Industrial Marketing Communication

A (R)evolutionary Journey from Marketplace to Marketspace

1994-2005

Tim Foster

Luleå University of Technology
Department of Business Administration and Social Sciences
Industrial Marketing and e-Commerce Research Group

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There is magic in the Web... ”

-William Shakespeare

Abstract

This thesis looks back over a ca 10-year period, 1994 – 2005, on the use of marketing communication tools in industrial markets. The year 1994 is significant in two ways: First, it was the year I was hired as a doctoral student at Luleå University of Technology in Sweden. The year is also significant as it is around this time (1994-95) that the Internet became commercialized and openly available for use beyond simple, point-and-click information retrieval. This decade-long journey was broken into two parts: The first part explored the entire industrial marketing communication toolbox, where both personal and non-personal tools, as well as the emerging Internet were used for industrial sellers to provide information, as compared to what industrial buyers were using to obtain information. The second part looked at the Internet as a marketing communication tool onto itself.

The first part of the study (1994 – 1998), resulted in a Licentiate thesis entitled “Industrial Marketing Communication: An Empirical Investigation on the Use of Marketing Communication Tools” (Foster, 1998). It is provided here synoptically as *Study A*. In *Study A*, industrial sellers and buyers were investigated as to how they utilized all of the marketing communication tools within the industrial marketing communication toolbox. It was found that there was still a heavy reliance on personal, non-commercial forms of marketing communication, primarily personal selling. The non-personal forms of marketing communication, or the “tools” within the compartments of advertising, sales promotion, public relations, and direct marketing, were also utilized, but not in the same way or to the same degree. The Internet was seen neither as a purely personal nor as only a non-personal form of communication, so it was given its own “compartment” in the toolbox, as highlighted in *Study A*’s conceptual framework as an additional (new) “industrial cyber *space*” (or area) within the toolbox. Although being utilized at the time by industrial sellers and buyers, primarily via tools such as websites and to a certain degree e-mail, the Internet was considered a little-used but potentially valuable “marketing communication tool of the future.” It was this finding that became the foundation and the invitation to investigate the Internet as a marketing communication tool onto itself in “the future.” This became the focus of the next phase of the study.

The second part of this study picked up where the first part left off and took place during the years 1999 – 2005. It started with looking at the literature on the use of the Internet in industrial (B2B) markets, and more specifically at the use of websites as industrial marketing communication tools. This in turn became the foundation for *Study B* in this doctoral thesis, “The Internet as an Industrial Marketing Communication Tool.” For various reasons, chief among them the

flexibility with investigating the area at a time when so much was changing and at such a rapid pace, an article format was chosen over continuing on with the monograph format used in presenting *Study A*. Around this time Jones (1999) explained that not only should the Internet continue to be a focus of our respective scholarly research efforts, but it should also be used as a tool to conduct that research. From this, it became of interest to focus *Study B* on these two areas: The Internet as a focus of my research (i.e. the AREA focusing on its use as an industrial marketing communication tool), as well as a tool used in conducting the research itself (i.e. the APPROACH to the research). Therefore, the first two articles in *Study B* look empirically at the use of the Internet as a marketing communication tool in an industrial setting. The third article focuses on how the Internet was used as a tool in conducting this research. The fourth article looks back longitudinally over the entire 10-year period, from *Study A* through *Study B*, discussing the findings from both the area of research as well as the approach.

Overall, it was found that this research area focusing on the use of industrial marketing communication tools is actually becoming revolutionized in terms of how industrial sellers and buyers, and potentially other stakeholders in the industrial value chain, communicate and interact with one another. More specifically, technology seems to be affecting these relationships in new and exciting ways. It is suggested that what this 10-year journey has produced is the idea that we are in the midst of a “perfect storm” of revolutions within industrial marketing communication research, where both the respective focus of our research as well as the ways in which we go about doing it are caught up and mixed together within areas that will inspire us to continue to do more research, if we can keep up.

To the lights of my life,

Lukas & Natalie

Acknowledgements

My name is on the front of this thesis, but there are so many who helped me put it there. None of us are alone in any facet of our lives, be it at home or in the workplace. To say “thank you” to so many is not enough. Instead, my “thank you” will be in the form of telling you what I have learned from those who helped me get here. I can’t mention each person, but if you are reading this and you know me, you have been thought of...and I have learned from you...and for that I am thankful.

Family comes first: This thesis, as shown on the page before this one, is dedicated to my two children, *Lukas* and *Natalie*, the lights of my life. You two have taught me what true love is, as there is no love in this world stronger or more beautiful than the love you share with your children. My Licentiate thesis (1998) was dedicated to my Mom and Dad, and I believe we are because of our parents love. My Mom, *Jan*, passed away in February 1996, two years before the completion of my Licentiate thesis. My Dad, *Bob*, since remarried to *Mary Lou*, still lives in my hometown of East Lansing, Michigan. To my *Mom and Dad*, you taught me how to live, but more importantly, you taught me how to love. I could not have asked for better parents, a better childhood, or better role models. To my brother *Rob*, and his wife *Val* and their children, *Chloe and Jack*, you have taught me that the true value of a person’s life is not about what we get, but only in what we give. You have given me so much, yet words can’t express it. To my sister *Kris*, and her husband *Greg*, and their children *Sarah, Emily and Hannah*, you taught me that the strength of a person’s character is not in the words they use, but in the actions that support those words. Your support has meant more than you know. To all of my other relatives, past and present, you have taught me that life is about lessons learned, and that we need to use such lessons to simply move forward...there is only forward.

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lost friend, *Cristina Baptista*, who taught me that the little things in life should be savored, and not worried about. To *Lars-Ole Forsberg*, who taught me that teaching is more of an honor than a duty. To five of the best people I know, who helped with so many things, but what I learned from all of you is the importance of always doing so with a smile on your face: Thank you *Anne, Monica, Barbro, Carola and Tatiana*. To the “computer guys” over the years, *Lars-Göran, Janne*, and in the end, *Christofer*, you guys taught me that our reliance on technology (and those who influence it) should never be taken for granted. Thanks for being there when I needed you. To *Karin Axelsson-Grafström*, who gave me my first eight hours of teaching in April 1992 at Luleå University, you taught me that the chances we take in life, be it on something or someone, are a gift you give without expecting anything in return. To *all of my other colleagues and friends* at the “old” Division of Industrial Marketing & e-Commerce (and the “new” Division of Business Administration & Management), as well as at the entire Department of Business Administration & Social Sciences, and throughout the entire community that makes up Luleå University, you have all taught me that life truly is an adventure, not a destination.

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Luleå, Sweden – October 2006

Tim Foster

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1 Introduction

*The title of this thesis is “Industrial Marketing Communication – A (R)evolutionary Journey from Marketplace to Marketspace.” This first chapter will begin with a background, taking a look at industrial marketing communication as an area of research and narrowing down to an overall purpose of the thesis, which focuses on the marketing communication tools used in industrial markets during a turbulent, (r)evolutionary period. A problem discussion follows and lifts off from this overall purpose to highlight the opportunity to investigate the evolution of the tools within the industrial marketing communication toolbox during a 10-year period (1994 - 2005), the first decade of the commercialized Internet. In order to do this, the thesis is divided into two parts: **Study A**, a synopsis of a monograph that resulted in a Licentiate thesis (Foster, 1998), and **Study B**, a series of articles developed and added since 1999. The chapter ends with the connection between the overall purpose of the thesis with the respective specific purposes of Studies A and B. Finally, an overview of the structure and layout of the remaining chapters will be presented.*

1.1 Background

“We are all beginning another great journey. We aren’t sure where this one will lead us either, but again I am certain this revolution will touch even more lives and take us all further. The major changes coming will be in the way people communicate with each other. The benefits and problems arising from this upcoming communications revolution will be much greater than those brought about by the PC revolution.”

-Bill Gates (1995, p. xi)

Although Gates (1995), in the quote above, was looking forward into the oncoming communication revolution, human communication has been around for millennia (Williams, 1981) and promotion (or marketing communication) has been used for hundreds of years by many types of organizations to sell goods, services and ideas (Duncan, 2002). Although it is not the aim of this thesis to look back over hundreds of years, it is perhaps worthwhile to look back at an earlier part of the 20th century, in the midst of the last great business upheaval, a period known as the industrial revolution.

One of the first references found on 20th century marketing and promotion in industrial markets was by Lester (1935), who presented the various ways in which industrial sellers can communicate with their buyers at a time before modern marketing was in place, both practically and in academia; a time when the mass media were dominated by print and radio; a time when the Internet was non-existent and television was just starting out. Lester explained back in 1935 that, *“There is a real problem existing in locating and reaching the companies and plants to be interested and also the particular persons in them who influence buying”* (p. 264). He went on to add that there are two primary means for communicating with customers: Personal contact and (sales) promotional contact.

This evolved into another early reference to industrial marketing communication: Alexander, Cross and Cunningham (1956) stated that in addition to industrial advertising, other methods of promoting sales included industrial shows and exhibits, the distribution of samples, publicity, public relations, advertising novelties, correspondence, and entertainment of customers.

During the 1950s and 1960s, researchers such as Schramm (1955) and Shannon and Weaver (1962) developed a communication process that was eventually incorporated into the (industrial) marketing communication process (Turnbull, 1974; Fill, 1995; Hoffman and Novak, 1996; Foster, 1998), where a SENDER (seller) develops a MESSAGE through particular MEDIUM (or channel) to a specified RECEIVER (buyer), with a certain EFFECT (or outcome) of that message being sent.

However, this “process” became revolutionized with the advent of what Hoffman and Novak (1996) refer to as a model of marketing communications in computer-mediated environments (CMEs), such as the Internet. A depiction of the marketing communication process evolving is depicted below (see Figure 1.1).

Figure 1.1: Revolutionary Changes in the Marketing Communication Process

SOURCE: Adapted from Hoffman and Novak (1996), pp. 52-53.

NOTE: In this model, “F” = Firm and “C” = Customer (rather than “Sender” and “Receiver”)

In comparing the two models above, Hoffman and Novak (1996) stated that we are moving from the more traditional “one-to-many” communication process, which is also considered the traditional (industrial) marketing communication process, towards a “many-to-many” version. In the many-to-many communication process outlined by Hoffman and Novak, the “new shape” of the process implies that it is not as linear as the traditional communication process. Based on these changes in the marketing communication process, a possible paradigm shift, it became of interest to investigate the “medium” or channel portion of the process, from both perspectives (i.e. taking into consideration both of the processes above). Furthermore, the interactivity from the seller (i.e. the firm, or “F”) and the buyer (i.e. the customer, or “C”) can be *with* the medium (i.e. interactivity between a person and the online environment, for example a website) or *through* the medium (i.e. interaction between people).

Hoffman and Novak concluded in 1996 that through this new, many-to-many communication model, buyers can actively choose whether to approach (interact with) firms through their website, let alone exercise control over the content with which they interact. As such, it provided dynamic potential for growth and development, as well as a virtual revolution in the way marketing academics and practitioners alike approached the problem of effective marketing (communication) in emerging online environments. The shortcomings of the many-to-many model proposed by Hoffman and Novak is that it implies that it is only customers (“C”) and firms (“F”) that can utilize let alone control the content of such websites, yet they don’t define these potential actors via any formal, “stakeholder” categorization. In addition, the fact that traditional advertising, sales promotion, personal selling and public relation efforts were not going anywhere, the question of whether the new process was replacing the old or simply became a compliment to it was considered. It became the aim of this thesis, therefore, to look at both and try to add some clarification.

As the industrial age gave way to the information age, which gave way to the communication age (Thornburg, 1995), communicating with the customer and discussions on advertising and promotion in industrial markets gave way to modern marketing communication theory and the marketing communication mix. The “mix” according to Wells, Burnett and Moriarty (2000), includes the use of advertising, personal selling, sales promotion, public relations, direct marketing, point-of-sale, and packaging as the main techniques collectively called marketing communication. Whereas the “mix” implies the areas (or compartments) that various tools reside (De Pelsmacker, Geuens and Van den Bergh, 2005) this thesis will focus on the marketing communication (or promotional) “tools” available in the entire marketing communication (promotion) “toolbox” (Foster, 1998; Goodman, 2001) during these times of change (Goodman, 2001).

