AN INFORMATION COMPANY IN MEXICO: EXTENDING THE RESOURCE-BASED VIEW OF THE FIRM TO A DEVELOPING COUNTRY CONTEXT

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Abstract

Information Industries assume that information is seen as a valued resource that enables organisations and individuals to improve their effectiveness, efficiency, and overall competitiveness. For Information Industries to bridge rather than divide further the global economy to information rich and information poor, we need to understand better how firms, particularly local firms, can successfully pioneer or participate in the Information Industry in emerging economies that do not inherently embrace information as a valued business resource. This research examines how one local firm shaped the external environment to pioneer a local information industry in Mexico and how it competes in a newly opened local market against large well-established foreign competitors. In addition to extending the boundary conditions of the resource-based view of the firm -- a dominant strategic management theory--, this paper analyzes both the content and implementation of the information company's strategy.

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1. Introduction

The information industry consists of (1) information content providers (newspapers, on-line databases), (2) information service providers (access providers, consulting firms, outsourcing companies), (3) software providers, and (4) computer and telecommunications equipment manufacturers (Raphael, 1989; Chakravarthy, 1997). The different sectors are interrelated and a lack of advancement in any one sector can curtail growth in the other sectors (Allen, 1988; Cassiolato and Baptista, 1996). Our focus is on the content provider sector and the context is Mexico, an emerging economy.

The fundamental difference between managing in a less developed and in a developed country is that in the less developed country, the environment tends to be much more challenging and carries more significant managerial implications (Austin, 1990; Montealegre, 1994). One well acknowledged barrier mitigating the rise of the Information Industry sector is the lack of basic information technology (IT) infrastructure (Roche and Blaine, 1996; National Research Council, 1996; Roche, Goodman, and Chen, 1992; Hanna, 1991). The lack is attributed to such causes as political, economic, security, and education issues, low teledensity rates, and resistance to imported technology (Danowitz, Nassef, and Goodman, 1995; Pitroda, 1993).

A second barrier, much less written about, is the lack of information culture in many less developed economies. The information industry rests on the assumption that information is a valued resource and that the use and management of information improves individual and organizational effectiveness, efficiency, and overall competitiveness. Information technology (IT) is embedded with assumptions about effective management and control practices, about individual power and privacy, about what sources of information are valued and trustworthy, and about appropriate forms of communication, among others --- values associated with management

in western, industrialized nations (Danowitz et al, 1995). Moreover, technologies tend to assume that members of a culture are rather sophisticated in terms of their ability to absorb and utilize context free information. Difficulty arises in cultures that emphasize context-dependent sources of information (Kedia and Bhaget, 1988; Danowitz et al, 1995; Hamelink, 1983).

This paper will explore the strategy and actions of a pioneering firm in an information content industry in Mexico. Our study began with two broad questions: (1) how did managers work around the constraints imposed by the lack of information culture and IT infrastructure and (2) how did the firm compete against much larger and well funded multinationals? The article is organized as follows: section 2 reviews literature on IT in less developed nations, the culture of Mexico, and the theoretical lens used to analyze the case data. Section 3 presents the methodology used. Section 4 presents the case and its analysis. Section 5 and 6 discuss the results and their theoretical implications. Section 7 concludes the article.

2. Research Background and Context

Research on less developed countries describes many externally imposed obstacles that managers face in implementing information technology in their organizations. Although specific obstacles are different from one country to another, several common themes emerge (e.g., (Goodman, 1991; National Academy Press, 1996; Roche and Blaine, 1996; Nidumolu, et al 1996; Saraswat and Gorgone, 1991; Palvia, Palvia, and Zigli, 1992; Deans and Kane, 1992). First, the government often controls or exercises influence over IT industries. Second, there is a scarcity of managerial, technical, and/or financial resources to implement IT innovations. Third, the inadequacy of information infrastructure prevents network-based options. Lastly, societal culture, the economics of labor versus technology, and political instability may totally eliminate any benefits from IT investments.

2.1 The Local Adaptation Perspective of IT in Less Developed Countries

The cross-cultural IT literature emphasizes the importance of adapting information practices to the core values of a nation and its user subcultures (e.g., Lachman, Nedd, and Hinings, 1994; Robey and Rodriguez-Diaz, 1989; Robey and Azevedo, 1994). The implication is that if the societal culture does not promote the values embedded in modern information and communication technology, prospects for IT are limited. Several aspects of the Mexican culture run counter to the acceptance of the information industry. As a high context culture (Hall, 1976), Mexicans tend to develop extensive personal and professional networks which consequently reduce the need for detailed background information when decisions are made. Accustomed to relying on their networks, Mexicans are uncomfortable accepting information from sources not personally known (Hall, 1976, Wiseman et al., 1989, Moran and Abott, 1994). Furthermore, as a culture high in uncertainty avoidance (Hofstede, 1980, 1985, 1988), Mexicans adopt behaviors that limit their perceived exposure to uncertainty. One such behavior is an avoidance of long-term plans in favor of short-term plans since the long-term plans by nature involve a greater willingness to accept the uncertainty of future conditions. Such cultures often avoid excessive detail in planning as well, since detail in planning likewise creates uncertainty as to the ability to carry out the precise plan. Table 1 summarizes cultural characteristics of Mexico and their implications.

Table 1: Implications of Mexican Cultural Traits to Local Information Culture

Cultural Trait	Description	Managerial Implications
High context	Most of the information involved communication is shared in a context	• Less need for detailed background information if a shared context exists • Preference for working with those known personally • Large distinctions between insiders and outsiders • Value placed on extensive human networks.
High uncertainty Avoidance	Intolerance for uncertainty -- develop coping mechanisms to limit exposure to risk.	• Short term strategic focus • Resistance to change • Strong tendency for consensus.

In short, the culture of Mexico appears to favor soft information from known sources (see Table 2). Quantified information coming from personally unknown sources (such as government forecasts or information providing firms), might be seen as having negligible value and lacking in trustworthiness. Thus, if we assume that the use of information must be adapted to the local context, information industries based on modern information technology may face cultural barriers in high-context, high uncertainty avoidance cultures where value is placed on information that is soft and personal. Such cultures are present in many less developed nations (Hofstede, 1980). The local adaptation perspective would therefore suggest that the information industries would have to mold their services to the context in order to compete rather than expecting the local environment to adapt to their services.

