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Research on the Synergy Between Talent Demand and Digital Management in Enterprise Digital Transformation

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Abstract:

This article focuses on the core issues of enterprise digital transformation in the digital economy environment, with a particular emphasis on exploring the synergistic relationship between talent demand and digital management. The article first analyzes the digital management mode of enterprises. Subsequently, the article elaborated on the important value of talent demand, proposing that talent is not only the root of a company's core competitiveness and the driving force for business growth, but also an important bridge connecting technology and performance in the process of digital transformation; At the same time, it also points out the practical problems of mismatched talent supply and demand structure, uneven distribution of regions and industries, and proposes to alleviate these contradictions by coordinating management strategies with the characteristics of the times, internal capabilities and external demands. Finally, this article provides specific recommendations: integrate internal and external talent resources and value talent, establish a digital talent training system, and cultivate a digital corporate culture. This study not only improves the theoretical framework of digital transformation but also provides practical guidance for enterprises to solve the problem of "technology and talent disconnect" and improve the success rate and sustainability of digital transformation.

Keywords: Enterprise Digital Transformation; Digital Talent Cultivation; Digital Management

1. Introduction

The research on the synergy between talent demand and digital management in the digital transformation of enterprises has emerged in the context of rapid development of the digital economy, accelerated technological change, and intensified market competition. With the advent of the digital economy era, the collaborative research between talent demand and digital management in digital transformation has

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become a core issue for the sustainable development of enterprises. Kunar R scholars further analyzed the synergistic evolution of digital transformation and green talent capabilities. In theory, digital transformation utilizes technologies such as electronic human resource management and intelligent algorithms to improve the traceability and efficiency of green practices. On the practical path, the synergistic effect of the two can significantly enhance organizational resilience, green reputation, and dual innovation capabilities, promoting sustainable development of enterprises. I also have ideas about the existing problems and future directions [1]. Wang L combined the comprehensive results of "basic elements - management process - management efficiency" to construct a digital management theory for enterprises based on the IPO panoramic research framework model [2]. Although significant progress has been made in the research of digital transformation in terms of digital tools, strategies, and the role of digital in enterprise performance, the key role played by "human factors" in the process of enterprise digital transformation has been seriously overlooked, and there is a research gap of "technology and talent disconnect". The significance of this study is to fill the core gap of "ignoring human factors" in digital transformation research; to strengthen the theoretical perspective of "human technology" integration; improve the overall research system for digital transformation.

2. Models, Characteristics, and Functions of Enterprise Digital Management

2.1 Enterprise Digital Management Mode

In the era of a booming digital economy, enterprise digital management has emerged as a new management model, demonstrating many significant core characteristics and opening up new paths for enterprises in the competition of the new era. The digital management model of enterprises is not simply software deployment, but a system transformation covering multiple dimensions such as strategy, organization, technology, and culture. From the core definition, it is the use of digital technologies such as cloud computing, big data, artificial intelligence, and the Internet of Things to comprehensively reshape strategic decision-making, business processes, organizational structure, corporate culture, and management style, ultimately achieving the reduction of operating costs and improvement of efficiency, optimization of customer experience, innovation of business models, and construction of core competitiveness. It promotes the transformation of management models from traditional experience dependence and fragmentation to data-driven, intelligent collaboration, agile, and flexible modern management. It advances the management model from traditional experience dependency and departmentalization to data-driven, intelligent, collaborative, agile, and flexible modern management. In terms of core features, compared with traditional management models, digital management models exhibit significant differences in multiple dimensions: the decision-making basis shifts from relying on experience to data-driven; The organizational structure presents flat and networked platform characteristics; The work style emphasizes more on agility, automation, and remote collaboration; Focus on customer centricity; The technical role has shifted from business support to driving and leading the business. It is worth noting that behind this change is a profound transformation in the management environment and the role of managers in enterprises [3]. Traditional manufacturing and service industries are both in a relatively single environment, accelerating their transformation towards environments including supply chain, e-commerce, virtual enterprises, and distributed enterprises. The new environment not only puts pressure on enterprise management but also forces changes in management models. The role played by managers in the digital enterprise environment has shifted from focusing on physical assets and personnel management to coordinating knowledge assets, further highlighting the new connotation of management functions in the digital scene.