However, marketing communication today has become more than just a message being sent via a specific medium from sellers to buyers. A more recent and updated definition of “marketing communication” is provided by Fill (2005): *“Marketing communication is a management process through which an organization engages with its various audiences. By understanding an audience’s communications environment, organizations seek to develop and present messages for its identified stakeholder groups, before evaluating and acting upon the responses. By conveying messages that are of significant value, audiences are encouraged to offer attitudinal and behavioral responses”* (p. 17). Fill continues that marketing communication provides added value and integration in an age where such communication will meet the varying needs of different audiences by embracing one-way, two-way, interactive, as well as dialogic approaches, depending on the needs and circumstances of that audience.

As outlined in the quote by Bill Gates at the beginning of this chapter, we are moving towards a communication revolution. Now in the early part of the 21st century, new media and information technology are creating new opportunities for marketers to not only communicate with customers and generate sales, but integrate their communication efforts as a means for more effectively and efficiently building long-term relationships with customers and other stakeholders in the organization (Duncan, 2002). Goodman (2001) put it bluntly in the first sentence of his article on current trends in corporate communication: “Change.” (p. 117). Asking, “What’s change got to do with it?” his answer was equally straightforward: “Everything – if you plan to survive. Nothing – if you don’t” (ibid). With this he meant that change, like what results from the flurry of a tornado, is inevitable and it should be approached with the awareness of what you can do and cannot do about it. The Internet, Goodman added, is a new tool, and any tool in a human system changes that system; and the Internet has dramatically changed the way in which corporations communicate – both internally and externally. To understand the changes occurring within industrial marketing communication during such turbulent times, more research is needed.

A call for more research during turbulent times

Marketing communication research is going through evolutionary (Kamel and Hussein, 2001; Humphreys, *et al.*, 2006) and even revolutionary (Arnott and Bridgewater, 2002; Sharma, 2002) changes. The term “evolution” implies a gradual process in which something changes into a different and usually more complex or better form (American Heritage Dictionary online, 2005). The concepts of evolution and revolution have actually been considered together in other scholarly work: From an organizational perspective, Greiner (1972, 1998) looks at “evolution” as a prolonged period of growth where no major upheaval takes place, whereas “revolution” means a period of substantial turmoil. Within a B2B e-Commerce context, Dai and Kauffman (2002) ask, “Revolution or Evolution?” (p. 64), where “revolution” was in regards to the (broader) area of B2B e-Commerce becoming revolutionary and that “evolution” became the invitation to look at the area via specific perspectives. With the concepts of “evolution” and “revolution” now presented, a look at how this pertains to the (r)evolution of marketing communication tools will now be presented.

Evolution itself is not a foreign concept within the marketing literature, as several authors have used the term in describing their own work (e.g. Baker, 1993; Martin, 1999; Perren, *et al.*, 1999). For other researchers it is not so much about “evolution” but “revolution.” Just as the term research means to *re*-search, or to search again (Nachmias and Nachmias, 1987), the term revolution means to *re*

evolve, or to evolve again. Those scholars focusing on “revolutions” within research in the area includes studies on marketing (Leverick, *et al.*, 1997; Gummesson, 2002; Sharma, 2002), communication (Hoey, 1998; Phairor and Hanmer-Lloyd, 2002), the Internet (Wen, *et al.*, 2001; Sharma, 2002; Haley, 2002; Arnott and Bridgewater, 2002; Cagliano, *et al.*, 2003), as well as studies that look at the relationship with other stakeholders within the supply chain/value chain (McGuffog, 1997; van Hoek, 2001; Dawson, 2002).

Whereas several studies have asked for more research on the traditional marketing communication tools within the industrial marketing communication toolbox (see Foster, 1998), Rowley (2001) stated that it is the Internet that demands a significant review of approaches to marketing communication, as it is difficult to continue to view marketing communication as a distinct and bounded area of activity. Because of the changes occurring within (industrial) marketing communication research, most notably due to the advent of such tools as the Internet, there is a continuing call for ongoing and continually updated research:

- Hill and White (2000) pointed out at the turn of the millennium that more research with an online focus is needed: “*Literature on how practitioners perceive the Web as a communications tool does not exist*” (p. 33).
- More specifically, little research has been done on establishing models and frameworks for maximizing the interaction between an organization’s website and its stakeholders (Fink and Laupase, 2000).
- According to Deeter-Schmelz and Kennedy (2001), “*Although radical changes are occurring in the industrial marketing communications environment, much of the research in this area was completed before the Internet became a viable marketing communication tool*” (p. 145). In fact, these scholars found in their review of previous research on B2B communication tools that no empirical study since the advent of e-commerce had looked at the influence of the Internet.
- Ling and Yen (2001) spoke of the evolution of Internet, Intranet and Extranet applications as a means for companies to be able to deliver applications and services to their partners in order to derive real value from such partnerships.
- Well into the new millennium, Lord and Collins (2002) continued that, despite the enormous and growing significance of the web for the B2B sector, most research continues to be on consumer markets.

Gattiker, *et al.* (2000) added that, although there is a lot of effort and activity in B2B Internet research, there is much controversy and confusion as well. It is the aim of this thesis to begin to fill in this gap and begin to help to make things a bit more clear. However, the attempt to make things even a little bit clearer is made all the more challenging given the myriad of “evolutions” and “revolutions” we are facing within the area, as outlined above. However, instead of seeing this as a hurdle it was instead considered an invitation for further investigation. Therefore, from the discussion above, it can be seen that the industrial marketing communication toolbox, and the tools within it, are not only evolving, but possibly becoming revolutionized. Based on this, the overall purpose of this thesis is:

To provide a better understanding on the use of industrial marketing communication tools during a (r)evolutionary period (1994 – 2005), the first decade of the commercialized Internet

A roadmap for the journey that took place is presented next.

1.2 Problem Discussion

Based on the background presented above, two areas of focus emerged for this thesis. To approach these areas in the best possible sense, two separate studies were undertaken that together make up this entire doctoral thesis, now referred to as *Study A* and *Study B*. Following the traditional marketing communication process, it became of interest in looking at the entire industrial marketing communication toolbox, with a focus on the specific “channels” or “tools” used in industrial markets, of which the Internet was only an emerging, fairly unknown part. This was the focus of *Study A*, which took place during the period 1994 – 1998. Starting in 1999, and based on some of the major findings from *Study A* as well as a continuing review of the literature at the time, *Study B* began to emerge, which only looked at the Internet as a marketing communication tool. *Study B* took place during the period 1999 – 2005. How these two studies emerged and are connected within this thesis and to one another will be discussed next.

1.2.1 *Study A*: A look at the Entire Industrial Marketing Communication Toolbox

Study A (Foster, 1998), looked empirically at the entire “marketing communication toolbox, a place where industrial sellers go to provide information, and where industrial buyers can go to obtain it” (p. 65). Here, the

Internet was only one, emerging part of the toolbox. With the help of a complete yet not exhaustive review of studies on industrial (B2B) marketing communication tools, a framework was developed that resulted in a B2B marketing communication “toolbox” (see Figure 1.2).

Figure 1.2: *Study A*’s Conceptual Framework of the Industrial Marketing Communication Toolbox

SOURCE: Foster, 1998, p. 78

In the conceptual framework (“toolbox”) above, *Study A* pulled tools from both the B2B and B2C literature thus looking at nearly all of the marketing communication tools available to industrial sellers to provide information and industrial buyers to obtain information from the “compartments” including *personal tools* (e.g. sales calls, sales visits, trade shows) and *non-personal tools* (specific tools within the advertising, sales promotion, public relations compartments of the toolbox). The Internet was also investigated, but being so new at the time, it was placed in between the “personal” and “non-personal”, as there were opportunities for the Internet (as an emerging “multipurpose” tool) to be either one within a new “Industrial Cyberspace” compartment of the toolbox.

Regarding the “industrial cyberspace” compartment of the toolbox above, *Study A* found, at that time it was empirically tested (1997), that the Internet was a little-used marketing communication tool in industrial markets but that it represented an important consideration for the future by both industrial sellers and buyers. It should be noted here that while “industrial cyberspace” represents the “compartment” in the toolbox, the “Internet” was seen as a sort-of “multipurpose tool” which has on it such sub-tools as the Web (websites), e-mail, newsgroups, chat, etc. Unless otherwise noted when reviewing other studies, the term

“Internet” will be primarily used and in the fashion just described. More specifically, regarding the Internet as a focus of scholarly research in industrial markets, *Study A* found that:

- ✓ The Internet, and more specifically e-mail and websites, will become an increasingly important marketing communication tool *in the future*.
- ✓ The Internet will begin to replace certain non-personal marketing communication tools (e.g. brochures), while having little or no effect on the use of certain personal tools (e.g. personal sales calls).
- ✓ In terms of implications for practitioners, in this age of information technology such as with the Internet, the way in which we supply/obtain information must be re-evaluated, as both sellers and buyers feel this is *the future* of marketing communication in industrial markets.
- ✓ It was recommended that future research focus on investigating the implications of the Internet and websites on the *evolution* of the marketing communication toolbox...i.e. what does “Industrial Cyberspace” hold for industrial sellers and buyers (in terms of providing and obtaining information)?

Based on the framework used in *Study A* above, as well as the findings and conclusions that were the result of testing it empirically, an interest in delving into the central part of the framework in the figure above, or the toolbox compartment labeled “industrial cyberspace,” emerged. From this look at the entire toolbox in *Study A*, as well as the aforementioned consistent call for more research to fill in the gaps existing within this area of research and recognized by several scholars (Berthon, *et al.*, 1996; Foster, 1998; Hill and White, 2000; Deeter-Schmelz and Kennedy, 2001; Lord and Collins, 2002), it became of interest to look more specifically at the Internet as a marketing communication tool in industrial markets in *Study B* (see Figure 1.3).

Figure 1.3: The Internet as a “Tool of the Future”: How *Study B* Evolved from *Study A*

Based on the figure above, an overview of how *Study B* evolved will now be provided.

1.2.2 *Study B*: The Internet as a Marketing Communicating Tool

In reviewing the literature on the “Internet as a marketing communication tool” both during as well as after *Study A* was completed, it was found that two areas were in fact evolving:

- The ***evolution of the research AREA*** (Hoffman and Novak, 1996; Leverick, *et al.*, 1997; Brodie, *et al.*, 1997; Foster, 1998; Wise and Morrison, 2000; Sharma, 2002)
- The ***evolution of the APPROACH to the research***, or the strategies and methods used to conduct that research (Jones, 1999; Denzin and Lincoln, 1994 and 2000; Gummesson, 2000 and 2001; Mann and Stewart, 2000; Hine, 2005)

With this in mind, a discussion on each of these two different but related areas will be presented. From this, an outline of *Study B* will emerge.

Evolution of the research AREA: From marketplace to marketspace

As presented above, scholarly researchers (Hoffman and Novak, 1996; Foster, 1998; Evans and King, 1999; Hill and White, 2000) and respected practitioners (Gates, 1995) have pointed consistently to the changing face of business, marketing, and communication, especially as it pertains to the Internet. Scholars working in both the B2C as well as B2B literature all seem to agree on the same points: That the Internet is changing the way we view business, marketing, and more specifically marketing communication, and that the Internet as a focus for academic research is extremely worthwhile (Hoffman and Novak, 1996; Samli, Wills and Herbig, 1997; Berthon, Pitt, and Watson, 1998; Foster, 1998; Evans and King, 1999; Baptista, 2001; Arnott and Bridgewater, 2002). As for research within the B2B area, especially as it relates to the Internet, Wise and Morrison (2000) talk of the revolutionary changes underway, where a new set of challenges for buyers and sellers will emerge. Some of the more specific revolutionary areas will now be discussed.

The most common revolution within industrial marketing communication seems to be the one taking us “from marketplace to marketspace” as discussed or alluded to by several scholars (e.g. Pattinson and Brown, 1996; Weiber and Kollmann, 1998; Graham and Hardaker, 2000; Teo and Yeong, 2003; Berthon, *et al.*, 2003). Weiber and Kollmann (1998) put it this way: *“The physical world of raw materials, resources and products, the so-called marketplace, continues to exist...Alongside the physical world, there emerges a virtual world of cyberspace...this virtual world being characterized by digitalized information and communication channels. The virtual market in cyberspace, in which information is handled, processed and utilized, and through which virtual value creation chains are brought about within data networked, can be referred to as marketspace”* (p. 603).

