

Research on the Impact of Entrepreneurs' Innovative Spirit on the Strategic Implementation of BYD's New Energy Vehicle Development

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Abstract: *This paper selects BYD New Energy Vehicles as the research object to deeply explore the impact of the innovative spirit of BYD founder Wang Chuanfu on the implementation of BYD's new energy vehicle development strategy. The research has the following three findings: first, Wang Chuanfu's entrepreneurial spirit of "technology is king and innovation is the foundation" is the core driving force for BYD's success in the field of new energy vehicles; Second, BYD New Energy Vehicle has produced different technological innovation mechanisms at each strategic stage, based on the analysis and refinement of different technological innovation mechanisms, it is summarized that the overall path of corporate strategy implementation is divided into two paths: technology path and innovation path, under the role of the two paths, mainly through product innovation, technological innovation, market innovation and organizational form innovation to promote the implementation of corporate strategy; Third, the study proposes that the impact of entrepreneurial innovation on strategy execution can be effectively implemented through the four aspects of human resources, organizational structure, corporate culture and business system.*

Keywords: *Entrepreneurship; Strategy execution; BYD New Energy Vehicle; Technological innovation; Grounded Theory*

1. Introduction

At present, China's new energy vehicle production and sales scale ranks in the world's leading position, the market potential is huge, in the European market, BYD and other Chinese new energy vehicle brands have entered the top 50 European car sales, as the earliest car company in China to start the research and development of new energy vehicles, BYD in August 2021 new energy vehicle sales exceeded 60,000 units, three consecutive months to win the domestic new energy passenger vehicle market champion. After vigorously investing in the new energy vehicle industry and achieving fruitful results, BYD has also continued to innovate on the road of smart vehicles in recent years. On June 10, 2022, BYD announced good news, with its stock price reaching 344.36 yuan per share, with a total market value of 1,000.56 billion yuan. BYD's market value exceeded 1 trillion yuan, becoming the first independent automobile brand in China with a market value of more than one trillion yuan. The continuous rise in market value has a lot to do with BYD's transformation into a new energy vehicle company, the core of BYD's long-term planning is the production and technological breakthrough of new energy vehicles, the company has developed for many years, and the progress of core technology has also been recognized by the world. In the development process of BYD, every successful transformation is inseparable from the leadership of founder Wang Chuanfu, under the embedding and role of Wang Chuanfu's entrepreneurial spirit, BYD continues to adhere to technological innovation, hard work, intensive cultivation in the manufacturing industry, so that Chinese automobile brands enjoy a good reputation in the world and further enhance their competitiveness. Therefore, this paper takes BYD's new energy vehicle development as the research object, introduces qualitative research methods, conducts grounded theoretical research on different strategic stages of BYD's new energy vehicle development, studies the impact of Wang Chuanfu's entrepreneurial innovation spirit on strategy execution, deeply analyzes the role of entrepreneurial innovation spirit in the implementation of enterprise strategy, and broadens the relevant research on entrepreneurial spirit.

2. Literature Review

The word "entrepreneur" is in French and originally means "operator or organizer of an adventure business". In 1755, in Chapter XIII of Part I, of his book "An Introduction to the Nature of Business", Cantillon devoted himself to the characteristics and role of entrepreneurs. He believes that entrepreneurs are the fourth major factor of production, and that enterprises need to combine the three major factors of production of land, labor and capital if they want to carry out their activities smoothly [1]. Knight (1921) defined the entrepreneur from an organizational point of view, arguing that the entrepreneur is the person who bears the responsibility for decision-making in the process of business operation, and the entrepreneur should dare to pay for the risks and uncertainties that may be faced [2]. Schumpeter (1934) defined entrepreneurs in terms of the role of entrepreneurs, defining entrepreneurs as entrepreneurs and innovators. [3] Marshall (1890) believes that entrepreneurship refers to the psychological manifestation of entrepreneurs' "extreme desire for success", and he regards entrepreneurship as a psychological characteristic including factors such as independence, autonomy, and enterprising [4]. Regarding the research on the impact of entrepreneurship on enterprise strategy, some scholars have studied the influence of entrepreneurship on corporate strategic choices. Nie Ping and Luo Ting (2019) based on the analytical framework of resource-based theory, by collecting and collating the data of A-share listed companies in Shanghai and Shenzhen from 2012 to 2016, and using it as a research sample, the study shows that enterprises with high entrepreneurial spirit tend to choose offensive strategies to gain competitive advantage. Therefore, enterprises should fully consider the important role of entrepreneurship in strategic decision-making. Secondly, the introduction of internal control verifies the negative corrective effect of high-quality internal control on the positive relationship between entrepreneurship and corporate strategy [5]. In addition to exploring the impact of entrepreneurship on corporate strategic choices, the existing research also focuses on corporate strategic transformation. Song Yulu and Chen Xin (2020) used the data of listed companies from 2010 to 2017 to study the impact of entrepreneurship on enterprise value and its path mechanism, providing empirical evidence for what strategic decisions entrepreneurs of private listed companies should adopt to enhance the market value of enterprises, and put forward corresponding countermeasures and suggestions for how enterprises in different life cycles can achieve transformation [6].

