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## Understanding the Relationship between Organizational and Individual Adoption of IT Innovations: Literature Review and Analysis

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# THE EVOLVING E-BUSINESS STRATEGY: LESSONS LEARNED<sup>1</sup>

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## Abstract

*Bricks-and-mortar companies wishing to create value-added Internet services do so in a business environment that is characterized by great uncertainty and, hence, formulating a coherent business strategy is exceedingly challenging. This paper presents a case study based analysis of the evolving eBusiness strategy of a bricks-and-mortar grocer contrasted with the strategies of other competitors. The grocery company took a logical, measured, incremental, and, ultimately, successful approach to its eBusiness strategy formulation, development, and implementation. Our case study suggests that in an environment characterized by chaotic change bricks-and-mortar companies can benefit from a strategy informed by organizational learning and eBusiness integration.*

**Keywords:** E-business strategy, grocery industry, integration, learning

## Introduction

The necessity of an eBusiness strategy became evident with the demise of many dot-com companies. The dot-com revolution was enabled by the enormous technological capabilities of the Internet that seemingly revolutionized traditional ways of competing. Many traditional bricks-and-mortar companies initiated eBusiness strategies that centered myopically on the Internet's technological capabilities rather than focusing on how the technology could support the business (Willcocks and Plant, 2001). eBusiness strategy involves more than the creation of an online storefront – it involves redefinitions of old business models and the use of information technology to maximize customer value and company profits (Kalakota and Robinson, 2001; Porter, 2001; Robert and Racine, 2000).

Many eBusiness definitions include common themes such as “buying and selling goods and services,” “exchanging products and services,” “using the Internet,” “modern information and communication technologies,” “networks,” and “digital technologies” (Selz and Klein, 1998; Shetty, 2000). We adopt the following eBusiness definition:

eBusiness, which includes B2B, B2C, and C2C, is “marketing, buying, selling, delivering, servicing, and paying for products, services, and information across (nonproprietary) networks linking an enterprise and its prospects, customers, agents, suppliers, competitors, allies, and complementors.” (Weill and Vitale, 2001, p.5).

eBusiness has become essential to the success of many enterprises and, in particular, companies in the retail industry (Evans and Wurster, 1997; 1999; 2000; Lord, 2000; Palmer et al., 2000). Even though any eBusiness effort involves the Internet, there are unique aspects to each eBusiness strategy that help turn the Internet's technical and economic possibilities into a reality. Our paper centers on practical strategies that will facilitate the transition of the bricks-and-mortar companies into successful clicks-and-mortar companies.

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We report the results of an in-depth case study involving a traditional grocer that embraced selling groceries online. Using the findings of our study we shall demonstrate that the business success of this US-based company arose from its context-sensitive approach that combined organizational learning and eBusiness integration with its traditional business activities (Markus, 2000). We suggest our findings can be useful to executives of non-grocery retailing companies that seek to develop strategies for successfully entering the eBusiness arena.

The remainder of this paper is organized as follows. Our research methodology is presented next followed by an introduction of our case company. The research findings are explained next in terms of an eBusiness strategy grid and the eBusiness strategic processes. A discussion of the case company's strategy and lessons learned are offered next. Our conclusions are presented last.

## **Research Methodology**

Our purpose was to understand how a bricks-and-mortar retail company formulated a strategy to successfully evolve into a bricks-and-clicks enterprise. We focused on how members of the company's management conceptualized, understood, experienced, and reacted to eBusiness. Furthermore, we executed a case study such that, subject to certain limitations, it would be possible to generalize from the results of our study (Patton, 2001; Stake, 1995).

Our analysis is based on four interviews with US-Grocer's<sup>2</sup> management – two interviews with the company's Marketing Manager, an interview with the Information Technology Manager, and an interview with the Vice President of Logistics and Information Technology. The interviews with the Marketing Manager occurred in 2000 at the height of dot-com activities, and in 2002 after the dot-com implosion. The interviews with the Information Technology Manager and the Vice President of Logistics and Information Technology occurred in 2002 and 2003, respectively.