Table 2: Information Continuum and Information Value

Financial Statements	News	Schedules	Explanations	Predictions	Opinions	Rumors
	Reports	Formal Plans	Justifications	Speculations		
Operational Reports	Industry Trends		Assessements	Forecasts	Feelings	Gossip
Historical Information	Survey Data		Interpretations	Estimates	Ideas	Hearsay

Hard-Soft Information Types (taken from Watson et al., 1995)

Hard ⟷ Soft

Perceived Value of Information

Value to Low Context Manager ⟷ Value to High Context Manager

Value to Managers in Developed Nations ⟷ Value to Managers in Developing Nations

The more recent literature on IT and developing countries presents an alternative viewpoint to the local adaptation perspective. Two studies specifically examined how a local firm rather than adapting the technology to the local conditions, shaped the conditions external to the

firm and gained advantages from using information technology. A longitudinal study by Montealegre (1994) on a Guatemalan company examined how agricultural information systems were successfully implemented in an environment characterized as hostile for IT innovations. Resourceful company managers not only shaped their company but the broader economic and social system around them. Another study of a Jamaican Insurance company similarly emphasized the resourcefulness and the visionary leadership of management in shaping both the future of the firm and its industry as well (Barrett and Walsham 1995). The above two studies challenge the importance of adapting information practices and IT implementations to local cultures. This echoes the call by Lehmann (1996) who advocated new IT management models for developing countries based on Hamel and Prahalad's (1994) strategic intent that looks for opportunities to shape the environment. We will build on this alternative viewpoint.

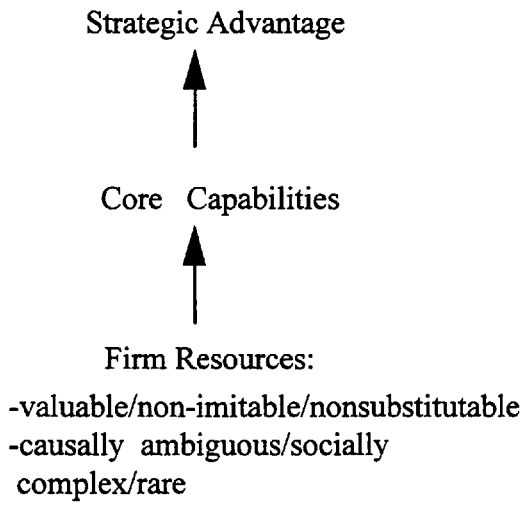
2.2 The Resource Based View of the Firm

One theoretical perspective linking information technology and a firm's performance and competitiveness is the resource-based view of the firm. The perspective has been used to explain how firms can create competitive value from integrating information technology, human resources, and relationship assets (Ross et al, 1996), how the sustainability of IT advantage resides more in the organization's managerial skills related to IT than in the technology itself (Mata et al, 1995), and how information technology can not alone create an advantage, but rather it must be managed to leverage or exploit pre-existing business and human resources in the firm (Clemons 1986; 1991; Clemons and Row, 1991; Powell and Dent-Micallef, 1997).

The resource based view of the firm was developed originally in strategic management to understand organizational *internal* strengths and weaknesses and their relationship with performance and competitiveness (Wernerfelt, 1984; Barney, 1986a, 1986b, 1991, 1997; Conner, 1991). The model assumes that firms are bundles of resources that are heterogeneous across firms. These resources can be either tangible (e.g., financial assets, technology) or intangible (e.g., managerial skills, reputation) or both. The theory focuses on how some resources can be valuable,

yet rare or idiosyncratic, difficult to imitate, or nonsubstitutable by allowing those firms who have them to have strengths or core capabilities that distinguish them from others. Resources that provide sustainable strategic advantage tend to be (1) causally ambiguous (e.g., transformational leadership) (2) socially complex (e.g., culture), or (3) rare (for example due to unique historical conditions) (Barney, 1997). These types of resources are labelled as core capabilities (Hart, 1995)[1]. (see Figure 1).

Figure 1. The Resource Based View
(Adapted from Hart (1995)



Recent writings point to three boundary conditions of the theory. First, Barney (1987) acknowledges that the theory helps managers choose strategies only as long as the they operate in a relatively stable environment, "if a firm's threats and opportunities change in a rapid and unpredictable manner, the firm will often be unable to maintain a sustained competitive advantage" (p. 171). Second, he acknowledges that the theory assumes that a manager's influence on creating sustained advantage is limited. This relates to the theory's imitability concept: More the managers have ability to develop or acquire the core capabilities, the less likely these capabilities are to provide sustainable advantage because of the ease of imitation. Third, others

[1] Causally ambiguous resources are those where the link between the resource and performance is not understood. Socially complex resources are embedded in complex social systems. Resources in general are value enhancing assets.

note the boundary condition of attractive marketplace. Levinthal and Myatt (1994) argue that the markets in which a firm participates influences the core capabilities that it develops. Porter (1990) similarly argues that the development of core capabilities is strengthened or weakened by the prevailing market conditions; strong domestic rivalry generates strong global firms. Collis and Montgomery (1995) echo that a firm "benefits from the attractiveness of the markets in which it competes" (p. 128). According to Ingram and Baum (1997), "learning from own experience can constrain the organization" (p. 93). The question then arises as to how a local firm develops the necessary capabilities in a turbulent environment where there is no domestic market, and where the marketplace values capabilities contrary to those underlying the new industry. The case of the Mexican information company is revelatory because it provides an opportunity to extend the resource based view of the firm to a less developed country by challenging three boundary conditions. The case illustrates how an information company can succeed in a less developed country with poor IT infrastructure and societal culture that does not promote information as a valued resource.

3. Research Method

The case study method was chosen because we were interested in broad issues of "how" the firm pioneered the local information content industry and "why" it had succeeded in doing so despite a seemingly poor fit with the local environment for launching an information, and particularly a real-time information, business. No hypotheses nor theories were developed before data collection; rather, it was desired that the data analysis drive the theoretical lens used for interpretation rather than vice versa (Galunic and Eisenhardt, 1996).

3.1 Data Collection

Data collection took place in the spring of 1995 and the summer of 1995, and then again in the spring of 1997. The majority of the data was collected through semi-structured interviews with open-ended questions focused on what, how and why innovations had taken place. We

interviewed 12 employees in Monterrey and 20 employees in Mexico City, five academics with collaboration/consulting relationships with the company, and 3 former residents/business people of Mexico City who had been customers of the company's products. Within the Mexican information company, our interviewees represented a mix of levels and functions: we talked to business unit heads, the R&D manager, the head of advertising, editors, reporters, a production manager, a circulation manager, an information technology manager, delivery staff, as well as several members of the clerical staff.

Two thirds of the interviews were conducted in English, the rest in Spanish via a translator. Many of the interviews (mostly with the senior management) were scheduled in advance. These interviews lasted from one to three hours and were tape recorded and transcribed. The interviews started with broad questions on the Mexican business environment, industry, competitors, the interviewees' personal history and experience at the company, and their roles in the key innovations at the company since the mid 1980s. The specific questions varied by the person's current position as well as their past roles.

