Research on the Influencing Factors and Role Mechanisms of Dynamic Capabilities of Enterprises

Zhang Zhaobo

School of Economics and Management, Guangxi Normal University, Guilin, China
dahuazhang665@163.com

Abstract: The purpose of this study is to explore in depth the formation mechanism and influencing factors of enterprise dynamic capabilities, and how enterprises can adapt to the rapidly changing market environment and achieve sustainable development by improving their dynamic capabilities in the context of globalization and the rapid development of information technology. As the ability of enterprises to adapt to the market through continuous innovation and adjustment in the ever-changing external environment, enterprise dynamic capability has become an important way for enterprises to gain market advantages and improve business performance. This study analyzes the important role of enterprise dynamic capability in market competition and explores its formation mechanism and influencing factors to provide management and decision-making support for enterprises. By constructing a multidimensional measurement model that includes resource heterogeneity, mobility, embeddedness and complexity, this study effectively measures and evaluates the dynamic capabilities of enterprises. In addition, this study also focuses on the new opportunities and challenges posed by new technologies such as artificial intelligence, big data, and cloud computing to the dynamic capabilities of enterprises, which provides useful references for the development and improvement of enterprise management theories. This study not only enriches the research content in the field of enterprise management, but also provides a reference for the government to formulate relevant policies, which is of great significance in promoting the sustainable development of enterprises and the national economy.

Keywords: Dynamic capabilities; Context of great change; Market competition

1. Introduction

With the development of the market economy and the intensification of competition, enterprises are faced with an increasingly competitive market environment and must have strong adaptability and flexibility. As an important competitive advantage, enterprise dynamic capability is increasingly being paid attention to and emphasized by both the business community and the academic community. Enterprise dynamic ability refers to the ability of enterprises to adapt to the market through continuous innovation and adjustment in the changing external environment. It can help enterprises adapt quickly in the rapidly changing market environment, grasp opportunities and realize sustainable development. At present, with the rapid development of globalization and information technology, the speed of change in the market environment is getting faster and faster. Facing this rapidly changing environment, enterprises need to continuously adapt and adjust their strategies and management modes in order to maintain their competitive advantages. Enterprise dynamic capability has become an important way for enterprises to gain market advantage and improve business performance. By improving enterprise dynamic capabilities, enterprises can adapt to market changes more quickly, improve the quality of their products and services, and satisfy the needs of their customers, thus realizing profitability and growth.

In addition, in recent years, the widespread application of new technologies such as artificial intelligence, big data and cloud computing has provided new opportunities and challenges for the improvement of enterprises' dynamic capabilities. These new technologies can help enterprises better understand market demands and trends, and realize refined operations and rapid decision-making. At the same time, these new technologies also exacerbate the uncertainty and variability of the market environment, and enterprises must adapt to such changes by continuously improving their dynamic capabilities. This study aims to deeply explore the formation mechanism and influencing factors of enterprise dynamic capabilities, and provide useful reference and support for enterprises to improve
their dynamic capabilities and gain market advantages. At the same time, this study also helps to fill the gaps and deficiencies in the current research on dynamic capabilities of enterprises, and provides related scholars with a more complete and systematic research framework and methodology.

2. Analysis of the current status of research at home and abroad

Teece (1997) defines firm dynamic capabilities as the ability of a firm to realize its competitive advantage in a changing external environment, including through innovation and learning. He divided the dynamic capabilities of enterprises into three aspects: technical capabilities, organizational capabilities and marketing capabilities. These three aspects are interrelated and interact with each other, which together constitute the dynamic capabilities of enterprises. In terms of the influencing factors of enterprise dynamic capabilities; Schumpeter (1942) put forward the innovation-driven theory that innovation is the core driving force of enterprise dynamic capabilities; Cohen and Levinthal (1990) argued that the formation of enterprise dynamic capabilities depends on the accumulation of knowledge and the transformation of capabilities of the enterprise; in terms of measuring enterprise dynamic capabilities, as proposed by Helfat and Peteraf (2003), four dimensions can be used in measuring the dynamic capabilities of firms. These are heterogeneity of resources, mobility of resources, embeddedness of resources, and complexity of resources. These dimensions can be effectively measured and evaluated by constructing a measurement model for enterprise dynamic capabilities.

