Business Model of Competitive Advantage

Tsung-Nien Kuo
Feng Chia University, Taiwan
Email: totaiwanhunter@163.com

***Abstract*—This paper proses a three-tier innovative business model for firms, consisting of a competitive advantage facet, a conceptual model and a financial model, and advances an innovation business model on the determinants of competitive advantage in global competition. Competitive advantage is the most important core concept in the field of business strategy, and it is also the sum of the performance of enterprises in the competitive market. Through the three-tier business model, the overall synergy of competitive advantage is exerted. We believe that this paper will stimulate future empirical research on this important topic and positive implications for firms` managers and policymakers.**

***Index Terms*—business model, competitive advantage, innovation, resource, value, market**

I. Introduction

It is a business model innovation age! The competitive niche of enterprises tomorrow is no longer just a novel product and process management, but an innovative business model. As Prof. Dr. Oliver Gassmann`s statement, in "The Business Model Navigator" (2014), in the past, many internationally renowned companies, such as Agfa, American Airline, Motorola, Nokia, Kodak, have been able to successfully gain great performances. However, why do these companies lose their competitive niche? The answers are simply horrifying: they have failed to adjust the business model with the times and lost the first opportunities.

The term business model was not until the massive diffusion of the Internet that it gained wide recognition in managerial literature and among business professionals. Business model has been referred to as an architecture, design, pattern, plan, method, assumption, a tool (e.g. [1], [2], [3]) and statement [4], and managerial philosophy [5].

We can say that the starting point is that a business model can be conceptualized as the sum of material, objectively existing structures and processes as well as intangible, cognitive meaning structures at the level of a business organization. Theoretically speaking, the aim is to merge existing understanding on the material aspects of business models with theories concerning cognitions and industry belief systems [6]. From a managerial point of view, the primary contribution of this archetype is the explicit definition of the scope of the intuitively clear but theoretically vague business model concept. In simple and straightforward terms, business models are stories which describe how firms work [2], or abstract representations of businesses operations [7].

This paper attempts to make up for the theoretical gaps in the competitive advantage research in the business model, and combines the above two-level business model [8] and competitive advantage as the main facet and Integrate to this innovation three-tier business model. And the purpose of this paper is to develop a framework for a useful business model to be followed by firms for establishing a competitive advantage.

Manuscript received October 9, 2020; revised March 11, 2021.

II. Literature Review

A. Business Model

The business model concept has its origin in corporate practice [9]. Affected by the necessity to comprehend new ways of earning money and to convince potential investors and stakeholders, most of the early definitions of business models focus on the concept's ability to explain "how a firm will make money" [10] and "how enterprises work" [11]. More recent attempts to define the term "understand business models" as the representation of the "design or architecture of the value creation, delivery, and capture mechanisms" [12] an enterprise employs. According to this understanding, business models are considered to serve to commercialize innovations as they allow firms to deliver the value of a service or product innovation to their customers meanwhile capturing the related revenues [13].

B. Competitive Advantage

Porter suggests that performance of a firm in competitive environment is due to its unmatched competitive advantage in that particular environment. He suggested three distinct strategies for gaining competitive advantage namely low cost, differentiation advantage and a successful focus strategy. He defines competitive advantage as the heart of the company's performance in a competitive market [14], but after decades of great expansion and ability it has led many companies to lose sight of competitive advantage in strive for further expansion to pursuit diversification [15]. He argues competitive advantage is the result of a value creation implementation [16].

C. The Two-tier Business Model

1) The conceptual model

The conceptual model aims to describe a business, comprising of key components, including innovation, resource, market, and value. The conceptual model also

doi: 10.18178/joams.9.1.11-16

specifies the relationships between these components. In summary, the innovation describes what a business will do; the resource addresses how a business will fulfill the innovation; the market specifies who will become the target customers; and the value represents why a business can survive and sustain.

2) The financial model

The essence of a business model is in defining the manner where a business delivers value to customers, entices customers to pay for the value, and converts those payments to profit [17]. A business model should be able to reflect financial conditions in a business [18]. .In which, Christensen shows that the cost is an important financial component [19]. The revenue means all possible incomes from the products or services a business supplies, the profit is equivalent to the revenue minus the cost, or the profit can be the financial performance for subtle analysis.

