ELSEVIER

Long Range Planning 43 (2010) 364–369

LRP long range planning

http://www.elsevier.com/locate/lrp

Killing Two Birds with One Stone

Profit for Now and Learning for the Future

Hiroyuki Itami and Kazumi Nishino

A 'business model' is commonly seen as composed of two elements: a business system and a profit model. While the latter often gains the higher profile, the former is arguably the real 'meat' of a firm's business model. Not only does it act as the 'system of works' that actually produces and delivers the firm's products or services, it is also the locus where a firm can learn about its operations and the behaviors of its suppliers and customers. This learning can accumulate to represent a considerable competitive advantage, one that risks being wasted if activities are unwisely unbundled. While the profit model earns revenues for the short term, the business system learns information for the longer term: a successful business model must aim for both these outcomes.

A business model – a model plus a system

Although the term 'business model' is defined in various ways by different authors, the common definition seems to be that a business model is composed of two elements, a business system and a profit model, hence the term business model. A *business system* is the 'system of works' (the production/delivery system) that a firm designs - within and beyond its boundaries - to deliver its products or services to its target customers. A *profit model* is a pattern of the firm's intention about how it will make a profit in its given business, i.e. how it plans to increase sales and/or reduce costs. Or, put another way, a firm's profit model is a model of its strategic *intent* to achieve various kinds of differentiation from its competitors (by product or price, etc.), while its business system is a system designed to *realize* that strategic intent. Good intentions to persuade customers will not bear real fruit unless they are backed by actual systems of works that really impact the customer. But, while many see a firm's business system as this delivery system alone, there is much more to it – it is also a learning system. Figure 1 illustrates a simple version of the layout of these elements. In this note we emphasize the importance of the business system, and explain how its role as the firm's learning system is central to its success.

0024-6301/$ - see front matter © 2009 Elsevier Ltd. All rights reserved.
doi:10.1016/j.lrp.2009.07.007

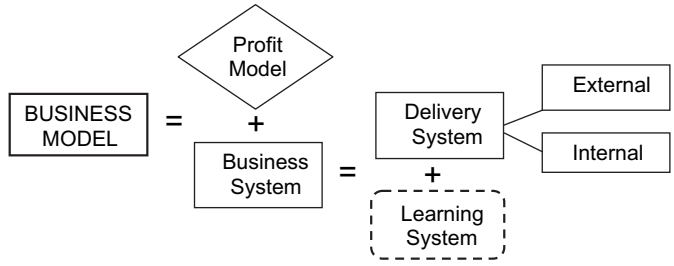

Figure 1. Basic Business Model

To consider Google as an example: a particular characteristic of Google's profit model is that the users of its service(s) never pay a penny to the provider firm — what they do instead is provide the opportunity for Google to capitalize on their presence on its search engine site by selling site space to advertisers, who are the source of the firm's revenues. To increase these advertising sales, Google needs to increase the usage of its search services, to offer its advertisers increasing opportunities to make contact with Google users to deliver their messages. Another aspect of Google's profit model is their efforts to reduce the costs of providing the free of charge search services to its users, and to realize that strategic intent, Google has not only developed various bespoke in-house software elements, but has also invested in a huge in-house server system to cut the costs of providing its wide range of search services.[1] Taken together, these software and hardware capabilities represent the main body of the Google business system. From the moment the user enters the Google portal, this in-house business system processes not only the user's search requests, but also the potential amount of contact each advertiser has with users, and thus calculates the firm's charges to its advertisers. Users are attracted to Google because its system functions very quickly, and can handle great volumes of information, and this wide user base attracts advertisers: without this business system, Google's profit model would never work. But the system also allows Google to learn more about its business. By gathering information about patterns of use of its services, it allows Google to monitor changes in these patterns, and thus anticipate next generations of services it might provide, or, indeed, services it provides which its users do not value and are in declining demand.

[While] the profit model is more glamorous, being directly linked to the bottom line… the business system is the real 'meat' — doing the firm's 'real work' [and] accelerating its learning for the future.

The business system - less visible but more important?

