

Strategic Challenges of e-Competition - Transition from Brick-and-Mortar to Click-and-Mortar -

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Abstract

With the well publicised advancements of dot.com companies, traditional large firms may seem destined to decline. However, a close observation reveals that they have abundant managerial resources to compete against those start-ups. The issue for them is to understand the nature of competition in the internet era, and to deploy their resources appropriately. The article analyses the forces working in the e-competition, and changes these forces induce in value chain and value package. Then four types of transition to click-and-mortar are discussed with respective strategic challenges.

1. Introduction

The past year has seen significant splits of performance within major stock markets of the industrialised world. For example, TOPIX, the total market capitalisation index of Tokyo Stock Exchange advanced by 70% between October 1999 and February 2000, while market capitalisations of about half of the listed companies actually shrank. This means that aggregate market capitalisation of other half increased more than doubled during the same period. The Dow-Jones index at January 2000 was not different from that at August 1999, whereas the Nasdaq's collective market capitalisation doubled during the period. The difference would have been starker if there had not been a reshuffle of companies in Dow-Jones last November; Chevron and Union Carbide were replaced for Microsoft and Intel. A similar tendency can be observed also in Europe.

The position of established companies were undermined during the last Christmas season that was dubbed as the "first real e-Christmas season". Those large firms which hurriedly entered into the e-space were humiliated, and positively destroyed their brands, through elementary deficiencies in fulfillment. Established players in the physical space including Toys-R-Us and Wal-Mart were forced to acknowledge that they would not be able to meet the delivery time a few weeks before Christmas. Many of entries to the e-space by "brick-and-mortar" companies were derided both by the consumer and by the pure net companies.

Should those established firms throw in the towel into the electronic market place, then? Not necessarily. Those firms are usually far better endowed with depth of management experience, human and financial resources, established brand and customer base, and capabilities and infrastructure for fulfillment. These resources are difficult to build over night, and this is exactly where a lot of e-ventures flop (spectacular collapse of boo.com, a sports fashion e-retailer, in May this year after burning \$135m is a good example). Only if those large established firms can configure their better resources properly, then their chance of winning an e-competition is not that slim. But for that, they have to understand the nature of e-competition which is distinctly different from the competition in the physical space, and strategic challenges of the transition from the brick-and-mortar to the click-and-mortar.

2. Five-Layer Model

To analyse the nature of e-competition, a five-layer model of transaction, comprising:

- buyer
- agent for buyer
- exchange

- agent for seller, and
- seller

is introduced, as a basic framework.

Here, the necessary parties are the buyer, the seller, and the exchange, while the existences of agent for buyer and agent for seller are optional. The exchange may explicitly exist (as in the case of most stock exchanges, or auction sites such as eBay and rakuten.com) or may be implicit where the seller and the buyer negotiate directly. In some transactions it is more convenient to use an explicit exchange (as in case of foreign exchange or stocks, or as in the physical bazaar) to search counterparts. Also many exchanges operate on membership, thus require the use of member agents for non-members to make transactions (as in case of most stock exchanges). Except when required by the exchange rules, usually agents are used to decrease the transactions cost (search, contract, etc).

3. Forces Working at e-Competition

This section analysis major forces working on the net.

3.1. Decreased asymmetry of information

The internet has greatly changed the balance in terms of information asymmetry between the seller and the buyer. In the past, only information the consumer had better than the seller or any agents was that about him/herself. Now it is not too rare that consumers are better informed than suppliers, through sharing of information amongst themselves.

Facilities like discussion groups provide easy and rich opportunities for the consumers to exchange and share their views and/or experiences on specific goods/services. Also, some discussion groups function as help desks in place of manufacturers' ones, since the quality and the availability of those provided by suppliers can be so poor (that by Microsoft is a legendary example of poor service). This creates an opportunity for a rich repository of knowledge amongst the group participants.

Price comparison sites on internet (such as kakaku.com, PriceWatsh.com and DealPilot.com) have intensified the competitive pressure, by allowing the buyer (both consumers and industrial buyers) to search for the best deal with dramatically decreased search costs.