So far, there are still the following shortcomings in the research on entrepreneurial innovation: First, most of the existing literature on entrepreneurial innovation studies the impact of entrepreneurial innovation on enterprise innovation activities under the combined effect of other factors, and few literature deeply discusses the impact and practice of entrepreneurial innovation on enterprise activities. In addition, most of the literature on the impact of entrepreneurship on corporate strategy focuses on strategic choice and strategic transformation, and the impact on strategy implementation is less studied. Second, the research method is relatively single, there are many quantitative studies, and there are few qualitative studies, although quantitative research is more objective, but it is impossible to deeply describe the entrepreneurial innovation spirit, enterprise development strategy and the internal logic of enterprise innovation activities, and it is difficult to see the essence through the phenomenon. Therefore, this paper takes entrepreneurial innovation as the main research object, adopts the qualitative research method of grounded theory, deeply explores the influence of Wang Chuanfu's entrepreneurial innovation spirit on the implementation of corporate strategy, and solves and answers the question of how Wang Chuanfu's entrepreneurial innovation spirit is implemented in the specific practice of different strategic stages of BYD's new energy vehicle development.

3. Research design

3.1. Research method

This paper uses the method of grounded theory for analysis and research, the theory of grounding was first proposed by Glaser and Strauss in the discovery of grounded theory: strategies for qualitative research. After that, the two cooperated to publish three books, and after the results came out, the two developed different cognitions and understandings of the grounding theory, so they produced different schools of grounding theory, and today's scholars have formed three different versions through continuous research on the grounding theory, with three major theoretical schools: STRAUSS's programmatic rooting theory [7]; The original version of the rooting theory originally proposed by GLASER is the classical rooting theory; CHARMAZ's constructive grounded theory [8]. It is precisely because of the debate of the above three schools that the grounded theoretical methodology has become one of the most widely used research methods in society. This study will strictly follow the steps of

programmatically grounded theory research, and integrate, refine and summarize data through three steps: open coding, spindle coding and selective coding. Before conducting formal data analysis, the collected documentation data is preliminarily screened, followed by a focused analysis of the data that is closely related to the research question.

3.2. Data and Information Collection

This study collects and organizes a large number of data through different channels, the sources of data include: a. public information of enterprises, including BYD's official website corporate public dynamic entries, a total of 102 articles, covering BYD's management activities, the company's business development and organizational structure adjustment and a series of corporate dynamics, in addition, including enterprise business performance and public financial statements and other information. b. Wang Chuanfu and BYD's online news reports and special interview materials, a total of 200 pages of documents. c. Books and books written by others about Wang Chuanfu. d. Search for 150 relevant materials on CNKI database with keywords "Wang Chuanfu" and "BYD".

4. Case study

4.1. Low-cost strategy stage (2003-2007)

According to open coding and spindle coding, the core issues of this paper are categorized as: "technology is king" and "innovation is based", and the logical clues around the core categories can be summarized as: technology imitation, technical input and product innovation, and at the same time, according to the logical relationship formed in the open coding process, the technological innovation mechanism of the first stage, that is, the low-cost strategic stage, of BYD's new energy vehicles is constructed, as shown in Figure 1.

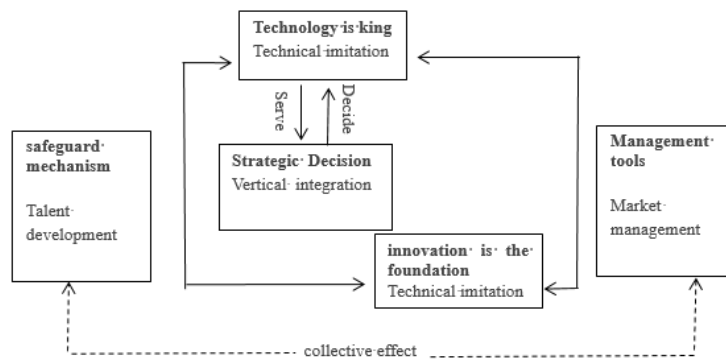


Figure 1: Technological innovation mechanism in low-cost strategy stage.

