Electronic Retailing Strategies: A Case Study of Small Businesses in the Gifts and Collectibles Industry

MICHELE L. GRIBBINS AND RUTH C. KING



INTRODUCTION

Volker] At: 20:02 23 March 2010

For 2002, sales from electronic retailing for US businesses were approximately \$45.5 billion, a \$10 billion increase over 2001 (US Census Bureau 2003). With this rapid acceptance of the Internet and web technologies by consumers, virtually no industry remains unaffected by this growing marketplace. When over 94.7% of all retailing businesses in the US have an employee count of less than 50 (US Department of Commerce 2000), even some of the smallest businesses have had to adjust to the new threats and embrace the new opportunities of this marketplace.

According to Pinker et al. (2002), businesses that existed before the advent of the Internet (i.e., legacy firms) represent the future of electronic business and retailing activity. Thus, understanding the perspective of legacy firms will give researchers a clearer picture of how businessto-consumer electronic retailing will develop. Although some academic studies have investigated the electronic retailing strategies and the potential human and technical barriers that large legacy firms, such as Toys-R-Us and Circuit City, encounter when transforming their operations to include online sales (Jackson et al. 2002; Pinker et al.

Michele L. Gribbins

(mgribbin@uiuc.edu) is a PhD Candidate in Information Systems at the University of Illinois at Urbana-Champaign. Her primary research interests is centered on the process and human factors associated with the adoption and usage of emerging technologies in enterprise environments. Her research has been published in leading journals and conference proceedings.

Ruth C. King

(ruthking@uiuc.edu), Assistant Professor of Business Administration at the University of Illinois at Urbana-Champaign, earned her doctorate degree from the University of Texas at Austin. Her research interests involve IT professional development issues and the impacts of IT on organization strategy and industrial structure. She has published papers in many leading research journals.

The objective of this case study is to better our understanding of the strategic delibera-

tions of managers and owners of small businesses as they pursue electronic retailing, since they face different barriers and constraints when dealing with electronic retailing issues than do their larger counterparts. Detailed phone interviews were conducted with four small businesses within the Gifts and Collectibles industry. Findings indicate that the development of a transactional website, which is often utilized by large retailers, is not the initial strategy, nor the primary strategy, that these businesses devise to generate online sales. Rather, owners and managers select strategies that are less intrusive to their present brickand-mortar operations while allowing them to maintain needed control of online sales levels. Contributions include a comparison of the electronic retailing strategies that are utilized, including the business owners' perceptions of the technological capabilities that are needed for each strategy, and the identification of other factors that weigh heavily into their selection of a strategy. Interview excerpts from the owners and managers supplement the discussion.

Keywords: IT strategies, IT capabilities, IT barriers, electronic retailing, online auctions, small businesses

2002; Rose *et al.* 1999), the strategies of small legacy businesses (e.g., local 'mom and pop' shops) have not been as widely researched. Since small businesses face different constraints and barriers than do their larger counterparts, a pertinent question arises: Are small businesses developing the same electronic retailing strategies as large companies?

The purpose of this study is to gain insight into the decision process behind small business owners' selection of an electronic retailing strategy. Small business owners and managers within the Gifts and Collectibles industry will share their strategies for capitalizing on the retailing opportunities arising from Internet and web technologies. Results and analysis from these insights will be applied to address the following questions:

- 1. What barriers do small businesses face when expanding online?
- 2. How are the unique characteristics of small businesses affecting the deliberation and selection of their electronic retailing strategies?
- 3. What electronic retailing strategies are small businesses using, and are these strategies the same as large companies'?
- 4. What technical and human capabilities are required for their selected strategies? and
- 5. What other factors are affecting their selection of a strategy?

LITERATURE REVIEW

Although studies have been conducted to identify and classify the technological capabilities of firms, only a limited number of studies have been published that discuss how these capabilities are encouraging or inhibiting the adoption of electronic business, with most analysing the usage of websites and/or the strategies of large companies. Fewer academic studies have investigated the electronic retailing capabilities of small businesses, or the strategic deliberation behind their electronic retailing decisions. The gap in the research provides the motivation for our study. A review of relevant research is provided below.

Resource-based view of IT capabilities

The resource-based view of competitive advantage (Mata et al. 1995) indicates that there are four primary information technology (IT) attributes that contribute to a sustained competitive advantage for businesses: access to capital, proprietary technology, technical IT skills, and managerial IT skills. The access to the capital needed to develop and apply IT can be a source of competitive advantage for firms that can allocate the amount of capital needed for IT investments while overcoming the

potential risk, both in terms of the technological uncertainty and the market uncertainty, that these investments require. Mata et al. (1995) further suggest that businesses that develop and protect their proprietary technology from leaking to the competition can obtain a sustained competitive advantage. The third source of competitive advantage, the firm's IT skills, is derived from the firm's ability to build and operate information technology to make products or provide services. However, the researchers point out, that a firm's IT skills alone are usually not sufficient in sustaining a competitive advantage, as other businesses can hire consultants to provide these skills. Lastly, Mata et al. (1995) indicate that managerial IT skills, i.e., management's ability to conceive of, develop, and exploit IT applications to support and enhance business functions, can be a source of competitive advantage.

Similarly, Bharadwaj (2000) defines a firm's IT capability as its 'ability to mobilize and deploy information technology-based resources in combination with other resources and capabilities'. Bharadwaj classified these resources into three categories: the tangible IT resources, the human IT resources, and the intangible IT resources. The tangible resources are those components that comprise the physical IT infrastructure (i.e., hardware and software resources). Human IT resources define the relative skills of the managers and employees (i.e., technical and managerial skills). Numerous IT-enabled intangible resources have been identified, including product quality, customer service, customer orientation, knowledge assets, organizational memory, organizational learning, and synergy.

A benefit derived from having strong human information technology resources is the ability to integrate technology more effectively with business processes and applications (Bharadwaj 2000). Typically, managerial IT skills are developed through the accumulation of learned experiences (Katz 1974). The results of a study conducted by Grover and Pradipkumar (1999) state that US corporations would like to invest in information systems to compete more effectively, but the decision to adopt information technology is a difficult process. They accredit this difficulty to rapid changes in information technology and pressures of a competitive marketplace. Auger and Gallaugher (1997) suggest that smaller businesses can be at a disadvantage, compared to larger companies, because they commonly lack the human IT skills, as well as the financial resources needed, as the lack of such resources can become a barrier to innovation adoption.

Electronic retailing barriers and strategies

Steinfield *et al.* (1999) suggest that there are several advantages of conducting business online, including access to a wider potential market and a larger customer

base, the potential for volume discounts attributed to greater economies of scale, and a higher degree of transaction automation. The integration of a physical channel with an e-commerce channel brings several new synergies that are unavailable to businesses that treat these channels independently. Specifically, Steinfield *et al.* (2002) suggest that cost savings, improved differentiation, enhanced trust, and market extension are benefits derived from an integrated strategy.

