

What Business Model Advantage Differs from Competitive Advantage: A Case Study of 7-Eleven Japan

Yuwei Shi, Ph.D.

Fisher Graduate School of International Business
Monterey Institute of International Studies
460 Pierce Street
Monterey, CA 93940
Phone: (831) 647 6682

E-mail: yuwei.shi@miis.edu

Keywords: Business model, strategic management, competitive strategy

Abstract

This paper introduces a business model framework based on a synthesis of a wide array of diverse business model definitions and related arguments. The intention is to make the theory discussions on business model more useful to the design, development and analysis of actual business models. The synthesis follows the mainstream strategic management theories of profit under competition. The business model framework includes four interrelated component models: the exchange model, the organizational model, the resource model, and the financial model, each with its own strategic logics. Together these component models and their strategic logics describe a comprehensive business model, which enables more meaningful strategic analysis. In order to demonstrate the use of this framework, particularly in comparison with the more traditional competitive analysis, this paper also applies the framework to analyzing the business model of 7-Eleven Japan. It states the additional insights drawn from the comparative analyses, and draws implications for the managerial task of business model design and development.

How Business Model Advantage Differ From Competitive Advantage: A Case Study on 7-Eleven Japan

Riding the decade-new Internet and e-business wave, the term business model has risen to prominence in the mainstream business vocabulary and garnered increasing attention from academic researchers. And yet few studies on the topic have gone beyond an ontological discussion on some of the new phenomena in e-business. Although the number and variety of business model definitions have grown quickly, the term business model remains one of the most used but least understood terms in the world of business. Sophisticated application of the business model concept in strategy and performance management is as elusive as before. At best, the use of the business model concept in strategy is as concrete as that of competitive strategy or competitive advantage. There are a handful of studies inquiring why and how business models matter to firm performance.¹ Albeit useful insights, these studies offer limited help, individually or collectively, to form a comprehensive guideline for business model design and assessment, especially by who need the most, the entrepreneurs and managers.² This paper aims to introduce a general structure that integrates the common features of the various business model definitions and frameworks. The integration is achieved through not only finding the common logics underlying the diverse arguments but also aligning them with the well-accepted perspectives on firm profit. The other objective of the paper is to apply the framework in analyzing 7-Eleven Japan, specifically with regard to its investment in the point-of-sales systems, and particularly in comparison with the more conventional analysis.

The Key Components and Fundamental Logics of a Business Model

Inheriting the Henry Mintzberg tradition,³ I begin by defining business model in its broadest terms as the outcome of management thoughts and actions, planned, emergent or realized, in order to decide a firm's value added, boundaries of activities, use of resources, and ways of making a profit from its offerings, activities and resource use. This definition appears pedantic, but is necessary in order to encompass the various aspects of a wide array of business model definitions.⁴ Derived from those definitions is a framework (Figure 1) that incorporates the key aspects of the management thoughts and actions, as well as their underlying logics based on the mainstream strategic management theories on firm profit under competition.

The first key aspect of a business model is about a firm's value added in dealing with major stakeholders. A firm defines its value added amid exchanges with other economic actors, including customers, suppliers, complementors, and competitors. The exchanges with customers and suppliers are direct exchanges, but the value of those exchanges is determined also by the actions of complementors and competitors.⁵ A firm's value added is determined at several levels. At the product level, it is embodied in the utilities of the firm's product. At the market or value-net level, it is determined by the offerings from suppliers, complementors, and competitors. At a higher level, competition and cooperation between different markets often exist, such as between competing technology platforms. A firm's value added is likely to change when that occurs.

