

Analysis of the Influence Mechanism and Path of the High-quality Development Manufacturing Industry

-- Based on the case analysis of the current situation of the digital intelligence of Midea company

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Abstract: The rapid development of science and technology development, leading the change, the future has come, human across the information age, came to the digital technology, ubiquitous network, artificial intelligence and emerging technologies such as the number of intellectual times, at the same time with the disappearance of China's demographic dividend, shortage of resources, environmental policy, middle-income trap. The rising cost of production factors and other factors also lead to the domestic economic environment facing many changes in the change of development mode. This paper takes the practical problems and difficulties as the entrance, and through the analysis of the influence mechanism and path of the digital intelligent transformation of Midea companies, it provides corresponding countermeasures and suggestions for Foshan manufacturing enterprises to achieve high-quality development. his can result in a page being rejected by search engines. Ensure that your abstract reads well and is grammatically correct.

Keywords: Digitalization, Manufacturing, High Quality Development.

1. Introduction

Government made strategic arrangements for building a manufacturing power and a digital China, and proposed to promote the high-end, intelligent and green development mode of manufacturing industry. Digital intelligence is the high-end integration of digitalization and intelligence. The realization of digital intelligence is the key path for the transformation and upgrading of Foshan's traditional manufacturing industry, and it has become a "new engine" leading the high-quality development of Foshan's manufacturing industry. This project aims to explore the new drivers, new mechanisms and new paths for the intelligent transformation and upgrading of Foshan manufacturing industry under the requirements of high-quality development, and provide theoretical basis and intellectual support for the high-quality development of Foshan manufacturing industry.

2. The Theoretical Connotation of the High-quality Development of Foshan Manufacturing Industry Enabled by Digital Intelligence.

2.1. High-quality Development of the Manufacturing Industry

Manufacturing quality development is the priority of the development of high quality, manufacturing high quality development is the transformation of the mode of economic development, industrial structure optimization and transformation of the combination of economic growth, through the integration of internal and external resources and technology to enhance manufacturing ability, innovation ability and other core competitiveness, to provide users with high quality products, meet the different needs, promote the upgrading of industrial structure and supply chain, implement the new development concept, build the traditional regional manufacturing innovation coordinated development path,

realize manufacturing industry structure high-end, in order to achieve a high level of economic and social value creation process.

2.2. Digital Intelligence

Number intellectualization understandable number of intellectualization is the integration of digital and intelligent, refers to the use of digital and intelligent technology (such as big data, AI, cloud computing, Internet, etc.) support, on the basis of digital combination intelligent to build new system mechanism, enterprises face many uncertainty risk and uncertainty, the enterprise accurate response market difficulty, using the intellectualization can better business operations and market matching, make the integration of digital and intelligent[1].

3. The Digital Intelligence Transformation Process of Midea Company

Midea company has experienced the "digital 1.0 era", "Internet + era", "digital 2.0 era", "industrial Internet era", "comprehensive digital and intelligent", and now has entered the fifth stage, has a very mature digital technology and artificial intelligence technology, and the transformation of digital intelligence has been preliminarily completed. The basic path of the transformation of Midea digital intelligence is to first achieve high efficiency and high-quality production, on this basis, automation, information on the basis of automation, digitalization on the basis of information, and finally on the basis of digital, progress in the process of intelligent application through the deep integration of digital technology and business fields.

4. Analysis of the Influence Mechanism of Midea Intelligence Transformation under the Background of High-quality Development

4.1. Analysis of the Impact Mechanism at the Strategic Level

In the overall strategy, midea company has a top-level design of digital intelligent transformation, Unify the business processes and standards, To achieve information integration, Realize the data and standardization of enterprises; Adjusting the organizational structure simultaneously, Make it more flat and flexible, Strong communication and collaboration across departments, Promoted the flow of information and resource sharing, Improved the overall operation efficiency of the enterprise; Its focus on the user experience, With the help of advanced big-data technology, Analyze consumers' habits, preferences and needs, And then to provide tailored products and services for each user, And for continuous improvement and optimization, Using big data and artificial intelligence technology to conduct an in-depth analysis of massive data, So as to more accurately grasp the market trends and user needs, Using intelligent monitoring systems and user feedback channels, Timely collect product operation data, user feedback and other information.