Despite the potential advantages of integrating an e-commerce channel with a traditional bricks-and-mortar channel, there are several barriers that have prevented or slowed businesses in adopting e-commerce as part of their business model. Nambisan and Wang (1999) have classified the barriers associated with e-commerce technology adoption into three categories: technologyrelated knowledge barriers (e.g., a lack of knowledge in hardware and software and the inability to choose among alternatives); project-related knowledge barriers (e.g., an inability to identify financial and human resource requirements for web application and development); and application-related knowledge barriers (e.g., a lack in the understanding of the benefits derived from web-based applications). Nambisan and Wang (1999) state that any of these barriers can delay a business's adoption of e-commerce technology. In their study of factors that influence the adoption of web-based e-commerce, Riemenschneider and McKinney (1999) found that security, costs, training, technical knowledge and adherence to corporate standards were prominent barriers for businesses.

In their study on how organizations were preparing to enter the Internet economy, Pinker et al. (2002) identified four organizational paradigms used by legacy firms when transforming to electronic retailing businesses. However, their study was limited to 35 large companies (e.g., Kraft Foods, Kodak, Texaco), and did not incorporate the impact that electronic retailing transformations have on smaller businesses. Larsen and Bloniarz (2000) suggest that smaller businesses can have more difficulty in overcoming project-related knowledge barriers, specifically the human resource skills. They claim that since web technology is new, small business owners and managers feel they lack the perspective and experience to properly develop a business plan that incorporates web technologies.

Research in the area has also found that industry characteristics is a factor in determining a company's readiness, and potential success, with electronic retailing. Gebauer and Ginsburg (2003) studied the failed electronic retailing initiatives for two businesses in the wine industry. They found that wine consumers are not as willing to shop online as the general population. Rao (1999) studied the impact that e-commerce has had on the value chain of three industries: the retailing industry; the banking, brokerage, and financial services industry; and the music industry. He found that the Internet has

changed the business dynamics within each industry. Furthermore, he concluded that businesses with a flexible organizational structure were better adjusted to an Internet economy.

In Steinfield and Whitten's study (1999) of the impact of e-commerce on local merchants, the authors suggest that local merchants tend to be less prepared in servicing distant customers. At the very least, they suggest that small businesses need to acquire the ability to process electronic orders, to verify payments, to package and ship merchandise, and to process returns. Steinfield *et al.* (1999) found that many local businesses choose to conduct business online to help 'defend their local market from new, web-based competitors'.

These studies, and the areas left untapped by existing research, led to our desire to contact small business owners and managers to gain a better understanding of their electronic retailing strategies and the barriers and strategic deliberations behind their businesses' electronic retailing decisions.

METHOD

Since the objective of this study was to develop an understanding of the strategic deliberation and the selection of electronic retailing strategies for small businesses, a qualitative research methodology was chosen. Kaplan and Maxwell (1994) suggest that qualitative research can be stronger than quantitative research when the goal of the research is to understand a phenomenon from the point of view of the participants, because social and institutional context can be disregarded when quantifying textual data. Furthermore, the case study research method is appropriate for organizational-focused information systems research, and for capturing the knowledge of practitioners and developing theories from it, as researchers can study the information system in its natural setting while allowing the researcher an opportunity to understand the nature and complexity of the processes taking place (Benbasat et al. 1987). Since little research has been conducted on electronic retailing strategies for small businesses, the case study research methodology provides more insight into the strategies, including perceived barriers, key determinants, and the deliberations of owners when selecting among them. During the research process, we followed the case study guidelines outlined by Benbasat et al. (1987), as we determined the details of the research design, including the selection of the industry for analysis, the selection of the businesses for the study, the data collection method, and throughout the data analysis and exposition stages.

Selection of industry

It was decided that all subjects should belong to the same industry classification to eliminate the variations in

strategic deliberation arising from different industry characteristics (e.g., variations in competitive pressures). We focused on retailing businesses within the Gifts and Collectibles industry. The Gifts and Collectibles Industry in the US consists of over 37,000 businesses, according to the 1997 US Economic Census (US Census Bureau 2000). During that census, the industry reported \$14.4 billion in sales and \$2.0 billion in payroll expenses. The industry employed 208,371 personnel.

We selected the Gifts and Collectibles industry because of the distinctiveness of the industry. First, research has shown that there are several characteristics that differentiate online retailing with traditional retailing from the customer's perspective. These differentiators included the inability to physical inspect the product, the inability to gain immediate information from store personnel, and not having possession of the merchandise immediately following the purchase decision (Li and Gery 2000; Rao 1999; Wolfinbarger and Gilly 2003). However, additional research has suggested that the physical distance between the buyer and the merchandise is less relevant if the good is deliverable via courier to the buyer (Steinfeild and Whitten 1999), which is the case with goods sold in the Gifts and Collectibles Industry. Thus, we selected an industry that would allow us to assess the role that these location-based constraints had on the demographics of customers, as well as on the relationships between the customers and the businesses.

Second, the customers within the industry range from the occasional gift giver to the capricious customer to the devoted collector. Devoted collectors, who are very educated about the products that they collect, seek additional product information (e.g., product version/ edition, year of release) than would be deemed sufficient to the occasional purchaser. Thus, the collector relies more heavily on the completeness and validity of the information provided by the business, since they are unable to physically inspect the product. Third, the items sold by these businesses include products that are easily accessible regardless of geographic locations (e.g., candles), but they also include collectible products that can be harder for collectors to locate in their local stores (e.g., limited edition Boyds Bears™, retired Beanie Babies[™]). These collectible products can be classified as 'Specialty goods', in other words, products with unique characteristics that buyers treasure and, thus, buyers make special efforts to obtain them (Li and Gery 2000).

Furthermore, sales-based incentives offered by manufacturers to retailers, such as the ability for high-volume retailers to purchase limited edition items, has caused retailers in the industry to purchase inventory items above anticipated in-store demand so that they may prosper from the added benefits they receive from being classified as high-volume dealers. Lastly, and perhaps most notably, the presence of an ominous secondary market (i.e., sales and trades among collectors) has hurt recent retail sales in the Gifts and Collectibles Industry.

The secondary collectibles market has rapidly grown with the acceptance of online marketplaces, such as eBay®, as they make it easier for collectors to locate and purchase the specific items they seek. *Business Wire* (2001) indicates that a growing secondary marketplace has caused a 6.1% single-year drop in retail collectible sales from 2000 and 2001. The threat arising from this active secondary market puts further pressures on businesses within the industry to consider expanding their operations online to maintain their competitiveness and sales-levels.

Selection of businesses

A directory of businesses within the Gifts and Collectibles industry was used to identify potential subjects. The directory was obtained from a dealer network for retailers of collectibles and gifts. Membership within the dealer network is free for retailers. The dealer network provides members with access to industry information, including industry reports, manufacturers' press releases and product details, convention information, and other pertinent information. The directory included over 300 retailers in the Gifts and Collectibles Industry. Although the directory identified retailers located within and outside of the US, we limited our selection to businesses in the US. Since our intention was to investigate the electronic retailing strategies of small businesses, we eliminated businesses that indicated that they had more than 50 employees and/or more than one store location. Businesses that did not provide an email or website address in the directory were also eliminated.

