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Factors influencing business model innovation of Chinese SMEs: A conceptual study

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Abstract
Purpose: The main objective of this paper is to study the key factors affecting the implementation of BMI in China.
Design/methodology/approach: This study is based solely on secondary sources, examples including academic papers, journal articles, books, and websites, to further investigate the concept.
Findings: Key factors influencing BMI among Chinese SMEs include relational resources, digital technology and the long tail, the study found.
Research implications: The conclusions of this study combine the specific circumstances of the current external environment of Chinese SMEs and make innovative and complementary contributions to the conceptual research on the factors influencing BMI.
Practical implications: Changes in the external environment make it extremely difficult for SMEs to successfully implement BMI. To improve the success rate of BMI, SMEs must first clearly understand the factors influencing BMI, and then take targeted actions.
Originality/value: This paper presents a new conceptual study in the context of reality, explaining three key influences that affect business model innovation in Chinese SMEs, namely relational resources, digital technology and the long tail. It also proposes to measure BMI in terms of the dimensions of the five major activities of a business model, with a total of 18 relevant hypotheses.

Keywords: Business model innovation, Influencing factors, Chinese SMEs

Introduction

In order to remain relevant in the face of competition, businesses must possess the capacity for innovation; otherwise, they risk becoming obsolete (Drucker, 2001, p. 29). Innovation is the driving force for the sustainable development of enterprises, and includes not only technology innovation, product innovation, management innovation, but also business model innovation. BMI is the key to ensure the survival and sustainable development of enterprises. It helps to increase the value of products or services and/or deliver the value of those products or services to customers (Keiningham et al.,2020). Any successful business must have a functional business model that sustains its operations. But functional business models are not normally the best business models. And changing markets routinely make obsolete not only products and services, but also the business models on which companies operate. Driven by changes in

the external environment, enterprises need to improve their business models if they want to increase their entrepreneurial performance.

In China, enterprises in all industries are divided into four types based on the number of employees and business revenue: large, medium, small and micro enterprises. For example, in the industrial sector, large enterprises have more than 1,000 employees and more than 400 million yuan in business income. Medium-sized enterprises are defined as those with 300 employees or more and an operating income of at least 20 million yuan. Small enterprises, on the other hand, refer to businesses with a workforce of at least 20 employees and an operating income exceeding 3 million yuan. Micro-enterprises encompass establishments with less than 20 employees or an operating income below 3 million yuan. In this paper, Chinese SMEs are chosen as the subject of research for the following reasons. There have been numerous studies on business model innovation in large enterprises, which have relatively mature existing business models that are difficult to change much, and which do not have outstanding results. Limited research has been conducted on the BMI of small, medium, and micro enterprises, which possess the developmental flexibility to implement systematic BMI based on their existing conditions and can yield more easily attainable outcomes. SMEs have an advantage over micro-enterprises when it comes to BMI under the same external conditions. The main reason is that micro-enterprises have few existing resources, are extremely vulnerable in the face of uncertain market conditions and cannot withstand the threat of BMI to the survival of the enterprise. Furthermore, SMEs have the advantage of being flexible, while also having relatively strong counter-risk capabilities.

In 2014, China put forward the policy slogan of "mass entrepreneurship and innovation", forming a wave of entrepreneurship. According to the statistics of China's fourth National Economic Census, as of the end of 2018, the number of enterprise legal persons nationwide was 18.235 million, which was 10.027 million more than that of the end of 2013 (the number of enterprise legal persons nationwide was 8.208 million), an increase of 122.16%. The data indirectly indicates that China's SMEs are facing huge market competition pressures. According to statistics over the years, the probability of SMEs surviving for five years in China is not more than 5%. Meanwhile, SMEs are limited by limited resources and other shortcomings, and do not have a competitive advantage in mature markets.

China is a society that values human relations and relationships. Companies generally give priority to working with their close partners. To carry out business model innovation, SMEs need to expand with new partners, including fresh cooperative enterprises, suppliers, scientific research institutions and even government departments. These relationship resources can bring a lot of convenience and additional resources for enterprises to expand new business activities. Moreover, as the application of digital technology in the real economy becomes more widespread and in-depth, enterprises will inevitably use digital technology in their interaction with partners. Digital technology can not only help enterprises improve their operational efficiency and management levels, but also expand their business boundaries. The expansion of enterprise boundaries will help enterprises to innovate BM. For example, the application of digital technology by manufacturing enterprises to expand the boundaries of the enterprise can promote the expansion of the core competence of the enterprise from product to product + service, to increase the income source of the enterprise, improve the profit rate of the enterprise and enhance the core competitiveness of the enterprise. With the deepening of the research on the business model of SMEs, as more and more customers want to try new products or services, it is difficult for SMEs to maintain even one best-selling product or service for a long time.

Since SMEs cannot sustain the same product or service for a long time, they can devote more resources to operating more niche products or services, thereby increasing their revenue streams, and improving their counter-risk capabilities. As a result, research has found that companies can promote business model innovation by applying long-tail theory. In short, through literature research, this paper will summarize the factors that affect BMI, including relational resources, digital technology, and long tail.

Additionally, based on an extensive review of relevant literature on business models, this paper posits that business models encompass five essential components: value creation, value proposition, value capture, value delivery, and value communication. This study will build a theoretical research model through theoretical research on the impact of relational resources, digital technology, and long tail on the business model components of Chinese SMEs.