Value proposition, a commonly used terms among managers, in essence captures the management task in defining and maximizing a firm's value added – this paper calls such a management task exchange modeling. From the competitive strategy perspectives, managers must define a firm's value to not only its customers but also its suppliers and complementors in a competitive environment. According to those perspectives, exchange modeling must abide by the logic of competitive differentiation and competitive control over the value network in order to make a profit.⁶

Insert Figure 1 Here

Implementation is another salient feature across the various business model definitions and frameworks, which amalgamate by and large intra- and inter-organizational factors such as roles and responsibilities, activity systems, and business processes.⁷ Organization modeling describes that critical management task, which deals with rendering the flow of product, information, and money to actualize the value propositions defined in the exchange model. The logics that explain rational actions in organizing are firm resource leverage,⁸ efficient governance,⁹ and dynamic adaptability.¹⁰

Despite the fact that firm resources are a bedrock concept in strategic management, they are a central component of business model analysis in only a handful of studies. A firm's tangible, intangible and human resources enable firm and managerial actions. Managing firm resources is yet another critical management task, described here as resource modeling. Rational management of firm resources follows the logic that the

resources must be valuable, i.e. as a source of firm competitive advantage, appropriable, and sustainable.¹¹

The fourth critical management task in developing a business is financial modeling. Managers define revenue models, cost drivers and capital asset models to measure what they manage as well as manage what they measure. Underlying those metrics is the logic that explains why a firm makes a profit. If there is one thing that is shared across all business model definitions and between those definitions and the strategic management literature, it is how a firm captures the residual value from its offerings, activities, and resources. The logics for financial modeling are premium pricing, cost leadership, and asset flexibility.¹²

To summarize, the business model framework briefly described above divides a business model into four component models, in order to address the key aspects of management thoughts and actions in designing and developing a business. When the central purpose of a business is economic profit, managing those components should follow a number of logics, also mentioned in the framework. These logics are informed by the widely accepted theories on firm profit under competition.

7-Eleven Japan, the Point-of-Sales Systems, and Superior Performance

7-Eleven Japan (SEJ) is a successful company. Its 10,000 stores dominate the convenience retail markets in most of the densely populated prefectures in Japan, holding over one-third market share in that industry sector. The gross profit margin from the

predominately food related sales has been about 30%, well above the industry average around the teens.*

Many analysts credit the firm's success to, among other things, its Point-of-Sales (POS) systems, which enable the firm to sell what customers need and cut the product development and supply chain costs under the characteristically dynamic market, in which the consumer demands often change and the supplier base is fragmented. In fact, SEJ is a classic success story of leveraging information technology to grow business and profit. SEJ has invested heavily in information technology since the late 1970s, from the first large-scale deployment of the POS systems in Japan to the implementation of a satellite telecommunication and integrated services digital network connecting every store to corporate headquarters, suppliers and logistics service providers. The store-level customer and purchase information allows the company to react quickly to customer demands throughout its supply chain. This is especially useful in the areas of fresh foods, which are the company's highest-margin products.

Nevertheless, many factors other than SEJ's decision to invest in the POS systems contribute directly to its superior performance as well as intermediate the taken-for-granted relation between information technology and firm performance. Without a better understanding of what those factors are and how they directly and indirectly contribute, it is difficult to estimate the precise effect of the IT determinant on firm performance. This is of course a problem to not just 7-Eleven but almost any organization attempting to justify an IT investment. For 7-Eleven, the problem is more urgent. 7-Eleven American, SEJ's counterpart in the U.S. has also deployed the POS systems almost identical to the

* *The case study is based on the Harvard Business School case on 7-Eleven, Inc. (9-504-057), SEJ Annual Reports, and a Business 2.0 article titled "7-Eleven Gets Sophisticated" published in the January/February issue.*

ones at SEJ. But the financial performance of 7-Eleven America has been inferior, with an EBITDA hovering under 5% of the total sales.

Using the business model framework introduced above, I identify the factors that not only intermediate the effect from the use of the POS systems but also directly lead to the success. They provide a more detailed and logical explanation for the determining effect on the SEJ success, and account for accurately the effect of the POS systems. This analysis not only illustrates the above framework but also demonstrates the use of the framework in informing the management of business model. But first, I briefly analyze how a more conventional analysis would connect the IT investment with the SEJ success.

A Conventional Analysis: SEJ's Competitive Advantage

A conventional analysis connects the POS system deployment to the company's competitive advantages.¹³ The POS systems garner the information advantage for the company in developing the original food items better and more quickly than its competitors, thus making premium pricing viable. The systems also enable efficient information exchanges between stores, suppliers and third-party logistics service providers, cutting the costs throughout the company's entire supply chain. The direct effect of the POS systems on the company's profit, from both pricing premium and lower operational costs, seems rather simple and straightforward.

