



The Necessary of Digital Transformation

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Abstract. With the development of science and technology and the advances of the day, people are moving into the age of big data, many enterprises need to follow the footsteps of the times and carry out digital transformation. Digital transformation is indispensable for the survival of enterprises. By analysing the digital transformation of Midea businesses, this article clearly demonstrates the positive effects of the digital transformation. This article uses examples of Midea to name the need for digital transformation. This article gives examples of the great economic benefits brought by enterprises after digital transformation. Beyond that, the development of the digital transformation era is not limited to only the benefits and no harms. This article also mentions the problems that digital transformation can bring in many aspects like data security risks, changes in organizational structure and management model, and so on. The paper also provides solutions to them. This provides constructive suggestions and improvement directions for digital transformation in the future digital era, and also makes people realize the necessity of digital transformation for enterprises.

Keywords: Digital transformation, Enterprises, Midea.

1 Information

With the development of digital technology in the information domain across all areas of human life. The development of enterprises is no exception. Therefore, enterprises need to digitally transform to meet development needs in order to survive and occupy a place in this digital age. Digital transformation is an indispensable stage in the

development of a business. Especially traditional industries, need to adapt to market demand and carry out digital transformation. This article introduces the three-step digital transformation stage of Midea enterprises, and after digital transformation, Midea enterprises have achieved considerable success. However, for the advent of the digital age, there are also many problems such as information leakage, which need to be solved. This paper gives examples of problems arising from development from multiple perspectives and proposes corresponding constructive solutions.

1.1 What is digital Transformation

Digital transformation is the way about changing how businesses take advantage of technology, processes and people to improve their operational performance and embrace new business models [1]. It conforms to the new round of scientific and technological revolution and trend of industrial transformation, and continuously applies and deepens a new generation of information technologies like cloud computing, big data, the Internet of things, artificial intelligence, blockchain and so on. Digital transformation can stimulate the innovation-driven potential of elements in data, create and enhance the survival and development in the information age, speed up business optimization, upgrading and innovation transformation, transform and enhance traditional kinetic energy, cultivate and develop new kinetic energy, creates, transmits and obtains new value, and achieve transformation, upgrading and innovation and development [2]. This shift is cultural in nature, affecting all elements of the business, including sales, marketing, operations, and the customer service, and often goes hand in hand with a shift to modern cloud technologies [1].

1.2 The Necessity of Digital Transformation in Traditional Industries

Cause the science and technology are developing rapidly, and with the ongoing advancement of society, traditional industries are facing new challenges. What is more, With the outbreak of the pandemic, all aspects of human life, including people's work, have changed, and the digital transformation in all walks of life is accelerating. In particular, traditional labor-intensive manufacturing is feeling the great impetus of digitalization. After decades of rapid development, traditional industries have found that their development has fallen into a bottleneck period, and in the face of increasing consumption upgrades and rising production costs, the

production methods and business models of traditional industries are becoming more and more lagging behind in the case of relatively low levels of mechanization and automation. Therefore, the transformation and upgrading of traditional industries has become an urgent need [3].

In traditional enterprises, they often face problems such as slow technological updating, high labor costs, serious environmental pollution, and reduced market demand. With the development of technology, the demand for knowledge workers and flexible working arrangements is increasing, which in turn has led to a shortage of skill-related manual labor. In addition to this, the problem of population aging has intensified. (For example, China, which has a population of 1.4 billion but still lacks labor, can make up for the shortage of labor in traditional industries after digital transformation. In addition to this, digital transformation can improve the relevant efficiency of internal processes and communication. Digital transformation is especially useful for companies that are paper-based bureaucracy and have difficulty communicating across time zones. Digital transformation will also lead to digital marketing, which will expand the influence and visibility of enterprises.[4]

This shift not only improves operational processes, but also expands the prospective database beyond that which is physically accessible or in the vicinity of business. Certainly that technology will evolve and move forward continuously. The degree of change that technology can bring to companies of all sizes and industries deserves recognition. What companies need to take into consideration is the kind of change that technology will bring to the companies, whether the business is ready (in terms of internal resourcing and capabilities), and how the business can retain this human factor in the business that provides the service [5]. The Consumer Electronics Show exhibition, one of the most important shows for the electronics industry, was held in Las Vegas this year. However, the number of visitors has declined 75% from before the pandemic. Considering the circumstances at the time, the company, like many others, turned to digital marketing. Companies can leverage social media channels to sustain employee engagement and share updates with their business partners. Second, companies also have access to blogs posts and articles to share pertinent information with participating communities. Thus, reducing losses. Therefore, digital transformation is necessary, even for very traditional industries.

1.3 How Traditional Enterprises are Digitally Transforming

Most traditional enterprises have been subverted by digitalization, and business leaders have to change the way they operate to serve new markets and overcome existing obstacles to respond to the needs of a broader clientele[6]. Therefore, traditional enterprises need to develop the right corporate strategy.