## **E-Business Case Overview**

US-Grocer is a closely held enterprise that is not traded on the financial markets and its management declined to provide operational data. To correct for this dearth of information we compared and contrasted US-Grocer with Safeway and Euro-Grocer that are US-based and Belgium-based grocery chains, respectively. Information on the latter two companies was obtained from newspaper articles and annual reports. Safeway has been included for a single purpose, namely, the construction of comparative operational figures (Table 1). The focus of our research, however, is on understanding US-Grocer's eBusiness strategy and then comparing it with the eBusiness strategies of Euro-Grocer I and WebVan (Figure 1).

### ***US-Grocer***

US-Grocer is a sixty-year-old family-owned-and-operated chain comprising approximately one hundred strategically located supermarkets in several major metropolitan areas (Table 1). The stores offer a combination of food items, over-the-counter and prescription drugs, personal care items, seasonal merchandise, fresh baked goods, fine meats, fresh seafood and produce, and quality dairy products. Many stores also feature an in-store florist shop, video rental, and film developing services. US-Grocer takes pride in offering the very best in service, selection, convenience, and value. Factors such as brand, ambience, décor, and customer loyalty are crucial to the company's success.

US-Grocer has a history of experimenting with different ideas in its quest for being a customer-friendly business. It initially offered home shopping in partnership with an online provider and subsequently explored opportunities with other partners. US-Grocer had attempted different strategies for home shopping before it finally initiated its own online shopping system. Said the Marketing Manager:

“We finished... [The web site] and launched it... in June of 1996 – just the bare shell web site... [with] press releases, consumer line... store directory, gift certificates, employment, video... entertainment, party planning, and floral... From 1996 to 1997 we built the home shopping system... We launched it almost a year to the date we launched the original web site.” [Marketing Manager, 2002]

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<sup>2</sup>This name is used to safeguard our company's identity.

**Euro-Grocer**

Euro-Grocer is a forty-year-old publicly traded grocery chain comprising one hundred sixty supermarkets and twenty-four gas stations located throughout Belgium (Table 1). The stores offer a combination of food items, personal care items, seasonal merchandise, fresh baked goods, fine meats, fresh seafood and produce, quality dairy products, and a wide assortment of excellent French, Italian, Australian, and California wines. Euro-Grocer takes pride in offering products at prices that are 10% below those of its competitors without sacrificing service, selection, convenience, and store ambiance.

Euro-Grocer has a long history of designing and implementing computer-based information systems that support its business and organizational culture. Information Systems are essential to the company’s strategy of exploiting the full potential of information technology (IT). To quote:

“[In 1965] we opened our first store...we organized...so that the entire sales function could run on computers. This [is in contrast to] what [our competitors] did... [They] introduced IS into already existing organizations and, hence, ran into much resistance.” [CEO, Euro-Grocer, 1993]<sup>3</sup>

**US-Grocer versus Euro-Grocer**

The intense focus on IT since Euro-Grocer’s inception is unique and sets the company apart from US-Grocer. It is not surprising then that Euro-Grocer employs some five hundred IT workers out of eighty-three hundred employees, which is much larger than our interview-data-based estimate of twenty US-Grocer IT workers. The different focus on IT is one reason why Euro-Grocer and US-Grocer embarked on different eBusiness strategies.

**Table 1. Operational Indicators – 2000/2001**

<b>Indicator</b>	<b>Safeway (Annual Report)</b>	<b>Euro-Grocer (Annual Report)</b>	<b>US-Grocer (Estimate)</b>
Annual Revenue	34.3billion	2.7 billion	2 billion*
Number of Stores	1,650	160	100*
Revenue/Store	21 million	16.5 million	20 million*
Number of Employees	193,000	8,300	10,000
Revenue/Employee	176,000	330,000	200,000
Employees/Store	108	50	100
Net Earnings	1.25 billion	121 million	80 million
Net Earnings/Revenue	4.0%	4.4%	4.0%

\* Newspaper reports

By comparing US-Grocer to other food retail firms we arrived at reasonably accurate operational indicators (Table 1). US-Grocer’s annual sales revenue and its number of stores were obtained from newspaper articles. All other indicators, from the number of employees through net earnings, were estimated using published annual reports of the US-based Safeway and Belgian-based Euro-Grocer chains. We note that while Safeway is larger than US-Grocer, Euro-Grocer and US-Grocer are similar in size. Table 1 indicates that smaller companies seem to be more efficient in terms of revenue per employee than large companies. Based on this observation we estimate US-Grocer’s per employee revenue to be \$200,000 per 100 store employees, and net earnings to be 4%. These assumptions result in annual net earnings of \$80 million (Table 1).