3) The two-tier view

The cost and revenue are the other (monetary) side of a coin for resource and market, respectively. When a business delivers the value to its customers, hopefully the business can get enough revenue and turn the revenue into profit. A business needs profit to stay in business [20]. A win–win situation happens when customers obtain the value and the business makes the profit. The dash lines in link the two tiers of analyses where these dash lines show the correspondences between the components in the conceptual model and the components in the financial model. The cost, revenue, and profit are the corresponding financial component for the resource, market, and value, respectively.

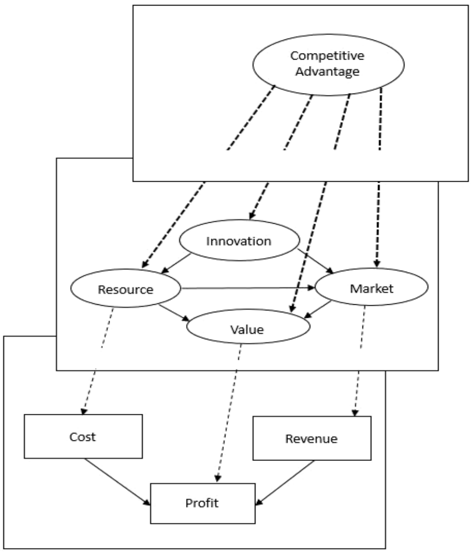

Figure 1. Three-tier innovative business model.

III. Business Model of Competitive Advantage

In 2006, Pohle explains that within corporate practice, business model innovation has been identified as a promising approach for firms to respond to changing sources of value creation in times of high environmental volatility [21]. This underlines the necessity to derive a better understanding of the phenomenon as well as it drives and legitimates the rising academic interest in the topic. In consequence, the need for an overview of extant literature, the identification of prevalent patterns within extant contributions, a suitable theoretical foundation, and a structure guiding future academic research in the field becomes obvious [22]. Based on the above review of the widely ramified literature, we would propose a generic business model, as in Fig.1, that includes the following causally related components and corresponding examples, starting at the conceptual model level: (1) innovation, (2) resource, (3) value, (4) market.

A. Innovation & Competitive Advantage

Innovation is widely regarded as a critical source of competitive advantage in an increasingly changing environment ([23], [24]). According to management scholars, innovation capability is the most important determinant of firm performance [25]. For example, as a global innovation company, 3M claims that innovation is in its DNA. Innovation is in the essence of 3M's strategy, culture, operations, and organizational structures and practices. 3M's innovation culture is team based and collaborative. Customers, suppliers, and other stakeholders are innovation partners. Intellectual property rights and patent protection are important to 3M's successful innovation strategy. The ability to change and successfully engage with new distributors and suppliers and to bring products to multiple markets is crucial to 3M's success [26]. According to the above, 3M has always used innovative products as a means to dominate the market, but the actual operation aim of improving the differentiation, can significantly lead the competition, increase profitability.

B. Resource & Competitive Advantage

This paper tries to explore the practical intersection of operations management and strategy from resource-based view by evaluating and developing the sustainability level of operational competitive advantage, that how well the resource-based strategy can support its operations. According to Resource Based Theory (RBT), firms that possess valuable, rare, imperfectly imitable, and non-substitutable resources gain competitive advantage, owing to firm heterogeneity in the distribution of these resources and their imperfect mobility across firms [27]. For example, take the introduction of TOYOTA vehicles in Japan Lexus into the premium car market as an example: since the 1970s, Japan's TOYOTA car manufacturers began to show high-quality and low-cost competitive advantage in the international automotive market, and in the conditions of various tangible, intangible resources, relying on the accumulation, creation of knowledge, and make good use of knowledge, Compete with a strong competitor. Toyota has not only continued to strengthen these capability assets, and further broke through the division of its original product line into the premium vehicle market. This means that its product design and manufacturing capabilities have improved, breaking the mobility barrier and competing directly with the world's top car leaders [28]. This is a distinct case, from the enterprise resources of organizational knowledge management, strategic management ability, to build an effective differentiation competitive advantage.