A higher level of information symmetry between the seller and the buyer significantly contributes to the improvement of market efficiency, thus lowering profitability potentials for suppliers.

3.2. Standardisation and modularisation

General tendencies toward the modularisation and standisation are not necessarily induced by the internet. When an industry is young, usually suppliers are vertically integrated. As the industry grows and matures, the room for scale economies and specialisation emerge, and division of labour leads to modularisation and standardisation. With appearance of a dominant design for its product or the way to conduct business, modularisation and standardisation process is set in motion [9].

The car industry has standardised tires, batteries and electric/electronic components, but further standardisation has been undergoing with global consolidations. The telephone industry has been experiencing a worldwide standardisation, making it possible to connect a standard modem to the telephone line anywhere in the world. Much has been talked about the modularisation and standardisation of the PC industry.

Although the process towards modularisation and standardisation itself is not necessarily based on internet, the use of IT and internet seems to accelerate the process, which in turn, induces whole reconfiguration of value chains and value packages in the industry.

3.3. Disruptive technologies

The above two forces presuppose the existence of a dominant business model or a mature technology. The information technology, especially that concerning internet, seems to be still evolving at an incredible speed. Some of the innovations are bound to change the dynamics of an industry significantly, at least temporarily. When disruptive technologies shake the industrial structure in an unexpected way, often the incumbents do not have an effective measure

to counter them [5].

When Marimba developed a "push technology" with which the contents of Web pages can be pushed onto PCs, rather than those contents being simply waiting to be downloaded by the PC user, the general view was that the technology would completely change the business model on internet. In fact, creation of services such as PointCast was based on this wisdom. However, the idea of pushing contents lost allure within two years, and recently PointCast stopped its business quietly.

When an idea of ASPs (application services providers) became a viable proposition recently, much of system integration business to small firms, and related businesses such as servers building and writing proprietary softwares, were threatened. Quite a few of the threatened firms have tried to enter ASP business themselves, but not many have been successful.

4. Reconfiguration of Value Chain

Usually the minimum economic scale for each stage throughout the value chain differs from stage to stage, posing a strategic challenge for the incumbents to determine which stage(s) they should be engaged in. Naturally the minimum economic scales change with the evolution of technology.

4.1. Decoupling of value chain

Decrease of information asymmetry and evolving modularisation/standardisation have been causing decouplings of the value chain in various markets [6]. When there are no standardised factor markets and there is information asymmetry between the suppliers and the manufacturers concerning the quality and cost structure of the necessary components, the manufacturers' cost would be lower if they internalised the whole process. As the industry matures, and a dominant design appears, there also appears independent suppliers of standardised components. Philips in the Netherlands started as an electronic bulbs manufacturer. At the early days, they were highly vertically integrated, producing everything from glass to filaments to cardboard boxes to ship bulbs. Now, most of electric goods manufacturers rely heavily on purchased components.

In early days of PC industry during 1970s, it was common for manufacturers to provide everything from PC itself to components and peripherals to the operating system to application programmes. In early 1980s, the whole PC industry was restructured into a horizontal layers (IBM PC was released in 1981), and even vertical integrators like Apple were influenced by this sea change to some extent. Value chain of hardware was decoupled into a few layers consisting of assemblers, components suppliers and sub-components suppliers. Those layers were connected with a direct transaction (implicit exchange), by brokers (agents) or through components markets (explicit exchange).

4.2. Coupling of stages of value chain

Although decoupling of the value chain is often discussed in the context of net economy, coupling of previously separate chunks of the value chain is also possible.

For example, two major customer segments of Dell Computers are the corporate market and IT-savvy individuals/SOHOs. They are the customers who know what they want and who can place orders in terms of PCs technical specifications. For Dell's customers, it is much cheaper in terms of time and effort (and possible also of money) to order from Dell, than would be if they purchased all the components and assembled them themselves. Issue here is not of the technical capability, but of the practicality. Complete novices who cannot translate their needs into technical specifications are not Dell's target, no more than those high-school kids or university students whose time value is so small that who cannot justify the cost of the transactional services offered by the company.