<sup>3</sup>Interview with the authors, May 1993, Halle, Belgium.

## E-Business Strategy

Our analysis of US-Grocer’s interview data revealed two pairs of opposites that are used to explore eBusiness strategy formulation in organizations (Figure 1). The first two opposites, *conservative* versus *radical*, reflect the nature of the response to industry developments. Quinn (1980) and Tushman and Romanelli (1985) suggested similar constructs. In fact, our conservative approach resembles the Quinn’s (1980) incremental change concept, whereas our radical approach resembles Tushman and Romanelli’s (1985) episodic change concept. The other two opposites, *pragmatic* versus *visionary*, reflect the nature of organizational culture. Miles and Snow (1978) suggested similar constructs. In fact, a visionary company leads its industry by exploring innovative activities while a pragmatic company adopts industry leader accepted practices. In short, visionaries and pragmatists resemble prospectors and defenders suggested by Miles and Snow (1978).

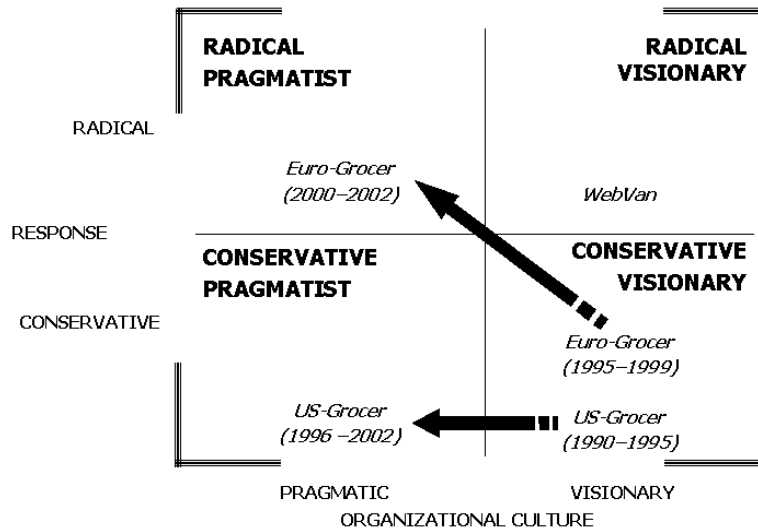


Figure 1. E-Business Strategy Grid

The combination of the two pairs of opposites yields a two-by-two grid that is used to interpret eBusiness strategies. First, the *radical/visionary* quadrant represents visionary organizations that actively pursue innovations that change industry practices. Radical/visionary strategies are high risk options that may make or break an organization. Thus, WebVan was a radical/visionary organization that sought to capitalize on technological advances by offering grocery shopping on the Internet (Figure 1).

Second, the *conservative/visionary* quadrant contains visionary organizations that actively explore innovations while simultaneously acting conservatively by maintaining existing structures. Conservative/visionary strategies offer the promise of organizational survival even when a visionary venture fails. Both US-Grocer and Euro-Grocer, at one time, responded in a conservative manner with technological innovations before formulating their unique eBusiness strategies (Figure 1).

Third, the *conservative/pragmatist* quadrant is indicative of companies with a pragmatic organizational culture that respond conservatively to changing conditions. Companies in the conservative/pragmatist quadrant recognize the practical importance of innovations and assimilate such innovations to enhance their existing processes. These companies formulate strategies that pose no major threat to survival. At the end of the 1990s US-Grocer made a definitive choice and responded defensively to industry change, thus moving to the conservative/pragmatist quadrant (Figure 1).

Fourth, the *radical/pragmatist* quadrant represents pragmatic organizations that respond radically to changing technological conditions and redefine themselves by assimilating innovations. Radical/pragmatist strategies carry considerable risk especially because organizational redefinition runs counter to established practices. Between 2000 and 2002 Euro-Grocer recognized the potential for Internet-based valued-added customer services and developed an eBusiness strategy that can be characterized as radical/pragmatic (Figure 1).