In addition, other interviews (for example the ones with reporters, production staff, delivery, and clerical staff) were conducted as informal discussions on an ad-hoc basis as the researchers toured various facilities. Additional data was gathered from annual reports, newsletters, marketing and other promotion information on products and services, senior management speeches, strategy plans, mission statements, trade journals, local newspapers, the Internet, newswires, and electronic mail messages. There was a high degree of congruence among interviewees and documentary and bibliographic sources.

3.2 Data Analysis

The analysis of the data was conducted in several steps. First, the transcripts were read through while listening to the tapes to verify their accuracy. Then, notes were taken that enabled a broad picture of the organization's background, of the organization's key products, and of the organization's major decisions over the past several years. Notes were taken on themes that arose

during the interviews and as other interviewees made supporting comments, these were added under a general theme. From these themes, the initial case analysis was written. Lastly, transcripts were analyzed for specific factors that supported, refuted, or extended the resource-based theory of the firm. In particular, we looked for comments pertaining to resources, strengths, or assets that were (1) part of the firm's historical conditions or events (rare), (2) causally ambiguous, (3) socially complex, and/ or (4) related to information technology innovations that were perceived as enabling opportunity and success in the marketplace. In addition, we looked for other factors that were not captured in these four factors that were thought to enable sustainable competitive advantage.

In summary, the research method used could be broadly classified under an interpretive epistemology (Orlikowski and Baroudi, 1991; Walsham, 1993; Barrett and Walsham, 1995) using a single case study. Next we provide the case description.

4. The Mexican Information Company

4.1 The Case Description

The Junco family has three businesses in Mexico: (1) El Norte, the #1 newspaper in Monterrey, (2) Reforma, the #2 newspaper in Mexico City and the only global Mexican newspaper, and (3) InfoSel, a Monterrey-based provider of on-line, real-time information for businesses. Collectively, we will refer to these three companies as the Junco Group. The managers in the Junco Group consider the company to be "an information company with different channels to distribute the information".

4.1.1 The Birth of the Information Company

El Norte first began publishing a Monterrey-based newspaper in 1938. By 1993, El Norte held between 90 and 95% of the newspaper market in Monterrey, a city of roughly five million inhabitants and with most advanced industry (Kras, 1994). Unlike other newspapers, El Norte

had developed its own private distribution network to deliver its paper, by-passing the unionized news paper vendors. As the economy began to show signs of change in the early 1980s, Alejandro Junco (the owner of three companies along with his brother Ricardo) made a decision to redefine the company --to become an information company rather than a newspaper company. He concurrently decided that technology would be the most important competitive weapon, adopting the motto: "Information technology provides the way for market advantage." An executive explained,

> " I came to work here in 1983. Alejandro Junco was only a bit more than 30 years old. But he had a clear vision, determination, perseverance to make it happen. To carry it out, he saw technology as a competitive tool, not just as an administrative auxiliary. "

As early as 1981 when the IBM PC appeared on the market, Junco started thinking about the PC as a potential media to deliver information. According to the head of technology development and operations, "That's why we call Alejandro a visionary because there was no information company back in 1981 thinking about PC becoming a tool to deliver information." In 1985-1986, Junco established InfoSel (Informacion Selectivo--selective information) as the company which would handle the electronic information aspect and would work very closely with the IT department in developing information. The first project was to make a large electronic database of everything that was being published on paper around the world about Mexico. This database also included government-based statistical information on the economy. The electronic archive project was started on January 1, 1986. By April of 1987, InfoSel launched its first on-line service, InfoSel En Linea, consisting of on-line access to the archived information and to El Norte. The service allowed subscribers to dial into InfoSel's system and perform searches of the information. The products were marketed to professional legal, accounting, and financial markets as these groups were regarded as the most willing to reconsider and perhaps change their views on the value of objective information.

Soon after, Junco began pushing for a real-time financial information product in part as a reaction to the financially paralyzing stock market crash of 1987. The top managers at InfoSel

believed that one of the reasons for the crash in Mexico was simply a lack of information: "It was a market operating without information" said the head of the InfoSel business unit. In November 1990, InfoSel launched InfoSel Financiero even as it cancelled the InfoSel En Linea project. Although the need for on-line access to information was burgeoning, technical problems had vitiated the InfoSel En Linea product. Inadequate telephone lines in Mexico introduced so much static and noise that customers quickly became frustrated and the project eventually failed. By contrast, InfoSel Financiero was created as an on-line financial information service that did not rely on telephone lines. Instead, the company invested in satellite dishes and FM broadcast stations throughout Mexico. A head of strategic planning recalled, "This was an enormous undertaking."

Unlike InfoSel En Linea, InfoSel Financiero was very successful. By 1993, InfoSel was earning $8 million in revenue and launched a network product which would allow subscribing organizations to have one subscription but many users. By 1995, revenues were $12 million and the product contained information from NYSE, NASDAQ, the options and equities markets, the fixed income, commodities, and futures markets. As of 1997, InfoSel had some 3,500 organizations using its system both nationally and internationally. A key executive reported,

> "InfoSel Financiero today is the standard for Mexican financial news and information. All the banks, all the brokerage houses, all major corporations are subscribers of our service. There is no single bank in Mexico that does not have our product."

During 1995, InfoSel developed the first interactive electronic trading system, LINCE, for settlements and clearing so that subscribers could not only receive financial information, but could anonymously post bids, buy, and sell financial instruments, could engage in one to one dealing or automatic matching, participate in auctions of instruments, etc. By 1996, LINCE was on 95% of the Mexican fixed income trading desks and over 3 billion dollars worth of daily transactions flew through the system. The international competitors products had failed to crack the market of providing Mexican information. The international competitors remained viable in niches that provided international market information to Mexican-based firms.

Also in 1995, InfoSel launched an Internet access dial-up service. And by 1997, InfoSel was Mexico's largest Internet access provider and competed against some 150 companies. InfoSel provided local Internet access in 36 Mexican cities through the largest information network in Mexico, to some 25,000 clients. Despite its dominant position as an Internet access provider, management sees InfoSel as a value added Internet solutions' provider to the professional market place, "The information we have is our competitive advantage." A manager explained, "our slogan is that anyway in the world, if you want information on Mexico, go to the InfoSel Web site." InfoSel was also a full service provider of Internet-based extranets.

