

How creativity and innovation capabilities can be developed within large organizations

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ABSTRACT: *In the fierce business competition environment, creativity and innovation capabilities have become core competitiveness for the sustainable development of large organizations. This paper explores methods and strategies for developing creativity and innovation capabilities in large organizations from three strategic perspectives: R&D strategy, Resource-Based View (RBV) strategy, and dynamic capability strategy. It analyzes the implementation paths, practical cases, and potential limitations of each strategy, and concludes that the integrated application of the three strategies can effectively help large organizations enhance their innovation capabilities. The research provides actionable references for large organizations to build a sustainable competitive advantage through innovation.*

KEYWORDS - *large organizations, creativity development, innovation capabilities, R&D strategy, RBV strategy, dynamic capabilities*

I. INTRODUCTION

Nowadays, in the current fierce business competition environment, innovation has become an indispensable core competitiveness of large organizations, and the development of creativity and innovation ability has become a key element for the development of enterprises and organizations. With the constant changes in the market environment, how to obtain sustainable and stable competitive advantages is an important issue that enterprises are currently concerned about.

Existing studies have shown that organizational innovation ability and creativity are important factors for organizations to maintain core competitiveness and promote sustainable and healthy development of enterprises (Rampa & Agogue, 2021). An innovative organization is often able to remain invincible in the competition, while an organization that lacks innovation is difficult to establish a foothold in the market. The resilience of the organization is increasingly dependent on its ability to develop radical innovation capabilities.

The success of innovation also depends on multiple factors. Innovation can come not only from ideas generated within an organization but also from external sources (Amabile, 1996). Large organizations are faced with more complex challenges and diverse opportunities in the process of development. In this context, cultivating and developing creativity and innovation ability becomes particularly important, as they have a decisive impact on organizational performance and long-term survival (Anderson et al., 2014)

Through innovation and creativity training, individuals can develop creative skills, promote collective action through common approaches and shared innovation ideas, and help build a common language and vocabulary for discussion and exploration among different departments. This paper will start from three

innovation strategies: R&D, RBV, and dynamic capabilities, and explore the methods and strategies to develop creativity and promote innovation ability in large organizations. By combining these measures, large organizations can continuously innovate and strive for excellence, thereby differentiating themselves from competitors in the marketplace.

II. R&D Strategy: Building an Innovation Culture Foundation

The application of R&D strategy can effectively develop the creativity and innovation ability of large organizations. Research and development (R&D) strategy refers to the overall planning of the direction, focus, development goals, and means of scientific research and technology development of enterprises on the basis of technological development prediction and environmental analysis. R&D strategy usually involves technology research, product development, market research, technology transfer, innovation culture, talent management, etc. This paper focuses on the construction of innovation culture under the framework of R&D strategy.

2.1 Key Elements of Innovation Culture Construction

The establishment of innovation culture requires comprehensive efforts and support from within the organization, involving many aspects such as organizational values, leadership style, employee participation, and incentive mechanisms.

First, organizations need to shape corporate culture by establishing a clear vision and mission, as well as developing core values (Steiber & Alange, 2013). The values of the organization should regard encouraging employees to put forward new ideas and methods as one of the key elements of the organization's success.

Second, leaders play an important role in building a culture of innovation. As described in previous research, one way to improve team creativity is to brainstorm. Brainstorming allows team members to freely use their imagination to generate novel ideas, with rules including: not criticizing any ideas, generating as many ideas as possible, and combining these ideas to produce better ideas (Baruah & Paulus, 2008). Leaders should have an open mind and keen insight, encourage employees to express their ideas, provide support and resources to realize these ideas, and give employees sufficient autonomy and decision-making power to stimulate their creativity and innovation ability.

Finally, employee participation and incentives are key to building an innovation culture. The organization should provide an open, inclusive, and innovative environment for its employees. Employees should be encouraged to participate in innovative projects, propose their own ideas, and collaborate and communicate with other employees. In addition, the organization should establish corresponding incentive mechanisms, such as reward systems and promotion opportunities, to motivate employees' creativity and innovation ability. These incentive mechanisms can help employees maintain positive innovation motivation and improve their innovation performance.

2.2 Practical Path of Innovation Culture Construction

In large organizations, a method proposed by Coffman & Principal (1997) can be referred to for building an innovation culture, that is, by establishing a distributed grid, allowing individuals within the organization to independently generate innovative ideas, conduct experiments, record results, build support, and convert some ideas into formal pilots or direct implementation. This approach emphasizes that the ability to innovate is not just a response to change, but the process of creating change that can become a sustainable competitive advantage. Therefore, the establishment of an innovation culture requires people to recognize the potential and value of change, take innovation as a way of daily work, and develop innovation ability through practice and skill training.

