

Business Model Innovations in China: From a Value Network Perspective

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Paper prepared for the conference, "US-China Business Cooperation in the 21st Century: Opportunities and Challenges for Entrepreneurs," Indiana University, Indianapolis and Bloomington, Indiana, April 15-17, 2009.

Abstract: Value network has gradually replaced value chain and become the major form of firms' value creation. This paper introduces the value network perspective into the field of business model study and discusses basic issues about business model such as definition, elements and classification through the lens of value network. From the viewpoint of value network reconfiguration, five types of business model innovation based are subsequently identified and illustrated by cases of **e-business and mobile phone manufacturing** in China.

Keywords: Value chain; value network; business model; business model innovation

1. Introduction

The crucial role of business model in achieving sustainable advantage has been widely acknowledged. While environmental dynamics are obsoleting traditional business models, how to design innovative new ones become the vital challenge for many firms. However, there is little consensus on how to define business models (Timmers, 1999; Shafer et al. 2005) and the modes of business model innovation still remain vague as well. In this paper, by introducing the concept of value network into the research of business model we try to clarify the definition of business model and identify basic types of business model innovation from the value network perspective.

2. Literature review: the confusion of the business model and the concept of value network

Many authors have proposed their definitions of business model. However, as commented by Shafer et al. (2005), none of these definitions appears to have been accepted fully by the business community. Across these definitions, business model components vary so much that authors seem talking about widely different things like resource, strategy, product innovation, brand, cash flow when referring the same term “business model”. A systematic analysis framework is needed to solve this “identity crisis” of business model (Shafer et al. 2005) and classify business model innovation.

Despite the differences across definitions of business model, “value”, “value activities” and “value creation” are frequently mentioned by most authors. Some authors, e.g. Chesbrough & Rosenbloom(2002), suggest that business model should be analyzed through the lens of value activities and the foci of business model is value creation.

Value cannot be created by firms solely. The value chain theory (Porter, 1985) regards value activities as linear chains. But more and more scholars argue that linear logic is not capable to explain all the forms and structures of value activities(Christensen & Rosenbloom, 1995; Duncan & Moriarty, 1997). In reality, among firms and their customers and suppliers, there are not only one way value chains starting from suppliers and ending at customers but also reverse or transverse value chains from customers to the focal firm, from customers to suppliers, from the focal firm to suppliers. These complicated linkages of value chains constitute a “value network” (Bovet & Martha, 2000). All the value creation and value capture activities happen within such network (Hamel, 2000).

In a word, since value creation is the core element of business model and value creation happens in network structure, investigating business model from value network perspective is necessary and possible. In fact, some scholars have already tried to introduce value network view into the field of business model and suggested that business model has a value network structure(Christensen & Rosenbloom , 1995; Chesbrough & Rosenbloom, 2002; Voepel et al., 2004). However, research on concept,

components, and types of business model and business model innovation is still scarce up to now.

3. Business model from the perspective of value network

The framework of value network analysis

In network research, network is usually regarded as a series of socialites or relations linking actors. Existing literatures on value network have similar view. For instance, Allee (2000) states that a value network generates economic value through complex dynamic exchanges between one or more enterprises, customers, suppliers, strategic partners and the community. In our opinion, actors in value network include the focal firm and its affiliated companies, and all the organizations and individuals which affect the focal firm's value creation activities. The relations among actors include tangible flows like products, service and profit, and intangible ones like knowledge, emotion and influence. Actually, these flows are value flows formed by value activities like value creation, value delivery and value capture. Actors are linked by these value flows and constitute network structure.

Network research usually analyzes relation level attributes like content, strength, directness and indirectness and structure level ones like density, scale and centrality. Relation content and the form of linkage are the most crucial attributes in value network research. Relation content refers what the value flow is, e.g. products, information and cash flow. The form of linkage refers the mode of network governance, including equity arrangement and non-equity coalition, and can be classified from dimensions like frequency, duration, degree of trust, integration and control. These elements including nodes, relation and structure and their attributes constitute the basic objects of value network analysis.

Definition, components and classification of business model from the perspective of value network

From the perspective of value network, we propose the definition of business model: business model is the system connecting internal and external actors by value flows to create, deliver and capture value.