Of the 37 remaining businesses, we randomly selected 25 businesses to email. The email identified the intention of our research and requested their participation in this case study. The email also included a question that asked them to briefly describe their business's current and past involvement with the Internet (e.g., generating sales, advertising). We received 11 completed responses to our request. Of these 11 responses, four businesses indicated that they had no involvement with the Internet beyond simply having an email address. Meanwhile, a few of the remaining businesses identified common experiences. Four of the remaining businesses were selected for the study based on the variance of their online experiences. A profile of each company is provided later.

Description of online retailing strategies

The four businesses that were interviewed had generated sales from four primary strategies. They include transactional websites (websites fully capable of receiving orders and payments), informational websites (websites not capable of receiving orders and payments), email-based advertising campaigns, and online auction listings.

Transactional websites. Palmer and Griffith (1998) define a website as 'a direct contact between the organization and the public that provides an opportunity for innovation in both the delivery and selling of products'. Transactional websites consist of those websites that represent the product offerings of the business and are capable of generating sales directly through the website, typically done through the use of an electronic 'shopping cart'. In other words, the website is capable of facilitating the entire sales transaction (Riggins and Rhee 1998). A study by Dun & Bradstreet (CyberAtlas 2001) suggests that only 27% of the websites of small businesses are capable of conducting web-based transactions.

Informational websites. Unlike a transactional website, the informational website is not capable of facilitating the entire sales transaction. Rather, the purpose of the website is to provide website visitors with store and product information. As a sales generating tool, informational websites serve as an electronic catalogue of the store's products. Customers wanting to purchase specific products from the store must then contact the store via email correspondence or via a telephone call to place an order.

Email advertising campaigns. Like the informational websites, email advertising campaigns serve the purpose of informing consumers of new product offerings. These advertising campaigns are opt-in mailing lists developed and maintained by the small business. They are not unsolicited email campaigns (i.e., spamming), therefore only prior customers and inquirers of the store are recipients of these messages. Like the informational websites, customers wanting to place an order would contact the store via email or telephone.

Online auction listings. Online auctions 'bring buyers and sellers together and provide a price discovery mechanism for the assets being traded (Fan et al. 1999).' Bakos (1998) states that online auction marketplaces (e.g., eBay®, Yahoo!®Auctions) have three major functions: (1) to match buyers and sellers; (2) to facilitate the exchange of information, goods, services and payments associated with a market transaction; and (3) to provide an institutional infrastructure that enables the efficient functioning of the market. The bidder that has placed the highest bid at the end of the auction carries on with the transaction, assuming that the seller's reserve price, if applicable, has been met.

Profile of companies

The four selected businesses represented a range of electronic retailing experiences, in terms of their amount of experience and their chosen strategies. An overview of the profiles and online experiences of the four selected businesses can be found in Table 1. (The business names have been changed per the requests of participating owners.)

Midwest Gifts & Collectibles. Midwest Gifts & Collectibles is a 25-year-old family-owned business located in the Midwestern United States. Midwest Gifts & Collectibles is located in a small, rural community with a local population of approximately 5,500 citizens. Residents of the town and the immediate area make up the majority of customers in the brick-and-mortar store. The business employs eight individuals, which includes two co-managers/owners, two other full-time

Table 1. Profiles of case-study participants

Business name	Midwest Gifts & Collectibles	Woody's Gift Shoppe	Southern Collectibles & Comforts	The Good Stuff Store
Location	A small, rural town in the Midwestern US	A very small, wilderness resort community near the US-Canadian border	A large shopping area within a major Southern US metropolitan area	A mid-sized university city located in the Midwestern US
Location population	5,500	250	4 million	100,000
Age of businiess	25 years	6 years	17 years	19 years
No. of employees	8	2	7–8	35-50
Profile of brick-and-mortar customers	Town and area residents	1/3 rd local residents, 1/3 rd resort (2 nd –home) residents,1/3 rd travellers	Local residents or visitors of locals	Local residents or town/campus visitors
Electronic Retailing Strategies	Online auction listings	Online auction listings, Informational website with email ordering	Informational website with email ordering, Email advertising campaigns, Online auction listings (past)	Transactional website, Online auction listings
% of Annual Sales Generated Online	3–4	10 (100 of Winter sales)	33	20

employees, and four part-time employees. The storefront is open from 9 a.m. to 6 p.m., six days a week, with additional evening hours during peak seasonal periods.

Direct competition for Midwest Gifts & Collectibles is sparse as the business is the predominant gift shop in the community. However, the availability of similar products (e.g., greeting cards, gift baskets) offered in the local grocery and general stores do provide minor, yet indirect, competition. The primary product lines of the business are low-cost nationally recognized collectible figurines and dolls (e.g., Precious MomentsTM, Beanie BabiesTM), as well as greeting cards, gift-wrap, and helium balloons. Because of its dominant presence in the immediate area, the business maintains a basic marketing strategy, which primarily consists of advertising in the local weekly paper and in the telephone directory.

Midwest Gifts & Collectibles uses online auction listings to complement its brick-and-mortar sales, primarily through the use of eBay® and Yahoo!®Auctions. Sales generated from these online auction listings account for approximately 3 to 4% of its annual sales total. The owner indicated that they have no immediate plans to use any of the other e-commerce strategies.

Woody's Gift Shoppe. Woody's Gift Shoppe is a six-year-old family-owned and operated business located in the Northern United States, near the Canadian border. Woody's Gift Shoppe is located in a very small, wilderness resort community with a local population of approximately 250 permanent citizens. However, residents of the town and the immediate area comprise only one-third of its customer base. Visitors to the area's resorts and the owners of summer cabins provide the remaining two-thirds of its sales. The business is operated fully by the husband and wife owners. The storefront's hours of operation are very seasonal with store hours of 9 a.m. to 6 p.m. daily between April and December, with the storefront being entirely closed during the remaining winter months.

Direct local competition for Woody's Gift Shoppe has been growing since the store opened in 1995, when there were only three similar stores within a 25 mile area of the store. However, at the time of the interviews, the owner indicated that there were over 20 other similar stores within that same area. The primary products sold in the storefront include national brands of collectibles, consignment crafts, and regional food items. The business maintains a competitive local marketing strategy by advertising in the local paper, in visitor brochures, on a billboard, and in the telephone directory.

Woody's Gift Shoppe uses online auction listings to complement its brick-and-mortar sales, solely through the use of eBay®. In addition, the store has an informational website that displays product offerings and store information. Because the website is incapable of supporting transactions, visitors are directed to contact the store via email or telephone to order products. The website was designed by a local teenager, who is rehired

whenever major changes to the website are needed. At the time of the interviews, the owner indicated that no changes had been made to the website for over six months. Sales generated from the online auction listings or from contact originating from the website account for approximately 10% of its annual sales total, with these sources generating 100% of the sales during the winter months. The owner indicated that they have no immediate plans to change their e-commerce strategy, as the auctions have 'done quite well for us right now'. He added that 'one could easily make a living selling on eBay® full-time, even without a physical storefront.'

