theory intends to explore the impact of advanced change on the plan of action of a retail occupant. To examine the impact of digital change on the plan of action of a retail officeholder, a solitary contextual analysis has been directed at Company X, an occupant retailer working in Sweden. The Business Model Canvas has been utilized as a device to recognize the current plan of action of the association and to propose plans of action for Company X. The revelations have brought about the making of three diverse Business Model Canvas situations with various degrees of progress in the plan of action. The situations all inferred expanded participation with outside partners and the execution of new client channels. The research findings add to the existing knowledge of changes in plans by retailers. This researcher agrees with the conclusions of prior research that there is an impact of advanced change on the retail. It proposes new research concerning the impact on a retailer's strategy. The assessment is like manner adds to how the Business Model Framework may be utilized as a unit of comparison when evaluating strategic options. In the book by Stark (2020), the author lays out a study of Digital Transformation from the viewpoint of a retail store. Frameworks currently in place are portrayed. Numerous new solutions dependent on digital technology are outlined. Some resulting questions are tended to. CEO feedback and input is summed up. A resulting customer survey is inspected, showing the need to investigate Digital Transformation in more depth.

Thus, a large literature is available based on the theme of "transformation led by digitalization in the Retail sector". Moreover, a large number of studies are available based on the theme of "economic crisis due to Covid-19 epidemic"

(Kraus et al., 2020; Hertatiet al., 2020; Fishedick et al., 2020; Ritzen et al., 2020; Murugeswari, 2020; Redeker, 2020; Bardt, 2020). Digital technologies used in UK retail, the effectiveness of various digital technologies & prospects, and challenges for the digital technologies were the three major areas chosen for a detailed literature review. These three areas were chosen to comprehend the status of the use of digital technologies in the retail sector in the UK including its effectiveness. Additionally, as the researcher proposes to recommend a crisis control model, prospects, and challenges for digital technologies were chosen as a theme for carrying detailed review. A detailed review of some important studies is presented below. The reviews are comprehensive to grasp the different dimensions of the research.

Digital technologies in UK Retail

The study by Pantano and Vannucci (2019), speaks about the increasing adoption of various digital technologies in the retail sector. The adoption of various digital technologies is fast increasing in the traditional stores driven by continuous improvements in technology and consumers' adaptation of new technologies. The authors believe that the degree to which retailers are coping up with this challenge is still in a nascent stage. The study aimed at investigating the penetration of the technologies and to understand retailers' response. The research was based on a survey of 208 stores situated in Oxford Street, London during Oct. and Nov. of 2017. The findings of the study provide an overview of the factual technology adoption strategies considering size and store topology.

Research by Papadopoulos et al., (2020), focusses on the usage of various digital technologies (DT) by small & medium enterprises during Covid-19. The earlier research by various scholars has highlighted the contribution of digital technologies in enhancing productivity and results in Small & Medium Enterprises - SMEs. However, there is limited study on the use of digital technology during such an extreme event as Covid-19. The study fills the gap by outlining further research areas and reflecting on the implications for the management to battle the crisis while securing

