

# ***Research on the Transformation and Development of Enterprise Innovation Business Administration in the Digital Age***

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**Abstract:** At the moment when digital technology has profoundly changed the operating environment of enterprises, it is very important to explore the transformation and development of enterprise innovation business management. The purpose of this paper is to study how enterprises can realize the effective transformation of business administration in the digital age, so as to enhance their competitiveness. In this paper, the characteristics of the digital age, related business management theories and their influence by the digital age are deeply analyzed, and the challenges faced by enterprises in management concept, organizational structure, marketing model and talent management are revealed. It is found that the traditional business management model is full of disadvantages under the impact of the digital wave. Based on this, this paper puts forward that we should innovate the management concept and establish data-driven and innovation-oriented thinking; Change the organizational structure and build a flat and networked structure; Upgrade marketing mode and promote digital and personalized marketing; Optimize talent management and improve the introduction, training and incentive mechanisms to achieve transformation. In order to provide strategic guidance for the sustainable development of enterprises in the digital age.

## **1. Introduction**

With the rapid development of information technology, the wave of the digital age is reshaping the global economic structure and enterprise operation mode in an unprecedented situation. The wide application of digital technologies such as big data, artificial intelligence and cloud computing has not only changed consumers' behavior habits and market competition rules, but also brought many opportunities and challenges to the survival and development of enterprises [1]. In this context, enterprise innovation and the transformation and development of business administration have become important topics that need to be further studied.

The traditional business management model has played an important role in a relatively stable market environment. However, in the face of rapid changes and uncertainties in the digital age, its limitations have gradually become prominent. The traditional management concept pays attention to experience and hierarchical decision-making, which easily leads to the lag of decision-making in

the rapidly changing information in the digital age. However, the traditional marketing model is difficult to reach the target customers accurately, and it seems inadequate in the face of diversified consumer demand in the digital age [2]. If enterprises want to gain a firm foothold in the digital age and realize sustainable development, they must actively explore the transformation path of innovative business management [3]. In recent years, many scholars have carried out rich research on the influence of digital technology on enterprises, and some achievements have provided useful reference for enterprise practice [4-5]. However, the systematic research on the transformation and development of enterprise innovation business administration in the digital age is still insufficient, especially on how to deeply integrate digital technology into all aspects of enterprise management to achieve all-round transformation, which needs further exploration [6].

This paper will focus on the background of the digital age, deeply analyze the challenges faced by enterprises in the process of transformation and development of innovative business administration, and put forward targeted transformation strategies. It is expected that this study can provide theoretical support and practical guidance for enterprises to achieve efficient management and innovative development in the digital age, and help enterprises stand out in the fierce market competition.

## **2. Digital age and business administration**

### **2.1. Characteristics of the digital age**

The digital age is driven by the rapid development of information technology, showing a series of distinctive features. The first thing is the immediacy and mass of information dissemination. Internet and mobile communication technology have broken the limitation of time and space, information can spread all over the world in an instant, and the amount of data available to enterprises has exploded [7]. The rapid flow of data accelerates the pace of decision-making, and enterprises need to make scientific decisions based on massive information in a short time. Moreover, the speed of innovation iteration in the digital age is amazing. Technological innovations emerge one after another, and the renewal cycle of products and services is greatly shortened. If enterprises can't keep up with the pace of innovation, they are easily eliminated by the market. The role of consumers in the digital age has changed, from passive recipients to active participants. They express their needs and feedback through the network platform, and their requirements for personalization and customization of products and services are increasing day by day.

### **2.2. Enterprise business management theory**

After long-term development, the theory of enterprise business administration has formed a relatively complete system. The theory of strategic management aims to help enterprises make clear the long-term development direction, formulate differentiated competitive strategies by analyzing the internal and external environment, and gain competitive advantages. Organizational management theory pays attention to the design and optimization of the internal organizational structure of enterprises. The traditional pyramid structure emphasizes clear hierarchy and clear division of labor, which can ensure certain stability and order, but its flexibility is relatively insufficient [8]. Marketing management theory focuses on meeting the needs of consumers, from 4P theory (product, price, channel and promotion) to the marketing concept with more digital elements now, and has always been committed to improving the market share and brand influence of enterprises through effective marketing strategies.

### 2.3. The influence of digital age on enterprise business management theory

The digital age has brought an all-round impact on the above business management theory. In terms of strategic management, digital technology makes the market competition boundary blurred and cross-border competition frequent, so enterprises need to have more keen market insight and strategic adjustment ability [9]. On the organizational management level, the traditional pyramid structure is difficult to adapt to the rapidly changing market environment. Digitalization requires enterprises to build a more flexible and efficient flat or networked organization to improve the efficiency of information transmission and the speed of decision-making. In marketing management, the change of consumer behavior in the digital age urges enterprises to shift from traditional mass marketing to precision marketing, and use big data to analyze consumer preferences, realize personalized marketing and real-time interaction, and reshape the marketing model.

