STRATEGIC ALLIANCES AND CUSTOMER INTERACTIONS IN CONVERGENT INDUSTRIES.

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Abstract

In a convergent industry, the boundaries between traditional industries are blurred and, as new competitors emerge, traditional rules of competition are challenged. Firms need to effectively compete and collaborate with one another simultaneously by focusing on customer needs. In this paper, we argue that integration of customer needs and strategic alliances is a critical aspect of competing in the convergent industry. We propose a framework for analyzing competition in convergent industry, comprising five critical factors: customer intimacy, degree of competition among different players in focal markets, alliance formation, brand equity, and execution. We apply this framework to the case of Symbian, a joint venture among Nokia, Sony-Ericsson, Motorola, Matsushita, Siemens and Psion that licenses an open operating system for third generation mobile information and communication services in hybrid mobile devices. We derive insights into the ongoing competition between Symbian OS, the first mover in this emerging market and Microsoft's Smartphone, the late mover.

Keywords: Convergent industry, customer interactions, strategic alliances, competitive strategy.

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In the high-tech environment, the boundaries separating traditional industries are blurring and there is a convergence among computer, telecommunication, office equipment, entertainment, broadcasting, media publishing, consumer electronics, distribution, financial and insurance services industries (Collins, Bane and Bradley, 1997; Wind and Mahajan, 2002).

The widespread growth of the Internet is accelerating the process of industry convergence and creating a 'blur economy, ' where there is a gradual blurring of distinctions between goods and services, buyers and sellers, tangible and intangible capital, and individual firms (Davis and Meyer 1998).

Collins, Bane and Bradley (1997) proposed an initial reclassification of the convergent information and communications technology (ICT) industry. In this digital convergence, there is a shift from a competitive environment characterized by vertical industries comprising sound communication (telephony), visual communication (television), and data (computers) towards a new multimedia industry that is structured around five horizontal segments (content production, content packaging, content transmission, content manipulation, and content reception). The shift of the new digital convergent industry from three vertical sectors to five horizontal segments implies a movement from an information distribution system that depends on content, specific technology and dedicated hardware, to an independent content system distributed through a shared infrastructure. In this new competitive environment, firms can supply a homogeneous information product or service such as technology and production, transmission and reception tools once they have acquired the information content from the specific producers. Moreover, firms that belong to the three traditional sectors have opportunities to broaden their field of action. They can do this horizontally through data communication, audio and visual, and vertically, by performing one or more of the activities in the multimedia value chain.

Firms face two key strategic challenges when competing in convergent industries: (1) maintaining focus on customer relationships; and (2) identifying partners for strategic alliances and managing the alliances, often collaborating with competitors in traditional industries.

With regard to customer relationships, firms should focus more on the end customer and less on the industry or on the technology in convergent industries (Wind and Mahajan, 2002). Customer-based assets are critical for achieving competitive advantage in these industries. For example, a customer-based resource like brand, which may not be industry specific, can be exploited across many related industries (Aaker, 1996). Firms should also increase knowledge about their customers by integrating it within their firms and exploiting it in new convergent industries. Customers should become value partners for their suppliers and should be viewed as a source of competence for the firm (Prahalad and Ramaswamy, 2000). Tracking and profiling customers, and, more generally, customer relationship management (CRM) activities are critical to marketing strategies for firms competing in convergent industries.

With regard to strategic alliances, the emergence of new forms of hybrid competition that includes competition and co-operation drive the need for the right strategic alliances in convergent industries. Strategic alliances and collaboration with competition or co-opetition (Nalebuff and Brandenburger, 1996) have in many cases been suggested as the "panacea" for success in emerging industries. The strategic ability to create and manage relationship with a network of collaborators and complementors is key to winning the battle in the convergent industry. An emerging view of strategic alliances, namely, the *relational view*, posits that strategic resources could cross the boundaries of firms and industries and reside in relationships between firms (Dyer and Singh, 1998). According to this view, the unit of analysis moves from the industry (*industry structure view*) and the firm (*resource based view*) to the network of firms. Relationships between firms can be a source of sustainable competitive advantage and of rents (*relational rents*). As a consequence, managers

should focus on "learning alliances," that is, to build networks that permit them to increase the knowledge endowment through firm relationships (Khanna, Gulati and Nohria, 1998). The traditional concept of the industry may be replaced by a more appropriate concept of the *business ecosystem* (Moore, 1996). Business ecosystems cross different industry boundaries; firms within them co-evolve, working both in competition and in partnership at the same time, to generate new knowledge and continuous innovation.

