

# Digital Transformation Management in Retail Organizations

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**Abstract:** The impact of digital transformation, which is essential for process efficiency at every stage of business, has reached to an undeniable level. Nowadays, companies are not solely investing in traditional items such as physical locations, production, and labor force on the way to growth. The proportion of investment in digital transformation is increasing day by day. For retail companies, digital transformation has become a necessity rather than an option with the evolving technology. Within this perspective, the management of digital transformation in retail organizations is the focus of this research. The objectives of the study were to shed light on the digitalization processes taking place in the Turkish retail industry and to provide suggestions to companies on how to manage this transformation. In addition, it is intended to be a resource for researchers interested in this topic. There is a limited number of studies in the national literature that address the topic of digital transformation management in the retail sector. Therefore, it is expected that the research will contribute to the existing literature.

**Keywords:** Digital Transformation Management, Digital Technology, Retail Industry

**JEL Classification:** O32

## 1. Introduction

The business-to-consumer relationship remains critical to the success of many commercial activities. Market competition is increasing worldwide due to the ease of use of technological advances, the expansion of distribution networks, and the wide range of options that companies offer to customers. In this commercial relationship with increased accessibility through technology, companies focus on distribution channels to deliver goods and services to customers. Retail is one of these channels, serving as a bridge between consumers and businesses for the exchange of goods and services. With its fast and dynamic structure, widespread use of the Internet, facilitation of international trade, cost reductions in production, and efficiency in distribution channels, retail is an important industry in many economies and continues its growth trend.

With these challenging market conditions, the global pandemic that has recently spread throughout the world has affected the retail industry, as it has many other sectors. The increase in money printing across regions, the rapid rise in inflation, the difficulties in manufacturing and moving goods have all had a negative impact on the supply and demand equation of the retail industry. Production problems caused by the loss of labor and raw materials in some sectors also posed a risk to several other sectors, including the retail. Despite these changes, the Turkish retail industry, like many other countries, continues to be an important pillar of the nation's economy. Considering the turbulent environment of the global and local economies, companies operating in the retail sector should pay attention to some strategic factors to achieve sustainable performance. These factors can be categorized under the following seven headings: implementing a holistic channel approach, adapting to digital transformation, enhancing logistics infrastructure, managing big data, realizing the value of customer experience, investing in qualified workforce, and accurate demand planning (Eymür & Pehlivanoğlu, 2022).

Of the seven factors identified in the authors' previous research, this article focuses on "digital transformation management" in retail organizations. In today's fast-paced, technologically advanced world, digital transformation is becoming increasingly important for organizations. By adopting digital technologies, companies can increase productivity, reduce costs, and better meet customer needs and expectations. To better perceive this transformation and draw managerial conclusions, this article includes the definition of the concept of retail, digital transformation of businesses, digitalization in retail organizations, discussion, and conclusion sections.

## **2. Conceptual Background**

This section explains the concept of retailing, digital transformation of businesses, and the digitalization in retail organizations.

### **2.1. Retailing**

Throughout history, even before the invention of money, the goods of the producers met the consumers in the squares established as marketplaces. Since the beginning of organized shopping, there has been a need for an intermediary between the producer and the consumer. The retailer is an important intermediary on the way from the producer to the consumer. In the flow of this path, the manufacturer produces the product and sells it to the retailers, and the retailers try to sell the products by delivering them to the consumers. Modern retail stores are intermediary institutions that deliver products and services to consumers. Thus, retailing is the place where the distribution

chain linking producers and consumers ends with commercial activity. There are many definitions of retailing in the literature. With its general definition, Kotler (2000) expresses retailing as an intermediary institution that delivers products and services from the producer to the consumer through various distribution channels. For Dunne et al. (2014), any business that sells goods or renders services to consumers is engaged in retailing. Retailing involves the sale of products through physical stores and online marketplaces. Retailers sell a variety of products such as clothing, electronics, toys, cosmetics, groceries, household goods, etc. and can be small local businesses or large multinational corporations. Retailing used to be a physical trading activity, but due to rising costs and the increasing prevalence of digitalization, various business strategies have emerged. Studies in the literature (Verhoef et al., 2015) outline this progression of the customer experience to single-channel, multi-channel, and finally omni-channel.