C. Value & Competitive Advantage

These scholars, [29], [30], [31], [32], and [33], all believe that the re-adjustment of organizational strategy should be a customer value transfer that tends to advantage, Wood pointed out with the change of time and environment, customer value will be the source of competitive advantage in the 21st century [34]. They found that there are many companies that successfully manage the organization's operational performance through customer value. For example, Friulintagli specializes in the production of paper and veneer wrapped profiles and doors, furniture elements and flat-packed furniture, as an artisan furniture manufacturer, in the development and production of large quantities of low-cost products for mass retailers. Friulintagli's green strategy was initially a response to the requests of one of its customers, IKEA, which was concerned with increasing the environmental performance, but it is now becoming more 'proactive'. Its willingness to take on the sustainability challenge reinforced its competitiveness with respect to Asian producers, such as the use of cheaper raw materials, the purchase of new equipment that is more common on the market, and the use of lower labour costs. IKEA has continued to increase its supply from Friulintagli, and business with IKEA now represent up to 70% of its total turnover and has motivated much of the recent growth of the company. And the efficiency improvement that comes with the expansion of the scale of operation is finally reflected in the reduction of unit cost, which is the low cost strategy that conforms to Porter's competitive advantage axis.

D. Market & Competitive Advantage

Driving Market competition could encourage businesses of high innovation in order to achieve a sustainable competitive advantage. Sustainable competitive advantage can be seen from the accuracy of the company in the market to provide products in response to consumer demands of product quality, customer needs, procurement of new markets and product innovation. Scholars such as [35] and [36] seminal works have been widely used to denote the importance of a firm's market-oriented behaviors in sustaining competitive advantage. If we can target the right markets, with the right innovations, this can also lead quite naturally to disruptive innovation and sustainable competitive advantage. For example, in the 1970s, Xerox set up its own operations in the U.S. market, responsible for operations, maintenance, but when Japanese copier manufacturers entered the U.S. market, they could not have enough money to build their own business network. So taking a dealer approach, while profits must be shared with middlemen, but also save a lot of money costs. As sales of goods grow, professional path members appear because of the size of the economy, and the products/services offered by the firm differ from the features or characteristics offered by other competitors, and these differences are valuable to customers, which we call differentiation [37]. This is also consistent with the differentiation in Porter's competing advantage spindle.

IV. Case Study

Alibaba Group Holding Limited (Alibaba or "the company") is an operator of online and mobile marketplaces in retail and wholesale trade. The company is also engaged in the provision of cloud computing, online shopping platforms, wholesale marketplaces, marketing services, logistics services and business-to-business marketplaces. Alibaba provides various brands such as Tmall, Juhuasuan, 1688.com and AliExpress among others. The company provides infrastructure for technology and marketing reach that helps the business to expand its presence through online business. Alibaba Group has interest in Ant Financial Services, which operates Alipay, an online payment platform in China It has offices in China, Singapore, India, the UK and the US. The company is headquartered in Hangzhou, China. This is consistent with the conceptual model component mentioned in the previous section 3. as "Resource".

Alibaba began in 1999, and in 20 years has grown to become an indomitable presence in the Chinese e-commerce market. It has expanded to offer both business to business (B2B) and business to consumer services, consumer to consumer, third party online payment, and web platforms related to merchandise. Taobao, one of the group's websites, is one of the most visited globally. The Chinese market in itself has grown inexorably, providing fertile conditions for the company's expansion and Alibaba has established itself as a dominant force in the domestic market. It has also been able to tap into the Chinese consumer's psyche. Following years of successive growth, the company now looks to rival many Western online companies, such as Facebook and Amazon. This is consistent with the conceptual model component mentioned in the previous section 3. as "Market".

Beginning in Jack Ma's apartment, Alibaba has capitalized on a rapidly expanding Chinese market with a model which feeds itself. Rapid expansions in internet users in China, along with developing middle classes means there will be much demand for online shopping. The company's original remit as a provider of B2B services has crept outwards, securing positions in many channels of e-commerce which have grown to become some of the most popular websites in China and globally. The marketplace effect feeds into the company's capabilities, its monolithic presence in Chinese online retail allowing it to negate search engines and capture more income from advertisers, as is the case with Taobao. He also said: "In other countries, e-commerce is the way of shopping, in China is a way of life." In a sense, Alibaba's emergence and development enlightened the Chinese business model innovation consciousness, leading the new wave of economic development with e-commerce as the main issue. This is consistent with the conceptual model component mentioned in the previous section 3. as "Value".