4.1.2 Reforma

Even as Junco's vision of the electronic distribution of real-time information was progressing with InfoSel, he made the decision in 1993 to launch a new newspaper in Mexico City. Mexico City, a city of 25 million, had a plethora of existing papers (25 to 30) and low per capita readership. Many people suggested that Junco was "crazy" to enter into the Mexico City market. But Junco's vision was about change: "changing the nature of information delivered in Mexico so that the information was trustworthy and so that the presentation of the information was superior." Junco invested heavily in technology to enable Reforma to be the most colorful and graphical newspaper in Mexico, to enable Reforma to maintain the image created by El Norte of objective information, and to enable Reforma to invest in human resources and training. Although the values would be the same as with El Norte, Reforma was going to have a strong local flavor of the capital city so that, as an executive explained, "customers would call the paper their own. The name, Reforma, was picked because it represented tradition but also invited a reform."

On November 20, 1993 (on the eve of the anniversary of the Revolution), Reforma produced its first newspaper. By 1995, Reforma had a daily circulation of 86,000 newspapers and 39,000 subscribers. Reforma was an immediate success. It has been called "the newspaper of record" and a paper that offer "the kind of independent reporting that is in short supply in Mexico's authoritarian political system" (Advertising Age, 1994). In early 1995, in conjunction

with InfoSel, Reforma opened a web site to distribute news from its Reforma newspaper on the Internet and received 16,000 inquiries the first day. By 1996, the paper had 20,000 online subscribers, many from overseas, beginning to realize Junco's vision of a global newspaper. In the spring of 1977, Reforma was #1 in advertising revenue and #2 in circulation among Mexico City newspapers and had the largest market share in the upper segments of Mexico City, which are the most important for advertisers. Reforma engages in regular customer surveys, encourages letters from readers, and has editorial boards comprised of individuals from the community as does El Norte. By 1997, Reforma's national sector was published in six other newspapers in Mexico. Reforma and El Norte has strategic alliances with Business Week, Forbes, Dow Jones, and New York Times. For example, Reforma published weekly or biweekly abstract of the key articles appearing in Business Week and Forbes.

4.2 Environmental Challenges and the Junco Group's Solutions

The Junco Group's rise to the summit of the information business in Mexico has not been without challenges. Interviews with managers in the Junco Group revealed several key constraints imposed upon them by their environment that had to be carefully managed (Table 3).

Table 3: Environmental Challenges and Example Responses

Environmental Challenges	Solutions
Cultural Constraints	
• Work ethic and values among Mexican journalists	• Hire fledglings and create a strong internal culture
• Lack of trust in newspapers	• Pay reporters a good salary and eliminate bribery • Separate functions of writing stories and selling ads
• low per capita readership of newspaper	• Aggressive marketing; private distribution network • Specialty supplements to tailor the paper to the unique needs of the customers
• absence of market need for objective, real-time information	• Refocus product on a leading industry segment (financial services industry)
Technical Constraints	
• weak national IT infrastructure	• Redesign product around less modern media

• technology use lagging among customers	• Educate customers through "awareness" seminars; involve them in product design; emphasize customer service and training
• shortage of qualified technical staff	• Partnership with technical university and Microsoft • Invest heavily in continuing education
Political Constraints	
• government or union control of key resources and distribution channels	• Develop private delivery infrastructure • Exploit powerful position of the CEO • Create an internal group to generate the same information as government has • Persistence in ongoing negotiations with government

4.2.1 Overcoming Cultural Constraints

Among the cultural constraints facing Reforma, El Norte, and InfoSel were: (1) a work ethic among journalists which was inconsistent with the Junco Group's aspirations to nonbiased information, (2) a lack of information culture, and (3) lack of market for on-line information.

According to the general manager of Reforma,

> "the biggest challenges we had with Reforma were first the people in Mexico City who would come to work for us because we saw their values and culture so different from those at El Norte; second, the distribution network; and third the competition."

It had become common practice in Mexico City for journalists to partake of "the on-going system of selling favors and expecting something in return." Reforma decided that it was not possible to "erase this journalism culture" so they decided to take "fresh, new people that had never been journalists and train them so they could work within our own ethics code and our own standards." Reforma went to universities to recruit, a practice very rare in Mexico, and solicited applications. 2800 applications were received for the first 100 positions. The 100 graduates were sent to a six week training program where they were to learn about company culture and ethics, writing styles, aggressiveness, and techniques. By carefully selecting graduates and training them, the Junco Group was able to create a culture that encouraged innovation, inculcated hard-work, pushed technological limits, and promoted loyalty.

A second cultural roadblock was the general lack of information based on facts rather than rumors or opinions. Mexican journalism is said to be "rich in adjectives, poor in facts" (Trevino, 1997). Per capita readership was strikingly low. Mexico City with 18 to 20 million people had the same circulation as the city of San Diego with 1.1. million people. The 3 pesos it cost to buy a copy of Reforma equalled about a fifth of the daily minimum wage, making it a luxury for the majority of Mexicans (The Dallas Morning News, April 9, 1995). One manager referred to Mexico as "an information poor country."

Through aggressive marketing and setting up its own distribution network, El Norte had raised per capita readership in Monterrey to the highest level in Mexico. These methods increased readership of Reforma as well. In addition, Reforma published numerous specialty supplements by topic, by age group, by the region in the city so that "each person received a [highly customized] paper that they could call their own." Moreover, the mission of the papers was to report on reality and facts. An executive explained,

> " Our instructions to reporters specifically encouraged avoidance of adjectives. We strive to be direct, objective, well quoted , and void of any fabrication. Of course, we have our critiques who think we violate the Mexican tradition of flowery language, politeness and genteel etiquette."

InfoSel also faced cultural constraints relating to information. The business community lacked a tradition of third-party based objective information. Moreover, the Mexican culture was not ready to use on-line information and "the people were not accustomed to pay for information." Here the challenge was to teach the potential users about the benefits of real-time information and why it was worth paying for. The general attitude, according to one InfoSel customer, was that "one paid a peso or two for a newspaper--why would anyone pay $500 for an information product."

InfoSel focused its real-time activities on the financial industry because it was seen the easiest to penetrate. These markets were becoming global and to survive, firms needed trustworthy, real time information. The general manager of InfoSel summarized the challenges,

> " Professionals have no history for using information and even less for paying for it, particularly paying for services on a monthly basis. Our business also assumes

> that people base decisions on information. Yes, the culture was a real enemy. We first focused our real-time products on financial market because it is easier to show bottom-line impact from having information. One does not pay for a product that they don't understand how to use, or don't know how to take advantage of."

4.2.2 Overcoming Technical Constraints

The Junco Group faced several technical roadblocks, including: (1) a weak national technology infrastructure that prevented effective rollout of InfoSel's information products, (2) customer technology lagging behind that of InfoSel, and (3) a shortage of qualified technical staff. The initial InfoSel on-line product was cancelled because the telephone infrastructure could not support point-to-point operations. The second product used a broadcast wireless transmission wherein information was sent to FM radio stations and distributed via local stations. This was a major accomplishment as the organization had to form partnerships with numerous local operators. Over time, InfoSel built the largest private information network in Mexico allowing release of wide area network versions of its products. It was this private network that it leveraged to become an Internet access provider.