## **2.2. Digital Transformation of Businesses**

Organizations and most human endeavors are being impacted by digital technologies. Digital business transformation is the process of integrating new digital technologies across all business domains to create fundamental changes in the way an organization operates (Schwertner, 2017). It is the transformation of core business operations (Matt et al., 2015). All products, processes, organizational structures, and management paradigms are affected by digital transformation. Thus, digital transformations such as social media, mobile, artificial intelligence, smart analytics, cloud computing, etc., impact customer relationships, internal processes, and value creation. Managing this transformation is challenging for organizations because it requires a change in mindset. Researchers mention that creating a vision and roadmap that outlines the future is the main concern of stakeholders in this transformation (Zaoui & Nissrine, 2020). Digitalization is basically the use of digital data to streamline the workflow and has an impact on traditional business practices. Strategic decisions made with intelligence are what drive digital transformation.

Over the past decade, digitalization has become ubiquitous, both at the corporate and individual levels. The extent to which digitalization has reached the world and the changes it has brought about are striking. According to research, a person in the world spends an average of 7 hours per day online. This means that more than 48 hours a week – or two full days out of seven – are spent online. Smartphones account for 93% of all Internet access. The global population of Internet users has nearly doubled in the last five years, demonstrating the rate of growth (Kemp, 2021). In addition, the COVID-19 crisis also hastened digital transformation as many companies started to offer services online. The divide between digital and non-digital businesses has grown since the

market downturn (European Investment Bank, 2022). Internet users were estimated to number 5.16 billion worldwide in January 2023 and around the world, 59.4% of people use social media (Statista, 2023). This rapid spread of Internet in the world is also similar in Türkiye. In developed countries, 9 out of 10 people have access to the Internet and use it actively. While this figure was 6 out of 10 in Türkiye in 2016, it is now around 8 out of 10 (TÜSİAD & Deloitte Digital, 2022).

The ease of access to the Internet has been one of the most important factors in this significant upward trend in the Turkish e-commerce market. In this environment where users have become so digitally compatible, this digital world has become the fastest and most widespread medium for businesses to penetrate the buyer. As a result, companies are increasing their investments in the digital sphere. Online sales have become notable and significant for businesses because of the changes in traditional shopping habits brought about by the increased use of the digital world. In addition, e-commerce is moving away from dedicated e-commerce shopping sites to a phase where product sales are gradually increasing on social media platforms.

### **2.3. Digitalization in Retail Organizations**

Evolving digital capabilities and technologies are transforming the retail industry today and the flow between producers and consumers. In recent years, competing with online retailers has been a major challenge for offline retailers. Despite the importance of digitalization, physical stores still maintain their attractiveness from the consumer's point of view and accounts for a significant portion of the turnover of large retailers. Even as shopping habits begin to change with the evolution of retailers' websites, whether consumers' desire to touch the product remains as a matter of research. Previous research has yielded conflicting results on whether touching the product helps the consumer make a purchase decision. Some studies report a positive effect, while others do not (Liu et al., 2017). It's important to note that whether the purchase is online or offline, consumers care about the shopping experience and consider their experience in future purchases. In general, consumers are more likely to shop online for well-known brands and low-risk products/services. However, the share of online sales in retail is increasing every year. Recent studies support the view that while augmented reality is attempting to address the basic human need for touch in online channels (Gatter et al., 2022). E-commerce offers convenience to consumers, allowing them to shop whenever and wherever they want without having to visit a physical store. Online shopping makes it easy to compare prices and products and can offer a wider selection of products than traditional retailers.

The process of incorporating digital technologies, strategies, and principles into various facets of retail operations is referred to as digitalization in retail organizations. To manage this transformation, retail organizations are now investing more in digitalization and have turned to employing the workforce with digital skills. Businesses are investing more in retail analytics capabilities. Research indicate that companies are allocating more of their advertising budgets to online and social media-based campaigns to enhance these capabilities (Grewal et al., 2018). In addition, it should be mentioned that retail is gaining an identity in which the consumer is at the center, not the product or the brand. In this new identity, there is an understanding of the consumer, predicting their wishes and future decisions with algorithms based on artificial intelligence (TÜSIAD, 2021). Global statistics demonstrate the size and growth of online retail sales. Around \$5.2 trillion in retail e-commerce sales were made in the entire world in 2021. By 2026, this amount is predicted to increase to about \$8.1 trillion (Chevalier, 2022). Therefore, digitalization encompasses a significant ongoing transformation in the retail industry (Hagberg et al., 2016).