Fu, Cuixiao (2023) In his study, he defines enterprise dynamic capabilities as the ability of enterprises to adapt to market demands and win market advantages through innovation and learning in a changing market environment. He divided the dynamic capabilities of enterprises into three levels: resource level, organizational level and behavioral level. Among them, the resource level refers to the diversity of resources owned by the enterprise and the ability to change the resource structure; the organizational level refers to the flexibility and adaptability of the enterprise's organizational structure, management system, and staffing; and the behavioral level refers to the enterprise's ability to learn, innovate, and risk management; in terms of the influencing factors of the enterprise's dynamic capabilities, Zhang Hao (2023) argues that the formation of enterprise dynamic capability needs to rely on the enterprise's resource accumulation, capability construction and strategic choice. Among them, resource accumulation refers to all kinds of resources gradually accumulated by enterprises in daily operation, such as technology, manpower, brand, etc.; capability construction refers to the gradual enhancement of their own capability level through learning, innovation, etc. on the basis of resource accumulation; strategic choice refers to the selection of suitable strategic direction according to the level of their own resources and capabilities in the case of changes in the external environment; Mo Dongyan (2023) proposes six dimensions of enterprise dynamic capability: diversity of resources, substitutability of resources, transferability of resources, combination of resources, embeddedness of resources and dynamism of resources. These dimensions can be effectively measured and evaluated by constructing a measurement model for enterprise dynamic capabilities.

To sum up, domestic and foreign scholars have different research focuses on enterprise dynamic capability, but all of them emphasize the important role of enterprise dynamic capability on enterprise competitive advantage and performance. In terms of theoretical framework, foreign scholars put forward the concept and connotation of dynamic capabilities earlier, and gradually developed a series of theoretical models on this basis. Domestic scholars, on the other hand, pay more attention to the influencing factors and role mechanisms of enterprise dynamic capabilities. In terms of empirical research, foreign scholars have confirmed the significant impact of dynamic capabilities on enterprise performance through a large number of empirical studies. Domestic scholars, on the other hand, are weak in empirical research, and need to further explore the actual performance and impact of the dynamic capabilities of enterprises. It should be noted that although domestic and foreign scholars have different focus and depth in the study of dynamic capabilities of enterprises, there are some common problems and challenges between them. For example, the connotation and composition of dynamic capabilities are not completely unified, and different scholars have different understandings and interpretations of dynamic capabilities. In addition, the actual performance and influencing mechanism of dynamic capabilities of enterprises are also affected by many factors, such as enterprise size, industry characteristics, national culture, etc. Therefore, in the future, the concept and connotation of dynamic capabilities of enterprises need to be further studied in depth, and the influencing factors and mechanisms in different contexts also need to be taken into account.
3. Mechanisms for the formation of dynamic capabilities of enterprises

The formation mechanism of enterprise dynamic capability is a complex process, involving internal and external factors and mechanisms[8]. This part of the study will focus on the formation mechanism of enterprise dynamic capability from the perspectives of resources, organization and environment. In this part, we will discuss and analyze the formation mechanism of enterprise dynamic capability from the perspectives of resources, organization and environment.

3.1. Resource perspective

The resource perspective refers to the fact that the formation of an enterprise's dynamic capabilities is related to the allocation and utilization of its resources. Enterprise resources include material resources, human resources, technological resources, information resources and organizational resources[9]. The resource perspective is that the formation of dynamic capabilities of enterprises is related to the allocation and utilization of enterprise resources. These resources play a crucial role in the formation of enterprise dynamic capabilities. Among them, human resources are the important support of enterprise dynamic capability, and organizational resources are the important guarantee of enterprise dynamic capability.