Southern Collectibles & Comforts. Southern Collectibles & Comforts is a 17-year-old business located in a large shopping area within a major Southern United States metropolitan area. Over four million citizens reside in the immediate metro area, which contribute to a large portion of the store's customer base. The remainder of the customer base consists of area travellers or visitors of local residents. The store is located in a shopping village of 150 shops. The business is operated and managed by the owner, with a staff consisting of three full-time employees and three to four part-time employees, depending on seasonal demand. The storefront's hours of operation are 10 a.m. to 8 p.m. Monday through Saturday and 12 p.m. to 6 p.m. on Sunday. Hours are extended during the holiday seasons.

Direct local competition for Southern Collectibles & Comforts is intense, as several stores offer similar merchandise within the shopping village and elsewhere throughout the metro area. The business focuses its product lines solely on nationally recognized collectibles. The business maintains an active marketing strategy, but most advertising is done in collaboration with other businesses within the shopping village (e.g., full page advertisements and brochures that feature the various stores).

Southern Collectibles & Comforts maintains an informational website that displays product offerings and store information. Because the website is incapable of supporting transactions, visitors are directed to contact the store via email or telephone to order products. The website was designed by a friend of the owner, who is contacted whenever changes to the website are needed, which is near weekly. Additionally, the store promotes its products through an active email advertising campaign, which includes the email addresses of over 5,000 prior customers. The owner estimated that over 33% of the business's sales are generated from the telephone orders and emails, which primarily originate from the email campaigns or the informational website. The owner indicated that she has no immediate plans to change the business's e-commerce strategy, but that she is open to the idea of adding transactional (e.g., shopping cart) capabilities to her website in the future. Previously, the business had participated in online auction listings, but that strategy is no longer part of the business's e-commerce strategy.

The Good Stuff Store. The Good Stuff Store is a 19year-old business located in a mid-sized university city located in the Midwestern United States. Over 100,000 citizens reside in the surrounding area. These residents, as well as campus visitors, fully contribute to the store's customer base. The business is a sole-proprietorship, but the owner has retired from the daily operations of the business. The store hires a general manager, who is responsible for all operational decisions, five product managers, who are responsible for ordering and displaying specific product areas, 10 to 12 full-time sales staff, and 20 to 25 part-time sales staff. The actual number of employees varies seasonally, but averages 35 employees during the slow summer season and 50 employees during the busy holiday season. The storefront's hours of operation are 9 a.m. to 8 p.m. Monday through Saturday and 12 p.m. to 5 p.m. on Sunday. Hours are extended during the holiday seasons.

The 25,000 square foot storefront is the largest volume collectibles store in the immediate area, but it does face some local competition from other vendors. The business sells a variety of products within the industry, including a wide assortment of nationally recognized collectibles, ranging from low-priced collectibles (e.g., Cherished Teddies ® by Enesco ®) to higher-priced collectibles (e.g., Lladro USA Inc.®, M. J. Hummel by Goebel). The store also sells bath products, plush animals, paper goods and greeting cards, candles and artwork.

The Good Stuff Store maintains an active marketing strategy, with advertising in the form of billboards, newspaper and radio advertisements, and mass-mailed product catalogues. The business maintains a transactional website. The transactional website, which has been active for over a year, gradually evolved from the company's informational website, which had first appeared online six years ago. While the website serves as a product catalogue for nearly all of the store's products, only the more demanded items are available for purchase online. These product lines account for approximately 55% of the business's sales. The design of the website was the result of collaborations between a department manager and a web design and hosting company. Additionally, the store is active in the online auction marketplace, primarily selling merchandise on eBay®. The manager estimated that 20% of the business's sales are generated from the transactional website or auction listings. The manager indicated that they are always open to changes in the business's e-commerce strategy, but that at this time, no immediate changes are warranted.

Data collection and analysis process

The owners/managers of the four selected businesses were sent a list of potential questions prior to the semi-structured phone interviews. The phone interviews,

which averaged nearly two hours in length, were conducted in 2002. The questions asked during the phone interview were customized to the specific experiences of the businesses, but included questions addressing their decision-making process, their experiences with their chosen e-commerce strategy, their e-commerce expectations, their organizational transformations resulting from e-commerce, and the impact e-commerce has had on their business strategy. The full set of questions is listed in Table 2.

Responses from the interview questions and the additional dialogue provided by the owners/managers during the conversations were individually assessed by the two authors. Benbasat *et al.* (1987, p. 374) state the analysis of case data depends on the integrative powers of the researcher, and that the partnering of two researchers can 'capture greater richness of data and rely more confidently on the accuracy of the data'. After we individually analysed the interview data and derived our findings, we compared, contrasted, and explained our individual analyses and findings in a series of discussions. From those discussions, we compiled our results and conclusions, which follow.

RESULTS & ANALYSIS

Findings from the interviews provide several insights into the strategic deliberation of small businesses as they consider expanding sales online. Specific results including the following: (1) the small business owners'/managers' perceptions of e-commerce and the electronic retailing strategies; (2) a synopsis of the IT capabilities (e.g., tangible IT resources, human IT resources, IT-enabled intangible resources) that are needed for each identified strategy; and (3) the identification of other non-IT factors that were heavily considered in the strategic deliberations of the small business owners/managers.

Owners'/managers' perceptions of electronic retailing strategies

The interviews provided interesting insights into the owners' and managers' perceptions of the four primary electronic retailing strategies and with e-commerce, in general. Primarily, the owners/managers were pleased with their abilities to reach a wider customer base than they would otherwise. As the owner of Woody's Gift Shoppe stated, 'Online, I am able to sell products to people who do not travel to this area. I've even had good experiences selling to people abroad.' In addition, the ability to increase their sales volume provided additional returns. The owner of Midwest Gifts & Collectibles stated that she sells products on online auctions to 'increase my sales level of Boyds BearsTM products to become a 'Gold Paw' dealer.' These high-volume dealers