Of the two business model elements, the profit model is the more visible, not only because it is usually what outsiders can observe, but also it is the more glamorous, due to its direct link to the firm's bottom line. Perhaps for that reason, much of the discussion about firms' business models tends to focus on their profit models. But the business system is more often the real 'meat', because it performs twin roles - first as the system that does the 'real work' in terms of realizing a firm's strategic differentiation intent,[2] and secondly in accelerating its learning for the future.

In designing its business system, the firm usually has to determine the following three things: (1) the division of labor between the firm and its trading partners (typically a decision between outsourcing and internal procurement) (2) internally, how should the firm organize its

in-house working system and (3) externally, how it should control the activities of its trading partners.

Toyota's famous (and much-copied) business system is exceptional in all three aspects. Toyota outsources production of many of its auto parts (many more than GM, for example) but often practices 'tapered' outsourcing in vital parts in three senses. First, Toyota often both outsources and produces the same parts in-house simultaneously. Second, its outsourcing strategy involves avoiding procuring from only a single supplier — typically it uses 2—4. Thirdly, Toyota maintains long, continuous relationships with a limited numbers of suppliers, in what are often known as *keiretsu* relationships.[3] These are not textbook, 'arm's length' relationships, but semi-organizational relationships of mutual trust based on a long-term perspective of common interests.[4] Toyota's famous Toyota Production System thus functions as both as an internal system of organizing work and an external mechanism to control its suppliers. The system is not only a physical system of parts and assembly flows, but also a very delicate information system conveying various operating information - both in-house and with suppliers - in other words, both physical object and information flows occur in a synchronized manner through various unique system features, such as the *Kanban* system. Tapered outsourcing also functions as an external control system, as the company can get technology and cost information from both its own in-house production of parts and from its plural (and competing) outsourcing suppliers. Toyota also arranges various forums for comparing costs and technologies among its suppliers, which again both represent opportunities to exchange various items of information with its outsourced elements and reinforce competition between them.

Doing is learning

Both Google's and Toyota's business systems function not only as 'systems of works' to satisfy their customers needs better than their competitors, but also as systems for people in their organization to learn more about their technology, their customers' reaction etc. A business system functions as a learning system because doing the work involves learning about the work - and doing also leaves the doer's footprints. The business system determines two factors: first, the elements of the entire work flow that are to be done in-house to deliver the product to the customer (and thus those which are to be outsourced) and, second, the information system that operates and controls the entire work flow from both in-house works and outsourced operations for final delivery to the customer. These two factors influence how the firm learns, both about its technology and its market(s).

First, when people actually do work, information of various kinds flows to and from them, because human beings have high observational and thinking capacities that are stimulated by the act of 'doing' — and the act itself also provides 'trigger' events that activate this capacity.[5] Second, the business system accumulates information. 'Doers' (workers who work, suppliers who supply or customers who buy) leave footprints of their actions — and as electronic information about the details of work, of supplier behaviors and customer purchases flows into the firm's information system, each bit can be collected and learnt from, and this learning accumulates to form a valuable database for the firm for its future.

For example, by designing their own software and operating their server system in-house, Google can get accumulate information both on how to improve its software and data on the patterns of its users' Internet search behaviors (such as links between websites). In the Toyota case, Toyota can learn about both the technology and cost of auto parts production in various ways through the way its business system is set up, from producing a portion of necessary parts in-house or via its daily contacts with its long-term suppliers.

So a business system is not just a system of mundane operations that determines the cost of operations and products — it can also act as a learning system for the firm. And if it is designed so that people within the firm do much of the information-rich work themselves - and/or if it enables the firm to observe at close range how outside parties (including its customers) act - the information (of various kinds) the firm gains as a byproduct of its business system activity can accumulate quite quickly, and can grow to become very important for its long-term health.[6]

…doing a work activity yourself, you learn many things — if others do it, [they] learn, and [you] learn nothing yourself…… a properly designed business system can allow for firm learning with little extra cost.

The essence of this information accumulation is very simple. If you do a work activity yourself, you can learn many things associated with the task — but if you let others do the work, and merely buy the outcome, you allow them to learn, and learn nothing yourself. And since this learning (or information accumulation) is a byproduct of tasks that somebody has to do anyway, a properly designed business system should allow for firm learning with little extra cost. If firms can get to the position (like Google and Toyota) where their business expansion means doing more within (or close to) the firm, and that leads to more information accumulation at little extra cost, this learning can be developed into a huge competitive advantage. Figure 2 shows the learning flow elements associated with the business system.