Integrating Customer and Alliance Issues

To be successful in convergent industries, firms should be able to link and integrate the twin strategic challenges of customer and alliance focus. There are two types of alliances among competing firms, scale alliances and link alliances (Dussauge, Garrette and Mitchell 2000).

Scale alliances are alliances created with the purpose of achieving economies of scale in production, marketing, R&D, etc. In these types of alliances, firms contribute with symmetric knowledge.

Link alliances are alliances created with the purpose of increasing the knowledge base of the partner firms through contributions from partner firms with asymmetric knowledge. Recent research on strategic alliances suggests that link alliances, which allow alliance partners to increase their resource and knowledge base, are becoming common (Khanna, Gulati and Nohria, 1998).

Empirical evidence shows that is difficult to make link alliances work when partners come from the same industry (Dussauge, Garrette and Mitchell, 2000). In fact, these partners are prepared to share knowledge, since they have a common knowledge base, but it is very difficult for them to create new knowledge. They need partners with asymmetric and not symmetric knowledge endowments.

If co-opetition and alliances among competing partners are generally recognized as an indispensable competitive strategy in convergent industries, some cautions are necessary. There may be an "alliance life cycle" in which firms should

create link alliances in the early stage of development of a converging industry, but as the industry matures, they should focus on scale alliances. When the industry stagnates or declines, to revitalize the industry, firms may have to focus again on link alliances. In convergent industries, firms may have to reconsider creating alliances only with competitors, because this may limit their ability to create new knowledge. Putting together a partnership with firms coming from different related industries to create new knowledge and to shape the future of the new industry may be important. A related implication could be that co-opetition is a good competitive strategy only for firms competing in mature markets and seeking for industry dominance through scale alliances. Co-opetition could be a risky approach in convergent industries if firms are coming only from one industry. Another issue related to link alliances is the management of relationships between competitors. In convergent industries, firms should mitigate the risk that competing firms view the alliance as a "Trojan horse" (Dussauge, Garrette and Mitchell, 2000). In this case, the risk that they will use the alliance to appropriate their competitors' knowledge is very high.

We contend, however, that the integration between supply side strategies (focused on co-opetition dynamics and on the creation of a web of alliances) and demand side strategies (focused on the creation of strong and long term relationships with customers) seems to become the most important strategic issue. As customers increasingly demand cross-industry value propositions that are simple, personalized, timely and location based, firms are forced to offer bundled value through partnership across markets to increase customer reach and build loyal relationships (O'Driscoll, Reibstein and Shankar, 2002). Alliances should be formed such that they increase the value of the bundle offered to customers and the potential of learning from customers. By pooling together different resource endowments, firms competing in convergent industries should be able to bundle products and services in an integrated package for their customers. By doing so, they will be able to satisfy their customers' needs with a one-stop-shop solution. The bundling strategy can offer many advantages. It will be easier for firms to resort to cross selling and up selling strategies, thus increasing the value of their relationships with the customer. Firms also have the chance to leverage

on their existing customer base and on their partners to enter new converging industries. The linked resources of different partners will help firms to better interact with their customers through multiple channels and to develop "contextual marketing" strategies (Kenny and Marshal, 2000). The value creating potential of the link alliance will also help firms to develop most effective lock-in strategies.

In convergent industries, successful firms should be able to create "focal points" by integrating the power of link alliances with customer focus. A focal point can be defined as a collection of software interfaces that reduce the need for other interfaces by standardizing the links among hardware, software and users (Persson, Rosengren, Wilshire, 1999). An operating system for mobile devices can be defined as a focal point as is the Microsoft Windows operating system in the PC industry.