The digitization process aims to make it easier for the retail industry to adapt to technology and take advantage of its benefits. The use of digital tools, technologies and data enables companies to operate in a digitally driven environment and supports the transformation of traditional retail processes and operations. As a result, several outcomes can be realized, including improved customer experience, increased efficiency, and enhanced business growth. Digitalization in retail organizations can encompass a wide range of areas such as e-commerce, omnichannel retailing, data analytics, customer insights, supply chain optimization, digital payments, artificial intelligence, automation, augmented virtual reality, social media activations, and digital marketing. In summary, digitalization in retail organizations is considered as the harnessing the power of digital technologies to streamline processes, enhance customer experiences, and drive business growth in the rapidly changing retail environment.

### **3. Discussion**

Over the past few years, the retail industry has undergone a significant digital transformation due to changing customer needs and expectations. Retail businesses have started to bolster their presence in digital channels as the number of e-commerce websites and online marketplaces has grown. The changes to the shopping experience brought about by digital transformation in the retail industry are paramount. Customers use digital channels to review goods, services, and vendors, as well as their overall shopping experience, which can help other shoppers make smart decisions. Providing

customers with an omnichannel experience that engages them across online and offline channels is becoming increasingly important in the retail industry. Digital transformation is revolutionizing key activities in the retail industry. Ghosh (2023) mentions that worldwide four main technological trends are at the forefront of digitalization in retail: Metaverse and gamification of shopping; use of video commerce and ad monetization tools; direct-to-customer management, and endless aisles; and putting customer data at the center of business processes. The Deloitte (2019) report on digital transformation underlines the changes brought by digitalization to the retail industry. Retailers are able to leverage data-driven insights to offer personalized recommendations based on customers' past purchasing behavior. By delivering real-time offers, promotions and tailoring products to customers' specific needs, retailers can create a more convenient shopping experience to drive sales. Additionally, retailers can optimize their product lines and market positions in line with customer preferences to stay ahead of the competition.

In retail, digital transformation is considered a business model that encompasses customer relationships, product and service quality, value offered to customers, process efficiency in third-party business relationships, and financial contributions to the balance of income and expenses (Schallmo et al., 2017). Digital transformation has enabled retail companies to gain a better understanding of their customers. With access to more accurate and direct information about their customers, these companies have made significant strides in customer engagement and experience. They can now understand their customers' habits and predict their buying behavior using advanced models (Berman, 2012). Big data, artificial intelligence, the Internet of Things, augmented reality, the metaverse, and blockchain stand out as the most used tools for digital transformation in retail (Lee, 2021). Retailers who invest in and embrace digital transformation are also optimizing their business processes around the principle of digitalization. Companies that make this investment will reap the benefits of competitive advantage and agile mobility in the future (Vaska et al., 2021).

It has been observed that the number of studies on digitalization in the retail sector in the Turkish literature has not yet reached a sufficient diversity. Since digitalization is a constantly evolving topic, up-to-date research should be continuously conducted in the literature. Some of the studies carried out on this subject in the last few years in the national literature are as follows: Asiltürk (2021) focused on the concept of digital maturity as the final output of digital transformation in businesses and discussed the effects of digital transformation on efficiency. Gezici et al. (2021) concentrated on the rise of digitization and e-commerce, and the acceleration of the impact of this change

in the food retail sector with the COVID-19 pandemic. Güven (2021) also analyzed the marketing strategies of retailers in the new era with digital transformation, which has become compulsory due to the pandemic outbreak. Sargin & Ventura (2022) addressed the issue of digitalization in retail with the example of a company they examined from the sector. Ballı (2022) discussed general approaches to digital transformation and evaluated its relationship with entrepreneurship. Aydın et al. (2023) focused on the metaverse as one of the tools in retail digitalization and investigated its impact on customer experience.