### ***Conservative/Visionary Quadrant***

#### **US-Grocer**

Earlier than many of its competitors US-Grocer envisioned new opportunities to serve its customers made possible by technological advances. In the early 1990s US-Grocer formed a partnership with Prodigy to provide online home shopping services to customers. US-Grocer visualized home shopping as one more channel to increase market share. Explained the Marketing Manager:

“We [did not] want to overlook anything...positive for our customers ... When Prodigy came along... our chairman jumped on it” [Marketing Manager, 2000]

Prodigy’s demise in 1991 forced US-Grocer to discontinue its online home shopping services. Nevertheless, senior management remained interested in home shopping and between 1992 and 1995 the company actively investigated possibilities for partnering with other providers. US-Grocer learned valuable lessons concerning online grocery shopping. Thus, for example, US-Grocer became aware that the heavy upfront investments needed to offer online services without countervailing returns would be disastrous. Such lessons were instrumental in US-Grocer’s decision not to initiate online services by entering into other partnerships. Noted the Marketing Manager:

“We called in Peapod and Shoppers Express... We called in a company called Shoppers Advantage... We interviewed all of those companies and it was very evident when listening to their business plan that if we became partners with them that we would be offering [online] shopping with no vision of ever turning it into a profitable way of doing business.” [Marketing Manager, 2000]

Between 1990 and 1995 US-Grocer explored and experimented with emerging online grocery shopping opportunities, however, it always did so as enhancements to its existing business structures. Yet, even though US-Grocer was visionary concerning new business opportunities of technologies it acted conservatively by avoiding eBusiness under undesirable economic conditions. This demonstrates that between 1990 and 1995 US-Grocer’s strategy corresponds to the *conservative/visionary* quadrant (Figure 1).

#### **Euro-Grocer**

At the close of the 1990s several Belgian grocery chains had preceded Euro-Grocer in implementing online grocery shopping. The company, however, could draw on a decade of experience with computer-enabled catalog sales. Euro-Grocer stores featured computer terminals that customers used to order a wide range of non-food items that would then be ready for customer pickup three days after order entry.

Members of the company’s food distribution and IT management teams took a keen interest in the possibilities of the Internet. During the 1990s Euro-Grocer’s strategy was one of active interest in eBusiness. In fact, in early 2001 Euro-Grocer joined several other firms in launching the Belgian Electronic Market Internet Portal (Webtoday.be, March 2001). During the early years of the new millennium top management experimented in a limited way with online shopping to test its profit potential. Thus, even though the company envisioned that online shopping could become important the decision to make a deep commitment was postponed (Killemans and Van Tuyne, 2003). In other words, Euro-Grocer’s eBusiness strategy should be located in *conservative/visionary* quadrant of Figure 1.

### ***Conservative/Pragmatist Quadrant***

#### **US-Grocer**

When partnering with another firm was not viable, US-Grocer decided to custom-build its own web site, initially containing only informational content but later expanded to include online shopping services. The change in business strategy was partly in response to US-Grocer’s fear that Peapod might wish to enter its market with online grocery shopping. The Vice President of Logistics and IT stated:

“[Our strategy was] keeping our investment reasonably small so we could keep competition from coming in but...not spending a pile of money on a project that we knew was...going to be...marginally profitable.” [Vice President of Logistics and IT, 2003]

Development of US-Grocer’s web site and back office systems involved a dedicated team comprising the Marketing Manager, the Information Systems Manager, a Database Administrator, and a contract developer with Internet programming experience. The development effort itself was a learning experience because the team sought to find just the right combination of features that would make online shopping a rewarding customer experience.

Another indication of its conservative/pragmatist strategy was US-Grocer’s low-risk rollout strategy of initially restricting its online services to few geographical areas. Customers were offered a selection of fifteen thousand food items and the option to choose pickup or delivery of their online orders and were charged between \$6.95 and \$12.50 depending on the type of service required. To gain experience with the new marketing channel the company experimented with different approaches. For example, US-Grocer promoted its online shopping by offering price reductions on selected items. As the company gained experience with online shopping it proved necessary to cut costs to make online shopping a break-even venture. Rates for home delivery were increased and price reductions on selected items were discontinued.