Table 2. Interview questions

Category	Questions			
Business background	1.	What is your business's age?		
	2.	What is your business's size?		
	3.	What products are sold in your brick-and-mortar store?		
	4.	What are your customer demographics and buying patterns for your brick-and-mortar store?		
Decision-making process	1.	What is your company's decision-making style?		
	2.	What is the locus of control in terms of electronic commerce decisions?		
	3.	Why did you decide to expand your operations to include electronic commerce?		
	4.	Why did you choose to sell using < <chosen strategy="">> rather than <<different strategy="">>?</different></chosen>		
		a. Did time play a role?		
		b. Did the length of commitment play a role?		
		c. Did the product characteristics play a role?		
		d. Did your customer base play a role?		
		e. Did pricing strategies of the goods play a role?		
Electronic commerce expectations	1.	What were your initial expectations for your < <chosen strategy="">>?</chosen>		
and satisfaction		a. In what ways has your < <chosen strategy="">> fulfilled your expectations?</chosen>		
		b. In what ways has your < <chosen strategy="">> not fulfilled your expectations?</chosen>		
	2.	What benefits are obtained from your < <chosen strategy="">>?</chosen>		
	3.	What drawbacks are realized from your < <chosen strategy="">>?</chosen>		
	4.	What improvements and features has your business added to enhance the		
		< <chosen strategy="">> to better match your expectations?</chosen>		
	5.	Overall, are you satisfied with your company's electronic commerce presence?		
	6.	Overall, are you satisfied with your company's level of electronic commerce sales?		
Organizational transformation	1.	How has electronic commerce changed your organizational processes?		
	2.	How has electronic commerce changed the structure of your organization?		
	3.	How has electronic commerce changed the day-to-day functions and practices of your employees?		
	4.	What other organizational adjustments were necessary to accommodate electronic		
	•	commerce?		
Business strategy	1.	How has electronic commerce changed your overall business strategy?		
,	2.	Has electronic commerce changed the forces of competition for your business / within your industry?		
	3.	Is your business concerned with your competitors' electronic commerce offerings and implementations?		
	4.	How has electronic commerce change the composition of your customer base?		
	5.	What are your future strategies for electronic commerce sales?		
Questions specifically for the	1.	What auction sites do you sell on?		
auction strategy	2.	How long have you sold on these sites?		
<i>5.</i>	3.	What percentage of your total transactions is conducted online?		
	4.	Who designs your auction listings?		
	5.	Do you 'reuse' auction listings for repeat listings of the same items?		
	6.	How do customers interact with your auction listings to ask questions?		
	7.	What payment methods do you accept?		
	8.	What information about your store is available to customers through the auction listings?		
Questions specifically for the	1.	What is your store's website address?		
website strategies	2.	How long has the website been active?		
	3.	Was the website designed in house?		
	4.	Is the website maintained in house?		
	5.	How frequently is the website updated?		
	6.	(For information-only websites) Do you intend to offer sales through your website?		
Questions specifically for the	1.	How many email addresses are on your mailing list?		
email campaign strategy	2.	How frequently do you send out emails?		
	3.	How long have you been doing the email campaign?		

Table 3. IT resource requirements for various electronic retailing strategies

Category	Transactional website	Informational website	Email advertising campaigns	Online auction listings
	HIGH	MEDIUM HIGH	LOW	LOW
Tangible resources	Secure servers Database integration HIGH	Servers Dedicated connection MEDIUM HIGH	PC with Internet connectivity LOW	PC with Internet connectivity LOW
Human information technology resources	Site development and maintenance HIGH	Site development and maintenance MEDIUM HIGH	Basic typing and WWW navigation MEDIUM	Basic typing and WWW navigation LOW
Customer orientation (An IT-enabled intangible resource)	Customers initiate the sales of products.	Customers initiate the distribution of product information.	Businesses regulate the distribution of product information.	Businesses regulate the sales of products.

are able to get early introductions and special releases of new products, thus providing the business with additional opportunities.

Owners and managers considered transactional websites to be the most elaborate strategy due to its complexity, its extensive demand on technical and financial resources, and the IT knowledge required. Both transactional and informational websites follow a 'pull' marketing strategy, as the customers initiate the transfer of information content at a time convenient for them. Contrarily, the businesses, rather than the customers, initiate the timing of the transfer of information content when using emailing campaigns or when creating auction listings, thus following a 'push' strategy. This control was much welcomed to some owners/managers. Interestingly, the manager of The Good Stuff Store stated that despite their efforts to provide customers with the ability to purchase goods at their convenience with their transactional website, their customers would find what they are looking for online but that they would wait until store hours to call and place an order. The manager speculates that this behaviour is not a result of customers' lack of trust with the Internet, but rather that their customers want the personal interaction gained from talking with an employee about the items they order.

The owner of Southern Collectibles & Comforts stated that she would avoid sending email advertisings during peak periods for the storefront, allowing her to better manager her personnel resources. Furthermore, she raved that her business 'no longer conducts any regular mass mailings; all direct advertising with our customers is done through emails'. (Interestingly, she added that her Internet service provider had temporarily shut down her email account on two occasions thinking that the account was being used to send unsolicited junk mail. She now staggers the distribution of the emails to avoid inadvertent problems with her provider.)

IT capability requirements for the electronic retail-generating strategies

Results from the interviews suggest that the resources and capabilities required for the electronic retailing strategies varied, and that the small business would select a strategy that would be well-within its own IT capabilities. Table 3 outlines the resource requirements that were found as needed for the various electronic retailing strategies.

Tangible IT considerations. The technical requirements vary across the differing sales-generating strategies. If a small business chooses to expand online through the use of online auction listings, the IT requirements are small, primarily consisting of the need for a personal computer and access to the Internet. The IT requirements for a transactional website are much more demanding (e.g., secure server, dedicated connection). As the owner of Woody's Gift Shoppe indicated, 'a (transactional) website would require me to invest in a secure server.' He indicated that he was not able to decide on one, because it was too difficult for him to differentiate their features and to identify the requirements that he would need. Meanwhile, the owner of Southern Collectibles & Comforts commented that the operations of her store were not computerized, and that they are 'still handwriting all point-of-purchase transactions, mailing labels, etc.'

Human IT considerations. The human technical skill-sets required for the various sales-generating strategies range from very basic skills (e.g., basic typing abilities) to advance skills (e.g., java programming). To create an online auction listing or an email advertising message requires only basic typing and word processing skills and some familiarity with navigating on the web. A higher

skill-set is required for a business to develop and maintain a transactional website, unless they seek the assistance of consultants. Additionally, with the frequent advancements in technology, employees' skills will need to be constantly updated. A lack of technical experiences and competencies were prevalent among three of the businesses:

I hired a 16 year old kid to design our [informational] website. Although the kid trained me on how to make minor coding changes, I have to hire him back anytime any major changes need to be made to the site. (Owner, Woody's Gift Shoppe)

I lacked the technology expertise to develop a website. Auctions were easy to create and use. (Owner, Midwest Gifts & Collectibles)

A friend of mine designed the website. I will email her changes and she will update the site. She tracks the hours she spends doing it and then bills me for them. I don't want to do the website. I have enough other things to be concerned with. (Owner, Southern Collectibles & Comforts)

IT-enabled intangibles. IT-enabled intangibles consist of key organizational considerations that can influence a firm's IT capability (Bharadwaj 2000). Intangible considerations are strongly embedded into a firm's decision making process and can be difficult to identify and measure. Although the presence of these intangibles varies from organization to organization, the importance of customer orientation was one intangible that was prevalent among the businesses interviewed. Bharadwaj (2000) states that the ability to track and predict changes in customer preferences is a key capability for superior customer orientation.