Literature Review

Business Model

Over the past few years, business models have garnered significant attention from both academia and industry practitioners. Despite the extensive literature on this subject, there remains a lack of consensus among scholars regarding the conceptualization of business models. Notably, researchers from different fields hold varying perspectives, and several noteworthy ideas have emerged: (1) Business models aim to elucidate the processes of value creation and capture. (2) The activities undertaken by focal companies and their partners play a pivotal role in shaping diverse business model frameworks that have been proposed. (3) Business models emphasize an integrated system-level approach to comprehending how enterprises conduct their operations. (4) There is widespread recognition that a business model represents a distinct unit of analysis separate from products, companies, industries, or networks. It revolves around a single enterprise but encompasses broader boundaries than those traditionally associated with it. These emerging themes can serve as influential catalysts for fostering more cohesive research on business models.

The latest research on business model mainly focuses on the following aspects, including enterprise performance; strategy; innovation & technology management. In terms of enterprise performance, scholars have increasingly recognized that an enterprise cannot implement a business model in an environment without competition but competes with its peers by implementing a business model (Casadesus-Masanell et al., 2013). BM is an essential source for enterprises to obtain competitive advantage. Innovative and effective business models can lead to superior value creation. The implementation of an effective business model can enhance companies' financial performance, accelerate their scale expansion, and optimize the utilization of resources held by customers or partners (Snihur & Markman, 2023). In short, business model plays a key role in the enterprise development. Studying business models from a strategic perspective, scholars believe that business models can be a source of competitive advantage, and that companies can adopt radically different business models to meet the same customer needs. Business models designed by enterprises and product strategies proposed by enterprises are complementary rather than substitutes (Zott & Amit, 2007). Conventional strategies underscore the significance of competition, value appropriation, and competitive advantage, while business models are customer-centric and more focused on collaboration, partnerships, and co-value creation. From this point of view, the BM includes an economic communication model between the company and external parties (Zott & Amit, 2007); The value proposition of a company to its stakeholders and the system of activities employed by the company to

create and deliver customer value are outlined (Seddon, Lewis, Freeman, & Shanks, 2004). Therefore, the business model is widely regarded as a promising unit and level of analysis for scholars in strategic management, particularly within the realm of strategy (Bigelow & Barney, 2021). The business model represents a novel innovation theme that compensates for the lack of previous innovation on traditional themes such as products, processes, and involves new forms of collaboration and collaboration. Business models will not only have an impact on technological innovation but will also be affected by it. Technological innovations can trigger changes in a company's operations and business activities, which can lead to changes in business models. Research on BM, innovation & technology management shows that though technological innovation is crucial to the development of enterprises, but it may not directly promote the success of enterprises. This is because the technology itself has no commercial value. In addition to integrating technology into products and services with commercial potential, companies need to design business models that can win the market to realize their full business potential. Not only that, but companies can also consider the business model itself as an innovation theme. Chesbrough (2003) introduced the concept of open innovation as an innovation model in which a company does not rely on internal ideas to advance its business but looks outwards and makes more use of ideas from outside to expand its business. In addition to being the subject of innovation, business models may spur innovation in other business models in complementary markets due to changes in the activities and capabilities of upstream and downstream partners. BMI serves as both the impetus and outcome of innovation, enabling companies to effectively adapt to rapidly evolving environments (Snihur & Markman, 2023).

There is a growing belief that BMI is the carrier of enterprise transformation and a key to improving the level of corporate performance. According to some scholars, obstacles to innovation in existing business models include the allocation of assets and processes.How can these obstacles be overcome? According to a few scholars, BM is formed by an experimental process and may vary across organizations in different competitive environments. The core principle of the business model is centered on the company's income and expenses, its unique offering to customers, and the strategies employed to extract value. Consequently, business models can serve as both a catalyst for innovation and a cornerstone of innovation. In summary, this paper aligns with the following perspectives: A business model may encompass internal value chains such as products and services, activities, and resources; as well as external value chains involving customers, partners, and competitors. Generally speaking, the key components of a business model comprise value creation, value proposition, value delivery, value capture, and value communication (Rayna & Striukova 2016). The detailed explanations of these five sections are provided below.

1) Value creation

The process of value creation enables firms to acquire value for their goods and services, which can then be captured and shared. This process is derived from core competencies, key resources, governance, complementary assets, and value networks (Rayna & Striukova, 2016). It constitutes a fundamental component of the business model.

2) Value proposition

Value proposition is the mechanism by which the value created is provided to the market, specifying what a firm offers (a product or service) and at what price (a pricing model). This is another vital element of the BM.

3) Value delivery

The concept of value delivery pertains to the mechanism through which the generated value is effectively conveyed to the customer (target market) via the distribution channel.

4) Value capture

The concept of value capture pertains to a firm's capacity to capitalize on the value generated.

5) Value communication

Value communication pertains to the manner in which companies engage with customers and partners, effectively conveying information about their products, services, and the inherent value they offer.