The importance of human resources is reflected in the intellectual capital, experience and skills of employees. Enterprises need to have creative and innovative employees, and through the accumulation and cultivation of human resources, the innovative and dynamic capabilities of enterprises can be enhanced. In addition, the diversity and combination of human resources also have an important impact on the dynamic capabilities of enterprises. Diversity of human resources can provide different perspectives and experiences and enrich the innovation and development ideas of enterprises. At the same time, a reasonable combination of human resources can also realize synergistic effects and enhance the comprehensive innovation ability and dynamic ability of enterprises.

Organizational resources, on the other hand, mainly include corporate culture, organizational structure and management mechanism. Enterprises need to establish an effective organizational structure and management mechanism to form an efficient organizational operation mode and enhance their innovation and change ability. In addition, enterprise culture also plays an important role in the formation of dynamic capabilities. Excellent enterprise culture can promote the unity of values and behavior of enterprise employees, stimulate their innovation and creativity, and enhance the dynamic ability of the enterprise.

3.2. Organizational perspective

The organizational perspective refers to the fact that the formation of a firm's dynamic capabilities is related to the organizational mechanisms and management practices within the firm. Firms need to develop the ability to adapt to change and innovation by establishing effective organizational mechanisms and management practices[10]. In terms of organizational mechanisms, enterprises need to establish flexible organizational structures and management models to achieve organizational change and innovation. For example, the adoption of management practices such as process reengineering, lean production, and agile development can improve an enterprise's ability to change and innovate. In addition, enterprises need to focus on organizational learning and knowledge management to continuously improve the knowledge and skill levels of their employees in order to adapt to changes and market demands.

In terms of management practices, enterprises need to focus on innovation and change management, and emphasize the establishment and inheritance of corporate culture and values. In addition, enterprises need to improve their learning and adaptation capabilities through continuous innovation and trial and error, and promote the continuous improvement of their dynamic capabilities.

3.3. Environmental perspective

The environmental perspective refers to the fact that the formation of a firm's dynamic capabilities is related to changes and influences in the external environment. The external environment mainly includes various aspects such as economy, policy, technology and market. Enterprises need to maintain competitiveness and innovation by actively responding to changes in the external environment and timely adjusting their strategies and organizational structures. In terms of the economic environment,
enterprises need to pay close attention to changes in the domestic and international economic environment and adjust their development strategies and industrial layout in a timely manner. For example, in response to changes in market demand, enterprises need to continuously optimize their products and services to increase their market share and competitiveness; in terms of the policy environment, government policies and regulations have an important impact on the development of enterprises. Enterprises need to improve their innovative and dynamic capabilities by actively responding to government policies and adapting to market and social demands; in the technological environment, technological advances and applications have far-reaching impacts on the development and competitiveness of enterprises. Enterprises need to constantly pay attention to and learn from the latest technologies and applications, improve their own technological innovation and R&D capabilities, and maintain their market competitiveness; in terms of the market environment, the market demand and competition pattern have put forward higher requirements for the development and innovation of enterprises. Enterprises need to adjust their products and services in a timely manner through market research and analysis to adapt to market demand and the competitive environment and maintain their market share and competitiveness.

4. Analysis of factors affecting the dynamic capacity of enterprises

Dynamic enterprise capability is the ability of an enterprise to continuously improve its competitiveness and adaptability in a changing external environment through innovation, change and adaptation[11]. The formation and development of enterprise dynamic capability is a complex process, which is affected by many factors and influences. The formation and development of enterprise dynamic capability is a complex process, which is affected by various factors and influences. Here, this paper will discuss the influencing factors of enterprise dynamic capability from the aspects of internal factors and external factors.

4.1. Impact of internal factors on the dynamic capabilities of enterprises

Internal factors are factors such as resources, capabilities, management practices, and organizational mechanisms within a firm that have a significant impact on the formation and development of its dynamic capabilities[12].