Since consumer participation in electronic marketplaces is a prerequisite for businesses to find success in e-commerce, businesses must be proactive in increasing online customer participation. Strader and Hendrickson (1999) suggest that businesses can try to motivate customers to buy through an online channel by increasing consumers' opportunity, ability, and motivation to participate in e-commerce. Additional research has hypothesized that customers prefer companies with hybrid e-commerce strategies, and that they benefit from the synergies that arise when a business has both a physical and an online presence (Steinfield and Klein 1999).

Recent changes in the collectible industry are attributed to a transformation in the profiles of collectors. A recent industry report suggests that today's collectors are more empowered, more sophisticated, more demanding, and have more discretionary income than did past collectors (*Business Wire* 2001). Comments from the participants further suggest that customers within this industry would be prime for participation in e-commerce:

Our customers were coming into the store knowing more about our products and product lines than I knew. They would tell me that they found the information on the Internet. Once I saw the opportunities offered by the Internet, I wanted to develop a web presence for our store. I wanted to get the store's name out there. We started with sales right away. This was about five years ago. (Owner, Southern Collectibles & Comforts)

Other factors considered in the selection of online-sales strategies

In addition to the firm's IT capabilities, findings from the interviews suggest that there are other considerations that weighed heavily into the decision among electronic retailing strategies. Other considerations include financial decisions, pricing strategies, additional time involvement, the longevity of the business commitment, and the potential for new business opportunities. Table 4

Table 4. Other considerations in the deliberation among electronic retailing strategies

Category	Transactional website	Informational website	Email advertising campaigns	Online auction listings
Financial considerations	 High initial costs Low transactional costs	Average initial costsLow transactional costs	Low initial costsLow transactional costs	Low initial costs High transactional costs
Pricing strategy	Fixed priceProducts listed until inventory is sold	 Fixed price Products listed until website is manually updated 	Fixed priceProduct advertised through single email	FlexibleItem listed for a set period of time
Additional time commitment	Minimal correspondencePacking and shipping	 High Involvement Corresponding with customers/ taking orders Checking inventory Packing and shipping 	 High involvement Corresponding with customers/ taking orders Packing and shipping 	 High involvement Corresponding with customers/ taking orders Packing and shipping
Longevity of business commitment	• Long-term	Medium- to short-term	• Short-term	Very short-term

summarizes the prevalent non-IT factors that impacted the selection of strategies, based on our compilation of the shared perceptions and experiences of the interview participants.

Financial considerations. Financial considerations of each strategy range from the initial financial investment required (e.g., the monetary costs that a business must absorb before a transaction occurs) to the costs associated with each individual transaction (e.g., the monetary costs that the business absorbs for each transaction that is initiated and/or completed online). Transactional websites are considered to require a large amount of resources, thus having high initial costs. On the other hand, online auction listings require virtually no initial financial investment, but they are subject to a much higher transaction-related cost (e.g., final value fees). For certain online auction marketplaces, these fees can amount to about 10% of the final bid price of the item. Figure 1(a) plots the various strategies against their fixed costs and variable costs.

As the owner of Midwest Gifts & Collections claimed 'developing a website is not within my budget', thus he relied on other strategies. Meanwhile, another owner had similar financial beliefs:

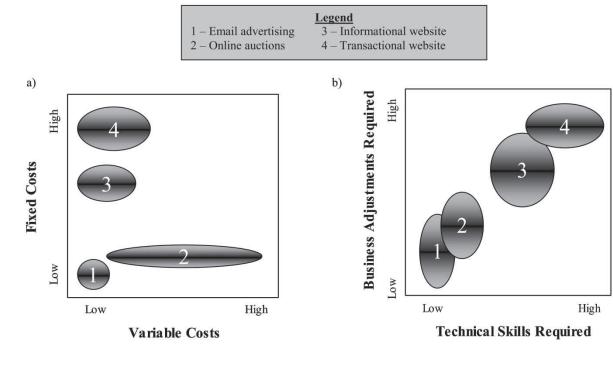
For every item we sell through eBay®, we spend approximately 10% in fees. For our small business it is worth it, but for a larger business that 10% might be better spent on hiring an employee to manage a (transactional) website. (Owner, Woody's Gift Shoppe)

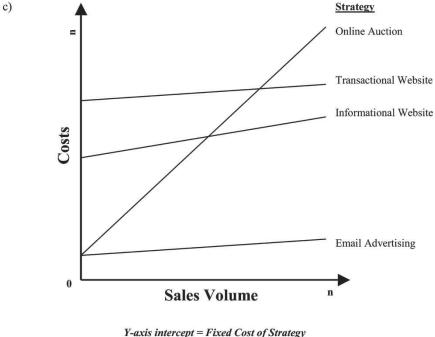
Pricing. Pricing of the products sold also came into consideration when the businesses were selecting their strategy. Online auctions operate differently than the other strategies in that the demands of consumers determine the price at which the item is sold, as long as the seller's reserve price is met, if applicable. Consumers place bids based on their willingness to pay for an item. In an industry, such as the Gifts & Collectibles industry, where rare and limited products can be harder for consumers to find, businesses can use online auction listings to generate a higher purchase price. The owner of Woody's Gift Shoppe indicated that any up-bidding on auctions provide extra revenue for him, as he lists the items at the minimum price at which he is willing to sell it. He shared one recent example of a four-year-old collectible that was misplaced in his stockroom and later found. Rather than selling the merchandise in his storefront for the original retail price of \$14, he listed the now retired and soughtafter collectible on eBay®. The auction closed at \$224. He elaborated that he 'sometimes gets embarrassed when there is a lot of up-bidding on an item, knowing that the person ends up paying too much for the item.' However, he overcame his feelings by adding 'the bidders are adults, so I shouldn't feel bad because of their actions.' Similarly, the owner of Midwest Gifts & Collectibles, who indicated that her business receives special releases and early introductions of new products because of the business's high sales level of one brand stated that auctions were very effective in achieving a premium price for these rare items since they are not available to the local dealers of many collectors. Owners also indicated that the online auction strategy was successful in reducing excess inventory, without reducing to sale prices. The owner of Midwest Gifts & Collectibles indicated that by putting her excess inventory on eBay® that the items would often sell at the original price and that her inventory was reduced quickly.

Additional time commitment. All strategies require an adjustment to the day-to-day tasks of employees. These adjustments can come in many forms, such as answering a larger amount of emails and telephone calls, relisting products to sell on the online auction, and packaging and shipping products sold to these online customers. However, the time involvement that is required varies based on the selected strategy. For example, sales generated via a transactional website or online auctions eliminate much of the correspondence that is needed with other strategies. As the owner of Woody's Gift Shoppe noted, 'I would have to respond to about ten email requests [arising from the informational website] before a sale is made.' Meanwhile, he indicated that online auctions reduce the amount of time he needs to spend emailing potential buyers. The owner of Southern Collectibles & Comforts also indicated that e-commerce requires a lot more time: 'that's the only negative — we've done well and we've made good money, but we've had to hire a few more employees since we are spending more time packing products for shipping.'