Based on this definition, the components of business model comprise three levels: value actors as the network nodes, value flows as the network relation and part of or the whole value network as the network structure. The key attribute of value actors is the division of labor, e.g. basic research, product design, component manufacturing, integration and distribution. Key attributes of value flow include linked actors, the content of value and the form of relation. The combinations of value actors and value flows determine the structural features of value network like scale, density and centrality. To demonstrate a business model, it is more appropriate to describe the core and distinctive part of value network rather than presenting the whole network. For instance, the business model of Nike and Meters Bonwe (a booming Chinese casual wear retailer) is featured by the virtual manufacturing network comprising a great number of OEM companies.

Business model can be classified by the attributes of components. For instance,

by the degree of economic control and value integration Tapscott et al. (2000) identifies five distinct types of business web now in play: Agoras, Aggregations, Value Chains, Alliances, and Distributive Networks. Similarly, business model can also be classified by other attributes of network relation and network structure like strength, density and centrality.

4. Business model innovation from the perspective of value network

Through the lens of value network, business model innovation can be regarded as reconfiguring value network and classified into business model innovation based on actor change, relation change and network structure change. Network structure change can be subdivided into network subdivision, network extension and network integration. We use 5 cases of e-business in China to illustrate all these types of business model innovation.

1. Business model innovation based on actor change

Business model innovation based on actor change refers identifying new value actors, especially new customers, and introducing them into the focal firm's value network. Why customers stay away from value network can be caused by technical, economic, cultural and institutional reasons. Accordingly there are different solutions. For example, disruptive innovations aims to provide simple, cheap and convenient products by using "good enough" and continuously improving technologies (Bower and Christensen, 1995; Christensen, 1997, 2003). Hence disruptive innovations may work as an effective approach to explore emerging or low-end market.

Case 1: Zhejiang Farmers' Mailbox

Zhejiang Farmers' Mailbox(浙江农民信箱, www.zjnm.cn) is a B2B platform hosted by the government of Zhejiang Province. In China there are about 750 million farmers living in the country side. However this huge group is neglected by most e-business. Zhejiang Farmers' Mailbox enables farmers to search and release supply and demand information of agricultural products on internet by computers or mobile phones. Farmers needn't to know much technical knowledge about computer and internet because the information they submit will be classified and published by the team of this platform. Since 2005 more than 2 million users have registered on Zhejiang Farmers' Mailbox and the volume of trade has reached 5 billion RMB. Though it is a non-profit platform, this distinctive business model may inspire firms to refocus on ignored groups of consumers.

2. Business model innovation based on relation change

Business model innovation based on relation change refers providing new products or service for existing customers and help them capture new value. Typical cases of relation content change include "mass-customization", "total solution" and "integrated innovation" which become quite popular in many industries now. In fact these innovations are providing more flexible and abundant products or service combinations for customers and usually make use of the modularization and standardization. Besides, the servicization of traditional manufacturing firms can also

be regarded as a form of relation content change.

Case 2: Kadang

Kadang (卡当网, www.kadang.com) is a website selling personalized gifts. Customers can design gifts like mugs, t-shirts and notebooks by using pictures they upload. In addition, they can share their design on the discussion community of this website. They can also refine their design with the help of the professional team of Kadang and sell them on a trade platform provided by Kadang. Hence Kadang not only offer personalized gifts but also helps customers taste sense of personal achievement and capture commercial value.

3. Business model innovation based on network subdivision

Business model innovation based on network subdivision refers breaking certain node in the value network into new ones and decomposing its functions and activities. E-business outsourcing can be regarded as a typical case of this innovation.

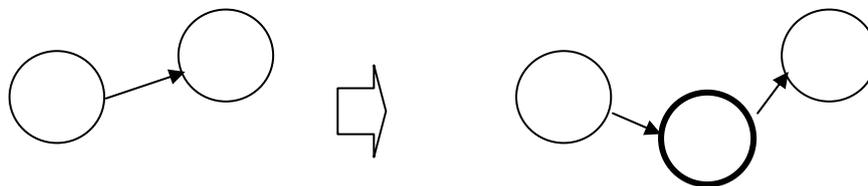


Fig.1 Business model innovation based on network subdivision

Case 3: 6688

6688 (www.6688.com) is a firm providing sales outsourcing service for small and medium manufacturing firms. The only thing these firms have to do is submitting the information of their products with a fixed price. 6688 will offer solution including webpage design, information update, order management and customer service. All these services are free and 6688 earns profit from the gap between the fixed prices from these manufacturing firms and the prices to the end customers. This business model is called “B2B2C” and 6688 plays as the middle “B”. As said by the founder, 6688’s profit rate is as high as 20%.

