



The Digital Transformation of the Retail Industry, Taking Decathlon as an Example

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Abstract. In the digital era, digital transformation is in rapid development. At the same time, Digital transformation also brings many opportunities for the retail industry. The world's largest retailer of sporting goods is Decathlon, and it has a leading position in the international sports brand retail market. In order to maintain an important position in the international sports brand market, they pursue innovation and future development in the digital era. Taking Decathlon as an example, this article analyzes every phase of Decathlon's digital transformation route and some problems in it, the main issues include talent recruitment, data transparency, predictability, and adaptability in enterprises. And some relevant suggestions were put forward to address the corresponding issues, including developing strategies to attract talent, data encryption technology, and strengthening infrastructure. In addition, it points out the limitations of Digital transformation caused by the different sizes and locations of retailers. These will help Decathlon and other retailers to clarify the direction and method of transformation.

Keywords: Digital Transformation, Retail, Challenge.

1 Introduction

A digital age is replacing the industrial one [1]. As an example of the need to meet consumer needs and Digital transformation, more enterprises, including retail enterprises, have begun their own Digital transformation. For the retail industry, Digital transformation provides more opportunities, and Digital transformation can provide customers with a unique and seamless experience.

However, while Digital transformation provides more opportunities for the retail industry, it also brings more huge challenges to the retail industry. Digital transformation requires organizations to make cultural changes, and it requires strong infrastructure and flexible strategies. In addition, a large amount of data will be involved in the process of Digital transformation, which includes some private data, so data protection has become a huge challenge for Digital transformation. Businesses must learn how to use digital technology for profitable objectives [2]. Retailers must find effective and appropriate ways to solve these problems so that they will not fall behind in Digital transformation and lose market share.

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Therefore, this article will discuss the necessity of digital transformation for the retail industry, how it affects the retail industry, what contributions it has made to the retail industry, and the difficulties and challenges of exponential transformation. Furthermore, Decathlon will take it as an example to analyze its digital transformation route and strategy, identify the challenges that Decathlon may encounter in Digital transformation, and put forward corresponding suggestions on the corresponding challenges.

2 The Necessity of Digital Transformation in Retail Industry

Mobile devices' increasing effect on society worldwide (increasing demand) and the rising amount of money being invested in mobile retail applications (increasing supply), mobile commerce is the fastest-growing part of the market [3]. At the same time, Digital transformation provides more opportunities for the retail industry. Through online shopping, consumer data analysis, and virtual reality technology. Retailers can keep up with the times, create more competitive shopping experiences, and promote business growth.

The emergence of major online sales platforms has also provided more opportunities for retailers' online business development. The emergence of large online sales platforms such as Amazon, eBay, and Taobao has provided retailers with a broader market. Retailers converted offline sales to online sales through Digital transformation, saving the cost of opening physical stores. In addition, retailers can also improve their products and services based on consumer feedback on the platform.

If enterprises do not collect customer data and predict customer preferences through digital transformation, they will lose a large number of customers. Through digital technologies such as big data, clothing retailers can collect and analyze consumer shopping preferences, historical purchase records, and body measurement data. Based on this data, they can provide personalized recommendations and show consumers clothing styles that match their tastes and size. In addition, Digital transformation also enables clothing retailers to provide customized services and make clothing according to consumers' specific needs and preferences to further meet their needs.

Virtual reality (VR) technology is also part of Digital transformation. For consumers, VR provides them with more efficient and convenient services. Through these technologies, consumers can use smart devices to place virtual clothing on themselves at home to see the effects. And it can provide an immersive virtual fitting experience, allowing consumers to feel the authenticity of wearing clothing and make better purchase decisions.

3 Digital Transformation of Retail Industry

3.1 Challenges and Difficulties of Digital Transformation

Today, many organizations in different countries or regions are undergoing Digital transformation. However, many enterprises face obstacles in the digital transformation process. This section will discuss the challenges and difficulties of digital transformation to help enterprises better understand and respond to these problems and achieve successful digital transformation.

The first challenge of digital transformation is cultural and organizational change. Due to digital transformation, organizations need to make changes and change organizational structure and strategy. Therefore, in order to adapt to Digital transformation, organizations need to reformulate strategies, adapt to the new organizational structure, and have new leadership styles.