#### **4. Conclusion**

Today's consumers are very sensitive to choosing the fastest, highest quality and cheapest goods and services. This intensifies the constantly evolving competitive environment. Organizations in the sector have important responsibilities in delivering goods and services to the end consumer, both in physical and digital merchandising. For the future of the retail industry, digital transformation is inevitable for businesses. Retail stakeholders should focus on resource efficiency to better understand the consumer, who is at the heart of the business. Although resources are scarce, consumer demand is unlimited. It is critical that all services and products offered are shaped and changed in response to consumer feedback. Digitalization in retail should not only be seen as an increase in e-commerce sales. Digitalization is crucial in all retail processes as an end-to-end value chain. Every process, from product planning to production, logistics processes, inventory management, and after-sales customer management, needs to be digitized. Retailers need to establish management processes to oversee these complex digital changes. In this regard, suggestions to retailers in the process of managing this digital transformation include the following: (1) employing teammates who have digitalization competencies, (2) working with external sources who are digitalization experts, (3) establishing digital collaborations with companies that have achieved success in the mobile environment, (4) embracing e-commerce by establishing online stores or enhancing existing stores, (5) utilizing omnichannel executions to reach the greatest number of customers, (6) investing in creating and upholding internal big data and artificial intelligence systems. For companies operating in this sector to have a sustainable business model, it is important to implement these studies to gain an understanding of the consumer shopping experience and to improve services, profitability, and efficiency. By embracing digital transformation, retailers can transform operational activities that can drive them to long-term growth. Particularly in the area of artificial intelligence, recent developments show that the contribution of artificial intelligence to both product management and strategic decisions in retail companies

might gradually increase, as it will in many sectors. In line with the global trend, the Turkish retail sector is expanding its e-commerce presence. Therefore, the national retail companies need to adapt to the changing business and market conditions.

## References

- Asiltürk, A. (2021). İşletmelerde dijital dönüşüm yönetiminde nihai hedef: dijital olgunluk. *Alanya Akademik Bakış Dergisi*, 5(2), 650–655.
- Aydın, S., Nalbant, K. G., & Ozat, K. (2023). Dijitalleşen dünyada metaverse'in sanal marketlere getireceği deneyimler. *Sosyal, Beşeri Ve İdari Bilimler Dergisi*, 6(1), 130–147.
- Ballı, A. (2022). Türkiye'de dijital dönüşüm ve girişimcilik. *Üçüncü Sektör Sosyal Ekonomi Dergisi*, 5(1), 251–279.
- Berman, S. J. (2012). Digital transformation: opportunities to create new business models. *Strategy & Leadership*, 40, 16–24.
- Chevalier, S. (2022, 09 01). *Global retail e-commerce sales 2014–2026*. Statista: <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/> adresinden alındı
- Deloitte. (2019). *Digital transformation through data: how retailers are delivering more value through insights*. [https://www2.deloitte.com/content/dam/Deloitte/za/Documents/process-and-operations/ZA\\_Deloitte\\_Digital\\_Transformation\\_Through\\_Data\\_For\\_Retail\\_10%20pages\\_Exec%20Summary\\_2019.pdf](https://www2.deloitte.com/content/dam/Deloitte/za/Documents/process-and-operations/ZA_Deloitte_Digital_Transformation_Through_Data_For_Retail_10%20pages_Exec%20Summary_2019.pdf).
- Dunne, P. M., Lusch, R. F., & Carver, J. R. (2014). *Retailing*. South-Western: Cengage Learning.
- European Investment Bank. (2022, 01 12). *Chapter 5 of the Investment Report 2021/2022: Recovery as a springboard for change*. 04 21, 2023 tarihinde European Investment Bank: [https://www.eib.org/attachments/publications/economic\\_investment\\_report\\_2021\\_chapter05\\_en.pdf](https://www.eib.org/attachments/publications/economic_investment_report_2021_chapter05_en.pdf).
- Eymür, E., & Pehlivanoğlu, M. Ç. (2022). Perakende Sektöründe Güncel Stratejiler. R. İncekara içinde, *Her Alanda Ekonomi* (s. 45–64). İstanbul: Akademisyen Kitabevi.
- Gatter, S., Hüttl-Maack, V., & Raus, P. A. (2022). Can augmented reality satisfy consumers' need for touch? *Psychology & Marketing*, 39(3), 508–523.
- Gezici, F., Çelebi, D., Hatipoğlu, İ., Evci, D., & Selçuk, F. (2021). Türkiye'de gıda perakendeciliğinde dijitalleşme ve COVID-19'un dijitalleşme üzerindeki etkilerini belirlemeye yönelik nitel bir araştırma. *Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi* (39 (Covid 19 Özel Sayısı)), 91 – 107.
- Ghosh, D. (2023, 01 20). *EY Tech Trends series, Chapter IX: Top retail technology trends to watch out in 2023 – Part 01*. New-age technologies are reinventing stores, customizing CX and modifying supply chains: [https://www.ey.com/en\\_in/technology/ey-tech-trends-chapter-nine-top-retail-technology-trends-to-watch-out-in-2023](https://www.ey.com/en_in/technology/ey-tech-trends-chapter-nine-top-retail-technology-trends-to-watch-out-in-2023).
- Grewal, D., Motyka, S., & Levy, M. (2018). The evolution and future of retailing and retailing education. *Journal of Marketing Education*, 40(1), 85–93.

