The Impact of Firms' Digital Transformation on Executive Appointment Decisions

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Abstract. In the era of digital economy, digital transformation is an important path to promote the transformation and upgrading of traditional manufacturing enterprises towards intelligent manufacturing. The article employs a case study approach, utilizing data from Huawei Technology Co., Ltd. between 2020 and 2022. It comprehensively examines the influence of digital transformation on the selection process of manufacturing industry executives. This analysis considers various factors such as the age, industry background, and technical expertise of these executives. By gathering and organizing relevant data in these three categories, the article aims to provide a comprehensive analysis of the impact of digital transformation on appointment decisions within the manufacturing industry. Research has found that digital transformation can significantly affect the appointment standards of executives in enterprises. Based on this, in order to better promote manufacturing enterprises to achieve high-quality development through digital technology, the article proposes corresponding suggestions and measures.

Keywords: Digital transformation, executives age, Industry background, Technical background.

1. Introduction

With the rapid development of the times and science and technology, digital technology has become a topic that major enterprises must face and overcome. Digital transformation is a strategic driven organizational change process that relies on the cognition and decision-making behavior of senior managers. To achieve China's goal of becoming a world power by 2030 and achieve high-quality economic development, digital transformation of enterprises is an important task. In recent years, digital technology has penetrated into various industries in society. As of 2021, the total digital production value of industries has reached 32.7% of China's total output value. Information resources are one of the most important factors of production and social wealth. Based on the analysis of Huawei Technologies Co., Ltd. from 2020 to 2022, it is found that enterprise digital transformation requires a team of experienced executives to lead correctly and effectively. Specifically, a senior management team with rich experience, technical background, and industry background can increase enterprise R&D investment, provide greater technical and talent support, improve corporate governance level to provide a good institutional environment, and effectively promote enterprise digital transformation. A team of executives with these backgrounds can meet the needs of digitization.

As the fundamental guarantee of the digital economy, digital technology is highly integrated with various fields in society, utilizing digital information technology to comprehensively upgrade and optimize the business, management, research and development, operation, and other aspects of various enterprises, forming a new model of enterprise digital transformation. The 20th National Congress of the Communist Party of China clearly put forward the important strategic deployment of "accelerating the construction of a world science and technology powerhouse, a digital China, and promoting high-quality economic development". The deep integration of the digital industry and the real economy has become the primary guarantee for promoting innovative development of the digital economy, and strengthening the cultivation of digital talents has also provided new talent protection and support for enterprises. The relevant measures and proposals indicate that as an indispensable strategic guideline for the digital economy and artificial intelligence in today's era, digital transformation of enterprises has become an important direction for promoting high-quality economic development and building a world science and technology powerhouse. As the core human resources

of a company, the comprehensive ability and experience level of executives are particularly important for flexibly formulating corporate strategies. In the executive team, experience is a key factor, referring to the ability of senior management to make accurate and effective decisions in different environments and difficulties. Clarifying the relationship and impact mechanism between changes in executive team members and digital transformation in enterprises is of great significance for improving the success rate of digital transformation in enterprises.

At present, a large number of studies have discussed the relationship between corporate digital transformation and the overseas experience of executive teams [1], salary and benefits [2], strategic policies [3], etc. Other studies have pointed out that heterogeneity in executive education level, overseas background, and professional background can enhance the promoting effect of financial abundance on corporate digital transformation, while heterogeneity in executive age has a suppressive effect. [4] However, there is a clear gap in existing research regarding the impact of deepening the degree of digital transformation of enterprises on the industry, age, and technical background of corporate executives.

In view of this, this article takes Huawei Technology Co., Ltd. from 2020 to 2022 as the research object, and empirically elaborates on the influence of age and background factors of the executive team on the employment decisions of executives in digital transformation enterprises. Starting from enterprise reporting, the proportion of executives in various fields, and different situations, the article comprehensively analyzes the impact of digital transformation on the employment decisions of executives in enterprises.

2. Literature review

This article mainly discusses the demand impact of enterprise digital transformation on executive employment decisions. The discussion mainly focuses on the degree to which executives have technical and industry backgrounds, as well as the age composition of the executive team. From existing literature, scholars have mainly examined the impact of digital transformation on the background needs of executive teams from multiple aspects such as innovation diversification and corporate governance. For example, Li, Gu, etc (2024) [5] research suggests that dynamic capability is an important driving factor for GEM companies to implement digital transformation, and open personality traits can serve as important evaluation indicators for selecting CEOs.Shane and Khurana (2003) [6] research has shown that hiring executives with overseas experience can provide a more diverse approach to strategic planning for businessesWang, Wang, and Feng (2024) [7], research has found that female executives can increase the financial redundancy and richness of digital transformation in enterprises, releasing a "resource effect"; Relieve the management myopia that hinders digital transformation of enterprises and unleash the "governance effect". Zhao, Zhang (2024) [8], research has found that the higher the level of gender diversity in the board of directors, the easier it is for companies to achieve digital transformation.