First, traditional companies need to develop a clear and consistent digital strategy and fully integrate it into the overall strategy. Ensure business leaders, managers, and employees are involved in digital transformation initiatives. A unified company is an effective factor for success. The company's workplace culture also needs to be geared towards digital transformation. Second, enterprises need to keep up with the trend and seize the value brought by the development of the industry [7]. Actively reconfigure assets, shift threatened areas of the enterprise to areas that benefit from digitalization, and improve the efficiency of existing business models through digital methods and tools. In addition to this, companies need to carry out large-scale capacity building. Businesses need big data-based decision-making, connecting with consumers, automating processes, and leveraging two-speed Information Technology. Leverage the internet and modern technology to facilitate the fast, Smart business process implementation and compelling customer experience. Meet customer needs by using digital innovation [6].

Companies also need to build a culture of rapid agility, collaborate externally and internally, and test risk appetite. Facilitate end-to-end customer experiences by building and deploying technology tools. Conventional companies need to develop innovative approaches to doing business. A good starting point is to take advantage of new ways to get paid, execute supply chain and value chain processes, and leverage advertising and communication channels. Leverage artificial intelligence to provide personalized services to customers and increase liquidity.

Given the expected benefits of digital business transformation, it is necessary to implement changes and assess the dramatic impact of rule and policy changes on traditional enterprise markets (customer bases). In addition to strategy, capabilities, and culture, leading digital companies have a unified approach to managing talent, processes, and organizational structures. Therefore, traditional enterprises also need to learn and learn from it. Traditional enterprises not only need to attract and cultivate digital talent, but also need to have the right incentive mechanism and clear career development direction to cultivate digital talent [6].

Transitioning to a digital business is not an easy task, and learning to transform is a long and challenging process for further transformation. It never ends due to the continuous development of technology. As customer needs and business environments continue to change, always keeping pace with the times, traditional businesses are ready to adopt new solutions.

2 Case study--Midea

2.1 Introduction to the Corporate Background

Midea is a worldwide technology group spanning five major business sectors: Smart Home Business Group, Industrial Technology Business Group, Building Technology Business Group, Robot and Automation Business Unit and Digital Innovation Business. Provide a wide range of product categories and services. Midea's main activities are household appliances, Heating Ventilation and Air Conditioning, robotics and automation systems, as well as smart supply chain (logistics). Provide diverse product classes and services, including consumer appliances, fridges, washing machines, and miscellaneous small appliances; Heating Ventilation and Air Conditioning activity with household air conditioning, central air conditioning, heating and ventilation systems as heart; robotics business and automation system business with Keller und Knappich Augsburg Group and Midea Robotics like heart; and Ande Smart Link as a service platform for intelligent integration of supply chain business integration solutions [8].

2.2 Transformational Change Underway – Three Phases

Digitization 1.0. In 2012, in order to overcome the separation and dispersion dilemma between operational units, Midea decided to integrate the information systems of all business units and determined the change objective of change of "one beauty, one system, one standard", that is, "632" internal reform.

The so-called "632" designates six operating systems, three business platforms and two technological platforms, which means the consistency of information systems of one process, one data and one system [9].

Between 2012 and 2015, Midea spent about 3 years to implement the entire "632" system in various business units. Then, whether it is digital construction or project construction, it is to improve various digital capabilities on this basis, and finally lay a

solid foundation for the digital transformation of Midea Group through the "632 Project", and finally realize "one beauty, one system, one standard".

Digitization 2.0. In 2015, based on a unified information system, Midea tried "+Internet", using emerging Internet technology and big data to achieve global mobility and smart manufacturing transformation.

After that, the group determined to fully implement Customer to Manufactory internally, transforming from the traditional "production to sales" to "sales by sales", allowing consumer the data of consumer to drive the operation and production of enterprises. Internally, this client-centric production and sales model is called the "T+3" model.

The "T+3" model needs all orders to come from the front line, and only after the order is obtained, the factory organizes material preparation, the production, delivery, etc. To do so, the entire value chain must be clarified, management must be fine-tuned, shorten the delivery cycle, and reduce inventory costs.

In 2016, the "T+3" model was the subject of a comprehensive promotion across the Group. This phase is called Digitalization 2.0: Data-Driven Customer to Manufactory [9].

Digitalization 3.0. In 2020, Midea launched "comprehensive digitalization and comprehensive intelligence", continued digital transformation in all links of the entire value chain, and exported digital services through three platforms to achieve external empowerment.

First, through its own experience and technical advantages, it has formed a trinity industrial Internet platform of "manufacturing knowledge, software and hardware" to export digital transformation solutions [9].

