

Path Analysis of Building Organizational Dual Abilities from the Perspective of Dynamic Capability Theory

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Abstract. In the dynamic competitive environment, enterprises need to take organizational dual abilities of existing knowledge development and potential knowledge exploration into account to adapt to the discontinuous revolution of technology and market environment. Firstly, the main research directions of dual theory are summarized through literature review and theoretical analysis, and the relationship between dynamic capabilities and organizational dual abilities is discussed. Secondly, based on the dynamic capability theory, the implement path of organizational dual abilities is established from the aspects of exploitative innovation and exploratory innovation. Finally, this paper suggests that the enterprise should not only achieve short-term financial performance by exploitative innovation which makes itself stabilization, but also encourage risk-taking and creative behavior to obtain long-term profits by exploratory innovation. It suggests that enterprises could obtain sustainable competitive advantage through get the balance between exploitative innovation and exploratory innovation.

Introduction

In the rapid development of information technology and increasingly competitive environment, an enterprise has the most competitive advantage can effectively adopt two completely different business strategies like exploitative innovation and exploratory innovation at the same time. In other word, the company has dual innovation abilities which can effectively dig the existing technological resources and adapt to unknown changes [1-4] (O'Reilly and Tushman, 2007; Raisch and Birkinshaw, 2008; Rothaermel and Alexandre, 2009). When an enterprise faces the challenge of its transformation and upgrading, it is the dilemma for top management team whether using existing knowledge, technology and resource to launch exploitative innovation activities or research new technologies, developing new products and expand new markets to carry out exploratory innovation activities. As enterprise important decision makers and key executives, TMT should focus on how to balance the conflict or tension of exploitative innovation and exploratory innovation, enhance the dual innovation abilities and promote competitive advantages. It is also undoubtedly worthy for scholars to research above problems.

In the dynamic competitive environment, an enterprise needs to take the dual capabilities of existing knowledge development and potential knowledge exploration into account to adapt to the discontinuous change of technology and market environment [5]. Since March proposed the concept of 'exploitation' and 'exploration', scholars have extended it to the fields of organizational learning [6], strategic management [7], and innovation management [8], etc. By constructing duality, organizations can overcome core rigidity and capability trap, so as to improve the sensitivity to environmental change [9].

The theory of dynamic capability attempts to explain the problem that how organizational capabilities match the external environment. Scholars put forward the dynamic abilities of enterprise can help build the dual organization or ambidextrous organization from the aspect of

theory, which is able to constantly improve the existing capacities in the mature market competition through reforming methods, reproduce abilities in the new market competition through creative destruction approaches, and constantly consolidate and reconstruct the organization's skills and resources to adapt to the changing environment. Therefore, how to construct the competitive advantage by researching the dynamic capabilities of enterprises, how to integrate the internal and external innovation resources, and how to improve the dual capabilities have already been the one of the focuses of social concern.

Literature Review

Organizational Dual Abilities

Faced with the changing information technology and increasingly fierce competition, not only top management team needs to deal with all sorts of paradoxes in the organization, but the domestic and foreign scholars have begun to research the issues of exploration and development, conservation and adventure, differentiation and low cost [10]. In 1976, Duncan, an American scholar, first proposed the concept of dual organization in recent years, more and more scholars have paid attention to researching the issue of dual organization or organization ambidexterity [11]. On this basis, O'reilly and Tushman further defined two organizational dual innovations, like exploitive innovation and exploratory innovation (O'reilly and Tushman, 2004).The number of articles about organizational dual abilities in foreign top management journals is increasing year by year, such as Academy of Management Journal (AMJ), Journal of Operations Management, Academy of Management Review, Administrative Science Quarterly, Strategic Management Journal (SMJ), Organization Science, Academy of Management Perspectives (AMP), Organization Studies (SAGE), Journal of Management, Journal of Organizational Behavior, Journal of Product Innovation Management, Journal of Service Research, The Leadership Quarterly, etc. The influential journals in the field of management science in China, such as Management World, China Soft Science, Nankai Management Review, and Operation and Management have also focused on organizational dual abilities and organizational innovation.