Business Model Innovation

As for the definition of BMI, numerous scholars have their own differing views. Berniker (2008) argues that BMI answers the question of what value a company provides to its customers and how this value contributes to the company's bottom line. Santos et al. (2009) argue that BMI is an activity in which a firm reconfigures its existing business model in a competitive market of products/services. Gambardella & McGahan (2010) argue that BMI occurs when companies adopt new methods to commercialize their assets. Amit & Zott (2012) argue that BMI can include the addition of new activities and that BMI is an organizational innovation in which a firm identifies and adopts a fresh portfolio of opportunities. Casadesus-Masanell et al. (2013) argued that BMI refers to finding a new logic for an enterprise and a new way to create and capture value for its stakeholders. Richter (2013) argues that BMI means developing new organizational forms for creating, delivering, and capturing value. Nicolai J. Foss & Tina Saebi (2017) believe that BMI is a process of organizational change in which enterprises try to create, deliver and acquire value for stakeholders with improved value propositions based on new business models. This is a new approach and different logic for enterprises to explore value creation and acquisition. Summarizing the above, BMI is the novel way of creating, delivering, and acquiring value by shifting one or more units of a business model in the absence of resource shortages, economic shifts or competitiveness and profitability.

BMI is an extension of the concept of business model, which has received a lot of attention from the academic community. But as far as the literary stream is concerned, BMI is just the beginning. Research on BMI is limited and extremely fragmented. So, there are a lot of opportunities to explore the various elements of it. This paper will extract the results of current scholars on BMI from the following aspects: strategy, technology, governance, flexibility, value creation, and value capture.

In terms of strategy, BMI has been studied more extensively by scholars. Teece (2010) believes that BM and strategy have commonalities, so it is essential to combine strategy and business model analysis to design different business models to gain competitive advantages. Amit & Zott (2012) first proposed that BMI can be carried out in three ways: adding fresh activities to the current business model, organizing activities in a totally new way, and changing some of the activities that are already implemented. Guo H. et al. (2013) took Chinese enterprises as research objects and demonstrated that the human capital and social capital of top executives have a significant impact on BMI, and the management skills and relationship resources of top executives are crucial to BMI. Hinterhuber and Liozu (2014) proposed that the company must pay sufficient attention to the pricing strategy, and innovative pricing strategies will enable the company to obtain the greatest competitive advantage. Velu (2016) discovered that enterprises

with relatively weaker positions tend to engage in collaborative efforts to innovate their business models, utilizing it as a defensive strategy for sustaining their competitive advantage. It can be seen that in the absence of significant changes in the external environment, SMEs should also take the initiative to shift their business models and take targeted and systematic actions (Martins et al., 2015). Business model innovation serves as the driving force behind strategic implementation, whereby strategy entails a sequence of choices, while business model innovation encompasses these choices and their subsequent ramifications (Ricart, 2023).

BMI is closely related to the technological level of an enterprise because technological innovation can promote BMI. In fact, companies are more focused on technological innovation, but BMI is more crucial than technological innovation. The occurrence of BMI does not necessarily rely on technological innovation; however, the value of technological innovation lies in its ability to be effectively commercialized through a viable business model. In reality, most companies, especially SMEs, tend to sell or accredit their technology rather than commercialise it in some way (Gambardella and McGahan, 2010). A new technology must be combined with BMI to form an effective competitive strategy (Chesbrough, 2010). In order to encourage companies to create and capture value more effectively, Chesbrough (2012) proposed to use external resources to form an open-source business model to support the commercialization of technological innovation. Therefore, a crucial aspect of the BMI design process entails the integration and application of emerging technologies, such as digital technology, which plays a pivotal role in propelling BMI advancements (Andreini et al., 2022).

In the process of BMI, the leadership of executives can play an important role (Doz & Kosonen, 2010). At the same time, informal organizations within companies should attract the attention of executives (Zott et al., 2011). To achieve unity in leadership, companies should encourage dialogue, disclosure, integration, coordination, and care. In communication with partners and customers, the company should continuously improve the ability to control partners and customers, so as to reduce uncertainty (Ogilvie, 2015). Therefore, in the process of BMI, enterprises must pay attention to individuals and organizations with internal and external interest relationships (Bowyer & Chapman, 2014).

When it comes to BMI, companies must demonstrate adaptability as BMI necessitates the transformation of its business model across different markets (Amit and Zott, 2009). Bucherer et al. (2012) posit that the body mass index (BMI) is a dynamic system, necessitating continual adjustments to effectively adapt to both internal and external stimuli. The dynamic nature of BMI underscores the positive impact on enterprises' implementation success when they exhibit willingness towards engaging in this process (Cucculelli and Bettinelli, 2015). Huang & Ichikohji (2023) propose that BMI should adapt to the operational environment of a company, including changes in policies, regulations, and market conditions. Additionally, they emphasize from different perspectives the importance of BMI in adapting to constantly changing market demands and competitive environments.

While scholars do not agree on the definition of a business model, they do agree that a business model is extremely critical to value creation. By successfully implementing BMI, companies can significantly increase productivity and reduce service costs. However, before attempting BMI, enterprises should first determine the best time to transform the business model (McGrath, 2010; Matarazzo et al., 2021). The business model can be adapted to the right technical characteristics to enable value creation. Even a simple idea can still create more value if there is a perfect business model to go with it. On the contrary, even a promising technology cannot

accumulate enough value if only a poor business model is combined with it (Chesbrough, 2010). Meanwhile, in terms of intellectual property protection, Desyllas and Sako (2013) propose that another prerequisite for value creation is to ensure that BMI is not imitated. Wu Jiebing et al(2013) demonstrated the impact of customer knowledge management based on Internet technology on BMI. In addition, Jain (2014) believes that customer-related knowledge contributes vitally to value creation.