As Blois (1998) pointed out, it was Rayport’s and Sviokla’s (1994) article that first introduced the concept of “marketspace” as a virtual realm where products and services exist as digital information-based channels (p. 75). As Blois discussed, the paper by Rayport and Sviokla stated that a “marketspace” enables members of the value chain to manage their (customer) relationships more directly as well as creating changes in the economics of product enhancement and/or product line extensions. Rayport and Sviokla went on to write in 1995 that businesses must learn to compete in both of these worlds, *“a physical world of resources that managers can see and touch and a virtual world made up of information”* (p. 75). They added that, in order to create and extract value with information, managers must turn to the virtual world of the marketspace.

Berthon, Pitt and Watson (1996) added at the time that, while most advertising academics and practitioners might be starting to think about and even acknowledge the importance of a website as a marketing communication tool, little systematic research had been conducted into the nature and effectiveness of the medium. They explained that most of the studies done up to that point had been of a descriptive nature – i.e. “what the medium is” (e.g. Verity and Hof, 1994; Ellsworth and Ellsworth, 1995). They felt that, while these academic endeavors might add to a general understanding of a website as a marketing communication tool, the research does not address specific issues such as the communication objectives that advertisers (i.e. sellers) might have and how they expect websites to achieve such objectives, as well as the effectiveness of this new medium from the perspectives of those receiving the message (i.e. buyers).

What is presented above illustrates the main revolutions occurring within the research area of industrial marketing communication and areas that are related to it. However, there are other revolutions occurring that are directly (or indirectly) related to this area. This is highlighted by Arnott and Bridgewater (2002), who, in writing about the Internet, interaction, and the implications of both on marketing, stated that using the Internet in fact facilitates relationship building, yet most firms overuse its informational benefits instead of using it for its true, interactive potential.

In linking the concepts of marketing communication with relationships, Duncan (2002), explains that it is communication that drives relationships. Communicating with customers (and other stakeholders) is important in order to be more effective and more efficient in one’s communication efforts and that the use of Integrated Marketing Communication (IMC) focuses on a relationship with a customer (and others), rather than simple transactions, and that the value in IMC is in its brand-building and relationships, rather than just sales. Put another way, Duncan stated, “*Just as one date does not constitute a personal relationship, one transaction does not create a customer relationship*” (p. 3). In fact, as Duncan pointed out, in moving from transactions to relationships, IMC allows for the (brand) situation facing the company to determine the best marketing communication mix.

Specifically defined, Duncan (ibid.) defines IMC as, “*a process for managing the customer relationships that drive brand value. More specifically it is a cross-functional process for creating and nourishing profitable relationships with customers and other stakeholders by strategically controlling or influencing all messages sent to these groups and encouraging data-driven purposeful dialogue with them*” (p. 8). With stakeholders, Duncan mentions employees, customers, investors, suppliers, distribution channel members, the community, the media,

special interest and activist groups, as well as government and other regulatory agencies. According to Fill (2005), technology, including the Internet, is helping to fulfill the promise of IMC, as “*technology is an enabler and to use it effectively requires integration*” (p. 302).

With a discussion of the evolutions and revolutions, or “(r)evolutions” occurring within (and related to) the research **area** presented, we now turn to a discussion on the other main revolution that has come forth due to the Internet, namely the evolution of the research **approach** (i.e. using the Internet to conduct research rather than just conducting research on it).

Evolution of the research APPROACH: *Making sense of a handful of Jell-O*

An emerging area of research, as discussed in the previous section, can also be met with an emerging set of issues related to how research within that area should be conducted (Jones, 1999). In fact, research on (or involving) the Internet has spawned a research revolution (Nancarrow, *et al.*, 2001). In this section we will visit the areas that are evolving with regards to how we conduct research not only on, but also using the Internet as a research instrument or tool in and of itself (Mann and Stewart, 2000).

In a review of the literature, it was uncovered that two main “revolutions” were occurring in our approaches to research: The first revolves around the use of the Internet as a research tool (Jones, 1999; Mann and Stewart 2000). The second “revolution” is within the area of qualitative research in general (Denzin and Lincoln, 1994 and 2000) and more specifically within management/marketing research (Gummesson 2000). Because some authors have brought up both of these areas (e.g. Mann and Stewart, 2000; Riva, 2001), both will be discussed simultaneously rather than separately.

Denzin and Lincoln (1994) explained that technology will continue to mediate our fieldwork and analytical techniques in qualitative research: “*Interactive computers will radically transform every phase and form of qualitative research,*” (p. 583) and the emergence of faceless, electronic selves along with new, electronic social worlds will push for the need for new research topics and new methods to understand them. Mann and Stewart (2000) added that, “*Internet research is not only concerned with the study of online behavior (what people do in virtual and mediated environments). It is also concerned with using computer-based tools and computer-accessible populations to study human behavior in general*” (p. 5). It is the aim of this study, therefore, to not only look at the area of research (industrial marketing communication tools) from both an offline and online perspective, but also to look into the Internet as a tool for conducting

qualitative research. The myriad of ways in which the Internet can be used as such a research tool will now be discussed.

In writing about conducting scholarly research in cyberspace, Jones (1999) admitted: “*I am not sure I know what the Internet is; I am not sure that anyone does*” (p. xvii). He goes on to say that any definition is fleeting, but that researching the hard to understand, the hard to define, and the rapidly changing is perhaps one of the most invigorating of academic pursuits. As Jones explains, the Internet as a focus of our research as well as an instrument used in conducting it is a bit like getting a grip on a handful of Jell-O¹: “The more you squeeze, the more it changes shape” (p. 12).

Gummeson (2000), in writing about the use of qualitative methods in management research, explained that it is imperative that we follow closely the developments of information technology and especially the impact of the Internet and e-commerce. Mann and Stewart (2000) stated that, “*A naturalistic, qualitative approach is more common in studies which investigate how people act and react when using CMC (computer-mediated communication) in social settings*” (p. 4). This is supported by Riva (2001), who adds that qualitative methods are often used to understand and observe phenomenon where the role of the researcher (in the research) is both participatory and personal. Riva continues that the Internet, as a social and cognitive space, is a medium that can be experienced in many different ways and is often best studied from a qualitative approach in order to gain a deeper understanding of something (as compared to explaining it via a quantitative study). Beyond looking at the Internet as a subject for scholarly study, Mann and Stewart (2000), like Jones (1999), also discussed using it as a tool, admitting that there has been little systematic analysis on how the Internet might be incorporated into various qualitative research practices and that an explicit and extended investigation of this has yet to be undertaken. This thesis hopes to begin to fill in these gaps, albeit on a limited basis, even though research involving a focus on the Internet, let alone using the Internet as a tool in conducting it, is filled with risks (ibid.).

Furrer and Sudharshan (2001) admit that the Internet is a new research tool, and while it is filled with opportunities, there are many difficulties as well. In speaking of the “evolving marketspace” (p. 142) Rayport and Sviokla (1994) put forth that the information revolution we find ourselves in the midst of is transforming, even revolutionizing business, and discussed how we are seeing that the information about a product or service is as critical as the actual product or service itself. They warn that, “*In a world where traditional marketplace*

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¹ “Jell-O” is a brand name of gelatin dessert that is often clear, colorful, and “squishy” (i.e. if held in the hand and squeezed, it would ooze or leak through your fingers).

signposts no longer matter, product becomes places becomes promotion" (p. 142). This "frustration" of not being able to separate research into being purely "promotional" in nature is supported by Deighton (1996), who claimed that the "4 Ps" of marketing do not "fit" in cyberspace the way they do in the real world. All the variables, in fact, interact with one another: *"In the interactive marketplace, product, price, the selling message (promotion) and the store are wrapped into one big value proposition"* (p. 156). This makes research in one area of marketing (in this one, "promotion" or marketing communication) perhaps feel like we are doing research in another area.

Other frustrations can arise as well when it comes to conducting research on the Internet, including the fact that the Internet changes daily, implying that today's findings will be outdated tomorrow (Deighton, 1996). As presented in Mann and Stewart (2000), Parr (1999) is quoted as saying, *"...this communication medium is so powerful it has a logic, a momentum, a force of its own. It's damn near unstoppable"* (p. 1). It seems that Rayport and Sviokla (1994), Deighton (1996), Jones (1999), and Mann and Stewart (2000) are trying to provide researchers with a useful albeit paradoxical warning: That the Internet as a focus of our research, or if simply used as a tool to conduct it, is extremely worthwhile, but beware that it is not as "straightforward" as the research we are used to in the "real world." More recently, Hine (2005) discussed that the Internet poses significant challenges for our understanding (and use) of current research methods.

With this look at what is evolving in the research area of industrial marketing communication, with a primary focus on the tools used, as well as a minor focus on the approaches used in conducting such research (especially when using the Internet as a research tool), and based on the overall purpose stated earlier, the overall purpose as well as the purposes for both *Study A* and *Study B* are now presented.

1.3 From the Overall Purpose to the Purposes of *Study A* and *Study B*

One of the primary conclusions from *Study A* (Foster, 1998) led to one of the recommendations for future research: The Internet...*"is the future of marketing communication efforts for industrial sellers and buyers"* (p. 263). The final recommendation for future research from this study was as follows: *"Investigating the implications of the Internet and websites on the evolution of the marketing communication toolbox...i.e. what does 'industrial cyberspace' hold for industrial sellers and buyers (in terms of providing and collecting information)?"* (p. 273). It is from this point in the "marketplace" investigated in *Study A*, and from the support of the literature reviewed above, that a bridge was built towards *Study B*. This is further supported by Rayport and Sviokla (1995) who add that, in order to

create and extract value with information, managers must begin to turn to the virtual world of the marketplace. It is the marketplace, therefore, that became the focus for *Study B*. Put another way, these two studies combined will aid in taking an (r)evolutionary journey from marketplace (*Study A*) to marketplace (*Study B*) during the period 1994 – 2005, the first decade of the commercialized Internet.

Based on this, as well as the problem discussion above, the overall purpose of this doctoral thesis, as well as the more specific purposes for both *Study A*² and *Study B*, are presented schematically in Figure 1.4 below.

Figure 1.4: A schematic Presentation of the Overall Purpose of the Entire Thesis as well as the Respective Purposes of *Study A* and *Study B*.

With the overall purpose as well as sub-purposes of *Study A* and *Study B* now presented, an outline for the remaining chapters is provided.

² It should be noted that, in using what was stated as a “research problem” in *Study A*, i.e. “How does the use of marketing communication tools by industrial sellers to provide information compare with what industrial buyers use to obtain information?”, (Foster, 1998, p. 10), it is now stated as a purpose in order to more directly conform to the layout and wording used in *Study B*, as well as fit with the overall structure of the entire doctoral thesis.

1.4 Summary and Layout of the Entire Thesis

This thesis is built upon the premise of connecting two separate studies: *Study A* (Foster, 1998), a monograph presented and defended as a Licentiate thesis in April 1998; and *Study B*, a series of articles submitted, accepted, and/or published in specific scholarly journals (and one conference proceeding), each connected to one another within *Study B* and in their totality to *Study A*. The four articles in *Study B* follow the recommendations by the scholars discussed above on not only focusing on the area, of which two articles are written, but also the approach, of which one article is written. The fourth article looks back over the entire 10-year period and pulls together the findings from both studies.

Put together, *Study A* and *Study B* combine to become a single doctoral thesis focusing on the use of industrial marketing communication tools during what is considered an evolutionary and even revolutionary period within the area. The use one's Licentiate thesis (in Sweden) as a study within the doctoral thesis is not uncommon (e.g. Westerberg, 1998; Baptista, 2001), and the use of articles in a Ph.D. thesis in Sweden is also an option (e.g. Berglund, 2003; Ljungström, 2004; Chronéer, 2005). A schematic presentation of the entire thesis, connecting this first chapter with *Study A* and *Study B*, as well as the final chapter, is presented below in Figure 1.5.

FIGURE 1.5: A Schematic Presentation of the Entire Doctoral Thesis

Chapter One has provided a foundation that has taken the reader from the title of the thesis to its overall purpose, as well as the more specific purposes of *Study A* and *Study B*.

Chapter Two will present a synopsis of a Licentiate thesis (*Study A*), focusing on the use of marketing communication tools within industrial markets. This chapter ends with a discussion on the need for future research on the Internet as a marketing communication tool and is seen as the bridge to the next chapter (or *Study B*).