## 3. Challenges faced by business administration in the digital age

### 3.1. Management concept level

Before the digital age, business management concepts were mostly based on experience and relatively stable market environment. Traditional management pays attention to hierarchical decision-making mode, information is transmitted from bottom to top, and decisions are executed from top to bottom. In the digital age, the speed of information dissemination is extremely fast and massive, which leads to the lag of decision-making and is difficult to cope with the rapidly changing market [10]. Enterprises need to change from experience-driven to data-driven management concepts, and make full use of big data analysis and other means to make decisions quickly and accurately.

### 3.2. Organizational structure level

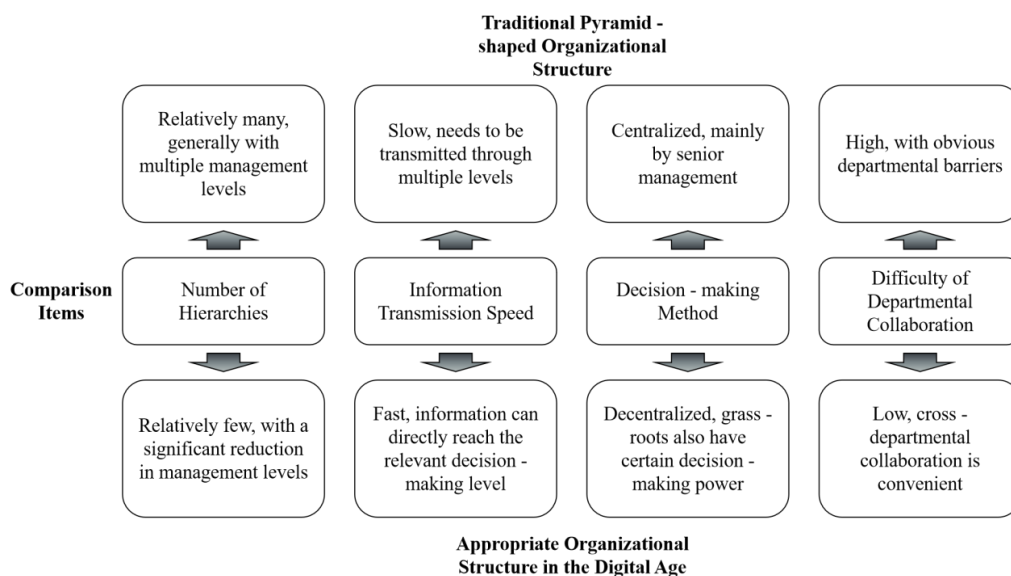


Figure 1 Comparison between Traditional Pyramid - shaped Organizational Structure and Appropriate Organizational Structure in the Digital Age

The traditional pyramid organizational structure has exposed many disadvantages in the digital age. The structure has many layers, and the information transmission is easily distorted and

inefficient. The first-line market information obtained by grass-roots employees may have missed the best opportunity to deal with it when it reaches the top decision makers through layer-by-layer transmission. There are barriers to communication and cooperation between departments, and it is difficult to promote cross-departmental projects. Take the traditional manufacturing enterprises as an example, because of the lack of effective communication between the R&D department and the sales department, the new products developed cannot meet the market demand, resulting in a large inventory backlog. In order to adapt to the digital age, enterprises need to build a flat and networked organizational structure, reduce intermediate levels, promote the rapid circulation and sharing of information, and improve the overall response speed of enterprises. The comparison between the traditional pyramid organizational structure and the suitable organizational structure in the digital age is shown in Figure 1.

### **3.3. Marketing mode level**

Great changes have taken place in consumer behavior in the digital age, and the traditional marketing model is difficult to adapt. Nowadays, consumers have diversified access to information and are more inclined to conduct product research and purchase decisions through online platforms. Traditional mass marketing methods such as television and newspapers have low accuracy and unsatisfactory input-output ratio. Consumers pursue individuality and interactivity in the digital age. They want to participate in product design, marketing activities planning and other links, but the traditional marketing model is mainly one-way communication, which can not meet this demand. Enterprises must turn to digital marketing mode, use social media, big data precision marketing and other means to deeply understand consumer demand, realize personalized marketing and real-time interaction, and improve marketing effect.

### **3.4. Talent management level**

The digital age puts forward new requirements for enterprise talents. On the one hand, enterprises need talents with digital skills, such as data analysts and artificial intelligence engineers, to promote the digital transformation of enterprises. On the other hand, innovation ability has become the key quality of talents, and enterprises need to constantly innovate products, services and management models to adapt to market changes. The traditional talent management mode is insufficient in attracting and cultivating such talents. The traditional salary system and promotion mechanism can't attract high-end digital talents, and the training system can't meet the needs of employees to improve their digital skills and innovation ability. Enterprises need to optimize talent management strategies, provide competitive salary and benefits, establish innovative incentive mechanisms, and improve the training system in order to attract and retain outstanding talents who adapt to the digital age.