4.2. Focused strategy stage (2008-2013)

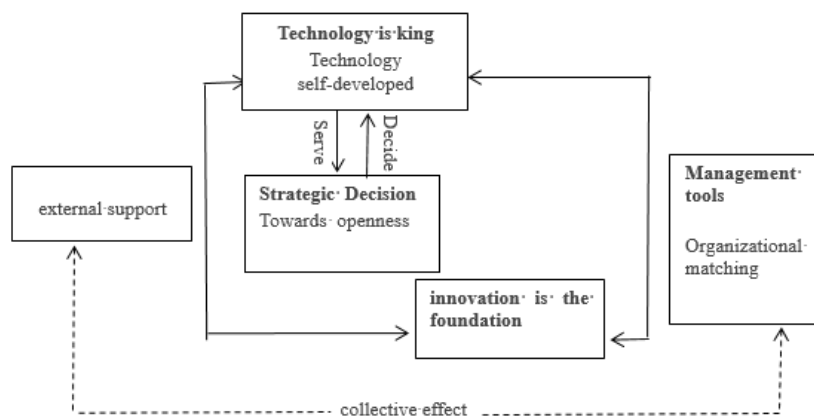


Figure 2: Technological innovation mechanism in focused strategy stage

According to open coding and spindle coding, the core issues of this paper are categorized as: "technology is king" and "innovation is the foundation", and at the same time, according to the logical relationship formed in the open coding process, the technological innovation mechanism of the second stage of BYD's new energy vehicles, that is, the aggregation strategy stage, is constructed, as shown in Figure 2.

4.3. Differentiation Focus strategy stage (2014-present)

According to open coding and spindle coding, this paper categorizes the core issues of research as: "technology is king" and "innovation is based", and at the same time, according to the logical relationship formed in the open coding process, the technological innovation mechanism of the third stage of BYD's new energy vehicles, that is, the differentiated focus strategy stage, is constructed, as shown in Figure 3.

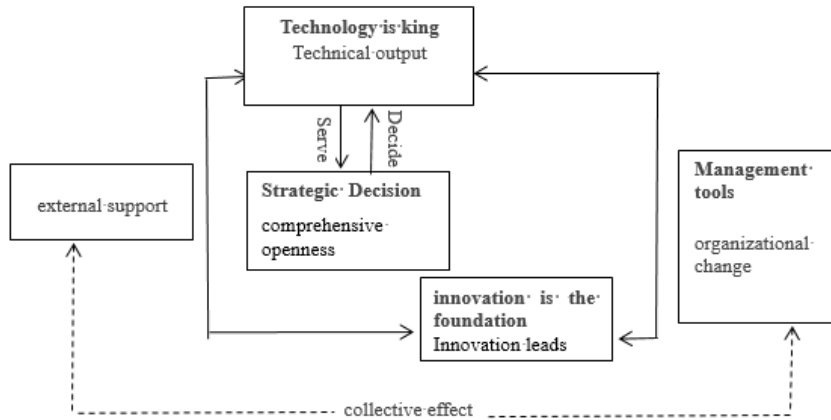


Figure 3: Technological innovation mechanism in differentiation focus strategy stage

5. Research findings and discussions

5.1. "Technology is king, innovation is the foundation" under the guidance of enterprise strategy execution path

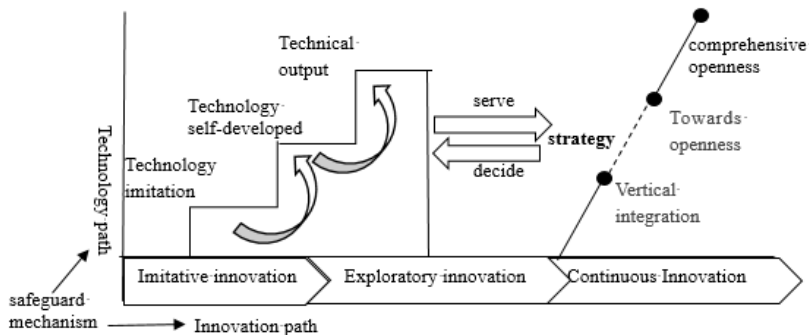


Figure 4: Enterprise strategy execution path

5.1.1. Technology path: technology imitation - technology self-research - technology output

Under the guidance of Wang Chuanfu's "technology is king, innovation is the foundation", the technical path of BYD's new energy vehicle development is from technology imitation to technology self-research and finally technical output. BYD started from the acquisition of Shaanxi Qinchuan shares, due to the difficulty of cross-border research and development from battery research and development to automobile research and development, so in the early stage of research and development, Wang Chuanfu imitated other automobile brands. On the basis of continuous borrowing and imitation of other automobile brands, Wang Chuanfu led BYD to gradually carry out in-depth technical self-research, as shown in Figure 4. After establishing a strong core technology advantage, due to the rapid rise of many