Do these forms of co-opetition really generate value for the customer and create sustainable competitive advantages for the collaborating firms? Are firms in convergent industries adopting the right marketing and business strategies? Is it possible to exploit the potential of customer value creation offered by alliances between firms coming from different industries? Are firms exploiting the potential of interaction with customers offered by the convergence phenomenon? We address these issues in this paper and apply to the case of Sybmbian.

MOBILE INFORMATION AND COMMUNICATION TECHNOLOGY: THE CASE OF SYMBIAN

Mobile information and communication services are moving away from pure and simple voice or data communication modes to a convergent or hybrid service comprising voice, data and video capabilities. The first generation of mobile phones comprised analog systems that allowed for only voice transmission. The second generation digital systems (GSM, Global System for Mobile communication*)* opened up wider services by going beyond ordinary telephone calls to Short Message Service (SMS). Among 2G and 3G new intermediate forms have appeared. The WAP

(Wireless Application Protocol) is one of the initial efforts in this direction. In Europe, in early 2001, it became possible to transmit data through the high-speed mobile network (from the current 9.6 Kbytes to 115 Kbytes) using GPRS (General Packet Radio Service), often called 2,5 G. This system divides voice and data into `digital packets', so that they can be transmitted more efficiently over the digital networks. The innovation introduced by GPRS is that the charges for this service will be based on the quantity of data unloaded and not on navigation time. The arrival point is based on the UMTS technology (Universal Mobile Telecommunications Service), which represents the 3G system. UMTS is a standard that makes it possible to transmit voice, data and images at a speed equal to 2 Mbytes per second and at frequencies different from those used by GSM services.. Increases in transmission speed and technological innovation have allowed mobile phones and personal digital assistants (PDAs) to become multimedia platforms. Through these new devices, individuals can browse the Web, use videoconferencing, work interactively, enjoy themselves (m-entertainment) and make purchases (m-commerce).

History of Symbian

Symbian was established as a private independent company in June 1998 by Ericsson, Matsushita, Motorola, Nokia and Psion. It is currently owned by Ericsson, Nokia, Matsushita (Panasonic), Motorola, Psion, Siemens and Sony Ericsson. The Symbian coalition started out with the goal of developing an open standard operating system for existing and next generation interactive multimedia devices. Nokia, Ericsson, Matsushita and Motorola, the world's leading producers of mobile telephones, are fierce competitors in their market. The British firm, Psion produces portable microcomputers that use their own operating systems (a version called EPOC)--not Microsoft's Windows operating systems. Symbian's current vision is "Symbian OS in every phone." Symbian OS hopes to be at the heart of the convergent technologies revolution. Symbian OS integrates the power of computing with telephony, bringing advanced data services - using voice, messaging and on-board processing power - to the mass market. It drives standards for the

interoperation of data-enabled mobile phones with mobile networks, content applications and services.

Symbian's Alliances

Since its formation, Symbian has been actively engaged in implementing its vision. It has been very proactive in establishing a network of partner companies as to increase its resource base and the value of the relationships with its customer base. In the last three years Symbian has developed alliances mainly with information technology firms (Oracle, Sun Microsystems, Cisco, IBM, Palm, Lotus, Intel). In January 1999, Symbian tied up with Oracle database to expand the range of business solutions for "mobile enterprise computing." In April 1999, Symbian entered into an alliance with Sun Microsystems to allow for the development of applications in Java, a programming language created by Sun that permits compatibility with many other digital products. Motorola, one of its partner companies, entered into an agreement with Cisco for networking applications. Moreover, Motorola's links with Netscape were tied to this alliance and to AOL and Sun. In October 1999, Nokia and 3Com (the then producer of the Palm Pilot, the most popular PDA in the world), signed an agreement that would allow EPOC to be used as a standard operating system for new devices and the interface of Palm, commonly used in mobile telephones, and the optical pen. During late 1999, Symbian entered into an agreement with NTT DoCoMo, the Japanese company that launched the successful I-mode mobile phone service (Ratliff, 2002). In February 2000, Symbian joined hands with IBM with to jointly develop PDAs based on EPOC software. In the same period, Ericsson, IBM, Lotus, Oracle, Palm and Symbian founded the GPRS Applications Alliance, an alliance devoted to improving the development and diffusion of the GPRS. In April 2000, Symbian formed an alliance with Sony for using EPOC on all Sony PDAs. In August 2001 it linked up with Intel to integrate Epoc with Intel's chip technology.