Technology and infrastructure are also challenges that enterprises will encounter in digital transformation. Digital transformation requires enterprises to have reliable technology infrastructure and corresponding IT capabilities. However, existing technologies and infrastructure may not be able to meet the demands of digitization, for instance, in Vietnam, 80% -90% of the machines used by enterprises are technology from the 1990s [4]. Thus, for some enterprises, a lot of money and resources need to be invested in upgrading and transformation.

Digital transformation requires companies to be flexible and have the ability to make rapid decisions. Digital transformation is a process of continuous change and development. Enterprises need to maintain a competitive advantage over their competitors and constantly adapt to market changes and technological progress.

3.2 How Retailers Overcome the Challenges of Digital Transformation

Today, many different countries or regions in the world are experiencing Digital transformation, the design, development and maintenance of Digital transformation need their support. Therefore, digital leaders play a key role in Digital transformation. These leaders should show support and commitment to change and set an example. They should also actively participate in and guide the change process, share their vision with the team, and explain why change is necessary. The active participation and advocacy of digital leaders can promote the transformation of organizational culture and employee participation and lay a cultural foundation for the success of digital transformation.

In the digital transformation process, infrastructure is the key. Enterprises need to establish and connect infrastructure and network security, develop technology upgrading plans, and determine the required improvement and investment direction, including determining the technical equipment, software systems and network infrastructure that need to be updated or replaced. Establish an innovative ecosystem through new infrastructure and technologies. Moreover, it is crucial for enterprises to utilize external resources to find suitable solutions. For example, seeking support from partners, establishing strategic partnerships with technology service providers,

system integrators, or cloud service providers, and utilizing their professional knowledge and experience to assist enterprises in technology upgrades and infrastructure improvements.

It is important for enterprises to maintain agility and flexibility to adapt to market changes and technological advancements. This means establishing flexible organizational structures and processes that enable enterprises to make quick decisions and respond to new challenges. Furthermore, enterprises should regularly evaluate and adjust the Digital transformation strategy, and make corresponding changes according to changes in the market and technology. And through continuous learning and training, ensure that employees always master the latest digital skills and knowledge, and maintain the competitive advantage and sustainable development of the enterprise.

4 Digital Transformation of Decathlon

4.1 Background of Decathlon

Decathlon is an international sporting goods retailer with 2,080 stores in 56 countries/regions. It is a family enterprise, founded in 1976, with the notion that everyone should use the best sporting goods [5]. In addition, Decathlon is the world's largest sporting goods retailer.

Although Decathlon has occupied a major position in the international sports brand market, they are still pursuing innovation and future development in the digital age. Decathlon established a 700-square-meter data laboratory and innovation center in Singapore on July 7, 2022, and also carried out digital data projects with some cooperative enterprises, for example, Sport Singapore, aiming to develop new digital services for its brand [6].

4.2 Decathlon's Digital Transformation

Organizations must continuously be aware of how digital transformation affects every element of their operations today because, while change is inevitable, it is not a goal but rather a journey [7]. Therefore, Decathlon has begun its own digital transformation journey. The digital strategy of Decathlon might be characterized as a self-optimizing approach, with the ultimate objective of going back to business. As shown in Fig. 1, Decathlon's digital transformation is divided into six phases [8].



Fig. 1. Decathlon Digital Strategy [8].

The first phase is computerization. With the intention of streamlining time-consuming and manual operations and integrating IT technology into various stages, import all data into the computer [8].

The second phase is connectivity. With the goal of connecting business and IT processes, connecting and integrating all business processes [8].

The third phase is visibility. Achieving a data-based decision-making approach, the data can be dynamically updated in real time in paperless factories [8].

The fourth phase is transparency. Which enables complex interactions, operational data analysis, and mastery of analysis results [8].

The fifth phase is predictive capacity, which uses big data and AI to predict the possibility of impending events and prepare accordingly, simulate possible future scenarios, and support decision-making through predictive [8].

The sixth phase is adaptability. With the goal of enabling the system to achieve self-control and continuous optimization, allowing the system to self-adjust and improve as much as possible during the self-configuration process [8].

4.3 Possible Challenges in Decathlon's Digital Transformation

Digital transformation is an important strategic move for Decathlon; however, this transformation journey is not without difficulties and challenges. This section will explore Decathlon's digital transformation timeline to identify some of the major obstacles that may arise.

For the first phase of computerization. The hiring of personnel with the IT-related knowledge, talents, and skills required by businesses across a wide range of industries is a key component of the digital transformation process [9]. Therefore, in the digital

age, the market has a high demand for these personnel, which makes Decathlon face greater challenges in recruitment. On the other hand, if Decathlon does not recruit IT-related personnel, Decathlon needs to train these personnel, which will cost a lot.