The ultimate value of BMI lies in its capacity to capture meaningful insights (Johnson et al., 2008), which is typically manifested through revenue models, cost structures, profit margins, and inventory turnover. BMI involves the integration of external resources with internal resources to generate and seize value. It not only elucidates how companies extract value from their products but also encompasses investment decisions, resource acquisition costs, core competencies, resistance from within the organization and a lack of momentum towards change (Desyllas & Sako, 2013; Bratnicki, 2018). Furthermore, the study of value capture should extend beyond pricing considerations to encompass timing and effectiveness as well (Baden-Fuller & Haefliger, 2013;).

With today's rapidly changing market environment, business models are more likely to become obsolete, so enterprises need to continue to innovate business models in order to achieve success for a longer period of time (Sosna et al., 2010). Revising the investigation on BMI, this paper hypothesizes that relational resources, digital technology, and long tail can enhance BMI endeavors. The subsequent ideas are specific concepts.

a) Relational resources

To achieve sustainable development, enterprises need to focus on relationship resources, including government, chambers of commerce, schools, scientific research institutions, cooperative enterprises, industry experts and internal human resources.

b) Digital technology

Building improvements in computing processing power and storage, infrastructure to connect to the Internet and broadband, and software to enable connections between different systems. These technologies are major innovations in their own right, providing new business opportunities for business-to-business and business-to-consumer transactions by improving communications.

c) Long Tail

The concept discussed in this article revolves around the phenomenon known as the 'long-tail' effect. In today's information age and with the advent of the Internet, lesser-known niche products have the potential to contribute significantly to overall sales figures. This discovery prompts businesses to shift their focus from solely relying on top-selling products to also considering a wide range of niche offerings. Traditionally, it was believed that market dominance belonged exclusively to best-selling items; however, thanks to Internet technology, consumers now have easier access to information about niche products without having to invest significant time and effort in searching for them. Consequently, these niche products are no longer overshadowed by conventional marketing strategies that heavily favor popular items or promote specific ones as being superior (Shuanping Dai & Markus Taube, 2020).

Hypothesis Development

This paper proposes 18 hypotheses to examine the relationship between relational resources, digital technologies, and the long tail on BMI of Chinese SMEs, which are derived from the conceptual framework specified in Figure 1.

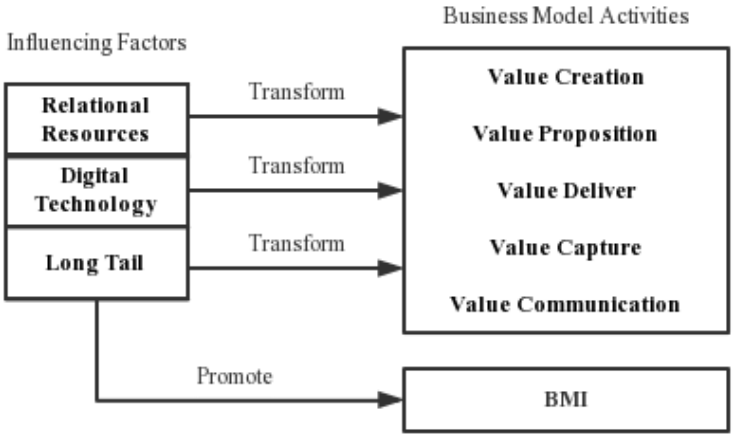

Figure 1. A framework for the factors influencing BMI of Chinese SMEs

The relationship between relational resources and BMI of Chinese SMEs

The investigation of this article encompasses the interconnected resources, such as internal and external organizations, individuals, and intangible assets associated with the BMI activities (i.e., value creation, value propositions, value capture, value delivery and value communication) of Chinese small and medium-sized enterprises. According to the internal and external environment, it is divided into internal resources and external resources. The internal resources include internal r&d personnel, business backbone and corporate executives (including entrepreneurs myself) and corporate culture. External resources include organizations that have business relationships with businesses or support businesses that provide support to businesses, including governments, chambers of commerce, schools, scientific research institutions, cooperative businesses, industry experts, and intellectual property. The differences in capacity of the above resources can be further divided into political resources (government, chamber of commerce), r&d resources (schools, research institutions, industry experts, intellectual property), business resources (cooperative enterprise). According to the dynamic capability theory proposed by Teece et al. (1997), which extends the resource-based view, enterprises must continuously construct and integrate internal and external resources in order to achieve business model innovation and sustain long-term growth. This necessitates a perpetual process of acquiring, allocating, and leveraging resources to maintain a sustainable competitive advantage. Internal resources can be thought of as the resources of the insiders of the company. The results of existing research by scholars show that human resources with innovative spirit and innovation awareness can effectively develop innovation activities within enterprises through knowledge management. BMI is also an innovative activity of enterprises, which includes value creation, value proposition, value delivery, value capture and value communication, and research has shown that human resources with the ability to innovate have a vital impact on value creation. Through a large body of related literature, this paper argues that internal resources have different effects on value proposition, value delivery, value capture, and value communication.