Compared with a Compaq model of

Components suppliers >> Compaq >> Dealers >> End users,

Dell's model can be depicted as

Components suppliers >> Dell >> End users.

Here Dell is obtaining margins by providing choices (albeit of a limited range) and conveniences to the end users, as well as by realising scale economies on procurement side; this is exactly the function of an agent, and Dell is considered to

have integrated two functions of assembler and the buyer's agent.

4.3. Creation of new intermediations

"Disintermediation" has been a buzz word of internet commerce. However, with an explosive increase of choices for the buyer, be it industrial or retail, caused by modularisation and standardisation, coupled with more opportunity for comparison and sharing of information, the buyer typically is faced with an information overload. Hence, there arises an opportunity to add value by helping the buyer to find a good deal, traditional function of the broker. Although the customers of Dell know what they want, new type of e-commerce brokers help customers to make better purchase decisions, or offer convenience of search.

Most of the portal sites on internet are a new layer of intermediaries. They add value for the visitor by providing convenience of search (not necessarily by helping the decision of the visitor), but paid indirectly for this service through advertisements or "associate programmes". An associate programme is an arrangement in which a portal is paid commission, when someone coming to the destination site through the portal makes a purchase there,.

This change allows the emergence of buyer's agent (such as consultant) or seller's agent (such as portal site).

5. Reconfiguration of Value Package

5.1. Unbundling of offerings

Decrease of information asymmetry and evolving modularisation/standardisation have been making comparison of the cost/performance ratio between offerings more transparent. This added transparency makes it more difficult for the seller to bundle various offerings to cross-subsidise amongst them, causing unbundling of the value package in various markets [6].

In auto sales in Japan, consumers used to be generally very price sensitive about the car itself, but not so about various options and finances. This was because in the past, it was not too easy for consumers to obtain auto finance at a competitive rate. Therefore, it was a standard practice for auto dealers to price the car competitively, but add fat margins on options and finance, the latter subsidising the former. This practice, however, has become more difficult recently, as more and more respectable financial institutions have started auto financing for consumers at a competitive rate, and as price comparison has become much easier for consumers with launches of comparison services such as Autobytel. As a result, the consumer with a good credit history get finance from a bank at a better rate, while only those buyers who cannot obtain finance elsewhere rely on dealer finances. Consequently the risk profile of dealer finance has drastically changed, and, with decrease in total volume, the profitability of auto dealers has been pressured.

When the buyer starts buying only loss leaders in the shop, the whole business plan collapses. This change removes the agent function from the seller and exposes it to the exchange directly. Every seller will be forced to concentrate on the products/services for which it has better competences, dropping weaker businesses.

5.2. Bundling of offerings/demands

However, bundling of goods/services previously offered separately has been also happening. This has become viable when many of companies started to concentrate only on what they are good at. When sellers' products/services are specialised and buyers are fragmented, there is a possibility to add value by bundling the offering for buyers and/or by bundling demands for sellers.

System integration is a classic example of a bundling service. Often customers do not have time and/or expertise to obtain benefits from IT products themselves, and prefer purchasing "solutions" to building the system themselves. If successfully utilised, system integrators will implement IT infrastructure with much less budget and time than when the customers themselves attempted it, in theory.

Services such as Shop2gether.com function in reverse direction. when the demands are so fragmented, it is not economical for each supplier to search for them. These demands bundling services offer deep discounts to buyers through collective purchases, while realising significantly lower sales expenses for sellers and some commissions for themselves.

Bundling services are actually adding a layer to the existing value chain, contrary to the conventional wisdom of "deintermediation". System integration is an example of the buyer's agent, while Shop2gether.com of the seller's agent.

6. Types of Click-and Mortar

The collectivity we call as "click-and-mortar" is not homogenous and it contains several types which are distinctively different from others, in nature and in the forming process. Respective types call for different set of strategic capabilities.

6.1. Addition of e-channel

This is the most talked about type of transition in year 1999. When brick-and-mortar with incumbent sales channels try to develop another channel based on internet, naturally strategic confusions break out in most cases. Many brick-and-mortar think twice before plunging into B2C e-commerce, due to inevitable cannibalisation and revolt from incumbent channel. In this vein, the most notable successes in this type are seen in companies which did not rely on independent channels.