A further indication of its conservative/pragmatist strategy was US-Grocer’s practice to connect its online shopping system to the existing backend information systems of its brick-and-mortar stores and hence inventory replenishment became seamlessly integrated into existing business processes. Moreover, US-Grocer used its network of physical stores as distribution/fulfillment centers for satisfying online shopping orders and hence did not incur additional investments (for building distribution facilities, etc.) or expenditure (for electricity, gas, etc.). Finally, existing store clerks undertook the pickup, checkout, and delivery of online orders

Senior management considered online shopping a success because it succeeded in keeping competition out and it associated US-Grocer’s name with progress while not risking bankruptcy.<sup>4</sup> Thus, between 1996 and 2002 US-Grocer’s eBusiness strategy can be classified as *conservative/pragmatist* (Figure 1).

## **Radical/Pragmatist Quadrant**

### **Euro-Grocer**

Early in the new millennium Euro-Grocer’s senior management decided to offer customers online shopping services. By basing its decision to introduce online shopping service on improved earnings potential and by the manner it introduced online shopping into the company’s strategy. The company’s web site is aesthetically attractive, customer friendly, informative, logically put together, and inviting. Upon accessing the company’s web site customers can select from among several online shops<sup>5</sup> – Collect&Go, Eurodelivery, Wines, BioFood, Traumland, and Euroshop.

Euro-Grocer and Collect&Go used its bricks-and-mortar stores to prepare customer orders. Customers had a choice between order pickup at a designated store or having orders delivered home. Eurodelivery enable customers to pick up orders at one of the thirty stores or to have orders delivered at home and customers can choose from among twenty thousand food items. The rates for ordering online are reasonable – for pickup orders the fee is \$4.50. Home delivery fees are \$10.00 for orders less than \$125, \$5.00 for orders larger than \$125 but less than \$250, and delivery is free for orders larger than \$250. Bio-Planet offers customers online access to thirty-five hundred organic food items. Finally, Traumland and Euroshop offer online sales of baby care items and household items such as stereo equipment, coffee makers, garden equipment and other items. Euro-Grocer also enabled customers to make travel arrangements online.

By embarking on eBusiness Euro-Grocer changed its strategy to *radical/pragmatist*. First, the company’s approach to and the extent of its commitment to eBusiness truly had a transforming effect on the retailing industry. Second, by waiting until the new

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<sup>4</sup>Newspaper reports indicate online shopping margins slightly above the breakeven point (The Wall Street Journal Europe, page R1, February 15, 2002).

<sup>5</sup>The names of the online shops have been changed to protect our company’s product/service names.

millennium before embracing eBusiness and by learning from the experiences of its competitors, the company sharply reduced its risk exposure. Finally, the company's ability to ensure that its eBusiness is profitable is further proof of a pragmatic strategy.

### ***Radical/Visionary Quadrant***

#### **Webvan**

WebVan, born with the assumption that affluent time-pressed people would love to use a web site rather than a trip to a grocery store, initiated its services with a major 26-city plan.<sup>6</sup> It committed enormous financial resources for creating brand awareness and building physical and logistical infrastructures necessary for home delivery services. It placed major emphasis on bleeding-edge technology and its applications rather than on business fundamentals of the grocery industry.<sup>7</sup> For instance, WebVan spent more than \$1 billion in building automated warehouses that required more than 1000 servers and several employees for operations. It is estimated that WebVan needed at least 4000 orders per day to break even.<sup>8</sup> WebVan finally closed down in June 2001. WebVan's commitment to create a brand new shopping channel, its reliance and preoccupation with technology, and its heavy investments in realizing its vision, position WebVan's eBusiness strategy in the *radical/visionary* quadrant of Figure 1.

### **Discussion**

Managers of retail companies face the daunting decision whether and to what extent to embrace Internet-enabled online shopping. During the dot-com revolution of the late 1990s companies, influenced by the overoptimistic and unrealistic promises of that time, hastily offered customers online services. Senior management of many chains grossly overestimated the demand for online shopping only to find that even today, for example, 2% or fewer customers actually buy groceries online.<sup>9</sup> Companies also misjudged the price shoppers were willing to pay for the convenience of online grocery shopping when in effect most consumers were more interested in price.<sup>10</sup> All too often executives had incorrect views concerning shopper demographics. That is to say, managers failed to adequately consider the percentage of the buying public consisting of seniors, two-income households, and homebound individuals. Finally, senior management of, for example, WebVan made ill-advised decisions concerning the home delivery logistics by building multi-million dollar warehouses.