Resource allocation and utilization. Resource allocation and utilization of enterprises is one of the key factors affecting the dynamic capabilities of enterprises. Resource allocation involves the allocation and utilization of all kinds of resources of the enterprise, including human resources, financial resources, technical resources, market resources and so on. The ability to allocate and utilize resources has an important impact on an enterprise's innovation, change and adaptability. If an enterprise can rationally allocate and fully utilize all kinds of resources, and improve the efficiency of resource utilization and innovation ability, it will be able to continuously improve the dynamic ability of the enterprise.

Organizational mechanisms and management practices. Organizational mechanisms and management practices are the important basis for the formation and development of dynamic capabilities of enterprises. Organizational mechanisms include the internal organizational structure, division of responsibilities, collaboration mechanisms, etc., and management practices include various management systems, management processes and management methods. An efficient organizational mechanism and advanced management practices can improve the innovation ability and responsiveness of an enterprise and promote the formation and improvement of its dynamic capabilities.

Corporate culture and values. Corporate culture and values are important factors in the formation of an enterprise's dynamic capabilities. Organizational culture refers to the pattern of shared values, beliefs, attitudes and habits within an enterprise, which can guide the behavior of enterprise employees and have a profound impact on enterprise decision-making and behavior. Research has shown that there is a significant correlation between organizational culture and enterprise dynamic capabilities. Enterprises with innovative and enterprising cultures are more likely to develop stronger dynamic capabilities. An innovative and entrepreneurial culture emphasizes openness, diversity and exploration, and motivates employees to innovate, learn and develop. It also encourages trial and error and reflection, which helps companies adapt to change and optimize themselves. Corporate culture and values can shape the internal values and behavioral norms of the enterprise, influence the behavior and decision-making of employees within the enterprise, and then affect the enterprise's ability to innovate, change and adapt. A positive corporate culture and clear values can motivate employees to be
innovative and enterprising, and promote the continuous improvement of the dynamic ability of the enterprise.

Human resources. Human resources are the most dynamic and creative asset within an enterprise, and their impact on an enterprise's dynamic capabilities is significant. Having a high-quality talent team can create more innovation and excellence for the enterprise, thus enabling the enterprise to gain stronger competitiveness and dynamic capabilities. In order to improve the quality and ability of human resources, enterprises should focus on the improvement of recruitment, training and incentive mechanisms. At the same time, the establishment of an open communication mechanism and employee participation in decision-making will help to improve the sense of belonging and responsibility of employees and promote their innovation and development.

Strategic planning. Strategic planning is an important tool and means for enterprises to realize long-term development. An enterprise's strategic planning should be closely linked to the enhancement of its dynamic capabilities. On the one hand, the enterprise's strategic planning should be able to adapt to the trend of market changes and technological progress, to ensure that the enterprise has an advantage in future market competition; on the other hand, the enterprise's strategic planning should also take into account the enterprise's internal resources and capabilities, and formulate a development strategy suitable for the enterprise itself, so as to enhance the enterprise's dynamic capabilities.

4.2. Impact of external factors on the dynamic capabilities of enterprises

The development of dynamic enterprise capabilities is also influenced by the external environment. Changes in the external environment can bring new opportunities and challenges that can have a significant impact on the development of an enterprise. On the one hand, a changing and uncertain external environment may force firms to adopt flexible strategies to innovate and iterate their products and services to adapt to market needs and changes. This market-oriented flexibility can enhance the dynamic capabilities of firms. On the other hand, uncertainty in the external environment may also lead to risks and challenges for the firm. In such cases, firms need to react quickly and adjust their strategies and behaviors to avoid losses. The influence of external factors on the dynamic capabilities of enterprises refers to the influence of the external environment on the formation and development of the dynamic capabilities of enterprises. As the main body of production and operation, the formation of enterprise's dynamic capability is not only related to internal factors, but also closely related to external environmental factors. In the following, the influence of external factors on the dynamic capabilities of enterprises will be elaborated from three aspects: market, technology and policy.