With some strategies, the firms have greater flexibility in controlling their level of time involvement. For example, online auction listings can generate sales during times when the brick-and-mortar store faces lower sales attributed to cyclical or seasonal sales (e.g., winter months). As the owner of Woody's Gift Shoppe shared, he adapts his online auction activities to correspond with the store's slow-times: 'at times when there are no customers in the store, I am able to still be productive through the online auctions — it's done at leisure.'

Longevity of commitment/Required business adjustments. Business commitment is the length of time that a business would need to dedicate itself to providing online sales through its selected strategy. Businesses selecting a transactional website would need a long-term commitment to help justify the higher initial costs. A long-term commitment can be a risky investment, especially if the business owner is uncertain to the benefits that would be gained. With the average length of online auction listings lasting just seven days, this strategy requires a much shorter commitment from the business. A business can stop creating new auction listings at anytime. Thus, less disruption to business procedures, such as existing inventory control methods, is realized.





Slope of line = Variable Cost of Strategy

Figure 1. Critical differentiators among electronic retailing strategies

As the owner of Midwest Gifts & Collectibles stated, 'I intentionally keep the volume of auctions that are listed low so that it doesn't interfere as much with my store.' The owner of Woody's Gift Shoppe indicated that selling through a transactional website would require him to carry a larger inventory of products and require him to keep stricter inventory management procedures, and 'by

selling through auctions, it is easier for me to maintain control over our inventory and to track what is listed for sale online.' He further added, 'we will continue to use the Internet to complement our store's sales, as long as we don't have to hire any employees — I find it to hard to deal with employees.' Meanwhile, the manager of The Good Stuff Store shares her strategy for balancing the

inventory between the storefront, the website, and their auction listings:

We put new inventory on our (transactional) website and sell older inventory items on eBay[®]. That way, for the items on the website we have a larger quantity in inventory. This helps us to reduce how often we have to change the content of the website when an item sells out.

Figure 1(b) plots the various strategies against the business adjustments required and the organizational technical skills required for each. Figure 1(c) illustrates the impact that online sales volume has on the fixed-variable cost combination for each strategy.

Additional realized benefits and drawbacks of e-commerce

Regardless of the chosen strategy, business owners report that their electronic presence has allowed them to discover new business opportunities, as they are able to identify new product trends and test new product lines. As the owner of Southern Collectibles & Comforts explained: 'The Internet has helped us with ordering. We now are able to get pre-orders from customers before new products are released. This helps us to better estimate the quantity of new products that we need to order.'

Also the business owners/managers found that their electronic presence has been a valuable advertising tool for increasing traffic in the brick-and-mortar store, as the owner of Southern Collectibles & Comforts stated that she was 'shocked at the number of local people who visit our store after finding out about us online'. In addition, the owners and managers were surprised at the level of sales per transaction online. Compared to transactions occurring in the brick-and-mortar store, online shoppers purchase a greater number of items in one transaction to maximize shipping. As the owner of Woody's Gifts & Collectibles remarked, 'the volume of items that a person will buy online really surprises me.'

However, the benefits of electronic retailing did not arise without some unexpected drawbacks. Owners and managers considered fierce online competition, damages to shipped packages, market uncertainty, and horror stories associated with online sales as additional drawbacks to electronic retailing. These drawbacks were often greater than anticipated by the businesses. For example, owners mentioned that shipping damages are higher than expected and that competition has forced them to accept additional payment methods to remain competitive. Additionally, the owner of Woody's Gift Shoppe indicated that 'I sometimes feel guilty by association when I hear horror stories about people's experiences with eBay®.' The owner of Southern Collectibles & Comforts shared similar experiences with online auctions, which led

her to discontinuing that strategy: 'Because of all the screaming done by collectors on electronic bulletin boards about retailers selling items on eBay® at prices higher than retail, I quite doing auctions. I didn't want our name to be included in anything negative.' However, the owner of Southern Collectibles & Comforts suggested that she learned to just ignore what the other sellers are doing, after being concerned with another store's offering of 'free shipping on everything'. (According to the owner, it wasn't long before that competitor was no longer in business.)

DISCUSSION AND IMPLICATIONS

After analysing the barriers, deliberations, and strategies undertaken by the small businesses analysed, this study provides the following four key findings.

Small businesses are restrained from resources and lack the technical skills needed to develop and maintain a transactional website. A transactional website requires a firm to be highly IT-capable. A requisite is that the business has the capacity to handle the tangible and human IT resource demands. The inability to meet the IT demands can be a barrier for some businesses.

Other factors also are causing small businesses to consider other strategies. While a transactional website requires a large initial financial investment and a long-term business commitment, alternative strategies do not. It can be more difficult for some smaller businesses to justify the upfront costs and risks associated with a transactional website, as they tend to need a more immediate return on their investments (Charlton *et al.* 1997). If the transactional website generates a large number of transactions, these upfront costs could be justified. However, the risks are too high considering that the initial financial investment with the alternative strategies is much more feasible.

Businesses in this study suggest that positive experiences with one strategy increases the firm's IT capabilities. For example, businesses having a positive experience in selling with online auctions have expanded beyond their initial strategy to encompass the higher IT resource requirements needed for an informational website or a transactional website.

Small business owners/managers don't know what to expect from electronic retailing, and thus select very deliberate strategies. Small business owners had very little or no initial expectations with their electronic retailing efforts. They were uncertain to the benefits and drawbacks that their business would experience if they were to sell online. Therefore, these businesses selected very conservative strategies that allowed them to 'test the waters' of the online marketplace.

By initially selling products through email campaigns and online auctions, business owners were able to

gain some practical electronic retailing experience. As Steinfield and Whitten (1999) suggested, we found that smaller, local businesses weren't fully prepared to serve distant customers in an e-commerce environment. Hence, the businesses slowly adjusted their brick-and-mortar operations for electronic retailing by initially using less disruptive strategies. They use these experiences to redesign current business strategies and processes to accommodate electronic retailing, even before introducing a transactional website. For example, managers could test various customer policies, such as sales returns and undelivered packages, before launching a transactional website.

Small business owners/managers want to capitalize on the benefits of electronic retailing, but do not want online sales to interfere with their existing and proven operations. This explanation suggests that small businesses may want to increase their sales and profitability through electronic retailing, but with minimal interference to their existing brick-and-mortar operations. The selling of goods through the online auction listings strategy could be done with only minor adjustments to existing business process. Additionally, this strategy can be used to keep employees active during low traffic times, thus improving productivity and sales.

The price-discovery nature of the online auction marketplace also appeals to small businesses, as they have been able to generate higher selling prices online for some items compared to the items' in-store retail prices. Managers are using this strategy to sell over-stocked and sought-after items, usually with a minimum sell price equivalent to their in-store retail price and fees. As the sell price increases due to competitive bidding, the manager realizes a higher profit than if the item was sold within the store.