The Microsoft Challenge

In the convergent market of mobile device OS, Symbian's main competitor does not come from within the telecommunications industry. Rather it comes from outside the industry in the form of Microsoft Corporation. Microsoft, the world leader in operating systems for PCs and Web browsers is focused on setting the OS standard for PDAs, handheld devices and mobile phones. Windows, Windows CE, Windows Pocket PC and Stinger (now called Microsoft Smartphone) are Microsoft's operating systems for fixed and mobile multimedia applications. Microsoft has changed its vision from "A computer in every desk and in every home" to a new vision of "Empower people through great software every time, any place and every device." Although Microsoft is a late mover in this market, it has the potential to overtake the first mover, Symbian just as it has done so in many other markets. For example, it has eclipsed pioneers in the markets for word processors, spreadsheets, databases and Internet browsers.

Microsoft's Alliances and Competitive Strategy

Like Symbian, Microsoft has made many competitive and co-operative moves during 1999-2002. In 1999, Microsoft formed five important alliances with telecom companies (NTL, a British TV cable operator, Qualcomm, Qwest Communications, British Telecom, and NTT DoCoMo). During 2000, Microsoft focused its alliances on hardware producers and reached an agreement with HP, Casio, Compaq, Philips and Siemens to use Microsoft as the standard OS software on their devices. During the years 2001 and 2002, Microsoft focused its alliances mainly on mobile telecommunication operators (Vodafone, Deutche Telekom, Cingular Wireless, Verizon, AT&T Wireless, Orange and Telstra). Microsoft is trying to rewrite its successful PC marketing strategy in the telecommunications industry. The marketing strategy underlying these agreements is the following: Microsoft will provide its OS to telecommunication operators who will provide their services on phones made by Asian manufacturers. Telecommunication operators will therefore

include Microsoft OS inside their phones and sell them with their own brands to leverage on their large customer base. Moreover, Microsoft has been able to repeat its winning move in the PC industry by licensing its operating software to many handheld producers. The ultimate goal of Microsoft's strategic move is to transform the Windows operating system into a standard platform for a new generation of web-based services to be offered on both high-speed fixed lines and mobile telephone networks.

Competitive Outcome

Despite the wellspring of alliances in the initial years, Symbian is now facing serious problems. From a financial point of view, its IPO, scheduled for November 2000, has been indefinitely postponed. Symbian's partner companies are also experiencing financial problems, mainly due to the downturn in the telecommunications industry. The UMTS standard is unlikely to become a reality soon as its launch in European countries has been postponed many times. The biggest threat for Nokia and its allies in the Symbian coalition is that users may want to use on their mobile phones the same software that runs on their PCs, typically Microsoft's. In this case, there is a danger that mobile phones might become a commodity and Nokia may lose its leadership and the value of its brand. In other words, it is running the serious risk of being "Netscaped" by Microsoft. Microsoft's marketing strategy is to prevent people from increasingly using the proprietary software of mobile phone/devices to access the Internet. In fact, if mobile phones become a one-stop-shop solution for customers, customers may remain loyal to Nokia's and its partners' brands. Symbian has better chances to succeed under this situation. As far as the customer focus is concerned, the Microsoft vs. Symbian competition is not only a technological battle to develop the OS standard for mobile devices, but is also a battle of competitive and marketing strategies. Customer-based assets are critical sources of competitive advantage both for Symbian and Microsoft. In particular, the wide customer base and its present and future values seem to be the most critical resources for both the companies. Symbian is trying to leverage phone

customers of its partner companies whereas Microsoft wants to cross-sell mobile applications to its PC customer base. Brand is another critical customer-based asset. Nokia and Microsoft are among the world's leading brands in terms of consumer awareness. However, Microsoft seems to be in a better position than Symbian. Nokia has a very strong technology base, whereas Microsoft has deeper pockets, strong marketing skills and has a history of wins in the battles for standards. Symbian partners are very strong in marketing activities for manufactured products (mainly cellular phones), but they are weak in marketing activities for software, which is the Microsoft's forte. The problem is that in the mobile telecommunications industry, like in the computer industry, software is gaining ground over hardware. Moreover, the I-mode mobile phone is more of a marketing success than technology success in Japan (Ratliff, 2002).