Drawing on our analysis of the strategies of two companies with successful online shopping, we identify two topics needing attention, namely learning and integration.

#### ***Learning***

Organizational and individual learning are essential for reality-based decision-making concerning eBusiness. Focusing in particular on US-Grocer we identify four knowledge types: 1) knowledge shared by all, 2) explicit knowledge that is available to the organization, 3) implicit knowledge that is not available to the organization, and 4) knowledge about the environment (Rehäuser and Kremar, 1996) all of which are indicative of organizational learning processes.

First, US-Grocer, by scanning the food retailing industry, learned that companies such as WebVan and Peapod were potential competitors. Hence, there existed knowledge shared by all in US-Grocer that online shopping was potentially important, which in turn set the company on the road to discovery and learning. The Vice President of Logistics and IT related:

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<sup>6</sup>*Wall Street Journal*, "WebVan joins list of dot-com failures – Online grocer burned up \$830 million since 1999; 2000 workers are fired," July 10, 2001.

<sup>7</sup>*Business Week* (July 23, 2001) "WebVan left the basics on the shelf."

<sup>8</sup>*Corporate Growth Report*, "The inevitable crash of WebVan," July 30, 2001.

<sup>9</sup>[http://www.zi-biz.be/zint/dvp\\_articles.Detail?ArtikelIdA=94](http://www.zi-biz.be/zint/dvp_articles.Detail?ArtikelIdA=94).

<sup>10</sup>*Wall Street Journal Europe*, Page R1, February 15, 2002.



“Going into the B to C market was strictly a defensive measure. At the time you had...companies popping up out of the weeds like WebVan, [and] PeaPod.” [Vice President of Logistics and IT, 2003]

Second, US-Grocer’s employees had explicit knowledge that was codified and brought to bear on the question of whether and how the company should proceed. US-Grocer relied on the expertise of different individuals to design and develop the eBusiness systems in support of its eBusiness strategy. The Marketing Manager stated:

“I put together a committee and I pulled a couple of... store managers, the person who knew HTML, the guy who runs the IT department, a couple of people from my department, and...people from the stores, and somebody from advertising... [who created artwork.]” [Marketing Manager, 2002]

Third, there existed implicit knowledge. For example, the Marketing Manager tried to make explicit his initially vague ideas about and his response to online shopping. That is to say, he wished to make explicit his ideas on whether online shopping could be important to US-Grocer’s business success. One way in which he clarified his implicit knowledge was by carefully observing the actions of competitors and learning from their successful and unsuccessful decisions. Thus, for example, the Marketing Manager thus concluded that the proper response was to take defensive rather than offensive action. The following quote is illustrative:

“[Home shopping] is in a defensive posture right now, which signifies that we are going to maintain it.” [Marketing Manager, 2002]

Finally, US-Grocer captured environmental knowledge even during its early collaborative online grocery shopping effort with Prodigy. For instance, meetings with actual and potential customers served to extract environmental knowledge concerning public interest in online grocery shopping. The following quote is illustrative:

“We [met] at hotels with [customers] where they would voluntarily show up... they were interested in talking about this new process...what we could do to improve it [online shopping].” [Marketing Manager, 2002]

The foregoing discussion demonstrates that US-Grocer’s decision to embrace online grocery shopping, the manner of its implementation, and the extent of the company’s commitment were greatly influenced by organizational learning. Furthermore, the company’s online shopping implementation was not a one-time decision but rather followed a logical, flexible, and experimental progression from broad concepts to specific commitments. The decision to go ahead with online shopping was made as late as possible to minimize uncertainty and to benefit from the best information available.