Chapter Three will present the four separate articles that make up *Study B*. Each of these articles have been published, accepted and/or submitted to peer-reviewed, scholarly outlets within or related to the marketing discipline. Three of the four have been submitted to scholarly journals, while the fourth article was submitted and accepted to the Academy of Marketing Science (AMS) Conference, a paper that looks back at the entire 10-year study with a primary focus on the overall findings and conclusions for *Study B*, as well as the contribution of the articles collectively.

Chapter Four will provide a brief discussion on the overall contribution of the entire thesis, including implications for practitioners. The chapter ends with some recommendations on how research efforts could continue in the future.

2 STUDY A: Industrial Marketing Communication – An Empirical Investigation on the Use of Marketing Communication Tools

This chapter will present a study conducted between July 1994 and April 1998, the result of which was a Licentiate Thesis (Foster, 1998).³ What follows is a synopsis of the study, focusing on a brief introduction to the problem area, as discussed in Chapter One, resulting in a research problem (or overall purpose) for the study. This is followed by a brief overview of the literature review presented in Foster (1998), resulting in the formulation of research questions and a conceptual framework. A presentation of the methodological approach taken in Study A is then made, followed by a presentation and analysis of the data resulting in some broad findings. Finally, conclusions are provided in the form of answers to the study's research questions, followed by a final section covering the implications that the study had for theory, management, and future research. It should be noted that, in this chapter, section 2.1 is "Chapter One" from the Licentiate thesis, 2.2 is "Chapter Two," etc.

2.1 Introduction & Research Problem (the purpose of Study A)

As with other disciplines within the social sciences, industrial marketing has its own share of communication research taking place today. In such a setting, the buyers are often a group of individuals in a buying organization (e.g. a company, a government agency, etc.), and the sellers are often a group as well. In industrial markets, the need to obtain information by the buyers of industrial products and services has long been established.

Even the earliest models of industrial/organizational buying behavior (IBB/OBB) clearly demonstrate the importance of communication in gaining a better understanding of buying behavior. Webster and Wind (1972b) and Sheth (1973), both of whose general models on buying behavior are used today, refer to these forms of communication as *marketing communications* or *information sources*, respectively. On the selling side, the strategic need to supply such information by industrial sellers is also well established in the early marketing literature, where such concepts as the marketing mix or the "4 Ps" (McCarthy, 1960), which includes "promotion," are also widely accepted and still used today.

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³ The entire Licentiate Thesis can be found in PDF format and presented chapter-by-chapter at the following website: <http://www.ies.luth.se/home/users/timfos/research/page.html>

Because communication itself implies a relationship (Rogers & Kincaid, 1981), and marketing is seen as a process of building relationships (Grönroos, 1994; Sheth & Parvatiyar, 1995), this study will remain focused on communication between sellers *and* buyers in industrial markets, rather than on only one side, as some studies have done. It is recognized that communication also occurs between groups and individuals within the firm, as well as with other interested parties from outside the firm, i.e. a networking perspective (Campbell, 1985; Anderson, Håkansson, & Johanson, 1994). However, the focal concern of our work will be on the communication the industrial seller has with current/potential industrial buyers. This is referred to as a “focal relationship” (Anderson, *et al.*, p. 3).

2.1.1 The Focal Relationship

As stated, relationships exist between more than just the seller and the buyer. Each side also has what can be referred to as a “network” of other firms and individuals with whom they must cooperate/work with. A seller or buyer must have relationships (and thus communication) with, for example, banks, employees, professional associations, unions, etc. According to Anderson, Håkansson, and Johanson (1994), relationships are dyads and these relationships multiply into business networks. Anderson, *et al.* (1994) state that a business network can be defined as, “a set of two or more connected business relationships, in which each exchange relation is between business firms that are conceptualized as collective actors” (p. 2, with reference to Emerson, 1981). At the core of this network is what these scholars refer to as the “focal relationship” between buyers and sellers (see Figure 2.1).

Figure 2.1: Connected Relationships for Firms in a Dyadic Relationship

SOURCE: Anderson, Håkansson, and Johanson, 1994, p. 3

At the core of this *network* is a focal relationship between the supplier business unit (seller) and the customer business unit (buyer). Although communication research can be conducted throughout the network, as well as within just the selling or buying company, this study will focus on that communication relationship which exists within the focal relationship (or that between seller and buyer), with the primary focus being on marketing communication.

According to Webster (1984) *industrial marketing communication* is, “a mix of personal and impersonal communications aimed at the industrial buyer” (p. 248). However, promotion as a means by which a seller can communicate with buyers, and for buyers to be able to communicate back to the seller is only part of a much larger system known as the marketing communication process. This process will be presented in the next section.

2.1.2 The Industrial Marketing Communication Process

As communication and marketing are both considered to be processes involving human interaction, the understanding of communication within marketing is known as the marketing communication process. Turnbull (1974) offers an early, simplified version of such a marketing communication process for industrial markets (see Figure 2.2).

Figure 2.2: The Marketing Communication Process

SOURCE: Turnbull, 1974, p. 29p

Within this process, the *communicator* is an industrial seller; the *message* can vary depending on the communication objective of the seller; the *channels* include the various marketing communication tools that can be utilized by the seller to communicate with buyers; and the *audience* can include past, present, and potential buyers. The effect refers to the results of the communication effort (i.e. awareness, interest, etc.).

More recently, Fill (1995), presents another linear model of communication (based on the work of Schramm, 1955 and Shannon & Weaver, 1962), which he refers to as, "what is now accepted as the basic model of mass communications" (p. 24). This is graphically presented below (see Figure 2.3).

Figure 2.3: A Linear Model of Communication

SOURCE: Fill, 1995, p.24

The model above begins with a *source*, which is the individual or organization sending the message. Because Fill (1995) recognizes that it can be an organization or an individual sending the message, we view such models not only applicable to mass communication efforts, but useable for the communication on a personal (one-to-one) basis as well. *Encoding* means that the individual sending the *message* must turn it into a symbolic style that can be transmitted. The *signal* represents the sending of a particular message using certain sets of media or other forms of communication. *Decoding* means the receiver must understand this symbolic style used by the sender in order to understand the message. The *receiver* is the individual or organization receiving the message, and *feedback* is the opportunity for the receiver to communicate back to the source. *Noise* means any "distortion" of the communication process making it difficult for the receiver to interpret the message as it was intended by the source. *Realms of understanding* recognize that successful communications are more likely to take place if the source and the receiver understand one another. Such an understanding concerns the attitudes, perceptions, behaviors and experience of both the source and the receiver.

As Fill (1995) states, the more organizations understand their receivers, the more confident they become in creating and transmitting messages to them. However, the above models are extensive in nature and provide the researcher with an abundance of variables that can be investigated further. No one study should attempt to take into account all of the steps of the process, as well as factors such as *noise* and the *realms of understanding*, that lie outside and influence it. As Harper (1979) writes, such models of human communication specify the areas from which research and theory construction can take place. This way of thinking will be used in order to narrow this study down and focus only on a specific part of this process in industrial markets. This will be presented in the next section.

2.1.3 Focusing Research on a Portion of the Process

The purpose of this study is to investigate only a portion of the marketing communication process between industrial sellers and buyers. Although the *message* is at the heart of this process (that is after all what is being communicated), many scholars within industrial marketing have stated that there is a need for more research into the *channels* portion of the process (Galper, 1979; Moriarty & Spekman, 1984; Jackson, Burdick, & Keith, 1985; Bunn & Clopton, 1993; LaPlaca, 1997). This lack of research is discussed more below.

Fill (1995) states that the tools of marketing communication have traditionally included advertising, sales promotion, public relations and personal selling. Together, Fill adds, they are known as the promotional mix. It should be noted that the term *tools* will be used throughout this study to simplify what has also been referred to as *media* (Laswell, 1948), *medium* (Braddock, 1958), *information sources* (Sheth, 1973; Patti, 1977; Moriarty & Spekman, 1984), *channel* (Turnbull, 1974), *marketing communication mix* (Verhage & Waalewijn, 1979), industrial communication *elements* (Galper, 1979; Moriarty & Spekman, 1984), *communication vehicles* (Moriarty & Spekman, 1984) marketing communication *tools* (Parasuraman, 1981; Jackson, Keith, & Burdick, 1987) and *promotions mix* (Bunn & Clopton, 1993).

Galper (1979) writes that determining the mix of communication expenditures (i.e. what amounts are spent on which communication tools) is a subject of great interest to marketing practitioners, yet it has received only limited attention from academic researchers. Moriarty and Spekman (1984) add that relatively few studies have examined the impersonal (versus personal), commercial (versus non-commercial) sources of information, and that the findings of the few studies that do exist are less than conclusive.

A study by Jackson, Burdick and Keith (1985) focused on purchasing agents' perceived importance of marketing mix components in various industrial-purchasing situations. These scholars found that promotional efforts attempted by industrial sellers were significantly less important than efforts related to the other variables in the industrial marketing mix (namely product, price, or distribution efforts). They concluded that this lack of importance placed on promotion by industrial buyers was due to two possible reasons. First, purchasing agents often feel quite knowledgeable in the purchase of industrial products and do not require extensive amounts of additional information. Second, industrial marketers are not doing a very good job in supplying such buyers with information that would aid in their decision-making process or in the solution of problems that initiated that decision-making process. This second reason raises some important questions with regards to just how well industrial sellers and buyers are communicating with one another. The providing of information (by sellers) and the obtaining of information (by buyers) is indeed very important when one considers the amount of time and money that is often invested in industrial purchases.

Now in the 1990s, scholars continue to find that there is still a lack of research in the field of industrial marketing communication. Bunn and Clopton (1993) state that, *"Research on the particular combination of information sources buyers tend to use in a given situation, or how the mix of information sources used differs across purchase situations, is sparse"* (p. 459). They go on to add that, *"...there has been relatively little effort to develop a typology of the actual information source mixes industrial customers use, or to identify characteristics of purchase situations that affect how information sources are used in combination"* (p. 458). Finally, they stated that, *"...there has been relatively little research to determine if these conceptual dichotomies (such as personal/impersonal; commercial/non-commercial; and internal/external sources of information) relate to the ways in which different types, or groups, of information sources are actually used"* (ibid.).

Although not focused solely on marketing communication tools, LaPlaca (1997) found a similar lack of attention in industrial marketing research on promotional studies. In a review of 915 published articles, LaPlaca provided the total number of articles written on each of nine specific topic areas (see Table 2.1).

Table 2.1: Distribution of Articles Published by Topic

General Topics	Total	Percentage
Management	146	15.90
Sales management	134	14.60
Global marketing	123	13.40
Buyer behavior	113	12.31
Marketing research	102	11.11
Product development	88	9.59
Distribution	41	4.47
Promotion	38	4.14
Pricing	26	2.83
Other topics, cases	326	35.51
TOTALS	1,137	123.86*

SOURCE: Adapted from LaPlaca (1997), p. 180

*Total exceeds 100% due to multiple topics within many articles

As one can see from the above table, the research dealing with "promotion" (which includes studies on marketing communication tools, media, etc.), ranked second to last. Thus, starting with Galper in 1979 and spanning to LaPlaca in 1997, the above researchers, over a span of nearly two decades, all state that there is a lack of and a need for more research on promotion. This of course includes research on the industrial marketing communication process and, more specifically, on the tools used by industrial sellers to communicate with industrial buyers.

However, as already stated, it is not just the traditional marketing communication tools (advertising, sales promotion, public relations, and personal selling) that are driving forth this need for continued research in the area. We are living in the midst of many changes and improvements in information technology, including the ways in which people are communicating with one another in business markets. This emergence of new and different marketing communication tools is opening the doors to research opportunities as well. Berthon, Pitt and Watson (1996). In the next section a deeper analysis of emerging marketing communication tools will be discussed.

2.1.4 Research Problem

Based on such emerging promotional tools as the Internet, along with the aforementioned lack of (and stated need for) research in this area via the traditional promotional tools, a research problem emerges: *How does the use of marketing communication tools by industrial sellers to provide information compare with what industrial buyers use to obtain information?*

However, a single study should not attempt to conduct research on all sellers and buyers in all industries and in all regions of the world. We must therefore limit our study and more narrowly define our research problem.