In the business strategy, midea enterprises focus on product research and development and innovation, The introduction of advanced technical means, To meet consumers' personalized needs for home life, And thus is better able to adapt to market changes, Further expand the market share, Then to promote the transformation of digital intelligence; By introducing automated production lines and intelligent logistics systems, Midea has optimized the production process, It has also introduced digital technology and intelligent equipment, Increased transparency and visualization of the supply chain, It has also optimized inventory management and logistics distribution, Enhanced supply chain synergies, Further improve the operational efficiency; Digital intelligence technology dynamically monitors the changes of enterprise operating environment, integrates service business resources, and improves the market dynamic response capacity, This can improve the business process and business model,^[2] It improves the overall competitiveness of the company and helps to enhance user loyalty and word of mouth communication.

4.2. Analysis of the Influence Mechanism at the Production Chain Level

In the production process, has a highly automated production line, realize the precise control and efficient operation of the production process; through big data analysis and real-time data collection, can adjust real-time production scheduling, flexibly respond to market changes and customer demand, so as to make more reasonable production plan; establish a comprehensive digital intelligent production management system, the business process, financial management process and operation process to realize the fine management and optimization of the production process,^[3] Improve production efficiency and resource utilization rate.

In the process of allocation, By introducing an advanced logistics management system and intelligent storage

equipment, Such as RFID technology, barcode technology and other means, To achieve the accurate tracking and management of the inventory of goods, Precise control and efficient operation of logistics and warehousing links; Introducing advanced logistics management systems and automation equipment, Realize the intelligent path planning and scheduling and the accurate control and efficient execution of the logistics distribution process; Based on the analysis of historical sales data, market trends, consumer behavior and other information, With big data analytics and artificial intelligence technology, Midea can deeply explore and analyze historical sales data, market trends and user behavior, To predict the product demand for some time to come, It has promoted enterprises to make more accurate distribution decisions.

In the exchange link, it has an e-commerce platform to interact with consumers and understand market demand to realize two-way information exchange. By integrating the resources and information in the supply chain through the transparency and timeliness of the supply chain. Midea can share orders, inventory, logistics and other key information with partners, reduce information delay and error and reduce cost and risk.

In the link of consumption, Midea, through the development and production of home appliances with intelligent functions, Deeply integrated with the daily life of consumers, Launched a range of value-added services, Such as extended warranty, regular maintenance, Further enhance consumers' trust and loyalty to the brand; At the same time, the establishment of an intelligent customer service system and a perfect after-sales service system, With the help of advanced technology, Such as natural language processing, machine learning, Can automatically identify consumers' questions and give corresponding answers or suggestions, Provide support for use guidelines and troubleshooting, It provides consumers with a more convenient and personalized service experience. Thus improving the customer service efficiency and consumer satisfaction.

5. Research on the Digital and Intelligent Transformation Path of Midea Company under the Background of High-quality Development

5.1. Development and Application of Digital Intelligence Transformation of Midea Company

Initially carry out the digital and intelligent transformation of enterprises. With the rise of digital economy, Midea Group, as one of the best enterprises in the home appliance industry, is sensitive to the change of the competitive environment. The arrival of the digital era has promoted the way that consumers shift from offline consumption to online orders, and the consumption concept has also changed. In order to adapt to this change, Midea Group has made a change decision centered on digital and intelligent transformation, and improved the product after-sales service by analyzing the user experience data, so as to improve the product experience of consumers.

Adjust strategies to promote the progress of digital intelligence. After the initial enterprise transformation and upgrading, Midea Group gradually exposed the problems

such as high dependence on national policies and outdated production management mode, which led to the unstable growth of enterprises. In order to cope with these challenges, Midea Group made strategic adjustment in 2015-2016, adopted the "Internet +" technology, with intelligent products and intelligent manufacturing as the core strategy, increased research and development investment, develop new intelligent products, and build intelligent manufacturing factory, accelerate the process of digital and intelligent transformation.

Adapt to changes and try new business forms. At the beginning of 2018, Midea Group began to explore in the field of industrial Internet, through its intelligent gateway technology, initially realized the hardware capability of industrial Internet. At the same time, the software capabilities accumulated in the digital transformation of enterprises in recent years to build an industrial Internet platform to promote the comprehensive digital and intelligent enterprises. With the continuous exploration and practice of industrial Internet by Midea Group, Midea Group released M. in 2018. IoT Industrial Internet version 1.0, followed by version 2.0 in 2020. These upgrades introduce new technologies and application scenarios that further improve productivity and product quality. This stage makes the use of the industrial Internet technology more concrete, formed the intelligent products and the number of intellectual manufacturing as the core of the new pattern of intellectualization transformation, it can better product assigned to different types of enterprises, architecture communication bridge between developers and users, realize its "all-round open, ecological win-win, build family ecology" ideal[4].