2.2 The Role of Digital Management in Enterprises

As a core management model for enterprises to adapt to the digital economy, digital management plays a role throughout the entire chain of enterprise operation, development, and competition, which is reflected in the following key dimensions. "Improving digital operation efficiency and production efficiency" is one of the core practice directions, and the two form a deep resonance.

2.2.1 Improve operational efficiency and reduce costs while increasing efficiency

The dimension of improving operational efficiency and reducing costs and increasing efficiency is highly compatible with "improving digital operation efficiency and production efficiency". By intelligentizing and automating business processes, human errors and redundant links can be reduced, and process turnover speed can be accelerated. As verified in the research, digital technology directly promotes production efficiency improvement by reducing costs and improving efficiency. This is precisely the core value of digital management in "improving quality, reducing costs, and increasing efficiency" at the production and operation level. At the same time, data-driven resource allocation optimization has further optimized the production process through digital means,

strengthening the significant role of digitalization in promoting economic benefits [4]. In terms of data-driven decision-making, digital management has bid farewell to the previous decision-making model that relied solely on experience and intuition. By comprehensively integrating internal business data, customer data, and external market data, enterprises use big data analysis tools and business intelligence systems to transform data into intuitive visual charts and gain in-depth insights into the essence of the business. This provides an objective basis for the formulation of digital strategies, making strategic planning more precise and efficient, and scientific strategies are the foundation of sustainable development for enterprises. In terms of business process intelligence and automation, utilizing robot process automation technology and AI algorithms to achieve automation in the reconstruction of traditional manual processes. By monitoring and optimizing production and supply chains through the Internet of Things and digital twin technology, business efficiency is significantly improved. This efficiency improvement is not only a direct result of digital business applications but also provides support for the sustainable development of enterprises by reducing costs and errors. The ability accumulated in process optimization has also become an important component of core competitiveness. In terms of flattening and assimilating organizational structure, breaking down traditional hierarchical and departmental barriers, building a networked and platform-based organization, relying on collaborative office platforms to achieve cross-domain collaboration, and empowering frontline teams with autonomy. This agile organization can quickly respond to market changes, stimulate innovation vitality, and innovation capability is the key intermediary for digital transformation to promote sustainable development. Enhancing organizational vitality, promotes the upgrading of the core competitiveness of enterprises.

2.2.2 Inspire innovation, vitality and upgrade business

The deep integration of technology and business promotes innovation in the production field, such as optimizing product design with digital twins and empowering production process upgrades with AI. This is a concrete manifestation of the research on "digital technology promoting innovation to improve production efficiency". Flat organization and cross-domain collaboration accelerate the implementation of production technology innovation achievements, helping traditional manufacturing enterprises transform from "scale expansion" to "efficiency improvement", and echoing the practical orientation of strengthening digital innovation driven transformation strategies [5]. Digital management is not only a tool for enterprises to improve their current operational efficiency, but also a core engine driving them to achieve "survival development leadership" in the digital economy era. "Digital operational efficiency and production efficiency improvement" is a key practical dimension, which directly responds to the pain points of traditional enterprise transformation through the path of cost reduction, efficiency improvement, and innovation through digital technology, providing solid operational support for building sustainable competitive advantages that adapt to the future [6].