Digging slightly deeper, one may address the complementing organizational factors. For example, SEJ employs an army of Operational Field Consultants (OFCs) who provide a crucial link between the franchisees and the SEJ corporate headquarters. Each

OFC visits eight to ten stores twice a week and spends a minimum of two hours per visit to keep franchisees informed of developments and new uses of information technology. Useful tips from the stores are aggregated, shared and disseminated by the OFCs. The OFCs help not only the implementation of information technology but also the exchange of tacit knowledge within the company and its supply network.

However, whether treating the OFCs as an intermediating factor that augments the effect of the POS systems or as the externalities of the systems, the analysis misses the contributions to SEJ's profits from the other company and industry factors, as well as much of the effect of their interactions with the POS systems. Those misses may do little harm, if the purpose of the analysis is to simply demonstrate the benefit of information technology to financial performance. On the other hand, they create biases, even erroneous estimates when the purpose of the analysis is to account for effect from all important factors upon which managers make specific decisions.

A Business Model Analysis: SEJ's Superior Performance Better Explained

Insert Figure 2 Here

Figure 2 describes the key factors in the SEJ business model using the framework introduced above. These factors are grouped into four color-separated blocks, representing the four component models (the top and bottom rows and the sandwiched columns). The three boxes at the bottom of the figure describe the exchange model, the

shaded boxes on the left the organization model, the shaded boxes on the right the resource model, and the three at the top the financial model. The center box has the strategic logics that explain SEJ's sustained economic profit.

In addition to the differentiation and low-cost advantages indicated in the conventional analysis, SEJ also generates profits based on the other economic logics. Its product strategy, focusing on fresh prepared foods and other convenience items, inherits the benefit of relative price inelasticity, which allows the company another opportunity for premium pricing. Given sufficient data, managers may be able to attribute pricing premiums to causes related to price inelasticity and customer responsiveness due to the use of the POS systems.

SEJ's location strategy of operating stores only in high-density urban areas provides the company with cost saving opportunities in not only transportation but also brand and product promotions. Another significant source of its cost leadership is its efficiency in capital assets utilization. Although SEJ is a retail company, it owns few physical assets that most retailers do, such as stores, warehouses and transport vehicles. There are numerous plants dedicated to producing products exclusively for SEJ, and yet SEJ owns or operates none. SEJ's single biggest capital expenditure is for its information systems. Its tremendously efficient utilization of capital assets is yet another significant reason for its profitability. These sources of efficiency are arguably independent or marginally linked to the deployment of the POS systems. As a matter of fact, SEJ's store location and franchise decisions have had a long history in the making, undoubtedly preceding the IT investment decisions.

SEJ is the only dominant player in the entire value network, including also the numerous franchisees, suppliers, and third-party logistics service providers. Beside the obvious price bargaining power over its vendors, SEJ dictates almost every aspect of the business throughout the supply chain, from product quality to delivery schedule. Its dominance is also demonstrated in SEJ's ability to choose what critical management tasks to be outsourced and what to be kept in house. For example, it establishes Nihon Delica Foods (NDF), an independent organization to coordinate procurement for and quality control among the SEJ suppliers. The coordination tasks include even supplier evaluation and dismissal, which few retailers would be comfortable to delegate. On the other hand, SEJ does not allow NDF to negotiate supply contracts on behalf of its member suppliers.

These organizational arrangements enable SEJ to control over the value network while maintaining operational efficiency. Similarly, SEJ's dominance over its value network is also one of the reasons for its efficient capital asset utilization mentioned earlier. In other words, SEJ defines its organizational model (the roles and responsibilities of itself and its partners, and the fulfillment activity systems and business processes) in the context of its exchange model, specifically its distinct values to the partners. Together with the locations and the IT systems, they define a significant part the SEJ financial model.