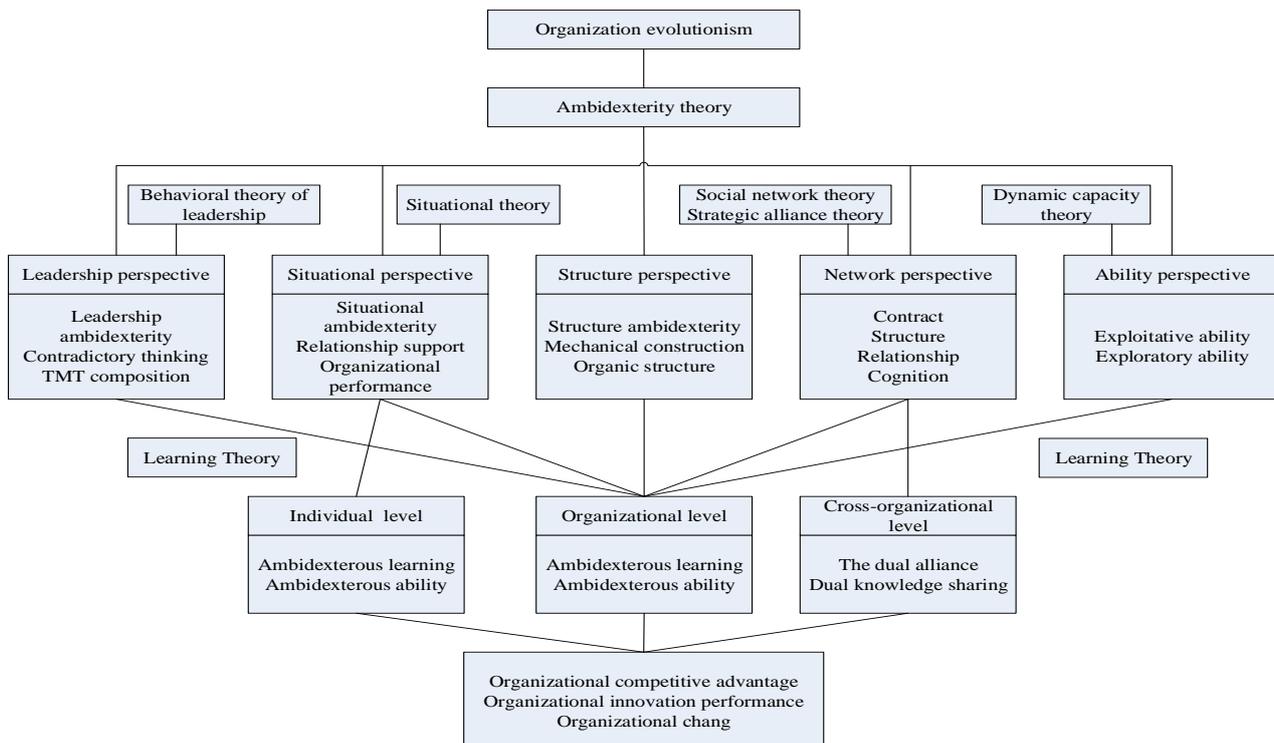


Fig. 1 Research direction of dual theory

Domestic and foreign scholars research organizational dual abilities from different theoretical perspectives, such as leadership behavior theory, situation theory, dynamic ability theory, social network theory, organizational learning theory, etc [12]. (Wei Z L, 2014; Altman and Tushman, 2017), and provide a cross-level study from the individual level - the organizational level - the inter-organizational level [13-15] (Birkinshaw and Gupta, 2013; Lakhani, Assaf and Tushman, 2014; Hong K et al., 2018). The study on duality is mainly explored from the perspectives of leadership, situation, structure, network and ability [16] (Csaszar, 2013) which concentrates on the impact of organizational dual abilities on organizational performance and how organizational dual abilities can guarantee and improve the competitive advantage of an organization [17-19] (Raisch and Birkinshaw, 2009; Chandrasekaran and Linderman, 2012; Budi, Sari and Sudhartio, 2017). Specific theoretical research directions are shown in figure 1.