Second, through the MeiYun sales platform, opening up value channels across the industry value chain, fully integrating online and offline, and empowering the retail industry end to provide more efficient services for marketing, logistics, consumers, customers, etc.

Third, build an open ecosystem around smart life, drive hardware through software, intelligentize all home appliances, and better communicate with users on the Internet of Things platform.

2.3 The Impact and Role of the Transformation

Through the establishment of "unified process, unified data and unified Information Technology system" through digital transformation, Midea has upgraded from a home appliance company to a scientific and technological innovation enterprise, and the entire group has transformed into an enterprise management support platform of "one Midea, one system, and one standard", providing decision-making support for the strategy of "product leadership, efficiency driven, and global operation".

Through 10 years of transformation, revenue increased by nearly 3 times, profit increased by more than 4 times, and market value increased by nearly 9 times [10];

The number of invention patents authorized exceeded 12,000, the number of warehouses decreased by 95%, and the warehouse area decreased by 70% [10].

Successfully established 5 "lighthouse factories", becoming one of the enterprises with the largest number of "lighthouse factories" in China.

It can be seen that after digital transformation, enterprises are constantly progressing, not abandoned by the times, which is a very correct and successful transformation.

3 The Dangers of Digital Transformation

The transformation case of the above fully demonstrates the advantages of digital transformation in many aspects, but as mentioned above, digital transformation is not smooth sailing, and there may be some problems and challenges, which are analyzed as follows:

3.1 Data Security Risks

With the deepening of enterprise digital transformation, data security risks have become one of the most important risks in digital transformation. Digital transformation will bring about a large amount of accumulation and centralized storage of data, resulting in enterprise data facing multiple security threats such as hacker attacks, data leaks, and virus intrusions. In addition, the leakage, misuse, and tampering of enterprise data may also bring significant business losses and reputational risks to enterprises.

3.2 Problems Arising from Digital Transformation

Digital transformation usually involves the application and development of multiple emerging technologies, including artificial intelligence, big data, the Internet of things, and so on. While the application of new technologies can improve enterprise production efficiency, optimize enterprise management, and improve customer experience, the application of new technologies also faces problems such as insufficient technological maturity, difficult application, and high application risks [11].

3.3 Changes in Organizational Structure and Management Model

For digital transformation, it usually brings changes in organizational structure and changes in management models, which may lead to employee adaptation and resistance, thus affecting the smooth progress of digital transformation. In addition, digital transformation may also bring conflicts and coordination difficulties within enterprises, which requires enterprises to take appropriate management measures to reduce the risk of organizational change [12].

3.4 Policy Environmental Issues

As everyone knows, digital transformation involves a large amount of data processing and information transfer, which requires enterprises to strictly comply with relevant regulations and policy requirements. However, the regulatory and policy environment involved in digital transformation often changes, which brings certain risks to enterprises, such as legal action and administrative penalties [11]. Data governance faces multiple risks and challenges, such as poor data quality, inconsistent data standards, and poor data security.

3.5 Talent Issues

The digital talent market is highly competitive, and there are also certain risks and challenges in the digital talent reserve and training of enterprises.

4 Solutions for Drawbacks

For data security risks, enterprises need to establish a data security management system, enhance network security protection, and strengthen data backup and recovery.

For technological innovation risks, enterprises need to formulate technological innovation plans, establish technology research and development centers, and strengthen the training of technical personnel.

For organizational change risks, it is necessary to strengthen organizational communication and education, optimize organizational structure and processes, and establish a change management mechanism.

For the regulatory risk issues of regulations, enterprises need to pay attention to changes in regulations and policies, establish a compliance review mechanism, and arrange legal counsel and risk management personnel [13].

For how to manage data risks, enterprises need to establish a data management system, optimize the data management system, and strengthen data security protection. In addition, it is also necessary to establish talent training plans, strengthen talent introduction and retention, establish talent incentive mechanisms, establish digital culture, cultivate digital leadership, and strengthen organizational change management, so as to solve talent training and organizational culture problems.

5 Conclusion

The digital business transformation is a significant trend in the development of modern enterprises. With the rapid development of Information Technology, digital transformation has become the only way for business to improve efficiency, reduce costs and enhance competitiveness. This article proves the importance of digital transformation by introducing what digital transformation is, analyzing the pros and cons of digital transformation, and analyzing examples of the digital transformation, and the need for digital transformation for enterprises. Digital transformation includes all aspects of the enterprise, including production, marketing, human resources, and more. Through digital means, enterprises can realize information sharing, process optimization, data analysis and other functions, so as to improve production efficiency and management level. Meanwhile, the digital transformation can help companies better meet the demand, improve customer satisfaction and loyalty. Therefore,

enterprises should actively promote digital transformation and continuously improve their competitiveness and market position. In addition, in the future companies need to constantly update and develop different solutions to reduce the impact of digitalization.

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