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Understanding the Role of E-commerce in Sales Strategy
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Abstract
The literature on understanding the role of e-commerce in business to business sales strategies is limited and largely anecdotal. Very few studies have empirically explored the role of e-commerce in business to business sales strategy. This research develops a normative theoretical model that provides insight into the role that e-commerce plays in an organization's business to business sales strategy and looks to test some of the hypothesized relationships using both qualitative and quantitative research methods.

Introduction
In 1998, business to business e-commerce accounted for $43 billion in transactions. This trend is expected to grow to $1.3 trillion by the year 2003 (Kaydo, 1999). Many organizations use the Web for business to business transactions to take advantage of its ability to reduce response time to customers, handle routine or standardized requests for service or information and the technologial link it can provide between suppliers and their business customers. While the sales and service oriented web sites can provide a tremendous amount of information to business to business consumers, the richness of the interaction between an organization and its customers can be limited.

As the use of e-commerce in business to business transactions increases, understanding the role and unique benefit of this tool in an organization's sales strategy becomes paramount. Many people and retail businesses have familiarity in using the Web to facilitate sales transactions with individual consumers. Retail companies employing a web-based strategy have focused on the web's ability to increase sales, improve communication with its customer and improve service (Griffith and Kramph, 1998) while simultaneously providing significant cost savings. However, research has shown that many technical impediments exist today for a successful implementation of e-commerce strategies in business to consumer market [Rose, Khoo, and Straub, 1999]. Some of these impediments include download delays, interface limitations, search problems, inadequate measures of success, security and lack of standards. While EDI-based or dependent supply chain systems have been in place to support business to business commerce on the back-end for quite some time, broadening and migrating such systems into an exchange mode (as is being talked about in many “auto-exchanges”), where the web-like interfaces have to support a firm's entire sales strategy (contacting potential clients, bidding, quoting, etc.), is riddled with similar technical impediments. These impediments will have a compounding effect as these interfaces, delays, security concerns, etc. impact many more transactions and can have a devastating impact on the a $ sales volume of a firm in the B2B market. Hence, when E-commerce is used to support not just the business transactions but an entire sales process, firms have to be careful when and how they use web-line interfaces to develop, implement and support their sales strategy. While some of their sales strategies are dictated by the leverage a consumer may have, the nature and volume of business transactions, product complexity and the complexity of the overall sales process will all have an impact on a way a firm develops its sales strategy.

A basic sales process consists of the following set of activities: prospecting, qualifying, building credibility, uncovering problems or needs, presenting solutions, closing the sales and providing after sales service (Garofalo, 1998). The beginning stages of the sales process focus on delivering a vast amount of information on the company and its products and gathering information about potential customers. The latter stages of the process, such as uncovering needs and creating solutions, can be more interaction intensive and greatly benefit from dialogue and other richer means of interaction.

Individuals are boundedly rational. In decision making human beings must consider a number of satisfactory alternatives and then choose a course of action from among them (March and Simon, 1958). The nature of the sales exchange (product characteristics and process characteristics) impacts the effectiveness of the sales method employed. This occurs because different types of exchanges place different demands upon the cognitive capacity (learning requirements) of individuals. Therefore, the choice of sales media not only affects the quality and number of decision alternatives that can be generated within the context of a particular transaction, but it will also affect one's willingness to act without a complete set of optimal alternatives. Richer interaction communicates more information in less time, thereby decreasing decision uncertainty.
The literature on understanding the role of e-commerce in business to business sales strategies is limited. The majority of these studies have been largely anecdotal in nature. Very few studies have empirically explored the role of e-commerce in business to business sales strategy. Thus, to advance the literature we develop a normative theoretical model that provides insight into the role that e-commerce plays in an organization's business to business sales strategy.

**Research Question**

What factors affect how a company should use e-commerce as a part of its business to business sales strategy? Secondly, does the stage of the sales process impact the use of e-commerce as a part of sales strategy?

**Theoretical Perspective**

Companies can use e-commerce as a part of their business to business sales strategy (at any or all stages of the sales process). E-commerce can be used to complement existing sales methods (i.e., sales representatives, etc). Complementing existing sales methods would mean that e-commerce would be added to the sales representatives' repertoire of tools and techniques used in the sales process, thus enabling them to do more than they could do without the addition of IT. E-commerce can be used in place of existing methods by either substituting electronic media for sales representatives (thereby freeing their time to focus on other aspects of the process). Alternatively, e-commerce can be used to both complement and substitute different stages of the sales process. In other words, e-commerce could be used to augment the processes of prospecting, building credibility and qualifying and used to substitute for sales representatives via arranging and managing after sales service. The last option is that e-commerce is not used at all in the sales process.