Through the review of the above literature, it has been found that scholars often approach research from a macro perspective, taking the industry as a whole as a starting point, focusing on the impact of digital transformation on the specific attributes of executive teams in the context of digital transformation. However, there is little research on the different backgrounds and age changes of executive team members during the implementation of digital transformation in specific enterprises. This study analyzes the specific case of Huawei Technology Co., Ltd., taking the impact of enterprise digital transformation on the composition of the executive team as the starting point. It comprehensively uses the case analysis method to explore whether digital transformation affects the composition of the executive team, and deeply analyzes the reasons why digital transformation drives the change of executive members in enterprises. The aim is to improve the development of Huawei Technology Co., Ltd.'s digital transformation and bring some experience and inspiration to the development of other digital transformation enterprises.

3. Theoretical analysis and research hypotheses

The executive team is the core leadership of a company, and their background characteristics and behavioral choices are closely related to the overall trend of the company. In this increasingly hot era of digital transformation, the executive team with rich industry experience should also have a lot of background and experience related to digital transformation. Through their extensive understanding and knowledge, they can provide more accurate and high-quality choices and decisions for the company's digital transformation, leading the company to develop faster.

The digital transformation of enterprises is a comprehensive innovative transformation driven by dual business wheels, involving various aspects such as organizational structure, business processes, products, and business models. Liu Xilu and Chen Zhijun (2023) [9] found that CEOs' past education and work experience in information technology have formed cognitive and ability imprints that are conducive to digital transformation, thereby promoting the improvement of the level of digita l transformation in enterprises. In the process of digital transformation in enterprises, executives need to have a certain industry background in order to have confidence in overcoming technical difficulties, make correct decisions and judgments, and better understand and guide the direction of digital transformation in enterprises.Therefore, hypothesis 1 is proposed:

Hypothesis 1: The degree of digital transformation of enterprises is positively correlated with the industry background of corporate executives.

The digital transformation of enterprises highly relies on the command and guidance of management personnel. Therefore, during this critical period of digital transformation, enterprises inevitably need a team of highly qualified executives to lead the completion of projects. Kuang Huishu and Liu Zheng (2024) [10] found that executives with information technology backgrounds can promote digital transformation of enterprises. Enterprises should pay attention to the unique role of executive information technology capabilities in digital innovation and increase the recruitment of IT background executives.Therefore, hypothesis 2 is proposed:

Hypothesis 2: The degree of digital transformation of enterprises is positively correlated with the information technology background of enterprise executives

Older executives often have longer work experience, a relatively wider range of fields to explore, and more information sources to grasp. When making key decisions, they often consider multiple aspects to ensure stable implementation of plans. Therefore, digital transformation enterprises should try to choose experienced and older executives to serve as navigators when implementing executive hiring decisions. Therefore, hypothesis 3 is proposed:

Hypothesis 3: The degree of digital transformation in enterprises is positively correlated with the age of senior executives.

4. Case analysis

Huawei Technologies Co., Ltd., founded in 1987, focuses on the ICT field, adheres to stable operation, continuous innovation, and open cooperation, and has built end-to-end solution advantages in telecommunications operators, enterprises, terminals, and cloud computing. It provides competitive ICT solutions, products, and services for operator customers, enterprise customers, and consumers, and is committed to realizing the future information society and building a better fully connected world.

This article adopts a case study method, selecting Huawei Technology Co., Ltd. as an example, and uses various data sources to collect data, mainly from information published on the official website of Huawei Technology Co., Ltd., the annual financial statements of Huawei Technology Co., Ltd. from 2020 to 2022 published on the official website of Huawei Technology Co., Ltd., as well as journals related to Huawei Technology Co., Ltd. that have been included in China National Knowledge Infrastructure.

In order to comprehensively and meticulously analyze the impact of digital transformation on the employment decisions of corporate executives, this article focuses on selecting the years when

companies deepen digital transformation (2020 to 2022, i.e., the background of relevant executives at Huawei Technology Co., Ltd. from 2020 to 2022), and further analyzing the changes in the executive members of Huawei Technology Co., Ltd. based on collected and summarized data.