business continuity. At the SME level, proper systems and support staff ought to be set up to guarantee that infrastructure is consistently available, guaranteeing smooth activity of all the operations. Post-COVID-19, SMEs would need to (re-) think on the most efficient method to renew their strategies consolidating crisis scenarios and BCP - business continuity plan while expanding incomes utilizing extra business channels. Keeping up customers is never a simple task as providing a substandard service will hurt the organizations irreversibly. Due to Covid-19, relationships face various difficulties and vulnerabilities, and accordingly, organizational managers should build up multiple scenarios for future strategic actions. Scenario building should be dependent on strategic choices as per their capacities and objectives; scenarios should be thought of as tools to trigger and accelerate the cycle of organizational learning. Under the current circumstances, businesses adopt a stakeholder approach where their job is to assist those who have been influenced along with their families. Subsequently, SMEs need to take a proactive, integrated approach that will improve the regular daily existence of the local, national, and global networks. In this period of pandemic crises, business managers are approached to take complex decisions. The utilization of DT in extreme disruptions may assist individuals, however with infringements of stakeholder privacy. 30% of UK Small & Medium Enterprises and 13% of Irish Small & Medium Enterprises feature IT security & privacy as potential issues with regards to DT. Experts, consequently, ought to research how DT changes the SMEs' methods of working and what the ramifications of the change for client and information privacy are. Exercises determined utilizing DT by SMEs to strengthen business continuity during COVID-19 should be looked for by experts and supervisors. Paunov et al., (2019) have posited that to survive in this pandemic, businesses have used innovation based on digital technology. The OECD paper details the various digital technologies adopted in the retail sector. In the retail space, digital innovations enhance the customer experience (both in brick & mortar and on-line shopping) and operating processes (warehouses, logistics, and so forth.). This

incorporates i) customizing the consumer experience utilizing data assortment and data analytics, ii) enhancing various services given in physical stores, iii) making online retail better and iv) overseeing a better supply chain. First, the most important innovation has tweaked the very experience of shopping, which is dependent on capabilities related to data assortment and data analytics. Customer data on buying or internet browsing history, give bits of knowledge on consumer needs and inclinations that are utilized to alter the buying experience, such as customized ads and promotions. This practice is generally utilized in the retail domain and progressively in different sectors. Second, innovations in traditional stores incorporate digital mirrors, smart dressing rooms, and automated payment systems helping skip check-out lines. While some large retailers are exploring different avenues regarding pilot clerk-free stores, the significant expense for the deployment of the required innovations – which are as yet not completely developed – is a barrier to the large-scale deployment in the short to mid-term. Third, innovations in online retail incorporate designing applications or customizing products (for example clothes or shoes) through 3D representations. For example, just by looking at the pages of the digital IKEA list using a smartphone or tab, clients can pick their favored household items and find on their screens how would they look in their home thanks to augmented reality technology. Fourth, the retailing sector is likewise utilizing the IoT and robotics to more readily oversee inventories (in warehouses) and optimize supply chain processes. AI is additionally opening roads for predictive analytics to fortify forecasting and improve inventory management.

In other examination, Davies et al., (2018), lays a case for click & collect innovation. The twenty-first-century internet retailing has reshaped the retail scene. The study has proposals regarding the channels we use to buy merchandise. Using Sainsbury's data, the authors make a bespoke arrangement of basic food item click & collect catchments. The resultant catchments warrant an investigation of the rising channel of staple click & collect. The paper expects to inspect these issues. The

spatial collaboration method is applied on a semi robotized premise, used to determine staple click & collect catchments for more than 95 Sainsbury's stores in the UK. The catchments warrant examination of spatial variety and particularly provincial metropolitan contrasts. Stores and catchments are isolated and researched using the OLS relapse technique. The revelations feature that stores in the rural region show a greater catchment degree for staple click & collect when differentiated with metropolitan stores. Direct relapse finds store having the best impact on the day by day request, sticking to more broad retail rivalry. Choices show the necessity for extra examination. Discoveries added to a more extensive level for basic food items – click & collect, similarly as an online business, multi-channel shopping, and retail geography. Locales for extra examination are recognized, particularly quantitatively getting brand steadfastness. The investigation has business influence as the catchments applied by Sainsbury's to pick the new 100 stores and to design the accompanying 5 years of staple click & collect the offering.

Another study by Bonetti and Perry (2017) reviews the customer-facing technologies across various fashion stores. A few latest trends in fashion retail and marketing are related to the ongoing digital changes, including the enhanced tendency for fashion retailers to receive customer-facing digital technologies over their physical store and online formats. Such technology improves the shopping environment by offering a more stimulating and engaging shopping experience for consumers. This research gives a detailed analysis of various sorts of customer-facing digital technology in different fashion store formats and how are they influencing the overall shopping experience. The authors study various technologies including RFID tags, interactive touchscreens, magic mirrors, beacon technology, and mobile apps, and consider how they are implemented in digitally enhanced stores, online stores, brand stores, and pop-up stores in the fashion sector.