- Güven, F. (2022). Güven, F. (2022). COVID-19'un yarattığı zorunlu dijital dönüşüm ve yeni normalde perakendecilik. *Neşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 12(4), 1941–1961.
- Hagberg, J., Sundstrom, M., & Egels-Zandén, N. (2016). The digitalization of retailing: an exploratory framework. *International Journal of Retail & Distribution Management*, 44(7), 694–712.
- Kemp, S. (Dü.). (2021, 01 27). *Digital 2021: The latest insights into the 'State of Digital'*. wearesocial: <https://wearesocial.com/uk/blog/2021/01/digital-2021-the-latest-insights-into-the-state-of-digital/>.
- Kotler, P. (2000). *Marketing Management: The Millennium Edition*. Upper Saddle River: Prentice Hall.
- Lee, J. Y. (2021). A study on metaverse hype for sustainable growth. *International journal of advanced smart convergence*, 10(3), 72–80.
- Liu, W., Batra, R., & Wang, H. (2017). Product touch and consumers' online and offline buying: the role of mental representation. *Journal of Retailing*, 93(3), 369–381.
- Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. *Bus Inf Syst Eng*, 57, 339–343.
- Sargin, O. M., & Ventura, K. (2022). Digital transformation in retail industry: the case of Watsons. *8th Global Business Research Congress*, 15, s. 59–63. Istanbul: PressAcademia Procedia.
- Schallmo, D., Williams, C. A., & Boardman, L. (2017). Dijital transformation of business models – best practice, enablers and roadmap. *International Journal of Innovation Management*, 21(8), 4–7.
- Schwertner, K. (2017). Digital transformation of business. *Trakia Journal of Sciences*, 15(1), 388–393.
- Statista. (2023, 04 03). *Worldwide digital population 2023*. Statista: <https://www.statista.com/statistics/617136/digital-population-worldwide/> adresinden alındı
- TÜSİAD. (2021). *Perakendenin Geleceği, Mevcut Durum, Beklentiler ve Politika Önerileri*. İstanbul: TÜSİAD.
- TÜSİAD, & Deloitte Digital. (2022, 02). *E-ticaretin öne çıkan başarısı, tüketici davranışlarında değişim ve dijitalleşme*. TÜSİAD E-ticaret Raporu: <https://www.eticaretraporu.org/wp-content/uploads/2022/02/dd-tusiad-e-ticaretin-one-cikan-basarisi-tuketici-davranislarinda-degisim-ve-dijitallesme.pdf>.
- Vaska, S., Massaro, M., Bagarotto, E. M., & Dal Mas, F. (2021). The digital transformation of business model innovation: a structured literature review. *Frontiers in Psychology*, 11, 3–7.
- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing. *Journal of Retailing*, 91(2), 174–181.
- Zaoui, F., & Nissrine, S. (2020). Roadmap for digital transformation: A literature review. *Procedia Computer Science*, 175, 621–628.