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## Systematic Research on Business Management in the Digitization Era

Tong Zhu

Assistant Lecturer, Department of International Business,  
Anhui International Studies University, China

### **Abstract:**

*In the current information age, more and more enterprises integrate big data, Internet of Things, artificial intelligence and other new technologies into the operation and management of enterprises, which plays an important role in promoting the production efficiency and market competitiveness of enterprises. This paper analyzes and investigates the market environment, product activities, marketing activities, logistics activities, the internal organizational structure and strategic decisions of enterprises, and summarizes some basic characteristics of enterprises' business activities under the digital environment. On this basis, from the systematic perspective of integrity, hierarchy, dynamic, collaborative to find the key points of business management reform in the digital environment. Finally, it is proposed to improve the digital level of enterprise business management and create higher commercial value through the strategy of phased transformation, organizational structure strategy, business operation transformation strategy and intelligent comprehensive capacity strategy.*

**Keywords:** *Digitization, business management, systematic research*

### **1. Introduction**

With the continuous development of information technology, the application of new technology products into people's life and change the original production and lifestyle. In this process, a large number of data are generated, which enables enterprises to better grasp the customer demand and improve their operational efficiency through data, which brings new opportunities to the development of enterprises. At the same time, enterprises are also facing more challenges, such as the shortage of digital talents, the lack of data utilization ability, the cost of digital transformation and so on. In this digital environment, the application of digital technology has a significant impact on the development of business activities of enterprises, Therefore, many enterprises introduce digital technology into their business activities according to their own development needs, and use the advantages of digital technology to reconstruct their business management processes, to make up for the deficiencies of enterprise development in the digital market environment, so as to achieve the innovation of management mode and the improvement of their own operation efficiency.

This paper firstly analyzes the changes of business management in the digital environment, including market environment, product activities, marketing activities, logistics activities, internal organizational structure, strategic decision, and analyzes the impact of digitalization on the basic activities and business activities of enterprises. On this basis, it further discovers the key links of digitization's influence on business operation of enterprises, analyzes the relationship between each link from a systematic point of view, so as to provides an important application reference for the introduction, integration and reconstruction of enterprise digital technology.

### **2. Changes of Business Management in Digital Environment**

Due to the influence of information technology, enterprises are facing different changes in both the market environment and their own business management when they carry out business activities under the digital background. In order to adapt to the changes of the external market environment, enterprises have adopted the introduction of digital technology to make the original internal operation and management ideas, processes and methods have obvious digital information color.

#### *2.1. Changes in Market Environment of Business Activities*

Under the background of the continuous integration of information technology and industry, the government promotes and guarantees the digital business of enterprises by encouraging and developing the information technology industry and strengthening the infrastructure construction of information transmission. Through the introduction of digital process, traditional enterprises in the industry strengthen their own enterprise construction, and at the same time strengthen the level of contact with external consumers, whether from the aspects of e-commerce or e-government, have brought great changes to people's lives, and the scale of digital economy is also climbing. Compared with the traditional business activity entity environment, the business activities under the digital background have great flexibility in both

time and space. They can carry out personalized services according to the needs of customers without restrictions of time and place. The concept of enterprises to carry out business activities also emphasizes customer satisfaction as the first priority.

### *2.2. Changes in Enterprise Product Activities*

In the digital era, whether from the production or procurement of products, even the product itself has changed. Enterprises cannot only provide physical products for consumers, but also generate transaction value with consumers through virtual products or services. The products themselves are classified into physical products and virtual products. In the production activities of enterprises, we can timely adjust according to the obtained consumer data to produce products that meet consumers' demands. Meanwhile, they can use digital production technology to make their production cost, output and efficiency reach the optimal state. In addition, in the process of purchasing raw materials or products, enterprises can carry out comprehensive and economic purchasing activities through e-commerce platform. In the new era marked by digitalization, an important feature of enterprise product activities is intelligence. The application of a large number of sensors, processors and system software enables enterprises to achieve digital control over all processes of product activities.