4. Business model innovation based on network extension

Business model innovation based on network extension refers internalizing some nearby nodes in the network into the focal firm and form a larger network. This type of business model innovation is similar to the one based on actor change but it emphasizes bringing new actors into existing value network while actor change lays special emphasis on refocusing on a certain group of ignored customers.

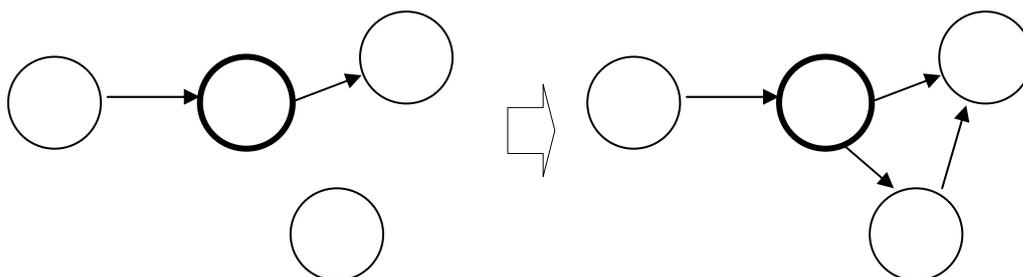


Fig.2 Business model innovation based on network extension

Case 4: Taobao

Taobao (淘宝, www.taobao.com), China's largest C2C website, starts to open real shops in recent months. In these shops consumers can fetch the goods they have ordered on Taobao's website. They can also check goods catalogues and make new order and payment. Besides, these shops also act as agents to sell second hand goods and charge service fee. Only the best sellers on Taobao's website will be chosen to be the shopkeepers. If they quit Taobao, their real shops will be transferred to others. Hence Taobao locks them within its value network. In addition, currently in China 300 million people are Internet users and 1 billion are not. So by opening these real shops Taobao extends its value network and includes customers who are not familiar with computers and Internet.

5. Business model innovation based on network integration

Business model innovation based on network integration refers connecting "value islands" and forming new value network. These value islands can be separated value actors or separated value network.

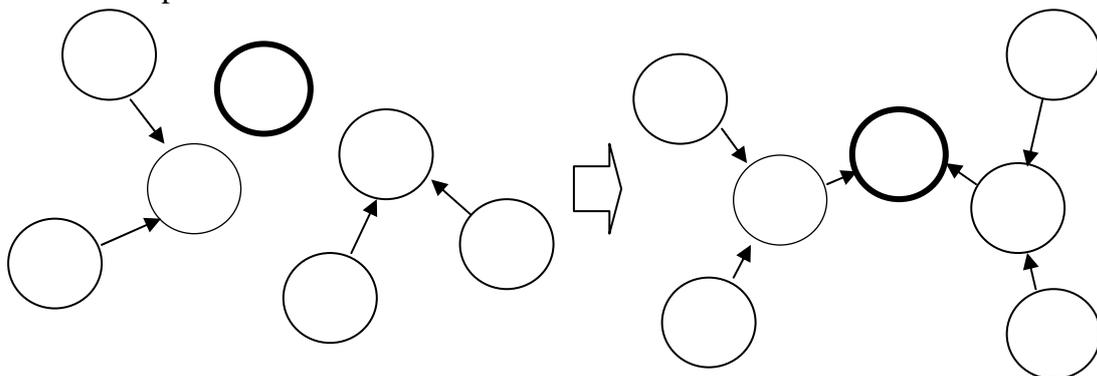


Fig.3 Business model innovation based on network integration

Case 5: Toocle

Toocle (生意宝, www.toocle.com) is a B2B platform featured by "small gateways + alliances" model. While traditional B2B websites serve individual firms, Toocle aims to attract, classify and integrate industry websites. By organizing alliances of small gateways and crossing boundaries of industries, Toocle intends to make use of both two trends in e-business: specialization and integration. Users of Toocle can find a great deal of information which was distributed in thousands of specialized industry websites. Similarly, information released on Toocle is likely to be found by much more clients and bring more deals. In fact, this business model increases the scale and diversity of existing value network by taking advantage of the systematicness of sub-network and complimentary between sub-networks and Toocle gains profit by playing the role of network integrator and information broker.