External resources can be considered as a form of social capital, based on the trust of people, and firm trust can develop positive customer relationships for businesses, which can benefit them in carrying out BMI activities. This study divides the external resources of a business into three aspects: business resources, political resources, and research and development resources, which have a certain influence on the innovation activities of the business model, including the following. First, commercial resources provide significant market resources for enterprises. On the one hand, business partners provide key market information that is unavailable in the open market (such as product information, changes in events or market changes, trust or distrust of partners) and access to advanced technology, knowledge transfer and reconfiguration of technology and assets. On the other hand, intimate social interactions and communication often lead to more stable and cost-effective alliances and strong collaboration, thereby enhancing the company's ability to withstand market risks. Second, in transition economies, a fragile judicial system drives businesses to seek legitimacy from the government and the social recipient side of the law. Close ties between enterprises and governments can facilitate the elimination of regulatory interpretation, contract performance and access to people. Because political resources can allow companies to maintain a relative competitive advantage in areas where the government controls resource allocation and projects, political resources can strive for better performance for companies in terms of resources and institutional legitimacy. Finally, the external R&D resources of enterprises have become a new method of knowledge acquisition in the process of enhancing the innovation capacity of enterprises, providing reliable and reliable external knowledge and R&D support to enterprises. Combining BMI activities, this paper argues that the influence of business resources on value propositions, value delivery and value communication have a significant effect, and the influence of political resources on value creation, value proposition and value capture has different degree of influence, and the development resources have a significant effect on the value creation and value capture.

Based on a large number of relevant literature studies, this paper summarizes the impact of relationship resources on BMI. Therefore, the following hypotheses are proposed in this paper:

H1: Relational resources have a positive relationship with the innovation of business models in Chinese SMEs.

H1a: Relational resources have a positive relationship with value creation.

H1b: Relational resources have a positive relationship with value propositions.

H1c: Relational resources have a positive relationship with value delivery.

H1d: Relational resources have a positive relationship with value capture.

H1e: Relational resources have a positive relationship with value communication.

The relationship between digital technology and BMI of Chinese SMEs

The SMEs are the basic units that drive employment, economic development, and innovation, and they are also the largest and most dynamic components of the market economy. Their positive and stable development is closely related to the social structure, economic transformation pattern and industrial upgrading. In the context of digital transformation, the wide application and deep integration of digital technologies such as big data, blockchain, artificial intelligence, virtual reality, and augmented reality (VR/AR) in all walks of life have

forced enterprises to think about how to use digital technology to carry out innovative activities to improve business capabilities. As an essential contributor to China's economic development, SMEs have become an important contributor to the country's economic development. Its existential challenges are more immediate. Therefore, it is of special practical importance to conduct in-depth research on how SMEs can use digital technology to conduct innovative activities.

The connotation of digital technology can be understood in both a narrow and a broad sense. In a narrow sense, American IT expert Don Tapscott (1996) first put forward the term "digital technology", arguing that digital technology is a comprehensive concept based on information technology and related communication infrastructure. In a broad sense, digital technology is a comprehensive technology that digitizes information and knowledge based on various technologies such as information and communication technology, data analysis technology and artificial intelligence. It has two properties, content, and structure, and can enable technical interactions between physical systems and embedded software, connecting product producers, remote consumers, and service traders. Nambisan (2017) pointed out that digital technology covers three aspects: digital products, digital platforms, and digital tools, where digital products are the terminal information for new products and services to be implemented and provide creative value information. A digital platform is a service medium that establishes a platform for sharing resources. Digital tools are the development and testing of digital technologies using the Internet, communications, and information technology. According to Nambisan (2017), the activities of digital technology on businesses are: First, digital technology forces products or services to be digitized to provide specific features to consumers; Second, digital technology breaks down the transaction boundaries between enterprises and consumers and promotes enterprises to produce special business models in digital innovation; Third, digital technology provides tools and media for corporate transactions, reducing the operating costs of enterprises and enabling rapid access to resources in business model transformation.

Digital technology not only enables consumers to participate in the innovation activities of enterprises, but also promotes the decentralization of enterprises, reduces the cost or service in the process of value chain creation, accurately matches the preferences of market demand, reshapes the way of innovation and value creation of enterprises, and promotes the innovation of business models. From the perspective of cost structure, the cost of enterprises in the past was mainly generated by the process of material procurement, processing, and sales, while the cost of enterprises in the era of digital economy is mainly the cost of knowledge products and digital operation costs generated by digital technology. The cost structure of companies has changed. Second, whereas in the past customers paid extra attention to the look, design, and practical performance of a product, now consumers are more focused on the experience value of digital products and the value requirements of consumer products have changed. Finally, from the perspective of market transaction relationships formed by supply and demand parties, digitalization breaks the constraints of traditional transactions in terms of time and space, and digital product transactions can be conducted anytime and anywhere, creating a new model of value transmission.

Due to the virtual characteristics of digital products, the profit model of enterprises has also changed from the traditional direct mode of "cost + profit" to the indirect mode of platform connection and transaction enabling. Taobao, for example, conducts sales through a Douyin diversion model, which effectively saves middlemen's fees and reduces the cost of online and offline collaboration. To achieve a win-win situation among consumers, enterprises, and

platforms, and to innovate the value capture channel. In addition to improving the operational efficiency of SMEs, digital technology can also expand the boundaries of enterprises, facilitate their access to more external resources, significantly enhance their value creation, value delivery and value capture capabilities, and facilitate BMI. In this paper, based on a summary of existing research results, we propose the following hypothesis.