Market factors are one of the important external factors affecting the dynamic capabilities of enterprises. Market changes and constant changes in demand are important drivers for the development of dynamic capabilities of enterprises. In market competition, enterprises need to constantly adjust their strategies, products and services to meet market demand. For companies with strong dynamic capabilities, they can often maintain a competitive advantage in the market by quickly capturing market changes, responding quickly to market demands, and innovating continuously. For example, in recent years, as the smartphone market has become increasingly saturated, market demand has begun to shift to smart wearable devices, smart homes and other areas. Those cell phone manufacturers with strong dynamic capabilities can often maintain their competitive advantage by quickly adjusting their strategies and entering new areas.

Technological factors are also important external factors affecting the dynamic capabilities of enterprises. The continuous progress and development of technology provides enterprises with more opportunities for innovation and development. With the rapid development of the Internet, artificial intelligence, big data and other technologies, enterprises can utilize these technologies to transform and innovate their businesses, improve the quality and efficiency of their products and services, and enhance their competitiveness. At the same time, companies also need to continuously upgrade and innovate their technologies to adapt to rapidly changing market demands and consumer needs. For example, Alibaba has transformed its traditional e-commerce model into a new retail model through continuous upgrading and innovation in digital technology, successfully realizing the transformation from a "one-stop shopping platform" to a "one-stop service platform".

Policy factors are also one of the external factors affecting the dynamic capabilities of enterprises. Uncertainty and frequent changes in policies may adversely affect the development of enterprises, but they may also bring new opportunities for development. The influence of policies on enterprises mainly comes from the government's macro policies and industrial policies. Meanwhile, political stability can
provide a stable economic environment and market environment, reduce business risks, and provide more time and space for dynamic adjustment of enterprises. Policy support can provide more opportunities and resources for enterprises and increase their innovation ability and competitive advantage. For example, government policies to support emerging industries and intellectual property protection policies can have a positive impact on the dynamic capabilities of enterprises.

Sociocultural and environmental factors. Sociocultural and environmental factors are also important external factors for the dynamic capabilities of enterprises. Different socio-cultural and environmental factors have different impacts on the demand for products and services, corporate image and reputation, and social responsibility of enterprises. For example, environmental protection and sustainable development have become hot topics in the current society, and the performance of an enterprise in coping with these issues will directly affect its image and reputation and the formation of its dynamic capabilities.

5. Strategies to enhance the dynamic capabilities of enterprises

The dynamic capabilities of an enterprise are an important factor in an organization's ability to adapt to changes in the environment, maintain a competitive advantage and enhance its ability to innovate. Therefore, organizations need to develop a range of strategies to enhance their dynamic capabilities in order to adapt to the changing market environment.

5.1. Fostering a culture of innovation

Innovation is one of the core factors to improve the dynamic ability of enterprises. Enterprises should establish and cultivate a culture that encourages innovation and supports creativity. First, companies need to encourage employees to come up with new ideas, such as through internal innovation competitions, patent incentive programs and other ways to motivate employees to come up with innovative ideas. Second, companies need to provide the necessary resources to support innovation, such as funding, technical support and training. Finally, firms should take measures to encourage employees to take innovative actions, such as rewards and promotions.

5.2. Establishing an open innovation ecosystem

Firms need to rely not only on internal innovation, but should also utilize external resources to improve their dynamic capabilities. Therefore, it is necessary to establish an open innovation ecosystem. Enterprises can acquire innovation resources by establishing cooperative relationships with other enterprises, universities, research institutions and other organizations. For example, firms can cooperate with universities to conduct scientific and technological research and jointly develop new products or technologies. In addition, firms can access innovation resources by participating in open innovation platforms and communities.

5.3. Continuous improvement of the organizational structure

Organizational structure is an important component of an enterprise's dynamic capabilities. Enterprises need to build a flexible, open and innovative organizational structure. First, enterprises need to adopt a decentralized decision-making model in order to react quickly. Second, firms need to break down traditional departmental barriers and promote information sharing and teamwork. Finally, enterprises need to build an organizational culture that encourages innovation and knowledge-sharing among employees, both within and outside the organization.