Dynamic Capabilities

The enterprise maintains the balance between exploitative innovation and exploratory innovation through the integration of technology, knowledge, ability and other resources. The dynamic capabilities also maintain the competitive advantage of the enterprise through the continuous integration of resources. There are some similarities between the two concepts, which are able to adapt to the changes in the market environment better [20] (Chen Y, 2014). O'reilly and Tushman pointed out that the essence of the dual capacity is a kind of dynamic capability in 2007 (O'reilly and Tushman, 2007). The implementation of the dual innovation means perceiving the external environment changes, grasping the opportunity, adjusting and reorganizing resources, in order to achieve a new dynamic balance between exploitative innovation and exploratory innovation and consequently push the dual ability to a higher level [21-23] (Sengupta and Ray, 2017; Vahlne and Jonsson, 2017; White, Crossan and Maurer, 2011).

The Relationship between Organizational Dual Abilities and Dynamic Capabilities

There is a certain similarity between organizational dual capability and dynamic capability, both of which deal with environmental changes and maintain competitive advantages through reorganizing and integrating resources. Dynamic capabilities include not only process (organization and management process of an enterprise), position (resource base or factors of an enterprise) and path (strategic choice approach for an enterprise to achieve sustainable competitive advantage), but also perception and grasp of external opportunities.

The dynamic capability is neither single path dependence nor a single path breakthrough, but it is the coexistence of path dependence and path breakthrough. Path dependence is related to utilization, while path breakthrough is related to exploration. Dual innovation can achieve both path dependence and path breakthrough [4]. In addition, the synergistic effect between exploitative and exploratory activities is a complex, mature and dynamic ability, which is beyond the ability provided by each innovation alone [17, 18]. In essence, the dynamic capability means an abstract capability, while organizational dual ability is a kind of innovation behavior. However, the both two are not simply cause-and-effect relationship, but also contain inclusion relationship. The combination of the two will promote the development of dynamic capability theory and dual innovation theory. Dual ability enhances the understanding of paradoxical relationship in the field of dynamic capability theory, while dynamic capability leads to the thinking of exploitative innovation and exploratory innovation. Therefore, it is necessary to extract the paradox relationship between dynamic capability and organizational dual ability, and then top management combine them to form dynamic dual innovation. The dynamic balance between exploitative innovation and exploratory innovation is worthy in-depth study in the future.

Exploitative Innovation emphasizes that an organization should constantly extend existing technology and knowledge, extend existing products and services, improve the utilization of existing products and the efficiency of marketing strategy by improving the quality, which is aimed at meeting the current customer demand and market demand; Exploratory Innovation relates to

complex search, basic research, Innovation, variation and risk tolerance, which continuously pursues new knowledge and develops new products and services to meet the needs of potential or emerging customers and market demand.

Dynamic capabilities refer to the abilities of an enterprise finds opportunities by scanning the environment, integrates and reorganizes internal and external resources and update its operational capabilities so as to adapt to the dynamic, complex and rapidly changing environment (Barreto, 2010; Teece et al., 1997; Zahra et al., 2006). The ultimate purpose of dynamic capabilities is to create a series of new valuable resources through "innovative destruction", which is essentially an adaptive mechanism to enable enterprises to adapt to the dynamic and complex changing environment in different periods. The constituent elements involve three parts: opportunity perception ability, opportunity grasping ability and integration and reconstruction ability. Firstly, learning to recognize and grasp opportunities in response to environmental changes is the premise of dynamic capability performance mechanism. Secondly, through the integration, coordination and reconstruction of the ability to achieve operational ability to change, is the dynamic ability performance mechanism means. In addition, the dynamic capability also contains the decision-making ability of top management team, which means the team attains organizational routines through organizational learning. From the perspective of dynamic capabilities organizational learning is aimed at increasing the dynamic process of organizational behavior, reaching a new balance of innovation and promoting the dual abilities of the organization.