The traps of unbundling

One of the buzzwords in the business model discussion from the late 1990s through the first decade of this century was 'unbundling'[7] and the open innovation that was supposed to flow from this strategy.[8] As a profit model, unbundling has many attractions — if the contracting firm offers a low-cost operation it can be a good way to reduce operating costs for the unbundling firm, which, since it no longer has to invest in this sector of work, can also reduce its capital costs. However the story may not end there - the business system side of the business model has also to be considered. If the doer is the one who accumulates information about the work, it will be the contracting firm that learns instead, and the unbundling firm will become less educated about the work it is no longer doing. The costs of the control of the unbundled — now external work become an additional load on the unbundling firm's business system, since it must now integrate the bundled and unbundled works together to have a smooth overall operation to deliver the final product to the customer.

This may not be a serious problem, providing the bundled and unbundled works can be integrated together smoothly without transaction costs becoming too expensive, and if learning less about the work does not erode the future growth potential of the unbundling firm: in such cases the profit model merit of unbundling can override the risks to the business system.

But the world we live in is not always so harmonious. Environmental conditions in supplier firms may change dramatically, threatening supply lines or otherwise destabilizing smooth integration in ways the focal firm cannot control and which make nonsense of the choice to unbundle. And, perhaps more significantly, learning by producing a certain component in-house may provide a huge potential in a future market where that component occupies a central role in a successful new product. Sharp, the undoubted Japanese leader in liquid crystal display (LCD) TV, began

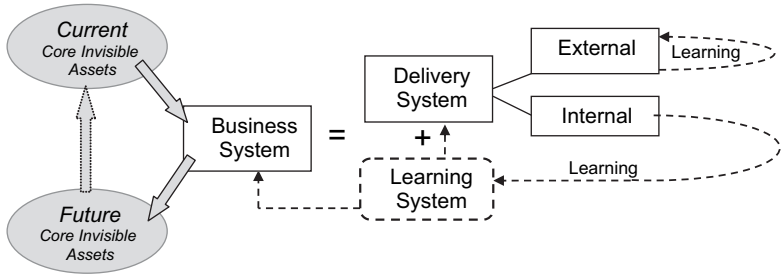

Figure 2. Dynamics between Business System, Learning and Core Invisible Assets

internalizing production of LCD components for their calculator business over 30 years ago, accumulating learning about LCD technology through producing. It wasn't until 15 years later it decided to capitalize on this learning to start developing LCD TVs — but it could never have gone on to become the leader in this huge market if it had unbundled LCD component production 30 years earlier. What may have appeared a minor business system decision at the time fundamentally affected the firm's future growth path.

learning by producing a component in-house may provide a huge potential if it occupies a central role in a successful future product.

In a sense, the 'traps' of unbundling are traps in the market mechanism itself. Perhaps one of the reasons why unbundling has been so popular over the last 15 years was people's unconscious belief in the efficacy of the market mechanism and capitalism following the demise of communism. Free trading and markets were in - planning and organization were out. With hindsight, unbundling can, perhaps, be seen as a symbolic example of these 'trendy thoughts' in the business models field.

Core invisible assets and the business system

Warning against too much unbundling does not mean firms should internalize everything - there must be a limit, and that limit determines the boundary of the organic economic body called 'a firm'. Each firm should decide its boundaries taking into account what it can do better than other firms, i.e. its core competence or core invisible assets.[9] The boundary of the firm, what it does inside its boundary, and how it relates to other firms outside its boundary — these three things together determine the identity of the firm, and are at the core of its business system design. In effect, the business system determines the identity of the firm, and its core invisible assets should be among the central elements of its business system design. However, the relationship between a firm's business system and its core invisible assets is also dynamic. A firm will decide on the design of its business system at a certain point in time, and that design then determines the learning potential of the firm from the work it does and the information that flows into its system on a daily basis. The business system is largely dependent on the firm's *current* core invisible assets — but the *current* business system design will, to a great extent, determine the *future* core invisible assets (see again Figure 2). As supplier and customer markets change and the business environment alters, the business system adapts to those variations by capitalizing on the core invisible assets of the firm at that time. But, to be able to compete more effectively, or to enhance its range, the firm may have to embark on a new business system that involves elements somewhat outside its current core capabilities. The daily operation of a business system designed in the way we have illustrated allows for new learning that can modify firm capabilities to meet new challenges. And this new set of assets will again affect the future business system, so the circle of influence between the two continues. This dynamism is one of the fundamental reasons why we emphasize the business system as being the real 'meat' of a firm's business model.