competitors in the new energy vehicle market, the change in the competitive environment made Wang Chuanfu change the idea of technology self-supply and start technical output. Create a shared collaboration platform through the external supply of batteries and hybrid technology systems to promote market share growth and improve competitiveness. The path from technology imitation to technology output is enough to show Wang Chuanfu's emphasis on technology and strategic and sustainable thinking of the company's technology development model, reflecting the driving role of "technology is king".

5.1.2. Innovation path: imitation innovation - exploratory innovation - continuous innovation

Under the guidance of "technology is king, innovation is the foundation", the innovation path of BYD new energy vehicles is imitation innovation to exploratory innovation and then continuous breakthrough innovation, Wang Chuanfu's initial technical reference, determined that BYD began to take the imitation innovation route, through the appearance design innovation and digital innovation for product innovation, BYD to its own automotive products to carry out digital transformation of key automotive components, integrated into IC technology, began its own innovation road. BYD's development path in the field of new energy vehicles is not smooth, due to BYD's medium-term expansion too fast, resulting in a series of problems, this stage is a process of BYD's continuous exploration. Domestic brands need to go through a relatively long acceptance and recognition process in the hearts of mass consumers, so BYD deeply focuses on the improvement of product quality at this time, and at the same time, clears obstacles for technological innovation by adjusting the organizational structure and improving channel quality, which is Wang Chuanfu's management technology innovation in addition to product technology innovation. With the rapid development of the Internet and informatization, Wang Chuanfu has carried out design system capacity building and intelligent construction in the field of new energy vehicles, and has risen to a new height in product innovation by cooperating with many well-known international designers to create a design talent system, and the blade battery released by BYD in 2020 has further improved BYD's competitive advantage in the new energy automobile industry because of its advantages of high endurance and long life. Secondly, the establishment of DLink intelligent network system, the launch of a large-screen vehicle system, and the transplantation of mobile phone application scenarios to cars, so that users "have a home and do not want to return", this series of innovative measures is BYD's continuous breakthrough innovation in products on the basis of the development of the market environment. In addition, the platform-based reform, market-oriented reform and organizational structure adjustment also show Wang Chuanfu's innovative ability in management technology, and BYD's innovation road will not stop, because Wang Chuanfu's "innovation-oriented" spirit will continue forever.

5.1.3. Strategic decision-making path: vertical integration - towards openness—comprehensive openness

As Wang Chuanfu said, "technology first serves strategy, followed by product service", because BYD began to take a vertical integration strategy in the early stage of entering the new energy automobile industry, integrating all talents and financial resources within the enterprise, those who can develop are independently developed, and those who can innovate are independent innovation, thereby reducing production costs and establishing their own core advantages, and the early stage of technology imitation is the mechanism and model of BYD's vertical integration strategy formation. After gradually establishing sufficient technical advantages in the field of new energy, Wang Chuanfu has opened up on the basis of adhering to the vertical integration strategy, because Wang Chuanfu wants to realize "public with private" through the business model of bus electrification, and use the development of new energy in public transportation to drive the development of new energy in the field of private cars. Therefore, Wang Chuanfu actively established joint ventures abroad, and gradually achieved the purpose of popularizing new energy vehicles layer by layer. Taking the road of internationalization and enhancing international competitive advantages requires Wang Chuanfu to continue to cultivate technological innovation, but also needs Wang Chuanfu to form the concept of openness, integration and sharing. Therefore, Wang Chuanfu did not adhere to BYD's closed management, but began to fully open up, carry out cross-border cooperation with well-known enterprises at home and abroad, pioneer enterprises in various fields, open up the supply and marketing system and make external investment. On the one hand, it has expanded its own resource acquisition capabilities, saved the R&D capital of automobiles, formed complementary advantages in resources, and promoted win-win benefits between the automotive industry. On the other hand, through cross-border co-branding, BYD can integrate diversification through joint methods, such as in 2021, BYD joined hands with the "Honor of Kings" champion team to create a joint version of dolphin, accelerating BYD's brand rejuvenation. BYD's strategic path from vertical integration to full opening determines its technological innovation route, and at the same time, BYD's new energy vehicle technological innovation route has always served its corporate strategy, promoting BYD's new energy vehicle to success step by step.