### *2.3. Changes in Enterprise Marketing Activities*

In digital marketing, enterprises carry out marketing propaganda to consumers by means of diversified marketing methods through Internet channels, monitor the marketing effect in real time through data, adjust marketing strategies in time, and maximize the benefits of enterprise marketing costs. Enterprises can also summarize and analyze user data collected in online or offline marketing in the form of data, so as to reflect the different needs of consumers and make their products and services more satisfying to consumers' personalized needs. At the same time, through the form of customer database to analyze and maintain customer data, and accurately push products and services for different customer groups. In order to meet the needs of customers, the online purchase and offline service mode becomes possible, which makes the enterprise's marketing activities can be carried out in many aspects, and further enhances the reliability of enterprise products and the satisfaction of users.

### *2.4. Changes in Logistics Management Activities*

Logistics management needs to involve transportation, storage, circulation processing, distribution and other links, so the data volume of logistics digital management is large, and the requirements of data integration and analysis are also high. After the introduction of information technology such as Internet of things and RFID, logistics enterprises can realize digital transparency management of transportation and inventory, visualization dynamic Kanban management of logistics, intelligent vehicle transportation and transportation path optimization, by using big data to predict and analyze, a mature tracking, analysis and evaluation system can be established to continuously improve the operational efficiency of logistics enterprises, reduce their logistics costs, and the same time, it can meet the tracking and timeliness requirements of customers for logistics transportation, and make logistics activities towards information, automation, networking, intelligent direction.

### *2.5. Changes in Enterprise Organizational Structure*

In the context of digitalization, in order to improve the accuracy and timeliness of enterprise information transmission, enterprises must digitize the traditional organizational structure and establish the organizational structure of digital transformation. Therefore, a series of innovative organizational structure models have emerged. These innovative organizational structure models have some common characteristics: 1) reduce the internal management level and develop in the direction of flat management; 2) improve the matching degree and flexibility between individuals and organizations; 3) pay more attention to the overall coordination among various departments within the enterprise. Through the transformation of innovative organizational structure, enterprises can improve the overall internal operation efficiency, realize the transparency and sharing of information resources, and also help to activate the flexibility of individuals and organizations.

### *2.6. Changes in Enterprise Strategic Decisions*

In the digital era, the strategic decision making of enterprises is no longer based on subjective judgment of experience, but based on the objective description of data information to analyze and predict the current or future situation, and finally determine how to do through strategic decision making. In this process, objective data and data algorithm play an important role in decision making. In addition, the thinking of enterprise strategic decision making has also changed to customer-centered, to obtain more capabilities and resources through Internet thinking, and to establish innovative business model around the realization of customer value. With the help of data and information channels, enterprises can make timely adjustments to their strategic decisions according to the changing market environment, make more reasonable distribution of limited resources of enterprises, and also help to maximize the profits of enterprises.

## **3. Systematization of Business Management in Digital Environment**

In the theory of system science, the whole composed of multiple functional individuals through mutual connection and interaction to achieve a common goal is called a system. Any system has the characteristics of integrity, dynamics, hierarchy and coordination. In the digital environment, each process of enterprise business management has undergone unique changes. To analyze the basic activities of enterprise business management from a systematic point of view, and to

explore the relationship between them from the digital perspective is more conducive to find the important links of enterprise digital transformation, and provide theoretical basis for the realization of scientific and orderly digital management of enterprises.

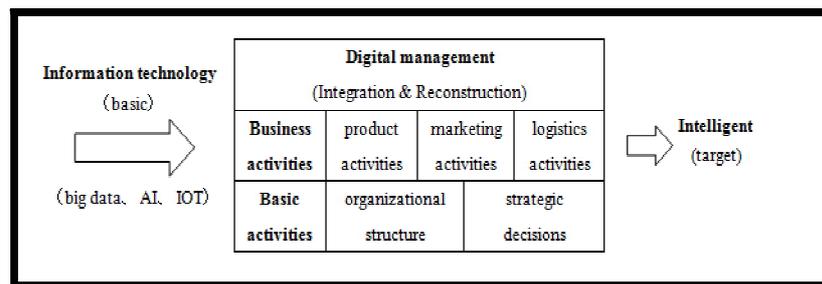


Figure 1: Framework of Enterprise Business Management System in Digital Environment