3. The Importance and Contradiction of Talent Demand

3.1 The Importance of Talent Demand in Enterprises

3.1.1 The key role of talents in enterprises: Multi dimensional core support

Talents are the multidimensional core support for enterprises to build core competitiveness, drive business growth, and enhance profitability, determining the survival and development height of enterprises in market competition. In the era of knowledge economy, the essence of enterprise competition is the competition of innovation ability, and the formation of innovation ability relies entirely on talent. Whether it is technological breakthroughs, product iteration, business model innovation, or management system optimization, the core driving force comes from the wisdom and creativity of talent. Excellent talents are like the "engine" of enterprise innovation, providing fundamental guarantees for enterprises to build core competitiveness that is difficult to replicate; At the same time, talent is also a key force driving business growth and profitability for enterprises. On the one hand, high-quality talents have stronger learning abilities, more proficient business skills, and more efficient problem-solving abilities, which can directly reduce enterprise operating costs, improve production efficiency, and ensure output quality, laying the foundation for enterprise profitability. On the other hand, the entire business chain of enterprises relies on talent support. Research and development talents create high-quality products, market talents plan precise promotion activities, sales talents maintain customer relationships, and customer service talents provide good service experiences. Talents from all links work together to form customer value, directly promoting the continuous growth of enterprise income and profits. Talents are not only the core elements for enterprises to build core competitiveness and competitive barriers, but also the key engine for promoting business expansion and achieving profit growth, playing an irreplaceable multidimensional core support role in the survival and development of enterprises [7].

3.1.2 Neglecting the cost of talent: Common risks from conventional operations to digital transformation

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If enterprises do not value talent, they will face comprehensive risks. This problem is particularly prominent in digital transformation, manifested in three aspects: firstly, they face high replacement costs, as the cost of recruiting and training new employees is already higher than retaining excellent employees, and the scarcity of digital talent will further exacerbate this cost; Secondly, it leads to low efficiency and frequent errors. The mismatch between job positions and personnel abilities can hinder the implementation of technology, cause process confusion, and even lead to major mistakes; The third challenge is the lack of innovation, as both technological innovation and digital transformation rely on talent creativity for model innovation. Talent shortage will gradually lead to the loss of vitality in enterprises.

3.2 The Realistic Contradictions of Talent Demand

In the development of enterprises and social progress, although talent demand is crucial, the two major contradictions in practice, namely the mismatch between supply and demand structure and the imbalance of regional and industry distribution, seriously hinder the full play of talent value and the realization of talent supply and demand balance. Among them, the prominent contradiction of the mismatch between supply and demand structure is that enterprises have an urgent demand for high skilled, compound, and innovative talents, but generally face difficulties in recruiting and attracting talents. In the labor market, there are employment difficulties for a large number of ordinary skilled workers and traditional job practitioners, and some industries show a coexistence of "shortage" and "surplus". For example, the talent gap in emerging industries such as artificial intelligence and new energy is widening, while traditional manufacturing and some service industries are saturated with positions; The imbalance of regional and industrial distribution is reflected in the centralization of talent demand, the excessive concentration of resources to the first tier cities, eastern coastal areas and other economically developed areas, as well as the Internet, finance, high-end manufacturing and other popular industries, resulting in uneven distribution of talent resources [8].

4. Suggestion

4.1 Clarify Talent Needs and Transformation Goals

In the context of the digital age, the balance between organizational talent needs and reality needs to be achieved through two dimensions: "dynamic adaptation of management strategies to the characteristics of the times" and "precise matching of internal capabilities with external needs"; Specifically, on the one hand, in the face of new challenges and opportunities in talent identification, attraction, and retention for organizations in the digital age, as well as the upgrading of talent demand from "traditional job competence" to "supporting innovation and agility", research proposes strategies such as "strong employer brand, data-driven decision-making, and continuous learning opportunities", abandoning traditional experiential management and utilizing technological tools and soft mechanisms to adapt talent management strategies to the actual needs of the digital and global era. The goal of enterprise digital transformation will drive the reconstruction of internal management mechanisms, thereby giving rise to a demand for composite talents deeply bound to the transformation goals, forming a transmission chain of "transformation goals management mechanism reconstruction talent demand adaptation". This is the core logic that clarifies the relationship between the two. As the core goal of enterprise groups, digital transformation requires not only technological and business changes, but also management and control mode adaptation. Research shows that it will encourage the group to adopt a "decentralized management and control mode", which is a rigid restructuring requirement for management mechanisms proposed by the transformation goal, aimed at enhancing the group's agile response capability to the digital environment; The implementation of this model requires more than just "job skill matching" in terms of talent capabilities, highlighting the need for "talent strategy adaptability". Specifically, subsidiary managers need to have independent decision-making and digital operation capabilities, talents need to have both risk control awareness and innovation flexibility, and talents in state-owned enterprise groups need to have "compliance and digital transformation balance ability". These requirements constitute a composite capability system deeply bound to the transformation goals, avoiding demand disconnection. The goal of digital transformation is to promote the reconstruction of management models towards "decentralization", stimulate the demand for corresponding composite talent, clearly present the above transmission chain, and fully comply with the core logic of matching talent needs with transformation goals [9].