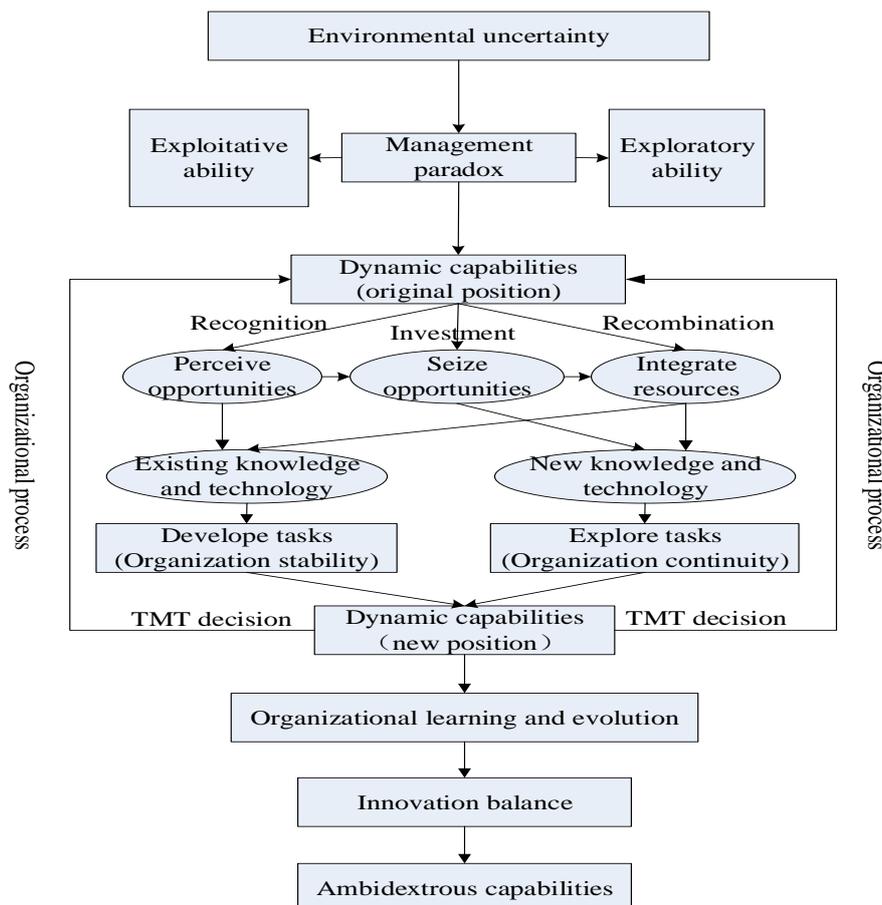


Fig. 2 The relation of organizational dual abilities and dynamic capabilities

To sum up, by scanning the external environment, enterprises can find feasible opportunities. At this stage, the top management team can significantly implement relevant activities of exploratory innovation and maximize the first-mover advantages brought by new opportunities. After developing new technologies and products through exploratory innovation mode, enterprises can continuously improve and perfect new technologies and products through exploitative innovation

mode, and finally win customers completely. Successful companies can not only use their networks and stakeholder contacts to implement innovation activities, but also utilize current knowledge, as well as explore knowledge at the same time.

Implementation Path

Based on the dynamic capability theory, this study suggests that in the face of fierce market competition, enterprises should maintain the existing core competitiveness and carry on the innovation and optimization simultaneously. According to the original core competence, enterprises should take the essence and discard the dregs, making the essence a replacement for the original core competitiveness in order to provide enterprises with competitiveness and profits. For the second element of duality -- exploration of new development opportunities, enterprises should establish the new generation of core competitiveness and potential core competitiveness in the process of exploratory innovation activities, in order to avoid losing competitive advantage when the original core competitiveness is adversely affected. In addition, with the progress of science and technology organizational dual abilities should be optimized, innovated and explored continuously. The implementation path of organizing dual capability is shown in figure 3.