2.1.5 Limitations of the Study

Limited resources when conducting studies such as this one requires the researcher to narrow the focus of their work down to something that is deemed more manageable. The choice of the geographic location, the specific industries to focus on, as well as the type of product is how we will limit this project. As this research is being conducted from a Swedish university, the country of Sweden and its industries were a priority over other countries. In addition, no Swedish studies within industrial marketing communication were discovered. Finally, during the early 1990s, Sweden's broadcast media (television and radio) became, for the first time in the country's history, open to commercial messages.

Furthermore, an unpublished commercial study⁴ was done in 1989 for the Regional Development Fund of northern Sweden (Utvecklingsfonden i Norrbottens län). The study dealt with the marketing strengths/weaknesses of over 30 firms mostly in the "business-to-business" category in this region, many of which were involved or interested in exporting to the North American market. It was found that nearly all of the firms lacked any sort of formal marketing communication program other than the use of personal selling and providing some form of reading material, such as a brochure. For many, the entire "marketing strategy" was to simply produce their product(s) and sell them.

Research into this reliance on personal selling showed that this is not altogether uncommon. According to Penn and Mougél (1978) such thinking has been traditionally rather common in industrial markets. They state that, from this way of thinking, a firm will often develop a very unbalanced promotional mix with an overemphasis on direct sales. Frequently, the authors stipulate, such a firm will overspend on its direct channel (personal selling), and not consider alternate channels (advertising, trade shows, etc.), even when they might be better for the market segments being sought.

Although outdated, the findings from the unpublished 1989 consultant study and the fact that it was supported by relevant research in the industrial marketing literature (Penn & Mougél, 1978; Jackson, Burdick & Keith, 1985), it became of interest to look more formally into the thinking of Swedish industrial firms. Add

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⁴This study was conducted by the author (Tim Foster) during the period August 1989-March 1990.

to this the other reasons stated, it seemed only logical that industrial sellers and buyers in the country of *Sweden* be chosen for this study.

However, not all industries in Sweden can be investigated for a single research effort such as this. According to Sölvell, Zander and Porter (1991) in their book *Advantage Sweden*, forest-related products and mineral resources have led to the development of two of the major industrial clusters in the Swedish economy. The forest products cluster accounted for 17.9 percent of total Swedish exports, while the minerals/metals cluster accounts for 12.5 percent. Although we are not using export markets in our investigation, this does provide the basis for investigating one of the leading industrial clusters in Sweden. Therefore the *timber industry* (forest-related products cluster) will be the focus of this study. However, there can exist within this industrial cluster a myriad of sub-clusters and product categories, including raw materials, services, supplies, and capital equipment.

Buzzell and Farris (1976) found that for products purchased in large dollar amounts, the concept of a minimum “transaction cost” may be important. A minimum amount of salesforce effort and a minimum amount of advertising and promotion may be necessary to achieve a single sale or to maintain a relationship with a customer. Under these circumstances, businesses which sell products typically purchased in large amounts (raw materials, supplies, etc.), would realize certain economies and thus have to spend *less* of the total sales dollar on marketing expenditures (such as advertising and promotion). Furthermore, not all product categories within any given industry can be studied.

It was therefore decided that this study would focus on companies producing *capital equipment* for the timber industry in Sweden. Due to the expensive nature in purchasing capital equipment, as well as the obvious risk involved with such an investment, it is considered important to gather more information before and during such a purchase, as supported by the following researchers: As Bonoma, Zaltman and Johnston (1977) proposed that the higher the purchasing agent’s perceived risk when involved in a purchase, the more communication that person will engage in.

More recently, McQuiston (1989) found that as the importance (the perceived impact on the buying firm) to the purchasing organization rises, more information is sought by members of the decision-making unit (DMU). Because of the amount spent, the purchase of capital equipment can be considered of greater importance than (for example) office supplies. The findings by McQuiston show that factors such as importance (of an industrial purchasing decision) can serve as general predictors for the amount of communication that will be offered for consideration by members of the DMU. Sellers in this situation cannot assume

that the information presented earlier in the buying process will be sufficient. These sellers must remember that if the members of the buying center collect more information, it will take longer to consume and thus extend the length of the purchasing process. McQuiston also adds that an increased need for information by the decision-making unit (DMU) can also lead to information being solicited from more competitors.

By limiting our study to a specific region (Sweden), a specific industrial product cluster (forest related products/timber industry) and to a specific type of product category (capital equipment), we now are able to present a revised research problem as follows: *How does the use of marketing communication tools used by industrial sellers to provide information on capital equipment in the Swedish timber industry compare with the tools the buyers of such equipment in the same industry use to obtain information?*

As stated in Chapter One of this doctoral thesis, this research problem is now developed as an overall purpose in order to fit in with the layout and presentation of the entire thesis. Therefore the **overall purpose** of this study is *to provide a better understanding of how the use of marketing communication tools used by industrial sellers to provide information on capital equipment in the Swedish timber industry compares with the tools used by the buyers of such equipment in the same industry to obtain information.*

2.1.6 Presentation of the Remainder of the Study

This section (surrounded by the dotted line below in Figure 2.4) has provided an introduction and development of an overall research problem. With this as a foundation, the rest of the study will be as follows:

Section Two will provide a synopsis of the literature reviewed on the core concepts presented in the first section of *Study A*. This includes a brief overview of the relevant literature on industrial buying behavior; industrial selling; industrial marketing communication; and finally, literature covering the use of such marketing communication tools by industrial sellers to provide information, as well as those studies covering which tools buyers use to obtain information. The section will conclude by providing specific research questions that will help to solve the overall research problem.

Section Three will provide a synopsis of the conceptualization of the variables brought forth by the research questions. This will be followed by a presentation of the emerged frame of reference. This frame of reference will be the tool used to

guide the collection of the data needed to answer the research questions in *Study A*.

Section Four will provide a synopsis the research methodology used to collect, process, analyze, and interpret the data in *Study A*.

Section Five will provide the data collected from both sellers and buyers in *Study A*.

Section Six will then provide the data analysis and findings done for *Study A*.

Section Seven will then provide the final conclusions (answers to the research questions) from *Study A*.

Section Eight will finally provide some implications for practitioners, theory, and future research.

The above sections were taken from and presented as a *synopsis* of an entire Licentiate Thesis, defended in April 1998. An overview of the original Licentiate Thesis used for *Study A* is presented schematically below (see Figure 2.4).

Figure 2.4: A Schematic Presentation of *Study A*

SOURCE: Adapted from Foster, 1998, p. 11

2.2 Synopsis of the Literature Reviewed in *Study A*

In the previous section, justification for why research should be conducted on the “channel” portion of the marketing communication process was provided and an overall research problem (purpose) was developed. Also in the first section, the three primary areas of research for this project were identified and introduced. In this section, a synopsis of the literature reviewed dealing with these three areas for *Study A* will be presented. Via tables that provide an overview of the literature reviewed in detail in Foster (1998), studies focusing on industrial buying behavior, as well as industrial selling will also be reviewed. The focus will then

turn to an overview of the literature reviewed on the marketing communication tools used by industrial sellers to provide information, and those studies that focused on what industrial buyers use to obtain information. The primary objective of reviewing this selection of literature is to develop research question(s) from which an emerged frame of reference can be extracted (in section three).

2.2.1 Industrial Selling

It is not our intention to provide a comprehensive overview of the literature on industrial/organizational selling (or buying) behavior, as this study is not about the selling (or buying) *behavior* of any one individual or side of the industrial seller-buyer transaction/relationship. The focus will instead remain on the literature that is more directly linked to the flow of information between industrial sellers and buyers via the use of marketing communication tools. As for research on industrial selling, a study on Swedish industrial sellers conducted by Persson (1995) provides two main concepts for research in this area:

- The industrial selling (and buying) processes.
- The industrial selling (and buying) actors.

Backhaus and Koch (1985) support this, as they found that the industrial selling/buying processes and the industrial selling/buying centers are the key concepts in industrial selling and buying. The members of such selling and buying centers are assumed to be part of a temporal, social and inter-organizational subsystem that they refer to as the “Transaction Center” (op. cit., p. 377). These concepts have also found a great deal of support in the literature. The *selling/buying processes* (Weitz, 1978; Persson, 1995; Wotruba, 1996; Webster, 1965; Robinson, Faris, & Wind, 1967; Ozanne & Churchill, 1971; Bunn, 1993) and the composition of the *selling and buying centers* (Backhaus & Koch, 1985; Persson, 1995; Mattson, 1988), have received a great deal of attention in a number of research studies.

Based on this, tables that provide an overview of the studies reviewed in Foster (1998) that focused on these areas will now be provided. As originally presented, these studies are presented in chronological order as a historical review of the literature within the area. We start with a look at the industrial selling process.

The Industrial Selling Process

Table 2.2 below shows an overview of those studies originally reviewed in Foster (1998). The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.2: An Overview of the Studies in Foster (1998) that Focused on “Selling Process”

Author(s) + Year	What the study focused on as presented in Foster (1998)
Webster (1965)	Concept of a “process” (buying and/or selling)
Robinson, Faris & Wind (1967)	Concept of a “process” (buying and/or selling)
Ozanne & Churhill (1971)	Concept of a “process” (buying and/or selling)
Weitz (1978)	Selling process plus buying and selling centers
Bonoma & Jonhston (1978)	Lack of Industrial selling research
Cunninham (1980)	Interaction model; selling process
Backhaus and Koch (1985)	Industrial selling/buying processes; buying/selling centers
Bunn (1993)	Concept of a “process” (buying and/or selling)
Persson, 1995	Industrial selling/buying processes; lack of research in the industrial selling
Wotruba (1996)	Selling process

SOURCE: Adapted from Foster (1998)

Persson (1995) also provides an eclectic model of the industrial selling process in *Sweden*. In this model, the factors of the Interaction Model (Cunningham, 1980) are clearly present, with information exchange as that part of the process where marketing communication tools would be utilized to deliver messages to current/potential buyers.

What the above sales processes provide is the thinking that industrial sellers do indeed provide information via various information sources by using various marketing communication tools. However, as previously stated, it is not just the sales process that is of interest here. Also of interest are the people involved in deciding which marketing communication tools will be used and in what way. In industrial markets, where selling and buying centers (or “teams”) exist, this

implies that there are others than just a salesperson or a marketing manager involved. Research into the makeup of selling centers does show that there is often a multitude of personnel involved in the selling decision processes that take place.

This study is interested in those that supply information via personal contact, as well as those that co-ordinate the personal forms of communication with the messages provided via other (non-personal) marketing communication tools. Although marketing managers are often the first person one thinks of when speaking of who co-ordinates such communication efforts for an industrial seller, selling centers (also referred to as “teams”) often have a number of people involved.

The Industrial Selling Center

Table 2.3 below shows an overview of those studies originally reviewed in Foster (1998). The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.3: An Overview of the Studies in Foster (1998) that Focused on “Selling Center/Team”

Author(s) + Year	What the study focused on as presented in Foster (1998)
Hudson (1971)	Types of salesmen in industrial calling
Johnston & Bonoma (1981)	Buying center as prelude to selling center (as stated in Moon and Armstrong, 1994)
Moncrief (1986) via Newton (1973)	Types of industrial salespeople
Spekman and Jonhston (1986)	Selling center
Belbin (1993)	Definition of “role” within a team
Moon & Armstrong (1994)	Selling teams
Deeter-Schmelz & Ramsey (1995)	Selling and buying teams; lack of research in area

SOURCE: Adapted from Foster (1998)

It is important to note that some mention is made of those within the selling firm being involved in the selling process, including the exchange of information and the development of relationships with industrial buyers Deeter-Schmelz, et al. (1995). Deeter-Schmelz, et al. continue that a big reason research on the selling side has received so little attention is because, “sales has traditionally focused on the lone-salesperson transaction-based environment” (p. 48). This is evident in much of the industrial selling presented below, which for the most part discusses and presents the various types of industrial salespeople.

The above review of literature on the *industrial selling process* goes to demonstrate that industrial sellers are indeed attempting to communicate with industrial buyers. One of the ways they do this is via various marketing communication tools (such as personal selling, advertising, etc.). With regard to the literature review on the *industrial selling center*, a series of questions begin to emerge for this study: Besides the actual salespeople, who are the people involved in communicating with buyers? When not personally selling, who is involved in the selection of the marketing communication tools that will be used to assist such selling efforts? However, before any research questions can be formally posed, the other side of this industrial relationship, namely industrial buying, should be assessed.