Table 1. The proportion of executives with technical background in Huawei Technologies Co., Ltd. from 2020 to 2022

	Technical background	Total number of people	Proportion
2020	12	23	52.17%
2021	13	20	65%
2022	20	29	68.97%

Table 2. The proportion of executives with different industry backgrounds in Huawei Technologies Co., Ltd. from 2020 to 2022

	2020	2021	2022
2-4sections	17.39%	17.39%	10.34%
5-6sections	26.09%	13.04%	20.69%
7-8sections	21.74%	26.09%	20.69%
>8sections	34.78%	43.48%	44.83%

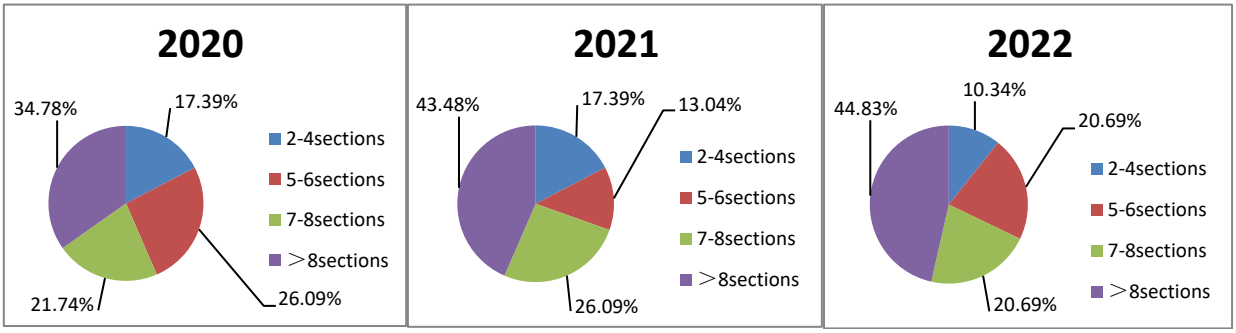


Figure 1. The proportion of executives with different industry backgrounds in Huawei Technologies Co., Ltd. from 2020 to 2022

Table 3. Age proportion of senior executives at Huawei Technologies Co., Ltd. from 2020 to 2022

	2020	2021	2022
Under 56 years old	80.77%	65.63%	62.50%
Over 56 years old	19.23%	34.38%	37.50%

Huawei Vice Chairman, Rotating Chairman, and CFO Meng Wanzhou's digital and intelligent transformation is a new driving force for economic development. Only by consolidating consensus can we see the light through the clouds; Only by gaining insight into the future can we gain an advantage. More and more managers are starting to develop a blueprint for digital transformation, and around this blueprint, they are carrying out organizational building, matching corresponding talents, and shaping the internal culture of the enterprise. Meng Wanzhou believes that on the path of digital transformation, more partners and developers need to participate in the innovation of digital products and solutions. Only through continuous investment and pressure investment around root technology can solutions continue to create immeasurable value for customers. Only by using digital technology to transform a company's main business, rethinking and defining how to create value for customers, and rethinking and transforming the business model of the enterprise, can we truly achieve successful transformation. Obviously, such a transformative transformation must be driven by strategy, and only the leader can push it forward.

Huawei's rotating chairman Hu Houkun stated that digital transformation is currently at a very good time in China. From the perspective of digital technology and talent supply, the basic conditions for digital transformation are met. Hu Houkun emphasized that what is more important is the supply of talent. China has over 3 million graduates from science and engineering universities every year, providing abundant talent support for the innovation and application of digital technology. Having

technology and capabilities, these are driving China into a deep-water zone of digital transformation, unleashing digital productivity at the right time

5. Case Conclusion and Summary

This article takes Huawei Technology Co., Ltd. from 2020 to 2022 as the research object, explores the impact of digital transformation on the composition of executive team members, and attempts to identify the relationships among them, in order to find the key points to assist in the digital transformation of enterprises. Research has shown that as digital transformation deepens, there is a significant increase in the number of executives with industry background, technical background, and older age in enterprises who serve as executives in digital transformation. After testing three sets of data: technical background, industry background, and age, the results remain robust. A team of executives with the above three backgrounds can effectively reduce executive shortsightedness to provide long-term strategic support, improve corporate governance level to provide a good institutional environment, and thus assist in the digital transformation of enterprises.

The above research conclusions also provide practical implications for digital transformation enterprises. Firstly, enterprises should attach importance to the role of human factors in digital transformation, especially among corporate executives. A digital executive team with extensive knowledge, rich experience, long-term vision, and the courage to innovate is crucial for the digital transformation of enterprises. Especially for important positions like CEOs, their level of awareness and understanding of digital transformation directly affects the success or failure of enterprise digital transformation. The conclusion of this article shows that executives with information technology backgrounds can drive digital transformation in enterprises. Therefore, having a background in information technology can be one of the factors that companies consider when hiring executives during the digital transformation era.Even without an information technology background, companies should strengthen digital training for CEOs and other executives, so that they can learn and understand digital related knowledge as much as possible, form a correct understanding of digital transformation, and guide the practice of digital transformation in enterprises. Secondly, executives with industry backgrounds can better play their roles. Therefore, in the era of digital transformation, it is important to focus on selecting talents with relevant digital industry backgrounds as the selection criteria for executives, so that their talents can be fully utilized to promote digital transformation.In addition, for companies in highly competitive industries, hiring older talents to join the executive team can better promote digital transformation and gain a competitive advantage for the enterprise.

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