Effectiveness of digital technology

The study by Ferreira et al., (2020), suggests digital technologies have transformed the retail

industry. The Digital revolution has altered the style, which we work together in all industries, from education to health. In this situation, the retail sector is no exception. It is continually influenced by advances in digital technology, which add to significant disruptive changes in the competitive landscape. Retail is currently increasingly online as multi-sided markets are bringing the offline and online markets together and create a better shopping experience for customers. In this unique situation, customers hope to find hi-tech retail environments. Retailer businesses are looking at advantages, such as, to create and grow new market opportunities by banking on technology tools, creating new operating models, optimizing and modernizing their processes in a consumer-centric approach. The research provides an analysis of trends in the key technologies utilized and adds to the potential of future retail trends.

The study by Krymov et al., (2019), argues digital technology has significantly transformed the modern retail industries. The research considers the key issues about the business transformation model and associated product distribution processes which depend on the information and digital capability of the business. Prior development and introduction of information and digital technology in the retail space were connected uniquely to network distribution management. The aspects of digital enterprise transforming retail and innovative processes of businesses have been brought under a framework: digitalization, personalization, comfortable payments, comfortable and fast delivery. Capabilities are dependent on digital principles that empower an integrated product distribution model when the customer opts for the most comfortable channel to purchase and gets loyal against comfort and simple help. The aspects of all the forms of economic activity are associated with a new turn of progress dictated by the deep adaptation of digital and data technologies to all fields of societal activity. Concurrently with that, the list of key drivers was enhanced by such factors as business processes digitalization, and yield of new products that uncover the active position of companies and readiness for structural changes. In such a manner quest for modern technologies just as

their application becomes the strategic determinants for business leaders. A lot of business managers understand that the achievement of the business generally relies upon their focused adaptation to market requirements and utilization of new technologies in the company's everyday schedule. The investigation has decided on the propensities shaping the new method dealing with product supply chains: multichannel commerce and client operation individualization. The article contains the portrayal of retail tools to make current stores information and product distribution more accessible, to permit a dynamic difference in product distribution chain contingent upon changes to the demand. The hierarchical standards of large businesses have been brought to a system: digitalization, personalization, comfortable and fast delivery, and payments.

The examination by Borisova et al., (2020), contends that digital innovation has affected retail organizations. Expanding competition prompts the quest for tools to impact shopper decisions. The dynamism of clients' prerequisites, their taste inclinations, and methods of speaking with providers is a hotspot for continuous advancement for organizations. The digital business climate is influenced by the usage of computerized methods in the organization's exercises and set up a component for connecting with partners. There is a need to create innovative arrangements dependent on digital technologies. Organizations that utilize such arrangements examine the productivity of their ventures. The development endeavors to keep up parity of the impact of innovation on operational exercises in the present and guaranteeing the safeguarding of market positions. Further, there is research speculation about the effect of innovation usage in the organization's exercises on its market execution. Diagnostics was done on the Russian retail market leaders. Technologies that were tried in the organization have been distinguished, and elements of business markers have been examined, and master appraisals of a scientific organization's authority on the variables affecting the

presentation of technologies have been researched.

In another study, Dannenberg et al., (2020), observed that the German retail food market expanded during the corona pandemic. The COVID-19 prompted a sharp increase in online trade. This article analyzes the impact of the pandemic on the online grocery-retail in Germany. The authors have followed and refined the research approach by Geels (2002 and 2012), and look at how much and why online grocery-retail extended during the corona pandemic. A specific spotlight is on spatial expansion into rural territories. The investigation shows a general upswing in the grocery trade and disproportionately high bump in the online grocery trade and distinguishes driving and limiting factors.