5.4. Sustained investment in R&D and innovation

Continuous investment in R&D and innovation is key to improving the dynamic capabilities of an enterprise. Firms need to continuously invest capital and human resources to develop new products, technologies and business models. At the same time, enterprises should also emphasize the protection of intellectual property rights in order to protect their R&D achievements and technological advantages.
5.5. Improving the level of informatization

Informatization is an important means to improve the dynamic ability of enterprises. Enterprises should strengthen the research and development and application of information technology, establish information technology systems, and improve the informationization level of enterprises. Through the establishment of informatization system, it can strengthen the information sharing and circulation between various links within the enterprise, and improve the reaction speed and decision-making level of the enterprise. At the same time, informatization can also help enterprises to expand the market, strengthen the connection with customers, and improve customer satisfaction and loyalty.

6. Conclusions

In this paper, we conduct an in-depth study on the formation mechanism and influencing factors of enterprise dynamic capabilities. By analyzing the current research status of scholars at home and abroad, we find that the formation mechanism of enterprise dynamic capability is diversified, including factors in organizational learning, knowledge innovation, resource allocation and so on. And the influencing factors of enterprise dynamic capability cover two categories: internal factors and external factors. Internal factors include organizational structure, management system, human resources and other factors, while external factors include industry environment, market competition, policies and regulations. At the same time, these factors influence and interact with each other, forming the overall performance of enterprise dynamic capabilities. Enterprise dynamic capability is crucial to the development of the enterprise. External environmental factors and internal resource capacity are the key factors affecting the dynamic capacity of enterprises.

In terms of internal resource capabilities, factors such as organizational culture, human resources, technological innovation and capital also play a crucial role in the formation of dynamic capabilities of enterprises. In terms of organizational culture, enterprises need to establish a positive corporate culture and encourage innovation and teamwork among employees in order to improve their innovation ability and responsiveness. In terms of human resources, enterprises need to have an excellent talent team, and constantly improve the professional ability and teamwork ability of employees to cope with the complex and changing market environment. In terms of technological innovation, enterprises need to strengthen the investment in scientific and technological innovation, and continuously improve the quality and efficiency of products and services. In terms of capital, enterprises need to rationalize the use of capital and strengthen capital management to ensure the healthy development of enterprises.

In terms of the external environment, factors such as market demand, the competitive environment and policies and regulations have an important impact on the formation of an enterprise's dynamic capabilities. In terms of market demand, enterprises need to pay constant attention to market changes and customer demand, and flexibly adjust their products and services so as to improve their market competitiveness. In the competitive environment, enterprises need to pay close attention to the dynamics of competitors, and timely adjust the enterprise strategy and resource allocation, in order to improve the competitive advantage of enterprises. In terms of policies and regulations, enterprises need to comply with relevant regulations and policies and actively respond to policy changes in order to reduce business risks.

Therefore, enterprises need to take the following measures when enhancing their dynamic capabilities: Formulate a clear development strategy: Enterprises need to formulate a clear development strategy to cope with market changes and the emergence of new technologies. In addition, enterprises should make strategic adjustments in accordance with their own actual situation to ensure that they can adapt to the ever-changing market environment;

Strengthening organizational learning and knowledge management: Enterprises should strengthen organizational learning and knowledge management in order to continuously improve the skills and knowledge of their employees. By doing so, enterprises will be better able to respond to market changes and technological advances and take timely measures; strengthening corporate culture: Enterprises should strengthen their corporate culture and promote communication and collaboration among their employees. This will help enterprises better adapt to the changing market environment and strengthen their dynamic capabilities. Strengthening cooperation with partners: Enterprises should strengthen cooperation with partners, including suppliers, customers and other related enterprises. By establishing partnerships, enterprises can better understand market demands and technological advances, and strengthen their dynamic capabilities; Strengthen the cultivation of innovative
capabilities: Enterprises should strengthen the cultivation of innovative capabilities by encouraging their employees to come up with new ideas and innovative solutions, and transform them into practical actions. Through continuous innovation, enterprises can better adapt to market changes and technological progress, and strengthen their dynamic capabilities.

References