3.1. Introduction of Integrated Digital Management Based on Information Technology

In order to improve the efficiency and value of business management, it is necessary to introduce digital management process as a whole, so as to reach the goal of intelligent management and achieve effective management of enterprises. As shown in Figure 1, whether in the enterprise business management system on the basis of enterprise activity level or business activity level need through the introduction of information technology to realize the digital management, raising the level of information technology in enterprises from whole, so as to lay a good technical foundation for the realization of digital management at the overall level of enterprise operation and management. At present, digital technology represented by big data, artificial intelligence, cloud computing and mobile Internet plays an important role in promoting the innovation and development of enterprises in the business activities of 'online operation', 'cloud office', 'intelligent manufacturing' and other business activities.

3.2. Hierarchical Management in Line With the Structure of Enterprise Business Activities

Under the digital environment, the business management of enterprises is composed of different business activities, which are interrelated and influenced by each other, showing an obvious internal hierarchical relationship. As shown in Figure 1, the activities can be divided into the business activity level and the basic activity level according to whether the activities directly generate value. Basic activities play an important role in supporting the operation and maintenance of the whole enterprise's digital management, and business activities are an important part of business operation of enterprises, and directly affect the output of enterprise value. In the process of digital management, the first thing to realize is the digitization of basic activities, and then to promote the digitization to business activities; when the business activities change, the basic activities also need to be timely adjusted according to the changes.

3.3. Dynamic Management Oriented by Business Requirements

The implementation of enterprise digital management needs to be business oriented, according to the business requirements of product level, marketing level and logistics level. As shown in Figure 2, according to the actual data application needs of enterprise business activities, the introduction of information technology is carried out, and the basic supporting environment and data management system of information technology are constructed. At the same time, the management system should be adjusted timely according to the change of data demand in actual operation, and the basic environment should be strengthened and upgraded, so that both the basic environment and the management system can keep up with the times dynamically. In addition, in the process of carrying out internal environment and system adjustment, enterprises need to pay attention to the changes of external market environment, such as the latest market hot spots and new technology trends. Only in this way can it be more conducive to the integration of enterprise digital process and adapt to the dynamic changes of business process and external technical environment.

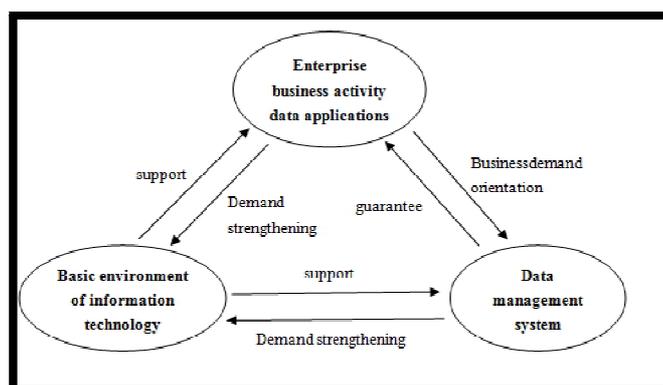


Figure 2: Dynamic Management Relationship Diagram of Enterprise Business Requirements in Digital Environment

### *3.4. Collaborative Management of Enterprise Information, Business and Resources*

Digital management integrates the information transmission, business process and resource management of enterprises into the information platform for unified management, so as to break the boundary barriers between resources and processes, enable all parts to cooperate with each other around the same goal, and maximize the development and utilization of various resources. In the digital collaborative management, can grasp and obtain the latest, real and global data information at any time. Various resources of the enterprise can also flexibly coordinate the consistency of the organization according to the needs of the business, so as to achieve smooth connection between business and business, making the goal of business management and the cooperation of business activities are greatly improved.

## **4. Business Management Strategy of Enterprises in Digital Environment**

The foundation for enterprises to realize digital management is information technology through information technology, various processes in enterprise operation and management are connected, traditional offline manual management is transformed into online digital unified management, so as to achieve the digital integration and reconstruction from the basic level to the business level, making all aspects of business management simple and efficient, finally achieving the goal of intelligence Standard. Therefore, enterprises need to focus on the key links of business activities, through the formulation of digital strategy to achieve the transformation of business mode.