5.2. Guarantee Measures for Enterprise Strategy Execution

5.2.1. Human resources guarantee

The realization of the sustainable development strategy of the enterprise is inseparable from the specific actions of employees, that is, the cooperation and support of human resources [9]. In addition, Wang Chuanfu guided employees to work, started from the inner identity of employees through intangible concept infiltration, gave full play to the initiative and creativity of employees, and set an example by delegating power to employees, launching employee stock ownership plans, and constantly creating opportunities and platforms for employees to realize self-worth. These initiatives all reflect the "people-oriented" and "employee-oriented" thinking.

5.2.2. Organizational structure guarantee

Scientific and perfect organizational structure design has an important impact on the effective implementation of enterprise development strategy. In the development process of BYD's new energy vehicles, Wang Chuanfu constantly adjusted and optimized the organizational structure according to changes in the external environment. In the expansion stage of BYD's new energy vehicle development, Wang Chuanfu increased the adjustment of the internal organizational structure and created the organizational structure of "business group + business department". Since then, based on the excellent response of BYD's Tang Dynasty series of cars in the market, BYD Auto has optimized the company's structure again and established four major business units, and the general managers of each business unit directly report to Wang Chuanfu. In addition, in order to promote BYD's breakthrough in product design, BYD has created a complete designer echelon, where BYD's design director and management can directly communicate problems in the progress of the project, while providing rapid feedback and decision-making, giving full play to efficient decision-making and departmental collaboration capabilities.

5.2.3. Corporate culture guarantee

Corporate culture is an important part of the intangible assets of the enterprise, on the one hand, as a code of conduct and guidelines, it plays a role in standardizing, restraining and guiding employees, on the other hand, building an excellent corporate culture can enhance the sense of belonging and identity of employees, improve the value of the intangible assets of the enterprise, and is an important condition for the success of the implementation of corporate strategy. In the process of sustainable development, BYD New Energy Vehicle has always been committed to cultural construction, creating the core values of "equality, pragmatism, passion and innovation", Wang Chuanfu implements humanized management, has always advocated the "family culture" of "taking the factory as home, loving the factory as home", and constantly improving the sense of identity of employees with corporate culture, loyalty and sense of belonging to the enterprise, and achieving a win-win situation between enterprises and employees. In addition, BYD actively carries out the construction of quality culture, in order to promote the construction of corporate quality culture, BYD advocates seriousness and dedication, from beginning to end, the attitude of seriousness and dedication runs through every link of enterprise development, and integrates it into corporate culture as one of the assessment standards, creating a good corporate culture atmosphere.

5.2.4. Business System Guarantee

Based on the long-term development of the industry, BYD is constantly improving and innovating its own business system to ensure the effective implementation of strategies at different stages. In terms of industrial chain business, BYD's new energy vehicle industry chain has outstanding advantages, from upstream mineral resource development, to vehicle R&D, manufacturing and market operation, and finally battery recycling, forming a closed loop of the whole industrial chain from "upstream lithium resources - lithium battery raw materials - power batteries - new energy vehicles - battery recycling". At the same time, according to the direction of product innovation and upgrading and industrial structure optimization and upgrading, continuous innovation of business models will improve the guarantee for the implementation of enterprise development strategies. Based on market demand and user demand, BYD has established a sincere service brand, its after-sales service area adopts one-to-one service reception, and carries out door-to-door test drive and fast maintenance channel services for different customer needs, which invisibly establishes a good customer relationship and improves customer satisfaction and identity with BYD.

6. Conclusion

Wang Chuanfu's entrepreneurial innovation spirit of "technology is king, innovation is the foundation", in the implementation of the enterprise strategy, around the technology path and innovation path to carry out reform and innovation to ensure the implementation of the strategy and achieve the predetermined goals. The research shows that the technology path is technology imitation-technology self-research-technology output, and the innovation path is imitation innovation-exploratory innovation-continuous innovation, and the specific organizational activities under the two paths have promoted and improved the strategic implementation of BYD New Energy Vehicles at different strategic stages. At the same time, under the role of Wang Chuanfu's entrepreneurial spirit of "technology is king, innovation is the foundation", BYD ensures good results in strategy implementation through human resource guarantee, organizational structure guarantee, corporate culture guarantee and business system guarantee measures.

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