A study by Dong et al, (2017) suggests digital technology has transformed the services sector including retail. Firms increasingly depend on digital technology, for example, big data, cloud computing, e-commerce, digital tracking, and digital platforms that are transforming business operations and models, and market dynamics. Bank of Canada has analyzed firms in logistics, wholesale, and retail, to find insights into the adoption of digital technologies. Findings depict that firms are increasing investments in digital technology, regularly to increase efficiency and enhance the consumer experience.

Prospects and challenges

The future of retail is evolving. The shift from traditional physical to digital is inevitable (Ellis-Chadwick, 2018). For quite a long period of time, communities have assembled in retail centers, market-places, town centers, and shopping malls to uncover the merchandise and enterprises they require. Yet, innovations in digital technology, software development, and worldwide acceptance of the Internet has altered the way we shop. The effect of this changing shopping conduct is influencing the physical footprint of numerous sorts of retail centers, the same number of organizations adjusting to the new environment, and close their physical stores for selling using digital channels. Where once the Internet was a mostly secret operating environment utilized primarily by tech-savvy 30-something, high salary guys

living in the United States, in under 25 years the web became a mainstream retail channel, which half of the population can access. The research investigates how this shopping insurgency started, how internet shopping has developed, which retailers are the champs and failures on the internet, and what this may mean for the fate of towns and urban areas. Does that mean physical stores will disappear? Probably not. However, retailing is reshaping fast and businesses that will thrive in the future will be those with digitally capable brands and trading through multiple channels.

An examination by Shnorrr (2020), gives a coordinated evaluation of retail digitization. The research builds up a procedure for the necessary appraisal of sending of different advances with a zeroing in on the retail area. The examination depicts the significance of the vital appraisal of retail digitization. The author introduces fundamental researches in advanced digital technology in the Russian setting. The evaluation of digital advancements has been done.

McKinsey and Company, in their report (2020), have spread out the suggestions for UK retail segment because of the improvement in innovation. They center around two parts of supportability – overall revenues and changes to the workforce. UK Retail area is at the front line of progress because of three elements – one, they have the most noteworthy web-based shopping reception rate, two, the retail margins have declined by nearly 200 basis points since 2013, and three, the segment is biggest private-sector employer representing ~14% market share. Innovation is thus a key basic for UK retailers to stay pertinent and productive: the retail experience of things to come will be pushed by physical innovation and changing buyer desires while allowing retailers to reset the working model and financial matters. By 2030, the examination anticipates innovation (both through channel move and computerization) impacting 33% of assignments in UK retail. To get ready for this, retailers ought to reconsider all tasks and processes, and similarly make information-driven choices about the angle in which they receive new technologies across areas that change their dependence on retail work. At the same time, this level of progress similarly

offers UK retail a chance to lead the charge on new work models. An all-encompassing, innovation enabled 'reboot' could boost UK retailers' margins by 280–600 basis points. Achieving this will require retailers to describe the strategy and set up a 'control tower' with the objective that they abstain from dispatching a lot of detached pilots and move-outs. Their decisions around innovation will be weaved with those around buyer offers, working models, people, and, for greater retailers, the impact on and their obligation concerning the more extensive network.

Analysis and Conclusion

There are various digital technologies at play in the retail sector. The technologies impact customer experience, help forecast the demand, effectively manage the inventory and delivery models. Few studies have deduced that digital

technologies have transformed businesses significantly and had a positive effect on the business during the corona pandemic. Very clearly the prospects for further deployment of technology will decide the course for the sector and the organizations who embrace these technologies will come out as winners (McKinsey & Co., 2020). Several studies have focused on the effect of digital technology in the retail sector. All these technologies can be used to combat a crisis like Corona by the retail sector. Studies from the UK show how digital transformation has reshaped the retail business model. These studies point-out a bright future for the retail sector by leveraging digitalization. There would be some challenges, however, that will have to be addressed. To support this theoretical claim, further research can be carried based on primary data from data studying their actual response to the pandemic.

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