2.2.2 Industrial Buying

The above review of literature on industrial selling covered two primary areas: The industrial selling process and the industrial selling center/team. Since the need to conduct research on *both* sellers and buyers in our study has been shown, attention will now turn towards a review of the literature of similar concepts on the industrial buying side. On this side of the relationship there seems to be more research on industrial buying behavior (IBB) or what is often referred to as organizational buying behavior (OBB).

In a comprehensive study on industrial marketing communication, Moriarty and Spekman (1984) found that scholars, in general, have focused on four factors which have affected the amount of information sought and the sources used during the industrial procurement/ adoption process: Characteristics of the individual decision makers; organizational characteristics; characteristics of the buying situation; the phases in the buying process.

As laid out in Chapter One, this study is focused on the marketing communication *tools* used by sellers and buyers to provide/obtain information. Therefore, as with the industrial selling literature, the aim is not to conduct a comprehensive review of literature within the field of IBB, as that would go beyond the focus of this

study. The models in IBB are extensive and include several variables, thus investigating of all of them within one study would be an overwhelming task. Instead, because literature on industrial selling focused on the selling process and the selling center were, the literature on the *industrial buying process* and what is commonly referred to as the *buying center* will also be covered.

The Industrial Buying Process

According to Wind and Thomas (1980), the purchasing process begins “from the time at which a need arises for a product or service...”(p. 242). According to Johnston and Bonoma (1981), “No two buying decisions in any given company are likely to be exactly alike, nor will any two companies follow exactly the same procedures in even highly similar purchase situations” (p. 146). However, there may be many general patterns of interaction and social behavior that have similarities, even across moderately different purchase situations, according to these authors. It is for this reason that the study of the buying process and those involved in it are considered important for this study.

Several researchers in industrial buying behavior (IBB), also known as organizational buying behavior (OBB), have provided contributions for the mapping of the decision process that are common in many industrial markets. Such scholars include: Cyert, Simon, & Trow, 1956; Webster, 1965; Robinson, Faris, & Wind, 1967; Webster & Wind, 1972a; Hillier, 1975; Wind, 1978; Vyas & Woodside, 1983; and Bunn, 1993.

Table 2.4 below shows an overview of those studies originally reviewed in Foster (1998). The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.4: An Overview of the Studies in Foster (1998) that Focused on “Buying Process”

Author(s) + Year	What the study focused on as presented in Foster (1998)
Cyert, Simon & Trow (1956)	Mapping/discussion of the (buying) decision process
Rogers (1962)	Diffusion of innovations (five-stage process)
Webster (1965)	Mapping/discussion of the (buying) decision process
Robinson, Faris & Wind (1967)	IBB; mapping/discussion of the (buying) decision process; buygrid framework
Ozanne & Churchill (1968)	Information sources within the buying process
Ozanne & Churchill (1971)	Industrial adoption process
Webster & Wind (1972a)	Mapping/discussion of the (buying) decision process
Wind & Webster (1972)	IBB; buygrid framework
Hillier (1975)	Mapping/discussion of the (buying) decision process
Wind (1978)	Mapping/discussion of the (buying) decision process
Wind & Thomas (1980)	Mapping/discussion of the (buying) decision process
Johnston & Bonoma (1981)	Mapping/discussion of the (buying) decision process; buygrid framework
Vyas & Woodside (1983)	Mapping/discussion of the (buying) decision process
Mattsson (1988)	IBB; buygrid framework
Patti, Harley & Kennedy (1991)	Information sources within the buying process
Bunn (1993)	Mapping/discussion of the (buying) decision process
Burger & Cann (1995)	Organizational buying process

SOURCE: Adapted from Foster (1998)

Based on the above review of literature on the industrial selling and buying processes, certain decisions can now be made in order to narrow this study down. The limitations imposed at this time will involve the purchase situation, as well as the stage(s) in the respective selling process and buying processes:

- *Purchase situation*: This study will focus our research on the *new task* purchases, as this is when the maximum amount of information is sought by industrial buyers, and thus a larger number of promotional tools will be utilized to obtain information (Robinson, Faris, & Wind, 1967).
- *Stage in the selling process*: On the selling side, the marketing communication tools put into use by industrial sellers will be investigated, which corresponds to the *strategy formulation* and *transmission* stages of the Weitz (1978) presentation of the industrial selling process. It is assumed that the planning, as well as the eventual transmission of messages, are when the strategic decision on which marketing communication tools will be used to provide information to industrial buyers is made.
- *Stage(s) in the buying process*: Most of these stages are not sequential (as presented); research has shown that it is more common that stages blend into one another and that some stages are even skipped altogether. Webster and Wind (1972a) go so far as to state that, because of differences in the people involved in the various stages, organizational characteristics, as well as the buying situation itself, any attempt to identify a general decision-making process is “bound to be fruitless” (p. 31). As for the sequential nature of the buying process stages, Webster and Wind (1972a) go on to state that some stages can actually be repeated and that the process can “jump around” from one stage to the next.

Because the early stages of the buying process often involve the search for more information (Robinson, Faris, & Wind, 1967), there is often the use of more marketing communication tools in the early stages (Patti, Harley & Kennedy, 1991). Because of this, we will use the Robinson, Faris, and Wind (1967) stages. From this, research on the marketing communication tools used to obtain information in the first two stages of this buying decision process, namely *problem recognition* and *general need description*, or in what Burger, et al., refer to as the information search stage, will be the focus for this study. With this limitation presented, the literature review will now cover those who could be involved in the obtainment of information during the purchase of capital equipment.

The Industrial Buying Center

As with the past research on the buying process, there are also a large number of studies on the general makeup of the buying center in industrial markets. The aim for this study is to review a number of these studies so as to gain a better understanding of those in the buying center who use certain marketing communication tools to obtain information for their purchase of a piece of capital equipment. Webster and Wind (1972a) referred to the buying center as, “all those individuals and groups who participate in the purchasing-decision process, who share some common goals and the risk arising from the decisions” (p. 206).

It is of course recognized that communication can take place internally (within the buying center), as well as externally, with others within the firm and to individuals/groups outside the firm. The buying center has been seen as a communication network onto itself (Pettigrew, 1975; Shaw, 1976). As stated by Johnston and Bonoma (1981), “...the buying center exists as a communication network that does not necessarily derive its configuration nor operation from the formal organization, but rather from the regularized patterns of communication that reflect the individuals involved and their relationships. Before a review of the literature on buying centers can continue, however, a definition of the buying center is in order:

Although Cyert, Simon, and Trow (1956) are considered the first to recognize that several different managers (other than the purchasing manager) were involved in buying decision, the term “buying center” was first used by Robinson, Faris and Wind (1967). Here too it was recognized that a number of actors other than just those in the purchasing staff were regularly involved in the buying decision process for industrial products (and services). The involvement of different functional areas within the industrial firm, like engineering, production, as well as purchasing has been readily investigated since these early studies. Robinson, et al., defined the buying center as: “The individuals who are related directly to the purchasing process, whether users, buying influences, decision makers, or actual purchasers, are members of what can be termed a ‘buying center’” (p. 101).

In a comprehensive review of the buying center research up until that time, Johnston and Bonoma (1981) provide this definition of the buying center: “...the buying center refers to all those members of an organization who become involved in the buying process for a particular product or service” (p. 143, with reference to Robinson, et al., 1967). The authors add that participants can and do change depending on the type of purchase. They further state that this area of research has been an “important conceptual contribution ...in the study of industrial buying behavior” (op. cit., p. 143). For our purposes, because it refers to

the Robinson, Faris, and Wind definition and was a study conducted on capital equipment, we will use the general definition of buying center as proposed by Johnston and Bonoma (1981).

In gaining a better understanding of the buying center, Wind and Thomas (1980) provide three important aspects from which much the research to date on buying centers has been based: The identification of the *composition* of the buying center; the *roles* of the buying center; the *influence* in the buying center. Because the aim of this study is to gain a better understanding of *who* within the respective selling/buying centers are involved in the providing/obtaining of information, it is not considered necessary to review the literature on all three of the aspects brought forth by Wind and Thomas as presented above. However, the reasons as to why any of them will not be extensively covered or utilized should be given.

Because the focus of this study is on the marketing communication tools used by various members of such the buying center, this study will focus on a selection of studies covering only the first two of these, namely the *composition* of and *roles* within the buying center. According to Baptista and Forsberg (1997), the question of who is the most influential within the buying center (during specific stages of the buying process or during the entire process) is a central question with regards to industrial buying behavior. Because *influence* is itself a form of communication and deals primarily with influence within the buying center, this will not be focused on.

Table 2.5 below shows an overview of those studies originally reviewed in Foster (1998) regarding the *composition of the buying center and the roles that exist within it*. The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.5: An Overview of the Studies in Foster (1998) that Focused on the “Buying Center/Team”

Author(s) + Year	What the study focused on as presented in Foster (1998)
Robinson, Faris & Wind (1967)	Roles within the buying center
Webster and Wind (1972b)	Six roles within the buying center
Grønhaug (1977)	Roles within the buying center
Wind (1978a)	Dimensions of the buying center
Johnston & Bonoma (1981)	Dimensions of the buying center
Bonoma (1982)	Roles within the buying center
Mattson (1988)	Roles within the buying center during capital equipment purchases
Geber (1991)	Departments represented in buying teams
Möller (1993)	Roles within the buying center
Moon & Armstron (1994)	Selling center consistent with buying center
Deeter-Schmelz & Ramsey (1995)	Roles within the buying team

SOURCE: Adapted from Foster (1998)

It seems for this study, it is the composition of the buying and selling center that should be emphasized. The justification for this is based on the study by Moon and Armstrong (1994), which found the *selling center* to be consistent with the Johnston and Bonoma’s (1981) notion of the *buying center*. And, it is Johnston and Bonoma’s five dimensions that describe the makeup of these centers, as outlined above. Therefore, we will focus on the composition of the buying center as outlined above.

The Influence of Other Factors

It should be noted here that many of the models on industrial/organizational buying behavior state the importance of certain environmental factors (Webster & Wind, 1972b). Such factors developed by these scholars include the physical, technological, economic, political, legal, and cultural environments. These will not be considered of relevance for this study for two reasons:

1. The geographic selection for this study, Sweden, provides a common, *homogeneous market* whereby the environmental factors, such as those listed above, also remain homogenous for both the sellers and the buyers in a single industry...(see next reason)...
2. This is supported recently in the industrial marketing literature. In their look at buyer-seller relationships via the IMP Interaction Model, Metcalf, Freat, and Krishnan (1992) stated that, “the focus on *a single industry* minimized the impact of the external environment as well as the conceptual differences between firms so that general patterns of behavior could be observed across similar purchasing and selling situations” (p. 42).

Moriarty and Spekman (1984) also list organizational factors as playing an important role in studies done on industrial marketing communication. In a study which also focused on Swedish industrial capital equipment, such organizational factors included the size of the company (revenue or number of employees), structure, tasks, goals, people, and technology (Baptista & Forsberg, 1997). As this Swedish study was focused on IBB itself, it included all of these factors. However, it goes beyond the focus of this study to include all such organizational factors.

Therefore, we turn to Dholakia, Johnson, Bitta, and Dholakia (1993), who found that there was a positive relationship between the size of the buying organization and its information search. These scholars found that larger organizations tended to be more engaged in the information search. For this reason, this study will focus on larger companies and will obtain information on each company’s size as well as obtaining a general background to the firms to present to the reader. This will be covered more in “sample selection” later in this study.

The above review of literature on industrial selling and buying have covered two main concepts: The selling/buying process and the selling/buying centers. In the next section, upon briefly putting marketing communication in the proper context within the firm, where other forms of communication can take place, we will turn our attention towards research on the marketing communication tools. More specifically, since it is not known which promotional tools are being used (or not use), as well as why (or why not).

Therefore the literature review will now turn towards an introduction on industrial marketing communication and then focus on those studies covering the actual marketing communication tools used by industrial sellers to provide information,

as well as those studies done on the tools used by industrial buyers to obtain information.

