

Business Model Reconfiguration Driven by Disruptive Innovation: Theoretical Basis and Case Study

Yumeng Dong^{1,a,*}

*¹School of Economics and Management, China Agricultural University, Beijing, 100000, China
a. 13591188596@163.com*

**corresponding author*

Abstract: This review deeply analyzes the close relationship between disruptive innovation and business model. Through the comprehensive analysis of several relevant literature, the conceptual characteristics of disruptive innovation, the constituent elements of business model and the mutual relationship between the two are clarified. It also discusses the impact of disruptive innovation on business models and the challenges and limitations faced by disruptive business models. It is found that disruptive innovation is an important driver of business model change. It can not only spawn entirely new business models, but also drive profound changes in existing business models to meet changing market demands and customer value propositions. At the same time, business model innovation is a key way to realize the value of disruptive innovation. Through innovative business models, enterprises can better utilize the technology and market opportunities brought by disruptive innovation and maximize their value. However, enterprises also face challenges in implementation such as organizational culture conflict, insufficient technical capabilities, and changes in market demand.

Keywords: Disruptive innovation, Business model, Challenges and limitations

1. Introduction

In today's fast-changing business environment, with rapid technological development and increasingly fierce market competition, enterprises are faced with unprecedented challenges and opportunities, and disruptive innovation and business model innovation have become key factors for enterprises to gain competitive advantages. Disruptive innovation can break the traditional market pattern, create new market space and bring new growth opportunities for enterprises, while business model innovation is an important way to realize the value of disruptive innovation[1]. Therefore, an in-depth study of the relationship between disruptive innovation and business model has important theoretical and practical significance for the development of enterprises. The purpose of this study is to deeply analyze the close relationship between disruptive innovation and business model, to clarify the conceptual characteristics of disruptive innovation and the components of business model, and to explore the mutual relationship between the two and their impact on business model through the systematic review of multiple research results in related fields. At the same time, the research also focuses on the challenges and limitations faced by disruptive business models. Finally, it points out the limitations and gaps in the current research field to provide useful reference for future research. The significance of this study is to deepen the understanding of the relationship between disruptive

innovation and business model, improve the relevant theoretical system, and provide scientific guidance for enterprises' innovation practice, and provide beneficial enlightenment for enterprises to cope with market changes and competition challenges.

2. Literature Review

2.1. Concepts and Characteristics of Disruptive Innovation

The concept of disruptive innovation, first proposed by Christensen, usually refers to those innovations that can break the existing rules of the industry and create new markets and value networks [2]. Unlike traditional incremental innovation, disruptive innovation has the following characteristics. Firstly, disruptive innovations often start in emerging markets or low-end areas of existing markets [3,4]. By finding ways to turn non-consumers into consumers, disruptive innovation creates markets that would not otherwise exist [3]. These non-consumers may not be able to use an existing product or service because it is too expensive, too complex, or for other reasons. Secondly, disruptive innovative products or services tend to have lower prices and better cost structures. This allows them to quickly gain competitiveness in the market, especially in the face of traditional high-end products or services. This is because disruptive innovations often employ new technologies or business models that meet consumer needs in specific scenarios that incumbents often cannot meet [3,4,5]. Finally, disruptive innovations may appear as small-scale experiments in the initial stage, but they have huge development potential and can gradually disrupt the existing market structure [3,4]. Disruptive innovations tend to have an impact on the market share and profitability of incumbents [3,4]. Due to their unique value proposition and business model, disruptive innovations are able to attract a large number of customers, thus changing the competitive landscape of the market.

2.2. Business Model

A business model is a combination of a series of business activities built by an enterprise to achieve value creation and value acquisition, including value proposition, customer segmentation, channel access, customer relationship, revenue source, core resources and key business elements [6,7,8,9].

Business models can be divided into various types, such as low-cost business model, differentiated business model, platform business model, etc. [10]. A business model innovation is a change to one or more business model components and their interactions. This change may be customer driven, technology driven, or organizational development driven [11]. Business model innovation is the key to sustainable development for enterprises [12]. In a rapidly changing business environment, traditional business models are often difficult to meet market demand and competition challenges, and enterprises need to constantly innovate business models to adapt to changes in the market and customer needs.

2.3. Disruptive Business Models

The disruptive business model (DBM) was born to adapt to the ever-changing market and consumer needs [13]. With the intensification of market competition, managers are no longer just focusing on the innovation of products and services, but are beginning to pay attention to the innovation of business models [14]. This is because DBM can redefine business performance and bring competitive advantages to enterprises. Disruptive business models aim to replace existing business models, adapt the organizational structure to the products and services offered, and emphasize providing unique value to the market [15,16,17,18,19,20].

Markidus [16] points out that innovation in a business model does not lie in discovering new products or services, but in redefining the nature of existing products or services and how they are

delivered to customers. Santos, Spector, and van der Heyden [19], on the other hand, argue that such innovation focuses on the reconfiguration of activities within a given firm's business model, seeking new ways to deliver value to consumers by reconstructing the business.