To analyze the contributions of the POS systems in this case, one must first recognize the contributions from the other factors, illustrated above to include product and location strategies, the organizational arrangement, and the control over the value network. Not accounting for other significant profit contributors may lead to

overestimating the effect of the POS systems thus creating decision biases. On the other hand, it may also lead to underestimating the indirect effect of the POS systems on firm profit. From the SEJ business model, it is not difficult to discern several interactions between the use of POS systems and the profit contributing factors mentioned above.

The POS systems are no doubt an enabler in implementing the fresh prepared foods strategy, considering the stringent information requirements for operating under the dynamic, time-sensitive market conditions. Moreover, the POS systems enable a simple and stable operational environment and support for SEJ's franchisees, suppliers and third-party logistics service providers. That, along with the steady revenue streams and growth, forms the foundation of SEJ's value propositions to its partners. These values added establish the unique exchange relationships upon which the extended SEJ organization is structured. Although the industry structure, the interlocking locations of the stores, plants and distributions centers, and even franchisees' dependence on OFCs undeniably help create SEJ's dominance, the enabler or enhancer role of the POS systems in improving the operational and asset efficiencies should also be accounted for the creation of the SEJ dominance in its business platform.

On the other hand, several factors in the SEJ business model may have promoted the use of the POS systems. SEJ's dominance over the value network makes it easy for SEJ to roll out almost any piece of information technology of its choice across its entire supply network, making the investment more profitable and less risky. It also allows SEJ to exercise information control to its advantage, a significant incentive for major information technology investment. SEJ's product strategies and organizational strategies within the fragmented industry structure also impose a great demand for large-scale

deployment of information technologies. In addition, SEJ's desire to "read (customers') minds" and its fact-driven decision norms must have promoted and leveraged more the deployment and use of the POS systems, which in turn may also have strengthened its distinctive corporate culture.

Implications

Like in reality of every business, big or small, startup or well established, business decisions at SEJ are made over time, under changing contexts, and with different insights. The cumulative effects of these decisions are not only shown in its performance but also demonstrated in its trajectory of strategies. Analyzing a single decision and its effect without the history and context yields results that are less useful, but analyzing with a holistic picture is easier to wish for than to work out. The business model framework introduced in this paper might help managers construct a bigger picture that would yield more insights and enable better decisions. The case study above is a small demonstration of that value.

The comparative approach to studying the SEJ case also provides a number of insights. First, a business model needs to encompass all key aspects of management considerations in designing and developing a business. Most business model definitions and frameworks provide only a partial structure that focuses on one or a few but not all of the four component models introduced above. Second, it is not sufficient to include all key aspects of a business model. A comprehensive business model needs to present clearly the strategic logics underlying those component models. Many business model

descriptions may tell what the business is, but not why it will make a profit. Third, an incomplete business model, i.e. absent of a component model or strategic logic, may lead to biased analysis of the business and misguide the design and improvement of the business model, as illustrated in the above case study.

These insights are particularly useful in nascent industries (e.g. Internet media), in which novel business models emerge frequently, as well as in the adjacent or converging and yet more traditional industries (e.g. print media/network television), in which the pressure on companies to transform an existing business model is often high. A common mistake that managers make in conceiving a new business model is to develop a set of value propositions and then quickly move toward related financial modeling, while overlooking the importance of inter-organizational arrangement, individual firm and collective resource commitments and their respective impact on the financial models. One illustration of that problem is that most dot-com startup business plans address product, customer and competitive issues followed by financial projections, without a clear design of the organization and resource strategies. Many entrepreneurs and their investors regard these issues more in the action domain and less in the planning domain. However, those items are integral parts of a business model, and espouse their distinctive strategic logics that should be followed in business model design and development. A comprehensive business model also makes it less difficult for transforming a more traditional business by factoring in organizational legacy and resource rigidity issues.

Finally, it is nowadays quite natural to be biased toward the prowess of new information technologies when developing a new business or transforming an old one. As demonstrated in this paper, however, a balanced assessment of the technology factor

requires a comprehensive business model that accounts for all other key factors and the interactions among them.