Exploitative innovation and exploratory innovation can improve short-term financial performance and long-term competitive advantage of enterprises from different aspects. Exploitative innovation is on the basis of the existing technology competence and knowledge stock, which emphasizes on improving and perfecting existing technical skills and knowledge, in order to improve the existing product design, expand existing operational knowledge and skills, broaden the existing product lines, improve the efficiency of the existing distribution channels and the effect of promotion approaches. On the contrary, the exploratory innovation is a sharper innovation behavior, which focuses on attaining and creating new technical skills and knowledge, strives to surpass the existing technical abilities and corresponding knowledge base, eventually develops new technology to design new products, opens up new market segments, finds out new distribution channels and adopts the new promotion methods. In conclusion, the main purpose of exploitative innovation is to improve the current operational efficiency and increase the current performance level. The main purpose of exploratory innovation is to increase future revenue, enhance long-term competitiveness and obtain sustainable competitive advantage in the market.

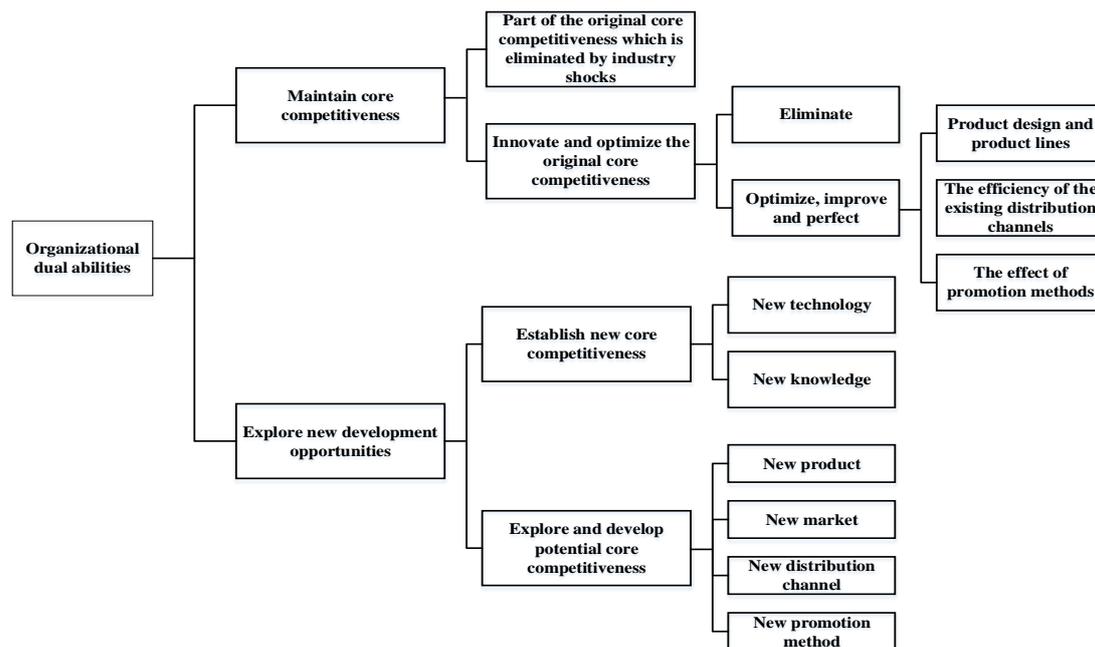


Fig. 3 The implementation path of organizing dual abilities

Conclusion

The dynamic and complex environment puts forward more stringent requirements for organizational development. For enterprises, they should not only maintain the current competitive advantages, but also effectively foresee the future development trend, so as to make strategic preparations. The scholars define the dual-dimension development of enterprises as dual organizational abilities. China is in the period of comprehensively deepening reform, compared with western developed countries; it plays a crucial role for Chinese enterprises in dual strategic management and organizational development. This paper follows the logical relationship of "motivation - capability - new balance", explores the relationship between dual organizational capability and dynamic capability, and studies the construction path of dual organizational capability, so as to provide better theoretical support for enterprise development.

In the future research, on the one hand it is necessary to test the impact of organizational dual ability on organizational performance through empirical research and research the moderating effect of dynamic ability between the two. On the other hand, it is vital to investigate the influence of TMT social network characteristics on organizational dual abilities and how to promote the dual innovation of enterprises through the external network of executives and the internal network of enterprises is the future research direction.

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