The fourth phase is transparency. In the digital age, data protection is a very important measure. This also makes Decathlon in the data analysis faced with a great challenge. Decathlon faces legal and ethical issues related to the handling and storage of customer data. This made it a big challenge for Decathlon to analyze the data. In addition, Decathlon faces legal and ethical issues related to the handling and storage of customer data, as well as how to protect customer privacy to gain consumer trust.

For the fifth phase predictive capacity. In the garment sector, artificial intelligence and big data are increasingly useful since they can help with real-time predictive analysis, improve product monitoring and evaluation, and streamline the supply chain. If Decathlon does not invest more funds and resources to build data infrastructure and use AI and big data to help workers meet the needs of data analysis and prediction, they are likely to lose more customers because they do not accurately predict customer needs.

The sixth phase is adaptability. Because of easy access to digital technology, consumers expect a comprehensive and ongoing experience associated with purchasing a product or service [10]. Decathlon needs to constantly update and improve itself according to user feedback and emerging technologies, which requires flexibility and adaptability. If Decathlon is not agile and cannot update its technology and strategy, it will easily be overtaken by competitors in the future Digital transformation and lose market share.

4.4 How Decathlon Overcomes the Challenge of Digital Transformation

Regarding the trend of digital talent in the market in short supply, Decathlon needs some strategies to attract digital talents to support their Digital transformation. First, Decathlon can look for people with IT-related knowledge, skills and experience. By establishing connections with relevant professional schools, technical communities, and industry organizations, potential candidates can be attracted. Second, it is possible to consider establishing cooperative relationships with external IT professional companies or partners. Through cooperation with professional teams, technical expertise and resources can be obtained to help solve the technical challenges in Digital transformation. Third, Decathlon can train existing employees, and design and provide corresponding training programs to meet the IT skills required by Digital transformation. The establishment of appropriate partnerships and internal personnel training will help increase the number of IT-related personnel within the enterprise and improve the success rate and effect of Digital transformation.

Under any circumstances, Decathlon is responsible for the data privacy of its customers. Decathlon can strengthen information security and privacy measures, for example, data encryption technology, to ensure the security and confidentiality of the data of customers. Furthermore, Decathlon can formulate and abide by moral and ethical codes according to the culture and laws of different regions to protect

customer privacy and win consumer trust. Collect and use only necessary data to avoid misuse, and establish transparent and responsible data processing practices.

Decathlon's Digital transformation also confronts challenges in infrastructure and flexibility. Decathlon can learn from the methods mentioned earlier on how to overcome the difficulties in Digital transformation, establish reliable infrastructure and network security, develop technology upgrading plans, and seek support from external resources to update technical equipment and network infrastructure. Simultaneously collaborate with partners to leverage their professional knowledge and experience to implement big data and AI processes. In terms of agility, establish flexible organizational structures and processes to quickly make decisions and adapt to market changes and technological advancements. Finally, regularly evaluate and adjust the Digital transformation strategy, continuously learn and train employees to ensure that they master the latest digital skills and knowledge and maintain digital competitiveness.

5 Conclusion

In conclusion, considering that retailers still face many challenges in digital transformation, such as organizational change brought about by digital transformation, lack of infrastructure and lack of flexible digital strategy. Taking Decathlon's digital transformation as an example, this article analyzes Decathlon's digital transformation route. Decathlon faces different challenges at different stages, such as IT staff recruitment, data transparency, industry forecasting ability and adaptability. The results show that most retail enterprises need to overcome these difficulties, otherwise, these companies will lose market share if they cannot follow up with the speed of digital transformation. Therefore, for these problems that may be encountered in the process of digital transformation, this article puts forward several suggestions, such as establishing digital leaders in enterprises, strengthening infrastructure, strengthening data protection and making enterprises flexible, so that enterprises can effectively solve these problems.

For retailers of different types and sizes, their challenges in digital transformation may be different, thus, the digital transformation routes and strategies may be different. For instance, larger enterprises need more resources or stronger infrastructure to support their digital transformation. This requires companies to be able to accurately analyze the challenges they will face in Digital transformation, and have different capabilities and methods to solve these challenges. Moreover, according to different countries and regions where retailers are located and different legal restrictions, their Digital transformation may be limited. For example, different regions have different resources and different legal restrictions, which also requires companies to effectively allocate and use different resources and solve possible problems to make their digital transformation legally compliant.

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