FIGURE 1 A Framework of Business Model: Key Components and Fundamental Logics

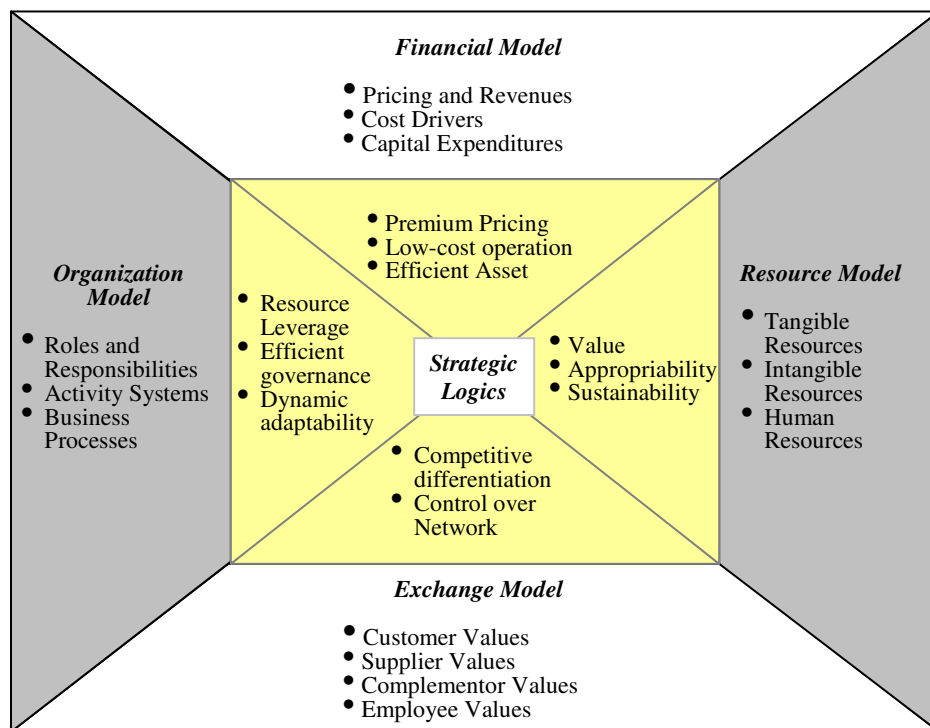


FIGURE 2 The 7-Eleven Japan Business Model

<p>Revenue Majors</p> <ul style="list-style-type: none"> • Foods, especially fresh prepared foods • Original items 	<p>Cost Majors</p> <ul style="list-style-type: none"> • Supply-chain costs • Marketing costs • Organizational overhead 	<p>CapEx Majors</p> <ul style="list-style-type: none"> • Information systems
<p>Activity Systems</p> <ul style="list-style-type: none"> • All store, supplier and 3PL management are POS driven • Supplier management: NDF, an external structure, coordinating procurement and quality control • 3PL management: shipment consolidation, store delivery • Store management: frequent OFC visits 	<p>Strategic Logics</p> <p>Premium pricing</p> <ul style="list-style-type: none"> • Products of inelastic pricing • Competitive differentiation <p>Cost leadership</p> <ul style="list-style-type: none"> • Low operations costs • Efficient asset utilization <p>Control through regulatory barrier</p> <ul style="list-style-type: none"> • Government regulations barring entry of large competitors <p>Control through platform dominance</p> <ul style="list-style-type: none"> • Central role among fragmented suppliers, 3PLs, and franchisees <p>Source of competitive advantages</p> <ul style="list-style-type: none"> • The brand, locations, relationships and POS systems act together as the source <p>Sustainability</p> <ul style="list-style-type: none"> • The locations are rare assets • The relationships and culture are difficult to imitate, and reinforced by use of POS/OFC <p>Appropriability</p> <ul style="list-style-type: none"> • Mostly under the control and discretion of the company 	<p>Tangible Assets</p> <p>POS systems consist of</p> <ul style="list-style-type: none"> • Hardware and software • Use expertise <p>Locations</p> <ul style="list-style-type: none"> • Stores in hi-density urban areas • Proximity between store, plant and distribution centers
<p>Roles and Responsibilities</p> <ul style="list-style-type: none"> • All dedicated to 7 Eleven operations • Under one strong brand • 7 Eleven's irreplaceable coordinator's role • NDF also coordinating suppliers • Supplier contracts negotiated on a one-on-one basis with SEJ 		<p>Intangible Assets</p> <p>The brand means</p> <ul style="list-style-type: none"> • Fresh foods • Convenience • Reasonable price <p>Relationships</p> <ul style="list-style-type: none"> • Center of 3-way interlocks • OFC-dependent franchisees
<p>Business Processes</p> <ul style="list-style-type: none"> • POS system and data use coordinated by OFCs through weekly meetings and store visits • Centralized internal control, except for data input 		<p>Human Resources</p> <p>Corporate culture</p> <ul style="list-style-type: none"> • Fact-driven decision norm • Consumer orientation • Performance orientation
<p>Customer Value</p> <ul style="list-style-type: none"> • FPF and other conveniences • Fresh, tasty, original foods at a good price • Convenience also in terms of locations and variety 	<p>Partners Value</p> <ul style="list-style-type: none"> • Steady revenues and growth • Simple, predictable operations • Excellent operational support • Environment for efficient operations 	<p>Employee (OFC) Value</p> <ul style="list-style-type: none"> • Empowerment • Specialist responsibilities • Excellent decision support