The second major technical constraint was that as InfoSel continued to innovate and expand, they constantly found themselves ahead of their customers technologically. When they first introduced CD-ROM products for legal information, their clients did not have CD-ROM drives. A marketing manager at InfoSel remarked,

> " It is a real struggle to bridge the gap between what technology our clients are comfortable with and the technology that we think is the best one for delivering them our information. Coupled with this is our desire to be always one technology step ahead from our competitors."

To overcome this barrier, InfoSel Financiero worked closely with the leading banks in Mexico to initially launch its products. So close was their collaboration that some institutions felt that InfoSel had created a customized product for them. InfoSel also provided nearly unlimited training at the customer site and made customer service the highest priority. Similarly, InfoSel reached out when it first introduced material on the Internet. Clients had not yet heard of the

world wide web. InfoSel provided free seminars to educate its clients. It also began an Internet access provider service to create a community of Internet users. According to one executive,

> "In the U.S. public press is doing much of the education of Internet. In Mexico, access providers have to inform the public and get people to use electronic mail."

InfoSel also faced the challenge of finding technically qualified employees. The organization developed a close alliance with the Monterrey Institute of Technology, the Mexican leading engineering and technical university and hired its best and brightest. For example, the head of technology development and operations had previously been the president of the university's alumni association. In the mid 1980's, InfoSel prided itself on having the largest R&D group in Latin America. The firm also continued to heavily invest in its employees, " we employ the most qualified systems engineers in Mexico. 70% of resources of InfoSel are devoted to human resources." Another technical manager remarked,

> "We have the largest number of Microsoft licensed software engineers in Mexico.We started developing in Microsoft Windows in 1987. We sent a lot of our engineers to Microsoft University, the first Spanish speaking people that went to Seattle to get training."

4.2.3. Overcoming Political Constraints

Both the union and the government presented barriers for the Junco Group. All single copy newspaper stands in Mexico City were unionized. The Newspaper Vendors Union was one of Mexico's traditional monopolies (Advertising Age, 1994). A year after Reforma was launched, Vendors had grown unhappy because Reforma was sold through other outlets, including an efficient home delivery service and sales in restaurant chains and convenience stores. Reforma was also developing a network of independent street sellers. The vendors also resented the fact that Reforma would be printed and sold every day of the year except for Christmas and New Year's (all the other newspapers did not print on official holidays, of which there are many in Mexico). Moreover, because Reforma was defined as an independent newspaper, conservative PRI members were opposed to criticism coming from outside their traditional means of control and used the unions as a means to attempt to suppress sales of Reforma. The Union eventually

withdrew Reforma posters and tried to stop distribution of Reforma altogether, initially plummeting Reforma circulation by 40%. During this crisis, Reforma reporters and editors took to the streets to distribute the paper as did many of Reforma customers. After failed attempts to negotiate with the unions, Reforma made the decision to create its own distribution channel. It sought and was granted permission from the newly formed Commission of Competition. The investment was a costly decision but eventually worked in the favor of Reforma attributing to the growth in sales.

Reforma also faced a barrier in presenting objective information. For years the Mexican government had exerted major influence on newspapers in the way it allocated advertising and newsprint. "Even today, it is possible to buy an article on the front page of many Mexican newspapers. And reporters often get paid a percentage of the advertising that is sold to companies they cover." (Forbes, 1995). For example, in 1991, an editor of a competing newspaper had to resign after publishing an article attacking the administration of Carlos Salinas. The government also cancelled a contract to print textbooks and ended a 20 year agreement allowing this newspaper to pay social security contributions for its employees with free publicity. Junco's reaction was "it just goes to show that you can't be in bed with the government and be its critic at the same time." Junco's paper was the first to seek financial and political independence from the government (Advertising Age, 1994).

The government also contributed directly to problems for InfoSel in two ways: (1) government control of information, and (2) government resistance to allow private firms access to advanced technologies. The government has promoted secrecy, corruption, misleading and partial information particularly when the information involves official government data. Even basic information is kept from the public and journalists with such excuses as it is "privileged information, "it's strategic for national security matters," or "someone else has it." For instance, basic economic statistics that are available to anyone in the U.S. are treated in Mexico as state secrets" (Editor and Publisher Company, July 8, 1995).

Hence, the government first refused to cooperate with InfoSel Financiero and yield

information on the Mexican stock exchange, Bolsa. Moreover, it regarded InfoSel as a competitor. The negotiations took three years to complete. In the interim, InfoSel established what they referred to as the real-time newsgroup. This group collated daily information on markets as well as relevant stories for business readers. This group would therefore gather the information that the Bolsa refused to deliver. InfoSel encountered a similar problem when it tried to create a wide-area network based on satellite technology. The government wanted to maintain control over satellite access. Eventually InfoSel prevailed and was granted the first state license to own and operate a satellite.

In summary, the Junco Group has experienced high growth and innovativeness in a market that did not always initially value the products it had to offer. We next interpret the case from the resource-based view of the firm.

5. Case Analysis: The Resource Based View

In 1986, over ten years ago, the Junco's information companies did not face an attractive industry that would have provided resources to develop its core capabilities. Also, the firm made a large wager that the local markets would be deregulated and that the local firms would require new information services. Yet, via use of its key resources -- Junco's leadership, the history of political independence, the corporate culture, IT investments, social networks, the search for synergy, and the long term view -- the Junco companies developed core capabilities that position them collectively as an undisputed leader in the local information provider sector. These capabilities are: ability to socially connect with different constituencies, managerial foresight of market trends, the reputation for trustworthiness, strategic flexibility. Through shaping the environment, the Junco Group has created a unique configuration of resources that in combination are rare, valuable, and difficult to imitate capabilities. Table 4 summarizes the analysis of case data via the resource-based view.

Table 4: Analysis Based on Resource-Based View

Key Resources	Core Capabilities
Causally ambiguous	
• Leadership	•Managerial Foresight/ External connections
• Tradition of political independence	•Trustworthiness/Integrity
Socially complex	
• Firm culture	•Strategic Flexibility
• Strong community networks	•Strategic Flexibility
• Long-term view	• Strategic Flexibility
• Synergy	• Strategic Flexibility
Rare (firm specific)	
• Investments and experimentation with new technology	•Managerial foresight, strategic flexibility

5.1 Leadership of Junco

The leadership of Alejandro Junco, probably the single most important resource of El Norte's, Reforma's and InfoSel's success, has been crucial in providing managerial foresight for the company. Only an insider in Mexico could have acquired (even after years of negotiation) a satellite for private ownership from the government or could have come up with an agreement (again even after 3 years of negotiations) with the Mexican Bolsa to supply Mexican financial market information. Such accomplishments would not have been possible for someone less well connected, certainly not a foreigner. In 1992, during U.S. President Bush's visit to Mexico, Junco was introduced to him as the director of the best newspaper in Mexico. The connections of Junco enabled him to see emerging political and economic events as well as the resultant new markets and new needs in his own country which triggered the innovations allowing the Junco Group to pioneer the local information industry in Mexico.