…current *business system design will determine* future *core invisible assets [in a dynamic relationship]…[its] daily operation allows for new learning to modify firm capabilities to meet new challenges.*

Conclusion

Certainly, the profit model is very important, since it is the model that provides the firm with money, at least in the short term. But this has led its importance to be over-emphasized - the firm as a going concern has to aim for future growth potential, too, and so managers need to look for *both* profit opportunities for the short-term *and* learning potential for the long-term. In discussing the business models for the future, aiming for two birds with one stone seems to be a must.

Acknowledgements

The authors thank the Special Issue editors - Charles Baden-Fuller and Ian C. MacMillan - for their invitation to contribute to the issue, and for their advice and encouragement during the process.

References

1. B. Iyer and T. H. Davenport, Reverse engineering google's innovation machine, *Harvard Business Review*, (April 2008) for example, explain this huge investment in detail.
2. For the construction of a business system to realize differentiation intent, see R. G. McGrath and I. C. MacMillan, Market busting: strategies for exceptional business growth, *Harvard Business Review* (March 2005).
3. See, for example D. Ge and T. Fujimoto, Suppliers' involvement in new product development in the Japanese auto industry - a case study from a product architecture perspective, in C. Herstatt, C. Stockstrom, H. Tschirky and A. Nagahira (eds.), *Management of Technology and Innovation in Japan*, Springer, Berlin Heidelberg, 235—248 (2006).
4. See, for example K. B. Clark and T. Fujimoto, *Product Development Performance*, Harvard Business School Press, Boston (1991).
5. The importance and the relevance of 'Learning by Doing' in an organization are discussed, for examplein D. Leonard-Barton (ed.), *Wellsprings of Knowledge*, Harvard Business School Press, Boston (1995).
6. C. Baden-Fuller and H. W. Volberda, Dormant capabilities, complex organizations, and renewal, in R. Sanchez (ed.), *Knowledge Management and Organizational Competence*, Oxford University Press, Oxford, 114—135, (2000) points out that the dormant capabilities which were once accumulated in the organization can become a base for new competences and can overcome existing core rigidities.
7. See, for example J. Hagel III and M. Singer, Unbundling the corporation, *Harvard Business Review* (March—April 1999).
8. H. W. Chesbrough, *Open Innovation*, Harvard Business School Press, Boston, (2003) is perhaps the best example.
9. See H. Itami, *Mobilizing Invisible Assets*, Harvard University Press, Cambridge, MA (1987); and G. Hamel and C. K. Prahalad, *Competing for the Future*, Harvard Business School Press, Boston (1994).

Biographies

Hiroyuki Itami is Professor of Management and Dean at Graduate School of Management of Science and Technology, Tokyo University of Science. He has taught (for more than thirty years) at Hitotsubashi University in Tokyo - where he is Professor Emeritus - and also at Stanford's Graduate School of Business and INSEAD. He has researched and published widely in various fields including strategy, Japanese corporate systems, and corporate governance, and has recently turned his attention to innovation and a new paradigm of management. He has written more than forty books, mainly in Japanese but also in English, including *Mobilizing Invisible Assets*. *Tokyo University of Science, 2-11-3 Fujimi, Chiyoda-ku, Tokyo, Japan. E-mail:* hitami@rs.kagu.tus.ac.jp

Kazumi Nishino is Associate Professor of Management at Graduate School of Management of Science and Technology, Tokyo University of Science, where she specializes in business model and strategic management. Her research focuses recently on the management of technology in the chemical industry. She has co-authored *Casebook on Logic of Corporate Strategy* with Professor Itami. *Tokyo University of Science, 2-11-3 Fujimi, Chiyoda-ku, Tokyo, Japan. E-mail:* knishino@rs.kagu.tus.ac.jp