It is important to note that the disruptive forces that prompt organizations to develop new business models are often driven by external technological changes and shifts in market demand, which make it impossible for activities in existing business models to keep up with or take advantage of [21], thus creating new opportunities and challenges for businesses. Therefore, the emergence of disruptive business models is not only an inevitable result of market competition, but also an important way for enterprises to constantly seek innovation and maintain competitive advantages.

3. The impact of Disruptive Innovation on Business Models

3.1. Reshaping of Business Models

Disruptive innovation often leads to the creation of new business models [4]. These new business models are very different from traditional business models, and they are better able to meet market needs and customer value propositions. For example, the emergence of Skype revolutionized the traditional telecom calling model and pioneered the business model of Internet telephony [2].

Disruptive innovation will also lead to changes in existing business models. Companies need to adjust and optimize their existing business models according to the characteristics of disruptive innovation and changes in market demand to remain competitive. For example, the traditional retail industry, under the impact of e-commerce, needs to adapt to market changes by transforming online sales and providing personalized services.

3.2. Driving Factors of Business Model Innovation

Disruptive innovation can be divided into technology-driven and market-driven types [22]. Technology-driven disruptive innovation is usually triggered by the emergence of new technologies, while market-driven disruptive innovation is driven by changes in market demand and shifts in customer value propositions. Both types of disruptive innovation are capable of driving innovation in business models.

There is synergy between disruptive innovation and business model innovation [22]. Disruptive innovation provides new technology and market opportunities for business model innovation, while business model innovation provides support and guarantee for the realization and value acquisition of disruptive innovation. For example, Apple Inc.'s iPhone is a model of technology-driven and market-driven disruptive innovation. It not only introduces innovative products, but also maximizes value through unique business models [22].

3.3. Meeting the Unmet Needs of Consumers

Disruptive innovation is able to identify unmet consumer needs and address them through innovative products and services [23]. For example, Airbnb has upended the traditional hotel accommodation industry by creating an online platform that enables ordinary home owners to rent out spare rooms or properties to travelers. This model not only provides travelers with more diverse and personalized accommodation options, but also creates additional income for home owners, especially those who would not otherwise have entered the traditional hotel market. Through its innovative business model, Airbnb has managed to bring non-consumers (i.e., those unwilling or unable to use traditional hotel services) into a new value network, thus enabling disruptive innovation.

3.4. Offering a Unique Value Proposition

Disruptive innovations are able to provide consumers with a unique value proposition that differentiates a business from the competition in the marketplace [10]. For example, Xiaomi has won the favor of consumers by providing cost-effective smartphones that meet their dual demands for quality and price. Xiaomi focuses on product research and development and innovation, constantly launches competitive products, and at the same time reduces marketing costs and improves product cost performance through Internet marketing and fan economy, providing consumers with a unique value proposition [6].

4. Case Study of Taobao

Taobao, one of the largest e-commerce platforms in China, has successfully upended the business model of the traditional retail industry through its innovative business model. Taobao's business model focuses on the optimization of user experience, platform construction, logistics delivery and payment security, which provides consumers with a convenient and rich shopping experience through the synergy of these elements. For example, Taobao has improved users' trust by establishing a sound user evaluation system; By continuously optimizing the platform interface and functions, it has improved the user experience; Through the cooperation with many logistics companies, to achieve fast and accurate logistics distribution; And by establishing a safe and reliable payment system, it has ensured the security of users' funds.

In addition, Taobao has attracted the participation of many merchants and entrepreneurs through the openness and innovation of its platform, forming a huge business ecosystem. Taobao provides a platform for merchants to display and sell their products, as well as opportunities for entrepreneurs to start their own businesses and grow. Through the continuous innovation and development of the platform, Taobao has not only provided consumers with a wealth of goods and services, but also created a large number of job opportunities and economic value for the society[20].

5. Challenges of Disruptive Business Models

5.1. Organizational Level

5.1.1. Conflict of Organizational Culture

Disruptive innovation often requires enterprises to break the traditional organizational culture and establish an innovative organization. However, the change of organizational culture often faces great resistance, and enterprises need to overcome the conflict of organizational culture in order to realize the innovation of business model. Traditional organizational culture tends to focus on stability and efficiency, while disruptive innovation requires the enterprise to have the spirit of adventure and the sense of innovation, and there is a certain conflict between the two. In addition, the change of organizational culture also requires the participation and support of all employees.

5.1.2. Lack of Organizational Capacity

Disruptive innovation requires an enterprise to have strong organizational ability, including innovation ability, market response ability, organization and coordination ability. However, some enterprises often lack these capabilities, resulting in an inability to respond in a timely manner when faced with disruptive innovation. Innovation ability is the key for enterprises to achieve disruptive innovation, and enterprises need to constantly encourage employees to innovate and cultivate their innovation awareness and innovation ability. Market response ability is an important guarantee for enterprises to grasp market opportunities in time. Enterprises need to establish a rapid market

response mechanism, timely understand the changes in market demand, and adjust their products and services. Organization and coordination ability is an important basis for an enterprise to achieve internal resource integration and collaborative innovation. Enterprises need to strengthen internal communication and collaboration to improve the collaborative efficiency of the organization.