2.3 Case Analysis: Google's R&D Strategy Practice

Google's innovation culture is based on the use of unique and successful R&D strategies in innovation development, which help drive the company's continuous development in the technology field. First, Google was one of the first public companies to implement a "20% time" policy (Steiber & Alange, 2013), which allows employees to devote 20% of their work time to pursuing personal innovation projects. This gives employees the freedom and flexibility to focus on exploring new ideas and developing original projects that facilitate innovation. Through this policy, Google not only seeks innovation in daily work but also encourages employees to conduct creative experiments and projects on their own time. Second, Google carries out user-oriented innovation. It emphasizes user experience and promotes product and service innovation through in-depth understanding of user needs and behaviors. User feedback and data analytics play a key role in the product development process, helping the company better understand market needs and quickly adapt and improve its products.

2.4 Limitations of R&D Strategy

Although the innovation culture under the R&D strategy plays an important role in promoting organizational innovation and technological development, it has some potential limitations. For example, a culture that highly emphasizes R&D and innovation may require a large amount of capital investment, including equipment, personnel training, and research project funding, which may put pressure on the organization's financial situation. This is especially true for organizations with limited budgets (Baumann & Kritikos, 2016). Second, R&D activities often take a long time to achieve substantial results, and during this process, organizations may face time pressure, especially when pursuing market agility, which can consume significant time costs. However, even with these limitations, balancing and effectively managing these challenges can help organizations better leverage their R&D innovation culture, thereby developing their creativity and innovation capacity for sustainable business success.

III. RBV Strategy: Optimizing Internal Resource Allocation

Through the rational allocation and development of resources and capabilities, the RBV strategy can provide strong support for the creativity and innovation ability of the organization.

3.1 Core Connotation of RBV Strategy

The main view of the Resource-Based View (RBV) is that an enterprise is a collection of resources. The resources owned or controlled by an enterprise affect its competitive advantage and revenue level, and the essence of corporate growth strategy is to find a balance between using existing resources and cultivating new resources (Annique Un & Montoro-Sanchez, 2010). Resource-based theory marks the rise of the enterprise core competitiveness theory, which points out that the competitiveness of an organization does not come from its external environment, but from the heterogeneous resources within the organization that are different from other organizations. In other words, if enterprises want to achieve sustained competitiveness, they must invest in, upgrade, and effectively use these heterogeneous resources. For example, RBV emphasizes investing in unique and irreplaceable technologies and R&D capabilities. Through investment in these areas, organizations can cultivate innovation teams, promote the implementation of innovation projects, and improve innovation capabilities. In addition, the RBV strategy attaches great importance to human resources and staff training. By having high-quality employees and continuous training programs, organizations can cultivate creative teams.

3.2 Key Application: Human Resource Development

Resource heterogeneity in RBV theory emphasizes that employees' skills and knowledge are unique resources critical to an organization's innovation ability. Enterprises need to focus on the cultivation and development of human resources to build core competitiveness.

3.3 Case Analysis: RBV Strategy Practice of IBM and Hydro-Quebec

IBM, a global technology company, has long used RBV strategies to shape its human resources and employee training strategies. Through in-house training programs such as the IBM Skills Academy, IBM provides participants with theoretical background and materials, expands their understanding of how to reason in ambiguous problem situations, helps employees keep abreast of the latest industry trends, technological developments, and innovative methods and tools, and provides customized skills training for employees. This training not only focuses on general technical knowledge but also focuses on the company's strategic direction and future trends, ensuring that employees have the unique skills required for future industry changes. In addition, IBM encourages employees to obtain relevant professional certifications that demonstrate their unique skills in specific fields. This certification not only provides employees with growth and promotion opportunities but also builds a team with unique technology and industry insights at IBM. Through these strategies, IBM is committed to building a team with unique skills and expertise to adapt to the rapidly changing technology industry. This reflects the application of the RBV strategy in human resources and employee training, which drives innovation and business development by optimizing internal resources and building a workforce with unique capabilities.

Hydro-Quebec, a research facility of a major Canadian energy company, uses the RBV strategy to provide innovation and creativity training to initiate radical innovation capabilities. A survey and evaluation were conducted using qualitative research analysis and a variety of data collection methods. The study found that after training, the creativity and innovation ability of trained employees can significantly improve the level of radical innovation. The training inspires researchers with new ways of reasoning, making it easier for them to explore alternatives and engage in conceptual thinking. Some researchers have used the principles learned in training to develop new team-leading skills that facilitate collaborative design activities. Through innovation and creativity training, individuals can develop creative skills, promote collective action through common approaches and shared innovative ideas, and help build a common language and vocabulary for discussion and exploration among different departments. Training is considered one of the most important processes in strategic human resource management and plays a vital role in the maintenance and development of individual, team, and organizational capabilities.

3.4 Limitations of RBV Strategy

There are still some limitations in applying the RBV strategy theory, especially in internal training and development. First, not all employees have the same interest or motivation for internal training. Some employees may feel that the training content is not relevant to their work, resulting in poor training effectiveness. Second, if the training content is disconnected from the employee's actual work environment, the employee may have difficulty applying what they have learned to practical work, thus limiting the training effect. If some training courses are inconsistent with the organization's culture or employees' values, it may also lead to a decline in training acceptance (Madhani, 2010). Overcoming these limitations in large organizations requires considering the specific context of the organization and adopting a flexible and holistic approach to ensure that training and development opportunities are maximized to meet the needs of employees and the organization, thereby developing the organization's creativity and innovation capabilities.