In the last 20 years, B2B and B2C markets have witnessed major structural changes and the emergence of new business models, online marketplaces, and Web-based platforms which aim at operational efficiencies in the value chain. These markets are also the result of new technologies and globalization which brought efficiencies and new opportunities in international entrepreneurship [38]. In just 20 years, e-commerce has grown significantly with diverse business models and efficient markets ([39],[40]). Because of the importance of Web-based markets and SMEs' growth [41], Alibaba has become a major B2B company and an online marketplace. The company continues to grow by leaps and bounds beyond China and has made strategic investments and alliances with firms such as Yahoo, Microsoft, Softbank, and others. Alibaba's mission statement says: "To make it easy to do business anywhere" [42] which definitely reflects its global ambitions and expansion. No wonder The Economist [43] called Ma "China's pied piper."

Alibaba's success depends mainly on the outstanding ability of technological innovation and business model innovation. In terms of technological innovation, Alibaba took the lead in building a sound big data system and data management platform, and using large data technology as a support, developed the e-commerce platform (Taobao, Tmall, etc.), logistics data platform (Cai Niao network) and third-party payment platform (Alipay operated by Ant Financial), from the business layer to achieve information flow, logistics, In terms of business model innovation, Alibaba has led China's online trading by providing an Internet sales platform, upsetting the traditional offline business model. Obviously, Alibaba embarked on an interactive development path that supports business model innovation with technological innovation and leads technological innovation with business model innovation, as shown in: In recent years, Alibaba has applied a large number of big data and cloud computing technology, developed digital operation platform, and supported the realization of its three major strategies-globalization, ruralization and datalization, so as to create stability, healthy and sustainable business system. This is consistent with the conceptual model component mentioned in the previous section 3. as "Innovation".

As above, regarding the competitive advantage, Porter (1985) considers it to be a unique and superior competitive position of the company in the industry for a long time. It is a high market share or better profitability. The conclusion of this case study fully shows that Alibaba successfully and sustainably focuses on online and mobile marketplaces which targets small and medium-sized enterprises (SMEs) and other businesses in global markets, and provides the use of win-win low operating costs (both sides affordable) B2B website or mobile APP clients to get closer to the customers to complete business transactions which allows companies to expand their business through innovation and technology and be in the best position to compete in the domestic or global market and become the global leader. The distinct capabilities due to its uniqueness and scarcity in the market give a competitive advantage to the firms who possess it. These key factors also match with Porter's suggestion that performance of a firm in competitive environment is due to its unmatched competitive advantage in that particular environment, and also meet the three distinct strategies for gaining competitive advantage namely low cost, differentiation advantage and a successful focus strategy.

V. Conclusion

Up to the present time, unprecedented pace of technological innovation has created a business environment that is more complex and turbulent than ever. Such characteristics severely impede traditional sources of competitive advantage and favor flexibility and speed, which, in turn, demand new forms of organizing value creation. Thus, although technology innovation as such is critical to meeting the demands of today's complicated markets, it must be accompanied by Business Model Innovation to allow firms to compete successfully. The influence of business model on business competitive advantage comes from four main aspects: (1) a good business model is a competitive advantage in itself; (2) Through the choice of model surface, enterprises can design the most value-creating methods for customers, and thus create value for enterprises; (3) The choice of mode interacts with the resource allocation matter, and (4) the business model should be the best method of resource utilization in the scope of enterprise management.

There is no doubt that our urge to develop and refine the notion of competitive advantage is to have practical use of this term which will be used by managers to devise more appropriate strategies for their firms. We feel that unless we do not have a taxonomical framework for competitive advantage it will be a merely a theoretical concept and will be less helpful for managers to use it for their strategy making. We think that superior economic performance is not the result of any single source, strategy, capability and conditions rather it is outcome of amalgamation of all these. The notion of competitive advantage is vital for supreme economic performance and managers must have adequate knowledge about the past, present and future of all those factors and conditions which generate competitive advantage for their firm, and to pay attention that no single strategy, competency and resource can guarantee competitive advantage. To devise a strategic path which will yield superior economic performance for the firm managers have to enlist those factors which have their highest share in the superior economic performance for their organization [44].