We are proposing that there are five conditions that will help to explain how a firm uses of e-commerce as a part or their sales strategy: the stage of the sales process, customer segment, transaction complexity, product complexity, and the brand name capital associated with the asset.

**The sales process** consists of six stages (Garofalo, 1998): (1) prospecting and qualifying; (2) building credibility; (3) uncovering problems or needs; (4) presenting solutions; (5) closing the sales; (6) providing after sales service. Each of these stages requires a level of different interaction intensity (interaction richness). The level of interaction intensity required at each stage depends of the customer's familiarity with the organization's products and services. Where customers have little familiarity with the organization and its products, richer interactions are needed than when customers are familiar with the organization and its products. Business to business customers can be at multiple stages of the sales process simultaneously depending on how products markets are coupled within the organization. Thus, if the customer has already purchased a particular class of products and is being solicited with new or complementary products familiarity with the organization and its products will increase even though the customer is at the beginning stages of the sales process.

**Customer segment** refers to the segment of customers at whom the sales strategy is aimed. These segments include prospective customers, new customers, repeat customers. Further delineations may be based upon the extent that the account is key or critical to the organization (i.e., key accounts versus non-key accounts). Customer segment influences an organization's use of e-commerce in sales strategy to complement or substitute existing sales methods (Kaydo, 1999). Kaydo (1999) describes the role that e-commerce plays in the business to business sales strategies of five companies (Cisco, Applied Technologies, National Semiconductor, Xerox and PHH Vehicle Services).

Cisco uses dealers (sales representatives) to establish new accounts and afterwards allows customers to purchase online. Allied Technology uses e-commerce in a similar way. Prospective customers are able to explore Allied's web site and learn about the company and its products. However, before these new customers can order any of Allied's products, they are assigned to a local branch, contacted by a sales person to discuss pricing arrangements and set up with their own extranet to access their accounts online. Allied Technology and Cisco are examples of companies that rely heavily on their sales representatives to interact and establish relationships with new customers during stages three through six, before allowing those customers to purchase online. Xerox, on the other hand, uses e-commerce to not only complement sales representative's activities, but also to substitute for representatives in certain smaller product markets. In this case, customers can purchase smaller copiers and equipment. The use of sales representatives with first-time customers illustrates the importance of richer interactions in influencing buying decisions. This is especially true with the products or services are complex.

**Transaction complexity** refers to the complexity associated with the sales exchange. It is measured as the average of the following five variables that represent manager's perceptions of:

1. The nature of the company - difficulty of a salesperson's learning the ins and outs of their company needed for success.
2. Nature of the customer - the extent to which sales representatives require a lot of time to get to know their accounts.
3. Designation as key account - percent of accounts that require special attention
4. Customer loyalty - the extent to which personal relationships between sales people and accounts affects sales. (i.e., influence of personal relationships between salespeople and accounts on sales.)
5. Functional involvement: measured by the amount of direct involvement from other functional areas in the sales process (For example, engineering or R&D involvement with the sales during a sales presentation)

**Product Complexity** refers to the number of characteristics associated with a product and sophistication McCabe (1987). This can be measured using a 5 point continuum on the following attributes: Standardized Product/Differentiated Product, Technically simple/Technically complex, Easy to install and/or use/ Specialized instillation and/or use, No after sales service/Technical after sales service, Nature of the product (i.e., the amount of extra training needed in this firm by a new salesperson who has experience in the product class).

**Brand Equity** Timmers (1998) develops a series of electronic commerce business models. He suggests that the use of a brand name as a part of an e-commerce business model should lead to more trust and thus an increased readiness to buy. This variable measures the extent to which respondents perceive a brand to be more differentiated than others based on moderately discrepant information (Sujan and Bettman, 1989).

![Figure 1. Factors Predicting the use of E-Commerce in Business to Business Sales Transactions](image)

**Theoretical Framework**

Figure 1 suggests that the customer segment, stages of the sales process and product complexity all will have a direct impact on the complexity of the sales transactions. The complexity of a business to business sales transaction directly affects the way a firm will use e-commerce in formulating its sales strategy. In addition to transaction complexity, we hypothesize that an organization's brand equity will directly influence the role that e-commerce plays in the sales strategy.

Research is currently underway to formulate some of these relationships and test them using both in-depth qualitative interviews and survey data. We hope to discuss some preliminary analysis of qualitative data by August at the AIS conference.

**References**


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