4.2 Integration of Internal and External Talent Resources

Modern enterprises need to adapt integration strategies based on "respecting talent value cognition", while transforming the "pickiness and pressure" of talents into optimization motivation, improving evaluation and response mechanisms, and ultimately upgrading the talent concept from "resource control" to "business relationship", achieving efficient collaboration between internal and external talents. Specifically, in the stage of aligning

talent planning with corporate strategy, skill gap analysis should not only focus on "what talents can do", but also anticipate "what talents expect", such as reserving flexible space for external experts who have high requirements for job autonomy and time flexibility in the mixed labor plan to avoid the loss of high-quality resources; In terms of mechanism improvement, performance management needs to be incorporated into the "talent experience" evaluation dimension, collecting talent opinions through feedback mechanisms and optimizing relevant processes. At the same time, in response to cultural conflicts caused by internal employees' resistance due to external talent's "nitpicking", the meaning of meeting reasonable needs should be clarified through transparent communication, and equal rights protection and pressure relief should be provided for internal core employees.

4.3 Building a Digital Talent Training System and Creating a Digital Corporate Culture

The digital transformation of enterprises needs to be driven by the dual wheels of "building a digital training system" and "creating a digital culture". The former improves the digital literacy and professional skills of CEOs and frontline employees through top-level design and operational delivery, achieving "everyone needs what they need"; The latter revolves around the core of "embracing change, speaking with data, collaborative creation, and tolerating trial and error", relying on the leadership to lead by example and set a good example, shaping an organizational behavior that adapts to transformation. The two are like two sides of a coin that must be deeply integrated to ultimately help enterprises build organizational bodies that are continuously learning, agile adapting, and data-driven decision-making. Digitization should be internalized as an "instinct" to ensure competitiveness in the digital age [10].

5. Conclusion

This article aims to investigate the synergy between talent demand and digital management in the digital transformation of enterprises in the digital economy environment. The study first emphasizes that the synergy between the two is the key to achieving sustainable development for enterprises, and fills the gap in previous research on digital transformation that "ignored the role of people", strengthens the research perspective of "human technology" integration, and improves the relevant research system. Next, research and analysis of enterprise digital management indicate that it is not a simple operation, but involves multidimensional systematic changes, with characteristics of data-driven decision-making, intelligent and automated business processes, which can help enterprises reduce costs and increase efficiency, stimulate innovation, and promote business upgrading. Subsequently, research has shown that talent is an important support for a company's core competitiveness, business growth, and other aspects. Neglecting talent can expose the company to many risks. At the same time, it points out the current problems of talent supply-demand mismatch and uneven distribution, and proposes that management strategies can be adapted to the characteristics of the times and match internal and external needs to alleviate them. Finally, the study provides recommendations: based on the logic of "transformation goals - management mechanism reconstruction - talent demand adaptation", clarify the relationship between talent demand and transformation goals, integrate internal and external talent resources on the premise of respecting talent value, and support enterprise development by building a digital talent training system and cultivating related corporate culture as dual drivers.

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