The paper provides firms a taxonomical structure of innovation three-tier business model for identifying sources of competitive advantage. It helps managers to make a check list for gaining and sustaining competitive advantage. The underlying taxonomy is based on conceptual mind map and based on the generalized logic on which all firms operate. We however do not claim that these taxonomies are final and no more further point can be added to the proposed taxonomies. We believe that these taxonomies are merely guiding check lists just like a patient uses the physical checklist in the hospital. But availability and careful study of checklist does not mean that it will make you pilot. For a manager this taxonomical framework help to identify the main source of competitive advantage relevant to his /her firm. From this taxonomy managers will be able to devise competitive strategies to gain sustainable competitive advantage which is the ultimate goal of a managerial job.

Conflict of Interest

The author declares no conflict of interest.

Author Contributions

The author declares 100% contribution to this paper.

References

[1] H. Chesbrough and R. Rosenbloom, "The role of the business model in capturing value from innovation: Evidence from Xerox corporation's technology spin-off companies," *Industrial and Corporate Change*, vol. 11, no. 3, pp. 529–555. 2002.

[2] J. Magretta, *Why Business Models Matter*, Harvard Business Review, vol. 80, no. 5, pp.86–92. 2002.

[3] C. Baden-Fuller and S. Haefliger, "Business models and technological innovation," *Long Range Planning*, vol. 46, pp. 419–426.

[4] M. Morris, M. Schindehutte, and J. Allen, "The entrepreneur's business model: toward a unified perspective," *Journal of Business Research*, vol. 58, no. 6, pp. 726–735. 2005.

[5] C. DaSilva and P. Trkman, "Business model: What it is and what it is not," *Long Range Planning,* vol. 47, no. 6, pp. 379–389, 2014.

[6] J. Porac, M. Ventresca, and Y. Mishina, "Interorganizational cognition and interpretation," in Baum, J. (Ed.), Companion to Organizations, Blackwell, Oxford, pp. 579-98. 2002.

[7] M. Al-Debei and D. Avison, "Developing a unified framework of the business model concept," *European Journal of Information Systems*, vol. 19, no. 3, pp. 359–376, 2010.

[8] Kun-Huang,Huarng, "A two-tier business model and its realization for entrepreneurship," *Journal of Business Research.* vol. 66, 2013. pp. 2102–2105.

[9] G. George and A Bock, "The business model in practice and its implications for entrepreneurship research," *Entrepreneurship Theory and Practice,* vol. 35, no. 1, pp. 83–111, 2011.

[10] D. A. Stewart and Q. Zhao. "Internet marketing, business models and public policy," *Journal of Public Policy and Marketing,* vol. 19, no. 2, pp. 287–296. 2000.

[11] J. Magretta, "Why business models matter," *Harvard Business Review*, vol. 80, no. 5, pp. 86– 92. 2002.

[12] D. J. Teece, "Business models, business strategy and innovation." *Long Range Planning,* vol. 43, no. 2/3, pp. 172–194. 2010.

[13] H. Chesbrough, "Business model innovation: Opportunities and barriers." *Long Range Planning*, vol. 43, no. 2/3, pp. 354–363. 2010.

[14] M. Porter, *Competitive Strategy*, The Free Press 1980

[15] M. E. Porter, "The economic performance of regions," *Reg. Studies*, vol. 37, pp. 549–578. 2003.

[16] K. A. ARBI, S. A. H. BUKHARI, Z. Saadat, "Theoretical framework for taxonomizing sources of competitive advantage," *Management Research and Practice*, vol. 9, no. 4, December 2017.

[17] D. J. Teece, "Business models, business strategy and innovation," *Long Range Planning*, vol. 43, pp. 172–194. 2010.

[18] M., Dubosson-Torbay, A. Osterwalder, and Y. Pigneur, "E-business model design, classification and measurements," *Thunderbird International Business Review,* vol. 44, no. 1, pp. 5–23. 2001.

[19] L. J., Christensen, H., Parsons, and J. Fairbourne, "Building entrepreneurship in subsistence markets: Microfranchising as an employment incubator," *Journal of Business Research*, vol. 63, pp. 595–601, 2010.

[20] S. Mariotti, "Entrepreneurship: Starting and operating a new business, Pearson education," Upper Saddle Rivers, NJ: Pearson Education, Inc. 2006.