5.2. Technical Level

5.2.1. Issues of technical maturity

Disruptive technologies are often not mature enough in the initial stage, and there are certain technical risks. Enterprises need to increase investment in technology research and development and improve technology maturity to reduce technology risks. Disruptive technology is usually in the early stage of development, immature technology, low reliability problems often affect the quality and performance of the product, thus bringing certain risks to the enterprise. In addition, the rapid development of technology will also lead to the risk of technology substitution, enterprises need to constantly track the development of technology and timely adjust their technical strategies.

5.2.2. Risk of Technology Substitution

The emergence of disruptive technologies often leads to the risk of technological substitution. Enterprises need to keep track of technological developments and adjust their technological strategies in time. In the era of rapid technological development, the emergence of new technologies will often replace old technologies quickly, and enterprises will face the risk of being eliminated if they cannot keep up with the pace of technological development in time. Therefore, enterprises need to strengthen technology research and development and innovation, improve their own technical strength, and also pay attention to the trend and direction of technological development, timely adjust their technical strategies to cope with the risk of technological substitution.

6. Suggestions for Future Trends of Business Model

Faced with the change of business model brought about by disruptive innovation, enterprises need to adopt positive coping strategies to achieve the sustainability of innovation and the long-term maintenance of competitive advantage.

First, companies need to build an open and inclusive innovation culture. Disruptive innovations often result from challenges and breakthroughs to tradition, so companies need to create a culture that encourages innovation and tolerates failure. By setting up innovation funds, holding innovation competitions and other ways to stimulate employees' innovation awareness and enthusiasm, at the same time, it is necessary to establish a reasonable fault tolerance mechanism to allow employees to make mistakes in the innovation process and learn from their mistakes.

Second, enterprises should strengthen their own technical capabilities and market response speed. Disruptive innovation is often accompanied by the emergence of new technologies and changes in market demand. Enterprises need to continuously improve their technology research and development capabilities and market acumen in order to timely capture innovation opportunities and quickly respond to market changes. By increasing investment in technology research and development and establishing a rapid response mechanism, enterprises can ensure that they stay ahead of the wave of disruptive innovation.

When it comes to business model innovation, companies should focus on value creation and meeting customer needs. The core of a disruptive business model lies in redefining the value proposition and meeting customer needs, so companies need to have a deep understanding of market needs and customer pain points to provide more competitive products and services through innovative

business models. For example, enterprises can adopt new business models such as platformization and sharing to reduce operating costs, improve service efficiency and meet consumers' personalized needs.

Finally, enterprises need to strengthen internal and external cooperation and resource integration. Disruptive innovation often involves collaborative cooperation between multiple fields and multiple entities, and enterprises need to actively seek cooperation opportunities with external entities such as upstream and downstream enterprises in the industrial chain, scientific research institutions and universities to jointly promote the development of disruptive innovation. At the same time, enterprises should also strengthen the integration of internal resources and collaborative innovation, and enhance their overall innovation capability by optimizing resource allocation and improving collaborative efficiency.

7. Conclusion

Disruptive innovation and business model innovation are key factors for enterprises to gain a competitive advantage in today's fast-changing business environment, and they reinforce each other and jointly drive the development of enterprises. Disruptive innovation provides new opportunities and challenges for business model innovation, and can bring new technological means and product functions to enterprises, thus changing the business model of enterprises. And business model innovation is an important way to transform the potential of disruptive innovation into actual value, so as to give full play to the potential of disruptive technology and create greater value for enterprises.

However, the development of disruptive business models also faces many challenges and limitations, which companies need to overcome in order to achieve sustainable development. In terms of theoretical research, the definition of disruptive innovation is vague, and different scholars have different views on the definition and classification of disruptive innovation, which brings difficulties to the research [1,2]. Moreover, the theoretical system is not perfect, and there is no systematic theoretical framework to explain the relationship between the two [6], which affects the innovation decision of enterprises. At the practical application level, enterprises have various strategies to cope with disruptive innovation, with great differences in effectiveness and applicable conditions [6,24], but there is a lack of in-depth research and guidance on how to choose appropriate strategies. At the same time, the research ignores the industry differences, because the market environment of different industries is different, and the performance and impact of disruptive innovation and business model innovation are different [6], while the current research mostly focuses on specific industries. In terms of research methods, the main research methods, such as case, empirical and theoretical research, have their advantages and disadvantages [6], and a single method is difficult to fully reveal the relationship between the two. In addition, disruptive innovation and business model development dynamics need long-term tracking research to grasp the change trend [6], but at present, short-term research methods are mostly used, and long-term tracking research is not paid enough attention to.

Future research needs to further deepen the understanding of the concept, characteristics and interrelationship of disruptive innovation and business model, improve the theoretical system, strengthen practical application research, explore innovation strategies suitable for different industries, and adopt diversified research methods to strengthen long-term tracking research, so as to provide more scientific guidance for enterprises' innovation decision-making. At the same time, enterprises also need to continuously strengthen their own innovation ability and management level, and actively respond to market changes and competitive challenges, in order to remain invincible in the fierce market competition.

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