Case 6: Webkinz

"Webkinz" (网娃, www.gogo517.com) is a toy product combined with online games. Every Webkinz is sold with a card for entering a game website. When kids buy the Webkinz they can get a virtual pet to play, communicate, learn and compete

on this website. By combining online games with traditional toy, Haili Group-the owner of Webkinz captures more value than selling toy. Online games make Haili's products so interesting and popular that the loyalty of Haili's consumers as toy buyers has been improved. Besides, if kids want to experience the virtual world on Haili's website the only way is to buy Webkinz and get the password cards. Hence Haili also succeeded in attracting a part of consumers of online game to join in their existing value network.

Case 7: "Shanzhai mobile phone"

"Shanzhai mobile phone" is another interesting case of business model innovation based on network integration.

The Chinese word "Shanzhai" literally means small mountain village, but it's now used to describe products that have names similar to famous brands. It has become an hot term since the boom of "Shanzhai mobile phone" produced by small individual workshops in southern China during the past two years.

The phenomenon of "Shanzhai" has sparked a public controversy over whether it is healthy or not. Actually "Shanzhai" is not simply to be a copycat. "Shanzhai mobile phone " offer numerous innovative functions such as emergency light, telephoto lens and even counterfeit currency detector. "Shanzhai mobile phone " represents not only product innovations, but also business model innovations. This is what our research is interested in.

Why "Shanzhai" products become so popular and competitive in the market? Shanzhai companies do not have so much technological know-how, but they know how to acquire these resources by integrating the dispersed supply, knowledge, sale and customer bases into a value networks. The combination of these dispersed value creating activities has changed dramatically the geography of production and innovation, making the "Shanzhai" companies more popular and competitive in the market with the power of business model innovation.

For example, even a small "Shanzhai mobile phone" company with only three employees can construct and control their value networks. One person is in charge of purchasing chip solution and other components, one person is in charge of finding OEMs, and the last person is in charge of sales.

The chip solution is the key of this business model. Most of these "Shanzhai mobile phone" companies are using chips from a Taiwanese company MTK. These chips integrate various functions such as camera, MP3, MP4, touch lens, JAVA and Bluetooth and can be regarded as "turn-key" solution with not only chips but also SDK (software development toolkit) and application software. Besides, there are thousands of design houses in Shenzhen, the capital of "Shanzhai mobile phone" providing total solution of mobilephone design and thousands of dealers providing all kinds of components like supermarkets. Therefore "Shanzhai mobile phone" companies needn't to invest on R&D and can easily run business by integrating these value actors. The value chain of mobile phone has also been highly shortened.