2.2.3 Industrial Marketing Communication

According to van Riel (1995), there are three main types of corporate communication:

1. *Management communication*: Communication is necessary in an organization not only to transmit authority but also to achieve cooperation (Timm, 1986). The responsibility for this communication exists across all levels of an organization. Senior, middle, and junior management all use communication to achieve the desired results of the company. Such results include:
  - Developing a shared vision of the firm within the organization
  - Establishing and maintaining trust in the leadership of the organization
  - Initiating and managing the change process
  - Empowering and motivating employees (Pincus, Robert, Rayfield & DenBonis, 1991).
2. *Organizational communication*: Used as a general term to include such communication efforts as public relations, public affairs, investor relations, labor market communication, corporate advertising, environmental communication and internal communication. All of these forms of communication share one main element in common: They are directed mainly toward "target groups", i.e. groups with which the company has an interdependent relationship with, albeit usually indirect. Unlike marketing communication, organizational communication is often less obvious in its attempts to influence the behavior of groups on which the organization depends and must cooperate with.
3. *Marketing communication*: Some scholars draw a line between what has become known as the promotional mix versus the public relations mix (Verhage & Cunningham, 1989). Others write of the corporate communication mix and the marketing communication mix (Floor & van Raaij, 1993; Gusseklo, 1985). In general, marketing communication consists mainly of those forms of communication that support the sale of goods or services. Four main areas of marketing communication in many mixes include advertising, sales promotion, public relations/publicity and personal selling (Kotler, Armstrong, Saunders, & Wong, 1996).

It has already been established that this study will focus on the marketing communication tools used by industrial sellers to provide information, as well as those tools used by industrial buyers to obtain information. The above overview was provided only to put marketing communication into perspective with the other internal and external communication that takes place in any organization.

It appears that no single study has looked at the use of *all* conceivable marketing communication tools. Instead, studies have been generally conducted on the basis of either what sellers use to inform potential/current buyers, or at what buyers use to obtain information in their search for a potential supplier of an industrial product. Each of these studies has limited itself to a specific selection of only certain marketing communication tools. Therefore, the following review of literature will be broken into three sections: Studies done on the promotional tools used by *sellers* to provide information; studies done on what *buyers* feel are the most useful tools to obtain that information; research that looked at *both sellers and buyers* within the same study. It should be noted here that, for simplicity, each of these sections will present the respective studies in chronological order, from earliest to most recent. We begin with the studies conducted involving industrial sellers' choice of marketing communication tools.

Industrial Sellers Providing Information

In order to supply information to buyers, industrial sellers use certain marketing communication tools, but even this is changing. Boyle (1996) explains that, "it is clear that the salesforce of the 21st century will soon look very dissimilar to that of the latter half of this century. A number of forces have influenced this evolution: advances in communication technology, the ability for firms to reach geographic markets far away, and the ever-increasing cost of the face-to-face sales call" (p. 347). One myth that Boyle begins to argue against is that "personal selling should be the primary promotional tool for the industrial firm" (p. 348). Wotruba (1996) agrees with this shift in industrial selling by adding that, like most other areas of business, industrial selling "is being transformed by many new ideas and practices," including the emergence of relationship marketing.

Table 2.6 below shows an overview of those studies originally reviewed in Foster (1998). The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.6: An Overview of the Studies on the Tools Sellers Use to Supply Information

Author(s) + Year	What the study focused on as presented in Foster (1998)
Buckner (1967)	Early study on industrial marketing communication tools
Luffman (1973)	Difference between seller and buyer communication channels
Blenkhorn (1974)	Industrial trade shows
Turnbull (1974)	Marketing communication by expenditure (ranking)
Banting & Blenkhorn (1974)	Ranking of promotional techniques
Galper (1979)	Types of communication tools
Verhage & Waalewijn (1979)	Personal and non-personal contact with the customer
Boyle (1996)	Advances in communication technology for the salesforce in the 21 st century

SOURCE: Adapted from Foster (1998)

Past research on the marketing communication tools used by industrial sellers to provide information to industrial buyers has been limited. Those studies reviewed above all state that personal selling by far leads as the primary marketing communication tool used. But as some of this research has found, which tools industrial sellers are using to inform with may not necessarily coincide with what industrial buyers are using in their search for information. Therefore, we will now review the literature covering what these buyers do use in their search for information during the industrial buying decision process.

Industrial Buyers Obtaining Information

Work in this area, as with work in general on the industrial buying side, seems to have been more extensive than on the selling side. Here the emphasis will be on reviewing the literature on the use of marketing communication tools used by industrial buyers to obtain information throughout the buying process.

Table 2.7 below shows an overview of those studies originally reviewed in Foster (1998). The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.7: An Overview of the Studies Focusing on Tools Used by Buyers to Obtain Information

Author(s) + Year	What the study focused on as presented in Foster (1998)
Ozanne & Churchill (1968)	Personal versus impersonal information sources used in the industrial adoption process
Webster (1970)	Informal, non-commercial communication
Martilla (1971)	Word-of-mouth during the industrial adoption process
Kelly & Hensel (1973)	Ranking of communication tools
Pettigrew (1975)	Creating awareness in industrial markets
Baker & Parkinson (1977)	Information sources used by three adopter categories
Galper (1979)	Ranking of information sources in the purchasing process
Parasuraman (1981)	Promotional factors influencing product purchasing decisions
Jackson, Keith & Burdick (1987)	Promotional elements within the buyclass classifications (Monoky, Mathews & Wilson, 1974; Moriarty & Spekman, 1984; Ozanne & Churchill, 1971; Patchen, 1975; and Patti, 1979)
Jackson, Keith & Burdick (ibid.)	The influence of the purchasing agent across a variety of purchase situations (Bellizzi & Lipps, 1984; Jackson, Keith & Burdick, 1984; Pattie & Mizerski, 1977; Webster, 1979).
Jenkins (1990)	Identifying all information sources used by industrial buyers
Bunn & Clopton (1993)	Information sources mixes buyers use

SOURCE: Adapted from Foster (1998)

The above studies on which marketing communication tools industrial buyers use to obtain information show varying results based on a number of different criteria. Overall, it can be stated that these studies provide us with the opportunity to see that, which marketing communication tools are used depends not only on the industry under investigation, but on the stage in the buying process and the type of equipment purchased as well. Many of them focused on the personal versus impersonal types of marketing communication tools used, and included such forms of communication as word-of-mouth. Other studies focused on buying center members use of various marketing communication tools to obtain information.

All of the studies on promotional tools thus far have looked only at the sellers' use of marketing communication tools to supply information, or only what buyers' are using to obtain information. Next we will look at those studies that obtained data from both sellers and buyers. As the definition of communication goes, it does imply a relationship (Rogers & Kincaid, 1981).

Studies on Tools Used by Sellers versus Buyers

Most of the research done in the study of which marketing communication tools industrial sellers use to provide information to buyers, or which tools buyers use to obtain information from sellers, has been focused on either one side or the other. As Bonoma and Zaltman (1978) stated that it was not proper and impossible, theoretically, to speak of organizational buying without also speaking of organizational selling. We will now review the few studies that looked at marketing communication tools used to provide information (by sellers) and at the same time, looked at those tools used by buyers to obtain information – all within the same study.

Table 2.8 below shows an overview of those studies originally reviewed in Foster (1998). The table first provides the author(s) of the study reviewed and year published, followed by the way in which the study was referred to/used in Foster (ibid.).

Table 2.8: An Overview of the Studies Focusing on Tools Used by Sellers *and* Buyers

Author(s) + Year	What the study focused on as presented in Foster (1998)
McAleer (1974)	Industrial buyer versus industrial seller motives
Patti (1977)	Information sources of industrial buyers vs. sellers
Moriarty & Spekman (1984)	Information sources used during the industrial procurement process

SOURCE: Adapted from Foster (1998)

Moriarty and Spekman (1984) found that much of the past research in the field of industrial marketing communication has studied only one communication vehicle or have examined the impact of a particular type of explanatory variable (i.e. perceived risk, stage in the decision process, etc.). Their work, they stated, is the synthesis of a diverse body of literature (i.e. Dempsey, 1978; Kelly & Hansel, 1973; Martilla, 1971; Ozanne & Churchill, 1971; Webster, 1970) into a comprehensive research paradigm. They added that with their study they addressed a more complete listing of information sources used by industrial

buyers as well. Although the study included data collected only from industrial buyers, it was included in this section on sellers and buyers due to the fact that the study also provided feedback on what each conclusion meant with regards to what the industrial seller should consider doing when providing information.

The one element that all of these studies share is that industrial sellers are often using different marketing communication tools to provide information than what their current/potential buyers are using to obtain information. This observation begins to provide us with the opportunity to look into other industries and other markets, so as to observe more and begin to build more abstract statements with regards to these differences. However, as Moriarty and Spekman (1984) mentioned, most of these studies have studied only one communication vehicle or have examined the impact of a particular type of variable (i.e. risk, stage in buying process, etc.). Their conclusion was that a more complete list of tools should be used when conducting research. We will now attempt to put such a list together, in what will be referred to as the industrial marketing communication toolbox, a place where industrial sellers go to provide information, and where industrial buyers can go to obtain it.

The Marketing Communication “Toolbox”

As presented in Chapter One, we are living in the “information age,” where many consider us to be in the midst of a communication revolution. If one looks back to the turn of the current century, mass communication has especially come a long way in terms of technological advancements and overall capabilities. Today, the traditional mass media of television, radio, magazines, newspapers, trade journals, and direct mail, are all playing new roles. These new roles, along with the evolving role that such communication efforts as personal selling are playing, are a result of the information superhighway, also known as the Internet. Collectively, all of these “tools” (as we have been referring to them since Chapter One) make up what can we now refer to as the marketing communication toolbox. This section will discuss some of the more traditional marketing communication tools used in the studies presented above, as well as introduce the new tools available to industrial sellers and buyers via the Internet.

If one looks back at the span of when the studies on industrial marketing communication tools presented above have taken place, (i.e. post-World War II), then it begins to seem staggering at the pace with which humans are finding new ways to communicate. From 1946 through today, the broadcast media such as radio and especially television, which just now in the 1990s have become legalized in Sweden, have exploded in terms of their use to provide commercial messages to prospective buyers. Newspapers, magazines, and trade journals have

all fragmented into targeting very specific groups of customers and interest groups. However, despite all these changes in communication, what is it that industrial sellers have traditionally been using to provide information to buyers? To answer this, we turn to some basic literature to see just what tools are at the seller's disposal.

Kotler, Armstrong, Saunders, and Wong (1996) state that the relative importance of each of the promotional tools for industrial goods, in descending order, is: Personal selling, sales promotion, advertising, and public relations. They add that, personal selling in such markets is more heavily used with expensive and risky products and in markets that have fewer and larger sellers.

However, in addition to the above toolbox compartments, it is important to look at one more communication possibility that today is altering marketing communication in a variety of ways. As presented in Chapter One, the Internet, with its variety of communication tools, is quickly becoming the antecedent to a worldwide communication revolution (Gates, 1995).

The Internet (also known as the "Net", "Cyberspace", and "Information Superhighway") was first developed in the early 1970s at the University of Illinois. Its purpose: To link the vast amount of information in the United States' Defense Department. Today, the Internet is a catch-all word used to describe the massive world-wide network of computers that link people, information, and knowledge. The word "Internet" actually means a network of networks, as the Internet is really a linkage of thousands of smaller computer networks that are geographically dispersed in various regions throughout the world. As of early 1996, it was connecting over 30 million users from 180 countries, and the numbers grow daily, almost to the point of being incalculable. Berthon, Pitt and Watson (1996) provide these startling figures as a testament to the growth of the Web:

- In 1994, it doubled in growth, as it has done every year since 1988.
- In one 18-month period, users created more than three million multimedia pages of information, entertainment, and advertising.
- The Web is growing 50 percent per month.
- The number of Web servers (computers providing Web sites) is now more than 30,000 worldwide.

The Internet offers a variety of potential communication services to those linked to it: Electronic Mail (E-mail), interactive conferences (i.e. on-line videoconferencing), the ability to transfer files, and of course, surfing the web and visiting web pages covering every conceivable subject. Since the Internet and the World Wide Web (WWW) are often considered to be the same things, but are not, we feel it is necessary to briefly discuss the differences.

The "Web" uses the Internet to transmit hypermedia documents from one computer to another computer. Video, audio, text, graphics...nearly everything (from a communication standpoint) can be transmitted. What is interesting is that no one owns the Internet or the World Wide Web. Hundreds of companies help to manage various parts of this global network, but there is no single owner or manager of this vast communication and information entity.