The general manager of InfoSel described Junco, the visionary leader, as an

> "Intellectual father, friend, always present, always ready to help either in personal or institutional matters. He is an incredibly intelligent person, who is always an integral part of the team... And he expects us to understand and imagine customer needs before the customers know them. He expects us to continually listen and perfect services and products to our customers so that the customer feels the

products are for them exclusively."

Unlike many of his counterparts in Mexico, Junco has shared his power. El Norte, Reforma, and InfoSel are all presided by strong general managers who in their own right are seen as leading figures in their profession. To them, Junco leaves the running of the business although as one executive remarked, "he is always there intellectually challenging how things could be improved."

5 2 History of Political Independence

El Norte's and Reforma's tradition of fact-based journalism and political independence have contributed to the core capability of trustworthiness and integrity. As a recently graduated journalism student, Junco took over El Norte in 1973 at the age of 25 from his grandfather and did not hesitate to go head to head against the Mexican president of the time, Lois Echeverria, calling him a corrupt demagogu, despite the fact that a key raw material--paper--was controlled by the government. El Norte's newsprint allotment was reduced by more than 80% but the spirited Junco refused to ebb his criticism. In 1989, Junco was still fighting for greater freedom and hosted a meeting of the Inter-American Press Association in which he openly called for the liberalization of the newsprint market. Soon there after, Junco argued in an article in the Wall Street Journal that imports to newsprint should be freed. In January 1995, Junco's papers printed a report that Mexico's new education secretary lied about having a graduate degree from Harvard. The secretary resigned (Forbes, 1995). In April 21, 1997, Junco's papers critized the government for the lack of access to information.One of the country's most powerful drug lords was arrested after a chartered jet ran out of gas and crashed. The government refused to release information on whom the jet belonged to. Reporters searched US databases to find the name of the jet owner.

Despite having had numerous fights with the government, with private companies, and with academia about the editorial line, El Norte and Reforma have continued to present the facts. This political independence has been a tremendous competitive asset to the firm as it has positioned itself as the first provider of trustworthy, reliable, and uncompromised news.

According to *Forbes*, 1995 "Reforma backs no political party." In 1996, the University of Columbia awarded the editor-in-chief of Reforma a prestigious award and declared Reforma to be "a journalistic revolution." According to Junco,

> "our objectives for information and communication have varied. During the times of a single party, the objective was to denounce and to inhibit in any manner electoral fraud. Now our interests are more to contribute to the formation of citizen's opinions based on the real knowledge of candidates, and also develop and strengthen the culture of our readers."

5.3 Culture

The Junco Group has succeeded in American style businesses, but beat Americans by being Mexican. Its internal culture is modern, yet deeply embedded in Mexican traditions and patriotism. The exterior of new Reforma headquarters represents old traditional Mexican architecture[2]. and gives the appearance that the building has existed for a hundred years; yet the interior of the building is ultra modern. Employees feel passionate about the mission of the businesses to disseminate information about Mexico to Mexicans in order to enable them to compete against large multinational companies. One manager explained, "what motivates me is to make Mexico competitive." Harnessing this strong Mexican culture has been a key resource enabling a unique advantage. It has presented the firm with shortcuts or advantages while raising barriers of foreignness for non-Mexican firms wishing to enter the Mexican market.

The company also promotes and values loyalty, an attribute of high context cultures. One manager explained, "If our new hires stay here for two years, they become so acclimated to our way of thinking and our superior working conditions that it becomes very difficult for them find a match at other firms." One employee referred to his commitment, "I plan to be working for and collaborating with Alejandro Junco till I am 70 years old. "

The Junco Group has selectively adopted and successfully modified ideas from elsewhere. It has also transferred and modified ideas well within its own businesses. Reforma successfully transferred the high level of Monterrey-based professionalism through work practices and norms,

[2] Architecture is highly valued in the Mexican culture (Kras, 1994; Moran and Abbot, 1994).

but through the careful use of traditional Mexico City symbols and rituals created a newspaper that people in Mexico City felt was their own.

5.4 External Networks

Junco has relentlessly pursued partnerships with other businesses that share the same business and information values. Above we have described partnerships with Monterrey Institute of technology, Microsoft, Dow Jones, Business Week, Forbes, other regional Mexican newspapers, etc. Junco has also pursued partnerships with the government as it did to ensure access to Bolsa data. Besides strong business and governmental alliances, networks exist with customers.

Strong social networks promote capabilities of foresight and strategic flexibility. An example are the customer boards. Wishing to have a paper for the people, El Norte established "editorial boards" composed of individuals from the community who serve free of charge for nine to ten months at a time. These boards provide important feedback to the editors of the respective newspaper concerning what types of topics need to be addressed, issues that need to be surfaced, special reports that would be valuable. El Norte News has over 2000 alumni of their editorial boards who serve as sources of information within their respective industries. Reforma has a similar network of boards.

In terms of InfoSel, developing a human network with government and the financial sector was critical. All InfoSel products were designed with the help of lead customer groups. A manager explained, "Even before we launched InfoSel Financiero, we established a customer feedback group involving people from both the seller and buyer side." This human network which transcends the organization's boundaries contributes to a sustainable advantage over larger, multinational firms. A marketing manager at InfoSel explained,

> "Compared to Reuters, we have a little bit of an advantage because no one has more accurate information than the people who live it and breath it. We have

some ventures with official governmental entities that puts up ahead of the game. Our reporters have close communication ties with government and bank officers who are typically the first to be aware of important news in the financial sector and this network has given InfoSel an advantage over Reuters and other US-based firms trying to tap the Mexican market."

5.5 The Role of Information Technology

The firm believes fundamentally in the power of technology to provide a competitive advantage. The reporting relationships reflect this. The technology officer reports directly to Junco. The InfoSel general manager reports to the technology officer. The general managers of Reforma and El Norte also report to the technology officer on all technology development and operations issues. In the early 1980s, El Norte was among the first Mexican firms to set up a formal IT department. Technical experimentation and innovation are firmly embedded into the culture. IT is also at the heart of its product strategy. The firm offers different product lines by different technology options: Internet, CD-ROM, online services, etc. IT also provides operational and structural flexibility in the firm's internal operations. For example, it operates a virtual newsroom between El Norte and Reforma. The organization at large spends 10-15% of its sales on technology development.