There is a progression in the strategies of small business owners/managers. As technical, human, and intangible IT-based constraints are lessened, there appears to be a progression in the strategies of small business owners and managers. In our study, the businesses that have just recently developed their online presence have done so using strategies that require less IT-based capabilities, such as online auctions. Those businesses with longer online experiences have advanced from their initial strategies that required a lower level of capabilities to strategies that require a higher level of IT-based capabilities (e.g., transactional websites).

LIMITATIONS AND FUTURE RESEARCH

Although this study provides new insights, the study was not without limitations. First, the businesses were all members of the same industry. That constraint was applied in this study to help reduce the effect that outside

factors (i.e., product characteristics, competitive environment) would have on the business's chosen strategy. Future research is needed to confirm that these findings do represent the general population of small retailing businesses across industries.

Second, the businesses that were interviewed were all willing to participate in this case study. This suggests that these owners/managers had developed a strong interest in electronic retailing. This strong interest could have developed from positive online experiences. Studies using other methods, such as surveys, should be conducted to determine if the same conclusions could be drawn. Attempting to contact non-responding businesses is needed to confer that their unwillingness to participate is not attributed to a negative online experience. In addition, a study of companies that have practised a particular strategy, but have since ceased the strategy would provide interesting insights. Analysis from these companies could provide additional explanation into the disadvantages of the various strategies.

References

Auger, P. and Gallaugher, J. (1997) 'Factors Affecting the Adoption of an Internet-Based Sales Presence for Small Businesses', *The Information Society: Special Issue on Electronic Commerce* 13: 55–74.

Bakos, Y. (1998) 'The Emerging Role of Electronic Marketplaces on the Internet', *Communications of the ACM* 41(8): 35–42.

Benbasat, I., Goldstein, D. K. and Mead, M. (1987) 'The Case Research Strategy in Studies of Information Systems', *MIS Quarterly* 11(3): 369–86.

Bharadwaj, A. (2000) 'A Resource-based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation', *MIS Quarterly* 24(1): 169–96.

Business Wire (2001) 'Collectibles Industry Experiences Drop in Sales in 2000 Reports Unity Marketing', 5 September.

Charlton, C., Gittings, C., Leng, P., Little, J. and Neilson, I. (1997) 'The Impact of New Connectivity: Transferring Technological Skills to the Small Business Community', SIGPR 97 San Francisco, CA, USA, 97–103.

CyberAtlas (2001) 'Computer, Internet Use Increases at Small Businesses', 4 October.

Fan, M., Stallaert, J. and Whinston, A. (1999) 'A Web-based Financial Trading System', *Computer* April: 64–9.

Gebauer, J. and Ginsburg, M. (2003) 'The US Wine Industry and the Internet: Lessons from Early Online Initiatives', *Electronic Markets* 13(1): 59–66.

Grover, V. and Pradipkumar, R. (1999) 'Six Myths of Information and Markets: Information Technology Networks, Electronic Commerce, and the Battle for Consumer Surplus', *MIS Quarterly* 23(4) December: 465–95.

Jackson, J., Chang, K. and Grover, V. (2002) 'E-Commerce Strategy and Corporate Performance', Eighth Americas Conference on Information Systems, Dallas, TX, 688–96.

- Kaplan, B. and Maxwell, J. A. (1994) 'Qualitative Research Methods for Evaluating Computer Information Systems', in J. G. Anderson, C. E. Aydin and S. J. Jay (eds), Evaluating Health Care Information Systems: Methods and Applications, Sage, Thousand Oaks, CA, 45–68.
- Katz, R. (1974) 'Skills of an Effective Administrator', Harvard Business Review 52(5) September–October: 48–9.
- Larsen, K. and Bloniarz, P. (2000) 'A Cost and Performance Model for Web Service Investment,' *Communications of the ACM* 43(2) February: 109–16.
- Li, Z. and Gery, N. (2000) 'E-Tailing For All Products?', *Business Horizons*, November–December, 49–54.
- Mata, F., Fuerts, W. and Barney, J. (1995) 'Information
 Technology and Sustained Competitive Advantage: A
 Resource-Based Analysis', MIS Quarterly 19(4): 487–505.
- Nambisan, S. and Wang, Y. (1999) 'Roadblocks to Web Technology Adoption?', *Communications of the ACM* 42(1) January: 98–101.
- Palmer, J. and Griffith, D. (1998) 'An Emerging Model of Web Site Design for Marketing', *Communications of the ACM* 41(3): 45–51.
- Pinker, E., Seidmann, A. and Foster, R. (2002) 'Strategies for Transitioning "Old Economy" Firms to E-Business', *Communications of the ACM* 45(5): 76–83.
- Rao, B. (1999) 'The Internet and the Revolution in Distribution: A Cross-Industry Examination', *Technology in Society* 21: 287–306.
- Riemenschneider, C. and McKinney, V. (1999) 'Assessing the Adoption of Web-based E-commerce for Businesses: A Research Proposal and Preliminary Findings', *Electronic Markets* 9 (1/2): 9–13.
- Riggins, F. and Rhee, H. (1998) 'Toward A Unified View of Electronic Commerce', *Communications of the ACM* 41(10): 88–95.

- Rose, G., Khoo, H. and Straub, D. (1999) 'Current Technological Impediments to Business-to-Consumer Electronic Commerce', Communications of the Association of Information Systems 1(5es), Article 16: 1–74.
- Steinfield, C. and Klein, S. (1999) 'Local vs. Global Issues in Electronic Commerce', *Electronic Markets* 9(1/2): 45–50.
- Steinfield, C. and Whitten, P. (1999) 'Community Level Socio-Economic Impacts of Electronic Commerce', Journal of Computer-Mediated Communication 5(2), online at: http://www.ascusc.org/jcmc/vol5/issue2/steinfield.html.
- Steinfield, C., Bouwman, H. and Adelaar, T. (2002) 'The Dynamics of Click-and-Mortar Electronic Commerce: Opportunities and Management Strategies', International Journal of Electronic Commerce 7(1): 93–119.
- Steinfield, C., Mahler, A. and Bauer, J. (1999) 'Electronic Commerce and the Local Merchant: Opportunities for Synergy Between Physical and Web Presence', *Electronic Markets* 9(1/2): 51–7.
- Strader, T. and Hendrickson, A. (1999) 'Consumer Opportunity, Ability and Motivation as a Framework for Electronic Market Research', *Electronic Markets* 9(1/2): 5–8.
- US Census Bureau (2000) 'Establishment and Firm Size', 1997 Economic Census Retail Trade Subject Series.
- US Census Bureau (2003). 'Retail E-Commerce Sales In Fourth Quarter 2002 Were \$14.3 Billion, Up 28.2 Percent From Fourth Quarter 2001', Census Bureau Reports.
- US Department of Commerce (2000) 'Establishment and Firm Size (Including Legal Form of Organization): Retail Trade', 1997 Economic Census, October.
- Wolfinbarger, M. and Gilly, M. (2003) 'eTailQ: Dimensionalizing, Measuring and Predicting Etail Quality', *Journal of Retailing*: 183–98.