### *4.1. Implement Digital Transformation Strategy in Stages According to the Situation of the Enterprise*

Enterprise digital transformation is a long-term practice process of enterprises according to their own actual situation, which usually needs to go through three stages to realize. The first stage is to transfer the traditional offline business to the online digital stage in the form of data by using computer and other related technologies. The second stage is to use the unified data information system to break the boundary barriers in the original internal management of the enterprise, in the internal management and business process to fully realize the integration of data and information in the information stage. The third stage is to use big data, cloud computing and other information technology to realize the re-architecture and integration of business management process by information technology driven by data, and realize the digital accurate operation management of all-round real-time data flow and sharing. Different enterprises will face different problems in different stages of digital transformation, which need to be implemented according to the actual situation of enterprises.

### *4.2. Establish the Organizational Structure Matching with the Digital Management of Enterprises*

The organizational structure matching with the enterprise digital management is the basis of the development of digital management, which directly determines the management mode and efficiency of the enterprise. In the process of organizational structure adjustment, it is a process of re-modeling and re-structuring the original management structure and process with the concept of digitization, which is more conducive to the promotion of digital process. In this process, enterprises must establish information departments or related positions to promote digital transformation, which are responsible for the introduction of relevant technologies and docking with other departments to form a new digital system, so as to deeply integrate digital management with enterprise business activities. In addition, according to the actual needs of enterprises, functional departments such as data analysis and information security may be established to take charge of other work of enterprise digital management.

### *4.3. Digital Operation Transformation Strategy at the Business Level*

In the context of digitalization, the production, procurement, marketing, transportation and products itself of enterprises are closely related to digitalization. In the process of digital reconstruction at the business level, enterprises need to combine the Internet and e-commerce to develop flexible and innovative business models, carry out procurement, marketing and other activities through multiple channels, so as to expand the scope of business and further reduce operating costs. At the same time, develop new digital services, enhance the functions or services of traditional products through digital means, and to establish connections with users by taking advantage of the Internet, and to constantly try to explore new user needs. The transformation of digital operation at the business level is a process of keep trying and reconstruction, so as to realize the innovative transformation of enterprise business model.

### *4.4. The Construction of Enterprise's Comprehensive Ability with the Goal of Intellectualization*

Intellectualization is the deep integration of the digital world and the physical world, and is the further development of digitization. In order to realize the transformation of management methods to intelligent management in the process of digital construction, enterprises need to take intelligence as the goal and improve the comprehensive ability construction of enterprises in various aspects. The comprehensive ability of intelligent transformation is the comprehensive development ability of continuous innovation and integration of enterprises around customer demand, data interaction and their own business development. For example, the implementation of digital management culture from top to bottom in the enterprise, the transformation of leadership's decision-making concept to the 'intelligent decision' of data, the enterprise efforts to promote the transformation of organizational structure, cultivating professional talents of high quality digital, and the construction of customer-centered digital service system, enhance the intelligent value of products etc., thus laying the foundation for the realization of intelligent business management of enterprises.

## 5. Conclusion

With the continuous development of digital technology represented by big data, cloud computing and Internet of Things, enterprises are inevitably in the era of digital economy. Through the introduction of relevant information technology, enterprises can improve operational efficiency, optimize the original business process, and create more value for consumers by innovating their products and services, which provide new development opportunities for enterprises.

However, the promotion of enterprise digitization is a systematic development process. In the process of formulating digital development strategy, enterprises need to carry out it in stages according to their own situation, and pay attention to the hierarchical relationship between the internal activities of enterprises, especially the supporting role of basic activities. Under the guidance of the concept of digital decision-making, the management should adjust the organizational structure and follow up dynamically with the guidance of business requirements, so as to continuously improve the enterprise's digital comprehensive ability in the process of operation and development, and all parts of the system can achieve consistent intelligent cooperation. Only in this way can enterprises continuously accumulate experience under the new era, closely relate its own business development to the needs of customers, and realize the innovative development mode of digital transformation.

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