Symbian is also experiencing problems within its coalition. In 2001, Motorola and Psion developed a joint project, called Odin, aimed at developing a new smart phone. This project, however, failed in part because of the inability to integrate the different professional backgrounds of the project team members (telecommunications and information technology). Ericsson and Microsoft entered into an agreement on another project and this caused some misunderstanding among some of the partners in the coalition. In March 2002, Symbian's CEO Colly Myers was replaced by David Levin. Moreover, some top managers are leaving Symbian and joining other companies.

KEY SUCCESS FACTORS IN CONVERGENT INDUSTRIES

Five factors are critical to the outcome of competition and collaboration in convergent industries: customer intimacy, degree of competition among different players in their focal markets, alliance formations, brand equity, and execution.

1. Customer intimacy: Who has access to and has built strong relationships with end customers? Firms with the deepest access and the strongest relationships with end customers are at an advantage in convergent industries. In the Symbian case, the Symbian partners, notably Nokia, has greater customer

intimacy than Microsoft in Europe although it seems to be declining due to the growing clout of mobile operators. In the US, however, Microsoft seems to have greater customer intimacy.

2. Degree of competition among different players in their focal markets: How competitive are the focal markets for the players? For example, in the PC operating systems market, Windows is almost a monopoly. Thus, Microsoft is more dominant than the PC manufacturers whose market is fragmented. Mobile hardware market is also fragmented, albeit a little less than the PC market, but this situation could favor Microsoft's Smartphone 2002 in the mobile device OS market.
3. Alliance formation: Identifying the right partners and having the right partnership incentives in place may be key to success in convergent industries. Alliances with partners having asymmetric knowledge endowments have the potential to create greater knowledge for the alliance (Dussage, Garrette and Mitchell, 2000). The incentives for horizontal partners in an alliance for a convergent market may be different. In the Symbian case, being the market leader in mobile phones, Nokia has the highest incentive among its partners to make it successful. Others like Ericsson have lower incentives to work toward making Symbian the dominant mobile OS. On the other hand, it is unclear whether Microsoft's alliance partners may have a lot of clout in the mobile operating systems market, in particular, in Europe.
4. Brand equity: Powerful brands may cut across industries and can be successful in a convergent industry. In this case, the brands in focus are Microsoft and Nokia. While Microsoft can successfully leverage its brand by sub-branding the Smartphone, this could be a problem for Symbian. Symbian is an independent brand and cannot be a sub brand of Nokia because Symbian is also made up of brands like Ericsson and Motorola, which may not want to promote the Nokia brand, as it is a competitor brand in their traditional mobile phone market. Perharps because of this problem, there are signs that Symbian may end up being the software arm of Nokia (the launch of Nokia 60 series software may be a move by Nokia to leverage the Nokia brand equity).

5. Execution: Although a firm may have a sound strategy, the execution of that strategy is critical to its success. In this regard, while Microsoft has had an impressive track record with respect to its products in other markets (such as software suites and Internet browsers), Symbian is still a question mark.

CONCLUSIONS

In a convergent industry, the boundaries between traditional industries are blurred and, as new competitors emerge, traditional rules of competition are challenged. Firms need to effectively compete and collaborate with one another at the same time by focusing on customer needs. Competing in convergent industries raises many critical managerial challenges: managers are asked to adopt new mindsets and focus on one traditional source of sustainable competitive advantage – building positive relationships with their customers. In this paper we suggest that the integration of customer strategic alliance issues, strategic design and execution could play important roles.

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