Notes

- 1 Several researchers have made attempts to link various aspects of business model to business performance. They include Chesbrough, H. & Rosenbloom, R. S. 2002. The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spinoff companies. *Industrial and Corporate Change*, 11(3), pp. 529-555. Zott, C. & Amit, R. 2004. Business model design and the performance of entrepreneurial firms. *working paper*, University of Pennsylvania Wharton School of Management. Malone, T. W., Weill, P., Lai, R. K., D'Urso, V. T., Herman, G., Apel, T. G. & Woerner, S. L. 2006. Do some business models perform better than others? *working paper 4615-06*, MIT Sloan School of Management.
- 2 For more detailed arguments on that point, please refer to Shi, Y. 2009. Understanding business model and business model risks. *Journal of Private Equity*, forthcoming
- 3 See Mintzberg, H. 1979. *The Structuring of Organizations: A Synthesis of the Research*. New York, NY: Prentice-Hall
- 4 See Note 2. The article describes and discusses about the various definitions of business model.
- 5 See in the value net framework in Brandenburger, A. M. & Nalebuff, B. J. 1996. *Co-optition*. New York, NY: Currency Doubleday
- 6 For more discussions on competitive differentiation and competitive control over value network, see Porter, M. E. 1980. *Competitive Strategy*. New York, NY: Free Press, Teece, D. J. 1986. Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, 15, 285-305, and Brandenburger, A. M. & Nalebuff, B. J. 1996. *Co-optition*. New York, NY: Currency Doubleday
- 7 Several authors emphasize the importance of organizing in business model. They include Porter, M. 1996. What is strategy? *Harvard Business Review*, 74(6), 61-79; Chesbrough, H. & Rosenbloom, R. S. 2002. The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spinoff companies. *Industrial and Corporate Change*, 11(3), pp. 529-555; Weill, P. & Vitale, M. R. 2001. *Place to Space: Migrating to E-business Models*. Boston, MA: Harvard Business School Press; and Timmers, P. 1998. Business models for electronic markets. *Journal on Electronic Markets*, 8, 509-533
- 8 Seelos, C. and Mair, J. 2007. Profitable business models and market creation in the context of deep poverty: A strategic view. *Academy of Management Perspectives*, 21(4), pp. 49-63
- 9 Makado, R. 2006. The four theories of profit under competition and their interactions. *Proceedings of Academy of Management Annual Meeting*, Atlanta, GA
- 10 Eisenhardt, K. M. & Martin, J. A. 2000. Dynamic capabilities: What are they? *Strategic Management Journal* (21), pp. 1105-1121
- 11 Barney, J. 1991. Firm resources and sustained competitive advantage, *Journal of Management*, 17(1), pp.99-120
- 12 See notes 6 and 9 for detailed discussions about the profit logics
- 13 Porter, M. 2001. Strategy and the Internet. *Harvard Business Review*, March 2001, pp. 63-78