5.2. Effectiveness and Influence of Midea Company's Digital Intelligence Transformation

The transformation of digital intelligence shows significant results. Before the transformation, Midea Group has encountered difficult challenges to deal with in many aspects. Despite many years in the high annual operating income, but only the severe situation of increasing income but not increasing profits. So far, Midea company actively seek change, choose to carry out a long span of digital intelligent manufacturing transformation. After a decade of transformation, in the first half of 2023, Midea Group released financial results showing that its net profit reached 18.232 billion yuan, a year-on-year growth of 39.22% year on year, and the net operating cash flow exceeded 29.8 billion yuan, which can be said to have achieved very significant results. Through the transformation, Midea has realized the leapfrog development from small to large and then to strong, and has become a model of the digital transformation of China's manufacturing industry.

Digital intelligence enables to achieve collaborative innovation. Midea Group uses big data to accurately design and produce according to the demand, to create a Midea data-driven ecosystem, and to realize intelligent analysis, accurate shopping guide, intelligent sales and perfect after-sales service. The use of the new industrial network to merge various departments within the group not only realizes benefit sharing, but also better cooperation with external enterprises to expand customer resources. At the same time, through collaborative innovation, Midea Group further reduces the internal inventory and improves the product quality and production stability. In 2020, Midea Group used the industrial

Internet technology to launch the M. The IoT developer platform, characterized by its openness and sharing, realizes the goal of interaction and communication with other enterprises, all-round openness and ecological win-win situation.

Strategic optimization to strengthen the efficient integration of enterprises. Midea Group, through the transformation and upgrading of its business model, the adjustment of online and offline business marketing mode to meet consumer needs and solve potential pain points, uses technology extension to find ways to solve the unsatisfied needs of users, and constantly interacts with users through online and offline activities to improve user stickiness and corporate brand image. In addition, through the transformation of digital intelligence to optimize the cost structure of enterprises, to use digital technology to replace the traditional process manpower management, and to optimize the sales channels to reduce the cost. With the progress of industrial digital transformation, Midea covers various processes of enterprises through a complete industrial network service system, and further expands the application field of digital intelligence.

6. Countermeasures and Suggestions

6.1. Strengthen the Introduction of Professional Talents.

Talent demand analysis, before the introduction of professional talents, the need to conduct a detailed analysis of the internal talent needs. Diversified recruitment channels. In order to attract more professionals, diversified recruitment channels can be adopted. Improve the recruitment process. In order to ensure that the recruited talents have the required professional skills and quality, it is necessary to establish a perfect recruitment process. Improve welfare benefits. In order to attract and retain excellent talents, it is necessary to continuously improve welfare benefits. Establish a talent pool, through the establishment of a talent database, the recruitment information, resume screening results, interview records and other data for sorting and analysis, so as to better understand the ability and potential of candidates.

6.2. Pay Attention to Consumer Needs

Improving consumer demand is the key for enterprises to gain advantages in market competition. Only by continuously improving consumer satisfaction and loyalty can enterprises gain advantages in market competition and achieve sustainable development.

6.3. Strengthen Investment in Scientific Research and Drive Product Innovation

Set up a special R & D fund, Attract top scientific research talents, Establish industry-university-research cooperation mechanism, Strengthen intellectual property protection, Create an innovative cultural atmosphere, Pay attention to R & D project management.

6.4. Strengthen the Value Chain Construction with Data

Accelerating the construction of a stable and efficient industrial chain and continuing to expand the application field and level of big data are the key support for realizing the high-quality development of China's big data industry. Deepen the industry big data integration system, and extend the industry

value chain.

6.5. Industrial Cluster and Regional Cooperation

Establishment of industrial parks: through the establishment of industrial parks in multiple regions, the relevant enterprises will be gathered together to form industrial clusters. Promote the integration of the industrial chain: actively establish close cooperative relations with suppliers and customers, optimize the industrial chain, and improve the efficiency and efficiency of the entire industrial chain. Regional cooperation projects: participate in regional cooperation projects, together with other enterprises, government agencies and industry associations

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