[21] G. Pohle and M Chapman, "IBM's global CEO report 2006: Business model innovation matters," *Strategy and Leadership,* vol. 34, no. 5, pp. 34–40. 2006.

[22] S. Schneider and P. Spieth, "Business model innovation: Towards an integrated future research agenda," *International Journal of Innovation Management,* vol. 17, no. 1, .February 2013.

[23] G. G. Dess, and J. C. Picken, "Changing roles: leadership in the 21st century," *Organizational Dynamics,* vol. 28, pp. 18–34. 2000.

[24] M. L. Tushman and C. A. O'Reilly, "Ambidextrous organizations: Managing evolutionary and revolutionary change," *California Management Review*, vol. 38, pp. 8–30. 1996.

[25] M. A. Mone, W. McKinley, and V. L. Barker, "Organizational decline and innovation: a contin-gency framework," *Academy of Management Review*, vol. 23, pp. 115–32. 1998.

[26] M. E. B. Herrera, "Creating competitive advantage by institutionalizing corporate social innovation," *Journal of Business Research. JBR-08293,* p. 7. 2015.

[27] J. B. Barney, "Firm resources and sustained competitive advantage," *Journal of Management*, vol. 17, no. 1, 99–120, 1991.

[28] F. Zhimin, *Business Competitive Advantage,* p. 151, 292. 2008.

[29] B. T. Gale, "Managing customer value: Creating quality and service that customer can see," The Free Press. 1994.

[30] V. Devesh and K. S. Kingshuk, *An Exploratory Analysis of New*, 2002.

[31] J. Suzuki and F. F. Kodama, "Technological diversity of persistent innovations in Japan: Two case studies of large Japanese firms," *Research Policy*, vol. 33, no. 3, pp. 531-549. 2004.

[32] N. Carbonara, "Information and communication technology and geographical clusters: Opportunities and spread," *Technovation,* vol. 25, pp. 213–222, 2005.

[33] R. Adner, "Match your innovation strategy to your innovation ecosystem," *Harvard Business Review,* vol. 84, no. 4, pp. 98-107. 2006.

[34] R. Wood, "Delivering customer value generates positive business results: A position paper," *Futurics*, vol. 28, no.1/2, pp. 59-64. 2004.

[35] A. K. Kohli and B. J. Jaworski, "Market orientation: The con-struct, research propositions, and managerial implications," *Journal of Marketing,* vol. 54, no.2, pp.1–18. 1990.

[36] J. D. Narver and S. F. Slater, "The effect of a market orientation on business profitability," *Journal of Marketing,* vol. 54, no.4, pp.20–35. 1990.

[37] F. Zhimin, *Business Competitive Advantage.* p. 334, 2008.

[38] D. Cockayne. "Redefining B2B relationship marketing: Insight from postmodern Alibaba," *Journal of* Customer *Behavior*. vol. 15, no. 1, pp. 49–66, 2016.

[39] M. Goldmanis et al. "E-commerce and the market structure of retail industries," *Econ J*, vol. 120, pp. 651–682, 2009.

[40] D. Tapscott and A. D. Williams, *Wikinomics: How Mass Collaboration Changes Everything*, Portfolio Trade, New York, 2010.

[41] R. G. Javalgi, P. Todd, E. Granot, "The internationalization of Indian SMEs in B-to-B markets," *J Bus Ind Mark*, vol. 26, no. 7, pp. 542–548, 2011.

[42] Alibaba.com (2010–2017) Company Website. [Online]. Available at http://www.alibaba.com, Accessed between January 2010 and June 2016

[43] The Economist (2006) China's pied piper: 78

[44] Les aw Pietrewicz. Technology, Business Models and Competitive Advantage in the Age of Industry 4.0. Problemy Zarz dzania – Management Issues, vol. 17, no. 2(82), pp. 32–52. 2019, © Wydzia Zarz dzania UW

Tsung-Nien Kuo was born in Taiwan, and now the doctoral student of Finance College in Feng Chia University, Taichung City. His major is Finance, Business Administration & Hotel Management.
He has very widely and brilliant career experiences for over thirty years from the sales representative of real estate marketing to the general manager of 5-star hotels under the ownership of international groups.