## ***Integration***

In contrast to two of its competitors, WebVan and Peapod, US-Grocer followed an integrative strategy towards online shopping (Markus, 2000). The company used its brand awareness to promote home shopping, and it used its physical stores as fulfillment centers. The employees at its physical stores handled the pickup, checkout, and delivery of online orders from customers. Moreover, the company’s online shopping storefront was seamlessly integrated with its store back-end systems for efficient inventory management. The Marketing Manager stated:

“From day one, we wanted to use... [existing] assets... We’ve got stores. Let’s call them distribution facilities... We did not... build a fulfillment center that costs 8 to 15 million dollars. That is what WebVan has done and ... what Peapod has done. They are all in deep trouble... The systems that run our home shopping system are the same systems that run our store...” [Marketing Manager, 2000]

Such a strategy put US-Grocer in a position of having to deal with only the incremental cost of offering home shopping. US-Grocer used its existing physical and logistical infrastructure to successfully continue its home shopping efforts. Said the Marketing Manager:

“I only charge the incremental cost of doing business to those [home shopping] sales. I don’t have to charge heat, light, and power... I don’t pay any occupancy fee... I didn’t add any store personnel... It incrementally shares in the costs that are associated with the additional volume but it doesn’t share in all of those extremities that you would have to charge against it if you opened a fulfillment store.” [Marketing Manager, 2000]

### **US-Grocer versus Euro-Grocer**

US-Grocer and Euro-Grocer followed different online shopping strategies. US-Grocer operated in a market devoid of competitors with online grocery services. US-Grocer's adoption of online grocery shopping was primarily directed toward keeping things that way, i.e., preventing companies such as WebVan and Peapod from entering its market. Thus, US-Grocer essentially adopted a defensive strategy and thus moved from the *conservative/visionary* to the *conservative/pragmatist* quadrant of Figure 1.

Euro-Grocer, on the other hand, online grocery shopping's initiative aimed to offer customers maximum added value. The company's main web site offered the customer a choice between alternative online stores: 1) groceries for customer pickup or home delivery, 2) wines from the superior châteaux, 3) biological and ecological food products, 4) household items such as stereo and photo, and kitchen equipment, and 5) a wide assortment of baby clothing and other articles. Considering the aim to offer customers real value, the range of products available, the innovative web site features, and Euro-Grocer's considerable financial commitment to online shopping we conclude that the company moved from the *conservative/visionary* to the *radical/pragmatist* quadrant of Figure 1.

Compared to Webvan, US-Grocer and Euro-Grocer had a clear advantage in their existing brand recognition and infrastructure that made implementing online shopping services more economic. WebVan, on the other hand, expended great amounts of financial resources on building brand awareness, and physical and logistical infrastructure.

### **Conclusion**

The conclusions should be considered in light of the study's limitations. First, we studied in-depth the eBusiness strategy of a single grocery chain which we then compared to eBusiness strategies of other grocery retail chains. Second, our case study pertains to grocery distribution and, hence, caution is advised when generalizing our results to other retail industries. However, we suggest that our results, specifically the eBusiness strategy framework, have implications for other online grocery environments. Moreover, because grocery-retailing firms tend to be regionalized it is likely that our eBusiness strategy development matrix can be useful for grocery firms in other geographic areas (Steinfeld, and Klein, 1999).

Within the limitations just cited, our case study has implications for theory and practice. First, the eBusiness strategy grid enables examining, comparing, and contrasting eBusiness strategies for online grocery firms and we suggest, for other retail firms. This would make possible the identification of best practices concerning eBusiness strategy formulation for firms located in each of the four quadrants. Second, the grid enables examining why and how eBusiness strategies change over time. On the one hand, US-Grocer progressed from a conservative/visionary to a conservative/pragmatist strategy to ward off entry of a competitor in its market. US-Grocer's move is characterized by what Markus and Robey (1988) call an "organizational imperative." On the other hand, Euro-Grocer moved from a conservative/visionary to a radical/pragmatist strategy to provide customers additional value-added services made possible by new technology. Euro-Grocer's move resembles what Markus and Robey (1988) term as the "technology determinism."

Organizational learning, as evident from US-Grocer's case, is particularly critical when organizations grapple with technological innovations in uncertain economic environments. Our study shows that melding of learning at the individual, group, and organizational levels is essential for formulating successful eBusiness strategies. Finally, both US-Grocer's and Euro-Grocer's eBusiness strategies demonstrate the importance of integrating eBusiness initiatives and traditional bricks-and-mortar structures (Porter, 2001). Without integration, organizations incur massive amounts of upfront investments and recurring expenses such that profitability and sustainability may be out of question (Gulati and Garino, 2000).

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