## **4. Transformation strategy of enterprise innovation business administration in digital age**

### **4.1. Management concept innovation**

In the digital age, enterprises need to abandon the traditional experience-led management concept and establish data-driven and innovation-oriented management thinking. The data-driven concept requires enterprises to pay attention to the collection, analysis and application of big data, and provide accurate basis for decision-making by mining the value behind the data. The innovation-oriented concept encourages enterprises to create an open and inclusive innovation atmosphere, dare to try new technologies and new models, and dare to break through the limitations

of traditional thinking. Enterprises should set up an innovation reward mechanism to give material and spiritual rewards to teams or individuals who put forward innovative ideas and achieve results.

## 4.2. Organizational structure change

Building a flexible and efficient organizational structure is the key for enterprises to adapt to the digital age. Enterprises should promote the transformation of organizational structure to flattening and networking. Flat structure reduces management levels, makes information transmission faster and more accurate, and improves decision-making efficiency. Some Internet companies adopt flat management, and grass-roots employees can communicate directly with top management and respond quickly to market changes. Network structure emphasizes the integration and cooperation of internal and external resources of enterprises, breaking the boundaries between departments and organizations. Enterprises can realize resource sharing and complementary advantages by establishing strategic alliances and industrial clusters. The following is Figure 2, which visually presents the differences of different organizational structures:

Comparison Items	Traditional Pyramid - shaped Organizational Structure	Flattened Organizational Structure	Networked Organizational Structure
Hierarchical Relationship	Clear levels and strict hierarchy	Few levels and relatively equal	No obvious levels, connected by network nodes
Information Circulation	Slow transmission, easy to be distorted	Rapid transmission with high accuracy	Multidirectional circulation and efficient sharing
Decision - making Speed	Slow, centralized decision - making	Fast, mainly decentralized decision - making	Extremely fast, with multi - party collaborative decision - making
Flexibility	Low, weak adaptability	High, can respond quickly to changes	Extremely high, can adjust collaborative relationships dynamically

Figure 2 Comparison of Characteristics between Traditional and New Organizational Structures

## 4.3. Marketing model upgrade

In the digital age, the marketing model of enterprises needs to be transformed into digital and personalized. In the field of digital marketing, enterprises should comprehensively utilize various channels such as social media, search engine marketing (SEM), and content marketing to expand brand influence and attract potential customers. Social media platforms can effectively attract user attention and promote sharing behavior by publishing interesting and valuable content, thereby achieving a viral effect on brand communication. Personalized marketing relies on big data analysis to deeply understand consumers' needs, preferences and buying habits and provide them with customized products and services. Enterprises can accurately push personalized marketing information and preferential activities according to consumer portraits to improve marketing conversion rate.

## 4.4. Optimization of talent management

In order to meet the demand for talents in the digital age, enterprises should optimize their talent management strategies. In the introduction of talents, we should broaden the recruitment channels and attract compound talents with digital skills and innovative ability. In addition to the traditional recruitment platform, we can explore high-quality talents by participating in industry technology forums and recruiting digital technology-related majors in colleges and universities. In terms of

talent cultivation, enterprises need to establish a comprehensive training system and provide professional courses such as digital technology and innovative thinking. Enterprises regularly organize employees to participate in specialized technical training such as big data analysis and artificial intelligence applications. At the same time, enterprises should establish talent development platforms, create opportunities for employees to improve themselves, and promote the implementation of cross departmental communication and learning mechanisms. In terms of talent incentives, we should build a diversified incentive mechanism, pay attention to spiritual incentives besides material rewards, such as giving outstanding employees honorary titles and promotion opportunities, so as to stimulate employees' work enthusiasm and innovation vitality.

## 5. Conclusions

This paper focuses on the key issue of the transformation and development of enterprise innovation business administration in the digital age, and through systematic research, draws the following conclusions: the digital age has a profound impact on enterprise business administration with its characteristics of instant and massive information dissemination, rapid innovation iteration and changing consumer roles. Traditional business management theory and model are facing many challenges in management concept, organizational structure, marketing model and talent management, which has been difficult to meet the needs of the times.

In order to meet these challenges, enterprises need to promote transformation in a multi-pronged manner. In terms of management concept, we should shift from experience-driven to data-driven and innovation-oriented, make accurate decisions with the power of big data, and stimulate vitality with innovative atmosphere. The organizational structure should abandon the traditional model of complicated hierarchy, build a flat and networked structure, improve the efficiency of information transmission and decision-making, and promote internal and external cooperation. The marketing model needs to be upgraded to digital and personalized, and with the help of multiple digital marketing methods and big data analysis, it can meet the new needs of consumers. In the aspect of talent management, we should optimize the introduction, training and incentive mechanism to attract and cultivate compound talents to adapt to the digital age.

Through these transformation strategies, enterprises can better adapt to the development trend of the digital age, enhance their competitiveness and achieve sustainable development. However, with the continuous evolution of the digital age, enterprises need to keep keen insight and innovative spirit, and constantly adjust their transformation strategies to cope with the new challenges and opportunities that may arise in the future.

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