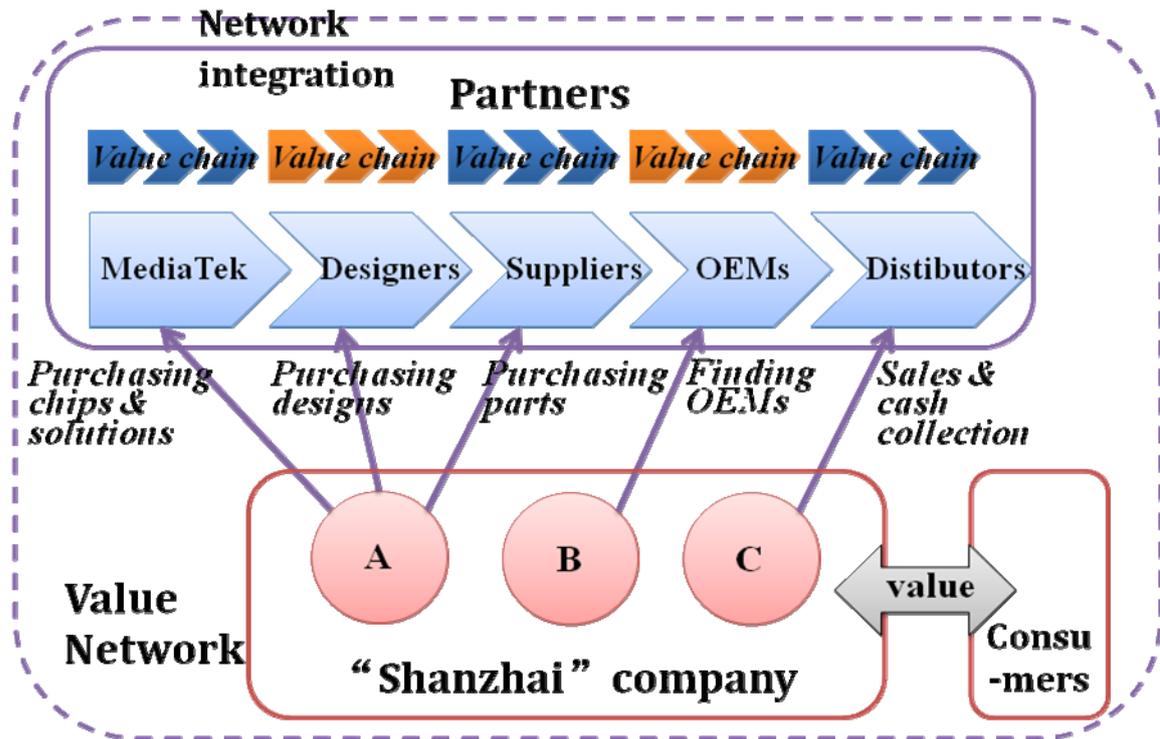


Fig.4 Value network of "Shanzhai mobile phone"

5. Conclusion

Value network is going to replace value chain as the dominant mode of value creation. Therefore business model should be innovated from value network perspective by reconfiguring network and updating, connecting and integrating value actors. Introducing the perspective of value network, this paper offers firms analysis framework of assessing their current business model and approaches for business model innovation.

Anyway, business model is an evolutionary and open concept and theory of value network is also developing. Whether the perspective of value network is appropriate for detailed questions of business model such as business model design in certain industries still remains unexplored and is worth further research.

Acknowledgements

This research is supported by National Natural Science Foundation of China (Grant 70772047) and National Planning Office of Philosophy and Social Science of China (Grant 07&ZD022).

References

- [1] Timmers, P. Business Models for Electronic Markets[J]. Electronic Markets Journal, 1998, 8 (2).

- [2] Shafer S., Smith H., Linder J., The power of business models[J], 2005(48).
- [3] Chesbrough, H. and R. S. Rosenbloom. The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation's Technology Spin-Off Companies[J]. *Industrial and Corporate Change*, 2002, 11(3).
- [4] Porter M., *Competitive Advantage: Creating and Sustaining Superior Performance*[M], New York: The Free Press,1985.
- [5] Christensen C., Rosenbloom R., Explaining the attacker's advantage: Technological paradigms, organizational dynamics, and the value network[J], *Research Policy* ,1995(2)
- [6] Duncan T., Moriarty S. *Driving Brand Value: Using Integrated Marketing to Manage Profitable Stakeholder Relationship*. [M].1s ed. New York: McGraw—Hill, 1997.
- [7] Bovet D, Martha J. *Value Nets: Breaking the Supply Chain to Unlock Hidden Profits*[M], John Wiley and Sons, 2000.
- [8] Hamel G., *Leading the Revolution*[M]. USA: Harvard Business School Press, 2000.
- [9] Voepel,S. , Leibold M . and Tekie E ., The Wheel of Business Model to Leapfrog Competitors[J], *Journal of Change Management*,2004, 4(3).
- [10] Allee V., *Reconfiguring the Value Network*[J], *Journal of Business Strategy*, July-Aug 2000.
- [11] Tapscott D, Lowi A, Ticoll D. *Digital Capital - Harnessing the Power of Business Webs*[M]. Boston: Harvard Business School Press, 2000.
- [12] Bower J., Christensen C., *Disruptive Technologies: Catching the Wave*[J], *Harvard Business Review*.1995 .
- [13] Christensen,C., *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*[M].Harvard Business School Press,January 1997.
- [14] Christensen,C., *The Innovator's Solution: Using Good Theory to Solve the Dilemmas of Growth*[M].Harvard Business School Press,2003.