H2: Digital technology has a positive relationship with the innovation of business models in Chinese SMEs.

H2a: Digital technology has a positive relationship with value creation.

H2b: Digital technology has a positive relationship with value propositions.

H2c: Digital technology has a positive relationship with value delivery.

H2d: Digital technology has a positive relationship with value capture.

H2e: Digital technology has a positive relationship with communication.

The relationship between Long Tail and BMI of Chinese SMEs

In October 2004, Chris Anderson first coined the term "long tail" when he collated sales statistics from Internet retailers such as Amazon and eBay. He observed a phenomenon that conforms to the theorem of large numbers in statistics: if you plot the sales of different types of products in a quantitative two-dimensional coordinate system, you will get a demand curve that extends wirelessly to the horizontal axis, and its shape looks like a long tail, so it is called the long tail theory. Chris Anderson (2008) argues that as long as the storage and distribution channels are large enough, the share of the market occupied by products with low demand or poor sales (the "long tail" market) can equal or even exceed the share of the market occupied by a small number of hot products (the "big head" market). The large number of markets that conform to the long tail theory presents new opportunities, and applying the long tail theory is a great theoretical fulcrum for BMI. For a long time, however, the niche in the tail had not attracted the attention of producers.

The spread of information technology and the Internet have laid the foundation for a long-tail economy. Due to the wide application of information technology, consumers can easily access diversified products, which stimulates more and more consumers to demand different niche products, which lays the foundation for the formation of the long tail of products. In the meantime, the Internet brings advanced means of communication, which effectively reduce the cost of contact with consumers, product circulation is no longer confined to the traditional shelves, trucks and other warehousing and transportation tools, through the virtual channel can quickly reach the hands of target consumers, thereby improving the liquidity of the long tail market. The theory of long tail emphasizes the mining and guiding of individual needs. Different from the age of resource shortage, the arrival of knowledge-based economy and Internet age has broken out the previous constraints on product production and commodity circulation, and the demand of consumers to publicize their individuality and actively participate in production has been released, and these scattered demands converge into the long tail of users. Search engines with collection and filtering functions can guide consumers to find products that match their own needs more easily, and the network is a natural word-of-mouth amplifier, consumers' evaluation of products and services will affect the purchase behavior of

other consumers, encourage more consumers to focus on alternative products, and promote the demand center to the long-tail market transfer. Long tail theory can be derived in various forms, including product long tail, user long tail, marketing long tail, function long tail, etc., to fully analyze the connotation of long tail from different perspectives. The emergence of the long-tail economy enables mass customization production, minimizes the cost of obtaining niche products, reduces the cost of customization to the point of mass production, and addresses the contradiction between economies of scale and economies of scope. As scale increases, fixed costs are spread out and marginal variable costs are negligible, making it possible to offer products for free. Specifically, unlike the law of diminishing marginal effects in traditional economics, the long-tail effect is an increase in marginal effects. In other words, in a business model with a long tail effect, the marginal return of a product does not decrease, but increases with the increase of product sales, and the more people buy, the greater the marginal return of the enterprise. According to the application of the long tail theory, enterprises should transfer more energy from the original mainstream product market to the niche product market that is easy to be ignored. As a result, the long tail effect will cause significant changes in consumer demand, which will drive BMI. In this paper, based on the analysis of the effect of long tail effects on business models, we put forth the subsequent hypothesis.

H3: Long Tail has a positive relationship with the innovation of business models in Chinese SMEs.

H3a: Long Tail has a positive relationship with value creation.

H3b: Long Tail has a positive relationship with value propositions.

H3c: Long Tail has a positive relationship with value delivery.

H3d: Long Tail has a positive relationship with value capture.

H3e: Long Tail has a positive relationship with value communication.

Methods

This is a conceptual paper based on a literature review. This literature helps to understand what it means and how to implement BMI for SMEs. This paper focuses on the factors that influence the innovation of business models in Chinese SMEs. Secondary data used in this study. Data collected for this study came from some books, websites, blogs, published papers and research journal articles. The present study employs keyword searches in Google Scholar to retrieve relevant peer-reviewed journal articles, encompassing review articles, qualitative analysis papers, and empirical analysis papers. Priority is accorded to literature published within the past decade that has garnered higher citation counts. Furthermore, the research utilizes the Zotero reference management tool for efficient organization of references.

Findings

This study constructs a conceptual framework, encompassing three independent variables: Relational Resources, Digital Technology, and Long Tail. The dependent variable is a latent construct referred to as business model innovation, which comprises five sub-dimensions: value creation, value proposition, value capture, value delivery, and value communication. The present study reveals that the activities related to BMI conducted by Chinese SMEs, encompassing relationship resources, digital technology, and long tail, exhibit varying

degrees of positive impact on value creation, proposition, delivery, capture and communication. Notably, at least one of these aspects demonstrates a significant positive influence. Consequently, this investigation posits that relational resources, digital technology and long tail approaches individually exert substantial positive effects on BMI within Chinese SMEs.