5.6 Long Term View

Junco understands the need to take a long term view of technology as well as business investments. It took from 1986 till 1994 for InfoSel to become profitable.The problems with their original on-line service was an example of how they were able to learn from their setbacks and redesign some of their ways of doing business. The general manager of InfoSel remarked, "Please note that it took five years after we decided to get into the information business before we launched our first serious product."

Perseverance in developing a private IT infrastructure to combat the underdeveloped national infrastructure also required a long-term view and eventually proved to have important

strategic consequences for InfoSel. One manager in InfoSel states that prior to 1990, there was no information made available on US markets about Mexico because there simply was no demand for such information. The long fought battle to establish InfoSel's infrastructure turned into a competitive advantage as the well-established US information companies, including Knight-Ridder, Telerate, and Reuters, who were beginning to pursue the Mexican market required a large shift from their normal infrastructure to operate efficiently in Mexico. InfoSel was in an enviable position of having already developed a low-cost option which allowed them to be more expansive. This telecommunication infrastructure was heavily leveraged in the new Internet-based products.

5.7 Synergy

The cultivation of team work at every level is another operating principle. Every product is managed by a crossfunctional team. Where possible, processes (such as the editorial process, or technology development) are managed by a team spanning all three businesses. For example, editorial staff of Reforma and El Norte meet daily via a virtual newsroom. The resulting synergy contributes to strategic flexibility. The head of the financial newsroom described his view,.

> "Our expertise is to gather, process, distribute, and present information. The different businesses represent different channels, but the fundamental expertise is the same... A lot of things that we do is to create synergies between the newspapers, the real time services, and the information database products. This enables us to be there first and have better stories and better information. To achieve the synergy, we communicate and communicate and communicate."

The group's goal was to reach seamless operations across its businesses where it made sense. For example, to promote synergy, minimize publication of effort, and ensure that the work was assigned to the most fit person regardless of the location, the group began to physically exchange the managers in the newsrooms. The newsroom managers at Mexico City and Monterrey physically exchanged places every other week. One manager remarked, "Seeking synergy seems to be against a human nature. You have to work very hard to erase association."

In summary, the leadership and connections of Alejandro Junco has enabled the firm to distinguish itself by its foresight of the coming trends. Its tradition of fact-based journalism and

political independence has enabled the firm's new online products and services to leverage the core capability of trustworthy information. The firm's culture that centered on the deep pride in the country, strong human networks, investments in IT, long-term view, and pursuit of synergy provided strategic flexibility in a turbulent and rapidly evolving market place.

6. Discussion

The fundamental difference between managing in a less developed and a developed country is that in the less developed country, the environment is more challenging and carries more significant managerial implications (Austin, 1990). The purpose of this study was to uncover how a local information firm in a less developed country can mold its environment and create sustainable advantage over foreign competitors. Our analysis framework is the resource based view of the firm. Much of the past work on the theory has had an internal focus (Miller and Shamsie, 1996). We take a more external focus and challenge the boundary conditions of the theory.

Thomas (1996) suggests that many competitive models, including the five-forces model, are Anglo-Saxon to the extent that they ignore the broader environment including the government, capital markets, and the institutions of science. These environmental factors are expected to play significant roles, both as constraints and as drivers, in less developed countries. The Junco Group found that the government posed certain constraints, even viewing the companies, particularly InfoSel, as a competitor at times. However, the relationships that the Junco Group built with government officials also proved over the long-term to be advantageous. They were able to get a lead on important information that foreign-based firms would have no access to and were able to eventually negotiate important deals that foreigners would have been precluded from even considering. Similarly, while the Mexican culture itself posed constraints on the Junco Group's ability to achieve its desired goals, the culture also provided an asset internally (in terms of motivating employees that their work was tied to the success of Mexico) and externally (in terms of forming strong ties with the community). And while the technical infrastructure of Mexico

posed an initial constraint on InfoSel, this weak infrastructure also provided an advantage over foreign firms as InfoSel was able to readjust their project to the country's capabilities and later negotiate concessions from the government. Thus, the environment has a profound effect on the operations of a local firm in a less developed country, both in imposing constraints as well as providing opportunities (Nee, 1992).

In terms of understanding what aspects of the environment to try to influence, it was strategic foresight that proved to be a valuable capability of the Junco Group. The foresight was enabled by the visionary leader, the strong social ties with employees, customers, communities, government, technology vendors, and universities. Social networks are particularly important in collectivist societies as they emphasize interpersonal relationships and strong group affiliation (Hofstede, 1980). The network analysis theory complements the resource based view of the firm by focusing on firm strengths that are embedded in the human relationships or social structures within the firm and across firms (Granovetter 1992; Uzzi, 1997). Because of their position in the network, individuals are able to identify opportunities and get the right people together to develop the opportunities (Burt, 1997). Eisenhardt and Schoonhoven (1996) found that the ability to form strategic alliances was dependent on the social and personal networks of the firm's top management. Social networks also provide many information benefits in terms of access to information that might otherwise be unavailable, early exposure to the information allowing preemptive action, better filteration of irrelevant information, the legitimization of information, and so on. (Burt, 1997).

Another capability associated with the Junco Group was trustworthiness. Trustworthiness means that one party will not exploit an other party's vulnerabilities for selfish motives. This is another example of a socially complex resource that evolves over a long time and hence is difficult to engineer in a short time frame and at low cost by competitors. At the time of environmental turmoil, the level of trust within and across firms tends to decrease and assets that help to deepen or reassure trust and commitment might be particularly valued in the marketplace

and in social networks. For example, Barney and Hansen (1996) maintain that trustworthiness can lead to sustained competitive advantage when trust is rare within the marketplace.

The intellectual, cultural, and operational synergy among the three businesses as well as the common IT infrastructure contributed to strategic flexibility. Strategic flexibility might be best seen as a causally ambiguous asset as it represents interconnectiveness among many different organizational attributes. Flexibility means that not only will a firm be able to respond to the environmental changes, but it has a capacity and management repertoire to influence or even control those environmental changes as well (i.e., control capacity of the management) (Volberda, 1996). According to Volberda (1996), strategic flexibility refers to the ability of the managers and the organization to "change its game plans, dismantle its current strategies, apply new technologies, or fundamentally renew its products" (p. 363). Strategic flexibility requires "maneuvering capability"--the use of social and political connections and associated power to shape the environment.