Schwab, discount broker, suffered from a confusion when it introduced eSchwab with cheaper commissions than those charged at incumbent brick-and-mortar shops. They became exemplary when they introduced same commission structure regardless of on- or off-line. This would have been difficult if Schwab had relied on independent brokers as a channel. Now they are expanding into other on-line financial services such as mortgage loans.

Dell's success is legendary, but for them, on-line order taking was just extension of those over telephone and fax. Unlike those computer manufacturers which had relied on independent retail channels, such as Compaq, IBM and Apple, Dell did not need to worry about channel conflicts. Other companies still does not seem to have struck out the right formula to combine e-channel with brick-and-mortar channels.

The most difficult challenge facing this type of transition is management of cannibalisation. When a speed is called for, it may not be possible to implement painless measures of incremental transition. The challenge is how to make a swift shift of either all or a part of downstream logistics from the traditional channels to the e-channel, without creating much resentment amongst the incumbent channel participants and confusions amongst consumers.

6.2. Building of integrated supply chain

The second type of e-transition is to build an integrated supply chain based on EDI and ERP, involving suppliers network. Obviously many of contenders have already a good working system (some computerised, others not) in place, and the challenge here is to obtain maximum benefits by computerising the whole network. This would result in better communications not only between departments but also with suppliers, lower inventory level, shorter turn around time, less mistakes, and overall efficiency. Sometimes virtual organisations are formed by closely linking independent firms within a supply chain.

Toyota is probably the best know example. They started with physical "kanbans" to manage fluctuations in demand and to better connect stages in the whole supply chain process; now most of these "kanbans" are virtual in an electronic form.

Challenge for this type of transition is to standardise the business process over the whole supply chain (inside and outside of one's own company) to create integrated databases and manage them. This is not an IT project, but a business project to solicit agreements in changing the way to work from various constituencies.

6.3. Acquisition/creation of network business

Many of brick-and-mortar companies try to participate in net frenzy by acquiring (sometimes creating and organically growing) network businesses. Usually acquisition is a preferred route as the time is an crucial factor in this game, but many of Japanese companies seem still to prefer a organic growth route.

Vivendi, a French conglomerate, started as a water utility company, but now about one half of their business is telecommunication and internet services, including a large stake in SFR. This change in portfolio was realised through aggressive acquisitions.

Sony now owns, not only record business and film business, but also all sorts of internet related businesses, from ISP (so-net) to on-line security brokerage (Monex).

The challenge for this type of transition is the capability to rapidly integrate very diverse businesses to realise the synergy. The level of integrating capability, reflecting the level of diversity, is significantly higher than before the internet era.

6.4. Clever use of information systems

For some companies, most of the operation has been computerised for a long time, but they have been continuously improving their process through better and better use of databases: asking right questions and analysing extensively and thoroughly the data they have concerning their operation. As a result, although these companies look like brick-and-mortar on surface, and in fact they are engaging in physical operations, their operational and strategic decisions very much depends on information technology, and they are extremely good at the "click" part as well.

Seven-Eleven Japan is noted as the leading user of information technology in retailing. The per square feet sales is about as twice more as that of competing convenience stores. For this, they have been constantly upgrading the use of information network and training for its employees and franchisee managers [2].

The challenge for this type of transition is incessant desire to learn about the customer, the market and the information technology.

7. Conclusions

The article overviewed the distinctive characteristics of competition in the internet era and strategic challenges for brick-and-mortar companies when they try to make a transition to the click-and-mortar

The forces working in the economy such as decreased asymmetry of information as well as modularisation and standardisation, along with disruptive technologies, are inducing reconfigurations on the value chain and the value package. Companies are trying to obtain benefits promised by the enhanced information power through various routes, such as launch of e-channel, building of efficient supply chain, acquisition of e-business and clever use of information technology, each route poses different set of strategic challenges. To take advantage of these changes in a timely manner and to face the accompanying strategic challenges, companies are require a totally new set of organisational capabilities. The real challenge to brick-and-mortar organisations is to quickly build such e-capabilities.

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