Discussion and Conclusion

This study builds upon Allan Afuah's (2014) assertion that while there is limited consensus on the components of a business model, value creation, proposition, capture, delivery and communication are frequently cited as key elements. The paper argues that this perspective differs from the business model canvas or its innovation and aligns with the fundamental purpose of a business model to maximize core competitiveness and meet development requirements for small and medium-sized enterprises by realizing customer value. While most research on BMI focuses on its overall concept without delving into specific impacts on different components of a business model, this paper addresses this gap by examining how relational resources, digital technology and long tail affect value creation, proposition, capture, delivery and communication respectively. The findings suggest that these three factors are crucial in influencing BMI.

Theoretical Implications

This study attempts to explore factors that are more appropriate for BMI in Chinese SMEs, based on literature reviews and personal experience. According to this paper, this concept can inspire enterprises in different market environments to conduct BMI activities. Meanwhile, current research has been primarily focused on the individual examination of relationship resources, digital technology, and long tail. However, this study aims to address the limitations of existing research by simultaneously investigating these factors as independent variables. Moreover, most of the present studies concerning BMI predominantly revolve around value creation, value proposition, and value capture. In contrast, our study expands upon this framework by incorporating an investigation into value delivery and value communication to enrich our comprehension of BMI. Therefore, the concepts studied in this paper can improve the theoretical study of BMI and give some inspiration to scholars in this field.

Practical and Social Implications

The concepts presented in this paper can guide SMEs, especially those in China, to carry out BMI activities more efficiently, thus improving the entrepreneurial performance of enterprises. At the same time, enterprises are focusing on the application of relationship resources, digital technology, and long tail in BMI, which is conducive to optimizing their business environment. Furthermore, this study underscores the potential for SMEs to mitigate costs and risks, enhance operational transparency and efficiency, as well as explore novel profit avenues by bolstering partnerships with business counterparts, integrating digital technology, and adopting long tail in BMI. These strategies not only augment the management and operational efficacy of SMEs but also fortify their market adaptability and competitiveness, offering valuable insights for SMEs pursuing innovative development.

Limitations and Suggestions for Future Research

Through a comprehensive literature review, this study concludes that relational resources, digital technology, and the long tail have varying degrees of positive impact on value creation, value proposition, value capture, value delivery, and value communication. However, these factors alone cannot fully explain the specific positive impacts on each of these five components. At the same time, the current research results are strongly influenced by the

subjectivity of the authors and lack of objective science. In the next step, the author needs to conduct empirical research combining questionnaire survey and statistical analysis to verify the validity of the hypothesis in this paper.

References

Andreini, D., Bettinelli, C., Foss, N. J., & Mismetti, M. (2022). Business model innovation: A review of the process-based literature. *Journal of Management and Governance, 26*(4), 1089–1121. https://doi.org/10.1007/s10997-021-09590-w

Afuah, A. (2014). *Business Model Innovation: Concepts, Analysis, and Cases*. Routledge.

Amit, R., & Zott, C. (2012). Creating value through business model innovation. *MIT Sloan Management Review*.

Anderson, C. (2008). *CHRIS ANDERSON| THE LONG TAIL*.

Baden-Fuller, C., & Haefliger, S. (2013). Business models and technological innovation. *Long Range Planning, 46*(6), 419–426. https://doi.org/10.1016/j.lrp.2013.08.023

Bigelow, L. S., & Barney, J. B. (2021). What can Strategy Learn from the Business Model Approach? *Journal of Management Studies, 58*(2), 528–539. https://doi.org/10.1111/joms.12579

Bowyer, D., & Chapman, R. L. (2014). Does privatisation drive innovation? Business model innovation through stakeholder viewpoints: the case of Sydney Airport 10 years post-privatisation. *Journal of Management & Organization, 20*(3), 365–386. https://doi.org/10.1017/jmo.2014.16

Bucherer, E., Eisert, U., & Gassmann, O. (2012). Towards systematic business model innovation: Lessons from product innovation management. *Creativity and Innovation Management, 21*(2), 183–198. https://doi.org/10.1111/j.1467-8691.2012.00637.x

Bratnicki, M., & Dyduch, W. (2018). Strategizing Corporate Entrepreneurship for Value Creation and Value Capture. *International Journal of Contemporary Management*, 17.

Casadesus-Masanell, R., & Zhu, F. (2013). Business model innovation and competitive imitation: The case of sponsor-based business models. *Strategic Management Journal, 34*(4), 464–482. https://doi.org/10.1002/smj.2022

Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning, 43*(2–3), 354–363. https://doi.org/10.1016/j.lrp.2009.07.010

Chesbrough, H. (2012). Open innovation: Where we've been and where we're going. *Research-Technology Management, 55*(4), 20–27. https://doi.org/10.5437/08956308X5504085

Chesbrough, H. W. (2003). Open innovation: The new imperative for creating and profiting from technology. *Harvard Business Press.*

Comes, S., & Berniker, L. (2008). Business model innovation. In *From strategy to execution: Turning accelerated global change into opportunity* (pp. 65-86). Berlin, Heidelberg: Springer Berlin Heidelberg.