IV. Dynamic Capability Strategy: Adapting to Environmental Changes

Dynamic capabilities play a key role in the development of organizational creativity and innovation.

4.1 Core Connotation and Dimensions of Dynamic Capabilities

Dynamic capability refers to the ability of an organization to purposefully create, extend, modify, and change its capabilities. Based on organizational management and management skills, dynamic capabilities are the ability of an enterprise to integrate, build, and reconfigure internal capabilities to respond to or in some cases promote changes in the business environment (Annie Un & Montoro-Sanchez, 2010). The basic assumption of the concept of dynamic capabilities is that they should be used to change long-term competitive positions that can be used to build long-term competitive advantages. Dynamic capabilities can be defined by three different

dimensions: perception, integration, and reconfiguration, which facilitate different types of innovation and thereby improve business performance.

There are many core elements of dynamic capabilities (Eisenhardt & Martin, 2000). First, the organization must have the ability to learn quickly, draw lessons from internal and external experiences, and actively acquire new knowledge and skills. Second, organizations need to be able to innovate continuously, not only in products and services but also in business models, processes, and management. Furthermore, to respond to changes, organizations need to effectively collect, analyze, and apply internal and external knowledge. An organization with strong dynamic capabilities can usually establish an efficient knowledge management system.

4.2 Case Analysis: Dynamic Capability Practice of Apple and Zara

Many large companies and organizations use dynamic capability strategies to develop organizational creativity and innovation ability. Apple Inc. in the United States is a model of successful application of dynamic capabilities. First, Apple has always focused on product innovation. Through continuous research and development of new products and technologies, the company follows and satisfies the favorite trends of consumer groups, such as iPhone, iPad, and Apple Watch, showing its rapid adaptability to market changes. This continuous innovation ability is one of the cores of dynamic capabilities. Second, Apple has created a highly integrated supply chain and manufacturing system that can quickly respond to market demand. Through close cooperation with suppliers, Apple can quickly adjust production, change and optimize designs, and ensure product quality and timely market launch within a specified time. Third, Apple is not only committed to improving and innovating existing product lines but also actively enters new business areas and launches service businesses such as Apple Music and Apple TV, which expands the company's business scope and adheres to its philosophy of diversification and continuous innovation. Fourth, Apple pays attention to user feedback and continuously improves and upgrades its products. By launching new functions such as software upgrades and system updates, Apple can maintain close contact with the market during the product life cycle and meet users' changing needs.

Zara, a retail company featuring fast fashion, has performed quite well in the application of dynamic capabilities. First, Zara has secured its market position with an extremely agile supply chain. The company can design and produce styles that adapt to current trends in a short period of time to respond to changes in market trends and consumer demand. Second, Zara uses a fast design and production model, which can turn newly designed products into actual products for sale in a matter of weeks. This ability to quickly respond to the market allows Zara to continuously introduce new styles, attract consumers, and reduce the risk of inventory accumulation. In addition, Zara's store layout and display also reflect its excellent dynamic capabilities. Stores are often rearranged to show the latest styles and fashion trends. Such rapid and flexible changes help attract consumers' interest and improve the store's innovation ability and competitiveness.

4.3 Limitations of Dynamic Capability Strategy

Although dynamic capabilities have many advantages, they also have some limitations. For example, dynamic capabilities require long-term investment and sustainable development, requiring enterprise organizations to have a long-term strategic vision and patience. In this process, there may be some setbacks and failures, and the organization needs to have sufficient perseverance to overcome them. The establishment and development of dynamic capabilities also require a large amount of resources and capital investment, including manpower, financial resources, and technology, which may be unbearable for small enterprises and organizations with limited resources (Zhou et al., 2019). Taking these limitations into account, organizations need to weigh various factors when developing dynamic capabilities, find ways to adapt to their own circumstances, and achieve long-term competitive advantages through continuous learning and adaptation.

V. CONCLUSION

To sum up, the three strategies of R&D, RBV, and dynamic capabilities can enable large organizations to effectively develop and enhance creativity and innovation capabilities.

Through R&D strategies, large organizations can delve into and invest in innovative projects, and improve creativity and innovation capabilities through technological innovation, knowledge accumulation, and new product development. This strategy not only focuses on internal R&D efforts but also pays attention to docking with external innovation trends, providing the organization with rich knowledge resources and enabling it to maintain a competitive edge in the market.

Second, RBV strategies enable large organizations to better utilize and integrate internal resources, including talents, culture, and technology. By establishing an innovation-oriented corporate culture and leadership style and emphasizing the cultivation of internal core competencies, it provides strong support for creativity and innovation.

Finally, dynamic capability strategies are the key to adapting to the changing business environment. By fostering the organization's learning, adaptation, and change capabilities, large organizations can better respond to market challenges and uncertainties, drive innovation, and improve creativity levels.

The integrated application of the three strategies can help large organizations form a synergy in innovation development, overcome the limitations of a single strategy, and build a sustainable innovation system to achieve long-term stable development in the fierce market competition.

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