The above capabilities - managerial foresight, external networks, trustworthiness, and strategic flexibility - continued to provide an advantage to the Junco Group both before and after the opening of the closed markets (NAFTA) as well as after the December 1994 peso devaluation and the following financial crisis. Although past research on the resource based view of the firm has assumed that under environmental jolts, a firm's core capabilities risk becoming obsolete and might even become "core rigidities" (Tushman and Anderson, 1986; Leonard-Barton, 1992), the case of the Junco Group suggests instead that the firm's capabilities and key resources might be strengthened. This then contradicts the first boundary condition that the resource based view applies in the relatively stable conditions.

Miller and Shamsie (1996) examined the value of resources under different environmental contexts. Miller and Shamsie (1996) found that resources that can be used to respond to a larger number of contingencies (so called knowledge-based assets) help firm performance during unstable and unpredictable environments; whereas nonknowledge based assets help performance

during stable and predictable environments. Particularly valuable were so called systemic knowledge-based resources (team, coordinative, integrative abilities) at the time of environmental uncertainty and unpredictability. According to Miller and Shamsie (1996), " knowledge-based assets are in fact *designed* to cope with environmental change" (p. 523). The capabilities such as foresight, flexibility, trustworthiness, social connections are clearly not property-based assets and are best characterized as knowledge-based assets. Hence, the case study of the Junco Group suggests that the resource based theory may apply in unpredictable and uncertain conditions when the firm has built its capabilities on knowledge-based assets, not on property-based resources.

The second boundary condition of the theory argued that the theory applies in contexts where there is limited managerial discretion in creating an advantage. That is, one can not acquire these knowledge based assets, for example by recruiting managers from other firms. Coff (1997) identifies a number of coping strategies that make human assets harder to trade or imitate. These include creating a pleasant work environment and encouragement of personal, not just professional, relationships, above industry pay, high level of participation and influence of employees in decision making, professional autonomy, strong culture, and promotions within, etc. All these strategies were exercised by the Junco Group.

There is, however, another aspect to discretion that is important. That is, do managers themselves perceive they have discretion to change the status quo in their company and in their environment ? "Discretion can be exercised or created only to the extent it is perceived" (Carpenter and Golden, 1997). Particularly managers who perceive low levels of discretion are more likely to see events as threats rather than opportunities (Dutton and Duncan, 1987). Locus of control and the insider perspective has been found to be related to the manager's perceived discretion; a manager's perception of his or her own discretion in turn is positively related to others' perceptions of that manager's power or influence (Carpenter and Golden, 1997). It would appear that Junco, through his speeches to political committees and his involvement in inculcating changes in regulations, for example by being the first private firm to own a satellite, believed that

he did have the capacity to effect change. Hence, our case of the Junco Group suggests that at least in a context of an emerging market, managerial discretion does not necessarily hinder the capacity to develop competitive advantage; to the contrary, the managerial discretion and a will to create change proved to be an important resource for the Junco Group.

The third boundary of the resource based theory of the firm related to the need to have access to attractive markets because the evolution a firm's capabilities are seen to be an outcome of linkages with customers and competitors (Levinthal and Myatt, 1994). Organizations benefit from their industry's accumulative experience both before and after the entry to that market (Ingram and Baum, 1997). Hence, there is an assumption of coevolution between the firm and its industry (Levinthal and Myatt, 1994). However, in the case the Junco Group, no market existed. Moreover, the societal values did not promote the information industry. The company appeared to do much of its learning through its technology and university partnerships, strong community networks, building a strong internal IT infrastructure, seeking a balance between Mexican culture and information culture, and working within the political system where possible but developing alternative options on an interim basis. These are methods that can be used to help shape the local environment and begin the process of harnessing capabilities for the new marketplace.

6.1 Limitations

The study has a number limitations that need to be considered in making any conclusions. First, the single case site limits the generalizability of results. The purpose of the study was not to provide generalizability of empirical results to other firms, rather the purpose was to "expand and generalize theories" (Yin, 1984). Second, the primary data was based on interviews that provided retrospective accounts of events. We took precautions against retrospective biases and errors as suggested by (Golden, 1992; 1997). We used multiple informants and consulted extensive bibliographical sources on the Junco Group and the Mexican information industry and found over 30 articles (in Spanish or in English) from the period of 1990 to the summer of 1997. The events described in those articles were consistent with the interview data. The case study was also read

by four different experts of Mexican and Latin American studies for reporting errors who made no major corrections to the case. These individuals had no personal stake in the three companies although they were familiar with Alejandro Junco's enterprises. Third, another limitation of the study is that we analyzed the case data via a theoretical lens developed in the US. The emphasis was not on understanding the events using Mexican's own management thinking, terms, and constructs. Our approach is justified as long as one believes that there may be universal management principles (Early and Singh, 1995).

7. Conclusion

This study extends the resource-based view of the firm to a less developed country situation that is experiencing great turbulence and uncertainty. By doing so, we begin to alleviate three limitations associated with the theory: one, the theory applies to firms in relatively stable environments; two, the theory assumes attractive local markets; and third, the theory assumes that the manager's influence on creating sustained advantage is limited (Barney, 1997). The boundaries are challenged by integrating concepts from the resource based view of the firm (e.g.,Barney, 1997) with several emerging organizational theories, namely network analysis theory (e.g., Uzzi, 1997; Burt, 1997), managerial discretion theory (e.g., Carpenter and Golden, 1997), and concepts of strategic flexibility (e.g., Volberda, 1996). The Junco Group case illustrates the ability of local managers to shape their external environment to pioneer an information industry where no industry existed. The findings bring forward the power of social networks, strategic foresight , flexibility , and strategic and operational integration as the key organizational capabilities in emerging markets. The firm was able to sustain the value of its key capabilities in the face of radical and turbulent environmental changes, challenging the notion that "the firm will often be unable to maintain a sustained competitive advantage" if the rules of the game in an industry change (Barney, 1997, p. 171).

From a point of practice, the current case data challenge the notion of "fit" or "local adaptation" of IT implementations in developing countries. This might be particularly true for

companies offering information services in the newly opening markets of the less developed world. However, one must note that while the process of how the Mexican information company evolved its capabilities might provide insight to other information industry firms, the specific organizational capabilities that were developed might not provide any advantage in a different context. The value of organizational capabilities are highly context specific: they are not universal

sources of advantage (Collis, 1994). Moreover, no two less developed countries are alike (Austin, 1990).

We invite future researchers to build on and/or challenge our extensions to the resource based view of the firm. The current study raises questions regarding the degree to which the resource-based view presents a culturally ladden view of strategic analysis and the degree to which it applies to firms in emerging versus established industries. From the information technology point of view, this study also raises questions of the role of social and political relationships outside the firm in enabling firms to gain sustained competitive advantages from IT, not just how IT is organized and managed within the firm. Finally, much research is needed using longitudinal research designs that explore the evolution of capabilities, both IT- and non-IT related, of firms in emerging industries in less developed countries.

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