Cucculelli, M., & Bettinelli, C. (2015). Business models, intangibles and firm performance: Evidence on corporate entrepreneurship from Italian manufacturing SMEs. *Small Business Economics, 45*, 329–350. https://doi.org/10.1007/s11187-015-9631-7

Dai, S., & Taube, M. (2020). The long tail thesis: Conceptualizing China's entrepreneurial practices in fintech and electric vehicles. *Chinese Management Studies, 14*(2), 433–454. https://doi.org/10.1108/CMS-03-2019-0109

Desyllas, P., Sako, M., & Tether, B. (2013). Business Model Innovation and IP Protection: Profitable Strategies for Incumbents and Entrants. *In Academy of Management Proceedings* (Vol. 2013, No. 1, p. 16200). Briarcliff Manor, NY 10510: Academy of Management.

Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Long Range Planning, 43*(2–3), 370–382. https://doi.org/10.1016/j.lrp.2009.07.006

Drucker, P. F. (2001). Innovation and Management. *Wirtschaft Und Politik, Düsseldorf 1985, 368*.

Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management, 43*(1), 200–227. https://doi.org/10.1177/0149206316675927

Gambardella, A., & McGahan, A. M. (2010). Business-model innovation: General purpose technologies and their implications for industry structure. *Long Range Planning*, *43*(2–3), 262–271. https://doi.org/10.1016/j.lrp.2009.07.009

Hinterhuber, A., & Liozu, S. M. (2017). Is innovation in pricing your next source of competitive advantage? 1. In *Innovation in pricing* (pp. 11-27). Routledge.

Huang, W., & Ichikohji, T. (2023). A review and analysis of the business model innovation literature. Heliyon. https://www.cell.com/heliyon/pdf/S2405-8440(23)05103-4.pdf

Jain, R. (2014). Business model innovations for information and communications technology-based services for low-income segments in emerging economies. *Journal of Global Information Technology Management*, *17*(2), 74–90. https://doi.org/10.1080/1097198X.2014.928561

Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, *86*(12), 50–59.

Keiningham, T., Aksoy, L., Bruce, H. L., Cadet, F., Clennell, N., Hodgkinson, I. R., & Kearney, T. (2020). Customer experience driven business model innovation. *Journal of Business Research*, *116*, 431–440. https://doi.org/10/gkz4c2

McGrath, R. G. (2010). Business models: A discovery driven approach. *Long Range Planning*, *43*(2–3), 247–261. https://doi.org/10.1016/j.lrp.2009.07.005

Martins, L. L., Rindova, V. P., & Greenbaum, B. E. (2015). Unlocking the hidden value of concepts: A cognitive approach to business model innovation. *Strategic Entrepreneurship Journal*, *9*(1), 99–117. https://doi.org/10.1002/sej.1191

Matarazzo, M., Penco, L., Profumo, G., & Quaglia, R. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business Research, 123*, 642–656. https://doi.org/10.1016/j.jbusres.2020.10.033

Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 41*(6), 1029–1055. https://doi.org/10.1111/etap.12254

Ogilvie, T. (2015). How to thrive in the era of collaborative services entrepreneurship. *Research-Technology Management*, *58*(5), 24–34. https://doi.org/10.5437/08956308X5805369

Rayna, T., & Striukova, L. (2016). 360° Business Model Innovation: Toward an Integrated View of Business Model Innovation: An integrated, value-based view of a business model can provide insight into potential areas for business model innovation. *Research-Technology Management*, *59*(3), 21–28. https://doi.org/10/gskndn

Richter, M. (2013). Business model innovation for sustainable energy: German utilities and renewable energy. *Energy Policy, 62*, 1226–1237. https://doi.org/10.1016/j.enpol.2013.05.038

Ricart, J. E. (2023). Business Model Innovation as the new strategy arena. *Journal of Business Models, 11*(3), 18–23.

Santos, F. M., & Eisenhardt, K. M. (2009). Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Academy of Management Journal*, *52*(4), 643–671. https://doi.org/10.5465/amj.2009.43669892

Seddon, P. B., Lewis, G., Freeman, P., & Shanks, G. (2004). Business models and their relationship to strategy. In *Value creation from e-business models* (pp. 11–34). Elsevier.

Snihur, Y., & Markman, G. (2023). Business Model Research: Past, Present, and Future. *Journal of Management Studies*, *60*(8). https://doi.org/10.1111/joms.12928

Sosna, M., Trevinyo-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The Naturhouse case. *Long Range Planning*, *43*(2–3), 383–407. https://doi.org/10.1016/j.lrp.2010.02.003

Tapscott, D. (1996). The Digital Economy: Promise and Peril in the Age of Networked Intelligence. McGraw-Hill, New York, NY.

Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, *43*(2–3), 172–194. https://doi.org/10.1016/j.lrp.2009.07.003

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509–533.

Velu, C. (2016). Evolutionary or revolutionary business model innovation through coopetition? The role of dominance in network markets. *Industrial Marketing Management*, *53*, 124–135. https://doi.org/10.1016/j.indmarman.2015.11.007

Wu, J., Guo, B., & Shi, Y. (2013). Customer knowledge management and IT-enabled business model innovation: A conceptual framework and a case study from China. *European Management Journal*, *31*(4), 359–372.

Zott, C., & Amit, R. (2007). Business model design and the performance of entrepreneurial firms. *Organization Science*, *18*(2), 181–199. https://doi.org/10.1287/orsc.1060.0232

Zott, C., & Amit, R. (2009). The business model as the engine of network-based strategies. *The Network Challenge*, 259–275.

Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management*, *37*(4), 1019–1042. https://doi.org/10.1177/0149206311406265