The addition of new marketing communication tools such as the Internet have given rise for practitioners and academicians to re-evaluate and study the use of such new and innovative forms of communication (Berthon, Pitt and Watson 1996). According to Berthon, *et al.*, the Internet is a new medium based on both broadcasting and publishing. They add that unlike the traditional (broadcast) media, it facilitates two-way communication between individuals or organizations. More than any other marketing communication tool, the Internet has what Blattberg and Deighton (1991) have termed as *interactivity*. The meaning with this is that it has the ability to allow "individuals and organizations to communicate directly with one another regardless of distance or time" (p. 44).

Berthon, et al. feel that the World Wide Web is a new medium characterized by many factors. They list ease of entry, relatively low set-up costs, globalness, time independence, and interactivity. As such, it represents a new opportunity for marketers and scholars involved in the use or study of marketing communication several unique communication opportunities.

In a study on the international aspects of the Internet to industrial firms, Samli, Wills, Jr., and Herbig (1997) list several positive and negative implications of the Web. They state that the emergence of the Internet and electronic communications has changed the traditional marketing transactional process. "The Internet enables the prospective customer to enter into a direct communication with the firm's information workers and make a case regarding their needs and their unique problems" (p. 54). These researchers continue that the Internet will bring the seller and buyer closer together in an effective two-way communication system. Implications for sellers, they add will be that managers will create home screens (Web pages) which will allow them to provide information to potential/current customers, as well as other external agencies.

They included such information as spec sheets, annual reports, press releases, advertisements, company letterhead, etc., as just some of the possible uses to provide information. They conclude, that for industrial sellers, the Internet will affect the entire sales transaction process. More exploratory research is of course needed to know more about how it will be affected.

Swerdlow (1995) states that the Internet today also “pushes life beyond the old physical barriers of time and space” (p. 6). It is from this computer-to-computer linkage that one, either from home or the office, can roam the world. As one scholar (MIT senior research scientist David Clark) put it in an interview with *National Geographic*, the Internet is moving communications into a new age: “Two years ago, if I wanted to know about a company’s products, I’d call and say, ‘Can I have some brochures? Could you have a salesperson call? Who’s your distributor?’.... Today I do it all on the Internet. It’s the most efficient way to do business” (Swerdlow, 1995, p. 10).

Other researchers, although more focused on the consumer side of the Web’s potential as a marketing communication source, state that it is really more than a marketing communication tool. Berthon, Pitt, and Watson (1996) looked at the Web as an opportunity for individuals and organizations to communicate with one another regardless of their geographic location or the time difference that separates them. For the industrial seller, it provides a year-round, 24-hour-a-day opportunity to provide information. For the industrial buyer, it then provides a year-round, 24-hour-a-day opportunity to search for and obtain information. Berthon, *et al.*, look at the Web as “an electronic trade show...a giant international exhibition hall where potential buyers can enter at will and visit prospective sellers” (p. 44). As with visiting a trade show, these researchers continue that such a visitor can wander around, and enjoy the sights and sounds of the exhibition. They can take their time to pick up a brochure or pamphlet, be given a sticker or key ring, or even interact with salespeople and possibly enter into a sales transaction.

Berthon, *et al.* (1996) use the well-known Robinson, Faris, and Wind (1967) Buy-Grid Framework (as presented earlier in this chapter) in looking at a Web site as a potential marketing communication tool in industrial markets. They agree that an industrial buyer’s information needs will differ depending on the stage in the buying process they are in. They combine this with what they describe as a well-known and generally used model of the steps in the consumer decision-making process (Schoell and Gultinan, 1992). Next, these steps overlap the steps in the buying phase’s model to a considerable extent. The authors propose that the task that confronts the industrial seller can be mapped against these stages through a series of communication objectives (as proposed by Churchill, Ford, and Walker,

1993). Each of these objectives needs a different mix of marketing communication tools that will deliver the message(s) that will in turn help reach these objectives in the marketing communication process.

Berthon, *et al.* continue that, according to Kotler (1991), the relative cost-effectiveness of advertising and personal selling in performing marketing communication tasks does depend on the stage in the buying process, with personal selling becoming more effective as the buyer enters the latter phases (see Table 2.9).

Table 2.9: Buying and Selling Processes and the Website as Part of the Marketing Communication Mix

New customer/ prospect buying phase (Robinson, Faris, and Wind, 1967)	Complex consumer buying process (Schoell and Gultinan, 1992)	Key seller communications objectives and tasks (Churchill, Ford, and Walker, 1993)		Relative communi- cation effectiveness (Kotler, 1991)
		Communications objectives	Task	
1. Need recognition	1. Awareness of needs	General awareness	Prospecting	
2. Developing pro- duct specifications	2. Information processing	Feature comprehension	Opening relationship, qualifying prospect	
3. Search and evalu- ation of suppliers	3. Evaluation processing	Lead generation	Qualifying prospect	
4. Evaluation	4. Purchase decision	Performance comprehension	Presenting sales message	
5. Supplier selection	5. Purchase	Negotiation of terms/ Offer customisation	Closing sale	
6. Purchase feedback	6. Post-purchase evaluation	Reassurance	Account service	

SOURCE: Berthon, Pitt, and Watson, 1996, p. 46

All of the studies presented above have limited themselves to only a select number of tools. Because we are living in the midst of what is considered a communication revolution, as well as one study showing that the traditional consumer media also has its place in industrial marketing communication programs, this is considered a shortcoming. Therefore, it might be of value to look at more than only a select few tools.

What we are faced with is a marketing communication toolbox that is continually changing and evolving. The traditional tools that fall under the categories of personal selling, advertising, sales promotion, and public relations continue to exist, but are evolving and changing as well. The emergence of the Internet with such new communication tools as E-mail, Web pages, chat rooms, live video

(conferencing), newsgroups, as well as the presence of the print and broadcast media on the Internet, has all started what many refer to as a “communication revolution.” Indeed, living in such changing times presents us with a number of challenging opportunities in research.

2.2.4 Summary and Research Questions

This section has served two purposes: First, it has provided a literature review in three areas of research considered to be vital for this study:

- **Industrial selling and buying behavior:** The, key concepts in the literature on industrial selling and industrial/organizational buying behavior (IBB/OBB), namely the selling and buying processes, as well as studies on the selling and buying centers/teams were covered.
- **Industrial marketing communication:** Past research on the use of various marketing communication tools used by industrial sellers to provide information and those used by buyers to obtain information go to the heart of this study and were reviewed.
- **Marketing communication tools:** A look at the “toolbox” of the past, present, and future marketing communication tools available to industrial sellers and buyers was also reviewed. An additional discussion of the Internet and its emergence as the tool that is sparking the communication revolution we currently find ourselves in the midst of was also provided.

An overview of the literature within industrial selling and industrial buying behavior helped us to isolate certain variables that are of importance for this study. The respective selling and buying processes were first covered, and it was established that sellers do indeed provide information during the selling process, and buyers obtain it during their purchasing process. We next looked into the decision-makers within the selling and buying centers. For this, it became of interest to obtain data on the *composition* of the selling and buying centers.

Next, the literature review covering those studies on which marketing communication tools sellers are using to provide information and which ones are being used by buyers to obtain information, provided some interesting results. There are several tools at an industrial seller’s or buyer’s disposal, yet all of the studies limited themselves to only a small number of the total tools available to supply/obtain information. The literature reviewed also shows that what sellers are using to provide information does not necessarily coincide/agree with what the

buyers are using to obtain information. Although the studies focusing only on what sellers use to provide information *or* the studies covering only what buyers use to obtain information have their value, this era of relationship building instead of pure transactions in all markets (industrial and consumer) makes us realize that much more needs to be researched on sellers and buyers within the same industry. Finally, because this study is being conducted in a single industry within a fairly homogenous country, the study of other environmental and organizational factors, as exist in the IBB literature especially, will not be dealt with.

The review of the above literature on which marketing communication tools industrial sellers and buyers use to provide/obtain information, specific research questions emerge. These are presented below, along with the research question stated earlier in the chapter regarding those who in the respective selling and buying centers are involved in the providing/obtainment of information using various promotional tools.

- *How can the composition of those in the selling/buying center, who are involved in supplying/obtaining information on capital equipment, be described?*
- *How can the mix of marketing communication tools used by industrial sellers/buyers to provide/obtain information on capital equipment be described?*
- *Why were (i.e. what are the reasons) these tools utilized to provide/obtain information by these individuals within the firm?*

The overall purpose of this study, as stated in section 2.1, was to gain a better understanding of *how the use of marketing communication tools used by industrial sellers to provide information on capital equipment in the Swedish timber industry compares with the tools used by the buyers of such equipment in the same industry to obtain information*. Using this as a foundation, along with the above research questions, we will now turn our attention to the necessary conceptualization of the variables within our research questions and developing a frame of reference from which we can then go out and collect the necessary data. This will be done in the next chapter.

2.3 Synopsis of the Emerged Frame of Reference for *Study A*

The previous section provided an overview of the relevant literature for this study, which in turn gave rise to three specific research questions. The purpose of this section is to provide the conceptualization that will allow for this study's research questions to be answered, resulting in reaching the overall purpose of the study (as

outlined in section 2.1). The frame of reference, which results from this conceptualization, is what will guide this study's data collection.

According to Miles and Huberman (1994), a conceptual framework (i.e. what we refer to as a *frame of reference*), "explains, either graphically or in narrative form, the main things to be studied" (p. 18). As stated by these authors, it is often easier to generate a conceptual framework after you have made a list of research questions, which is what has been done for this study.

The first question involves *how the composition of those in the respective selling/buying centers who provide/obtain information can be described*. The second question centers on *how the mix of marketing communication tools to provide/obtain information can be*. The final research question, focuses on *why (i.e. what are the reasons) such tools are used (or not used) by these sellers and buyers*.

However, as presented and explained in Chapter Two (regarding industrial selling and industrial/organizational buying behavior) the purchasing situation and respective selling and buying processes have only been used as a means to further narrow down this study, since it is not focusing on selling or buying behavior.

The Purchase Situation and the Selling and Buying Processes

This section is provided only as a reminder as to the limitations on this study with regards to focusing only on one type of purchase situation, as well as specific stages in the respective selling and buying processes:

- *Purchase situation*: As presented in Chapter Two, the focus of this study will be on *New Task* buying situations, where the maximum amount of information is sought by industrial buyers when purchasing capital equipment (Robinson, Faris, & Wind, 1967).
- *The selling and buying process*: As already discussed in Chapter Two, it is beyond the focus of this study to investigate the marketing communication tools used by sellers and by buyers in all stages of either the industrial selling and/or industrial buying processes. Therefore, a stage (or stages) that both processes not only have in common, but which allow us to investigate the largest number of potential marketing communication tools used to provide or obtain information, should be focused on.

As for the *selling process*, we will remain focused on those marketing communication tools used during what Weitz (1978) referred to as the Strategy Formulation and Transmission stages of the selling process. It is during these stages that it would make sense that decisions on which marketing communication tools to use in order to provide information to buyers would be made.

As presented in Chapter Two, researchers have found that, not only do the *buying process* stages often blend together (Webster & Wind, 1972a), but the earlier stages often involve a larger number of marketing communication tools being utilized (Robinson, Faris, & Wind, 1967; Patti, Harley, & Kennedy, 1991). Therefore, we will focus our research on the early stages of the buying process. There are several different processes presented in the literature reviewed in Chapter Two. However, because it is the most-cited and used process, even in some of the marketing communication studies done today (e.g. Berthon, Pitt, & Watson, 1996), we will use the eight phases of the Buygrid Framework devised by Robinson, Faris, and Wind (1967). Here, the early stages include *Need Recognition* and *Developing Product Specifications*, and it is here that we will focus our exploration of which tools are used in the selling and buying of capital equipment within the Swedish timber industry.

We will now turn to conceptualization of the variables in our research questions involving the selling and buying centers and the marketing communication tools used by the members in these centers.

2.3.1 The Selling and Buying Centers: *Research Question One*

As presented and explained in Chapter Two, this study will be focusing on the *composition* of the selling and buying centers. Regarding composition, this study will use the selection of Johnston and Bonoma's (1981) variables. The reason for this selection is that these dimensions of the buying center are widely recognized and used by scholars and have been used in the study of capital equipment in Sweden in the past (Baptista & Forsberg, 1997).

Those dimensions of the buying center we will focus on include:

1. *Vertical involvement*: Deals with the number of levels of the organizational hierarchy involved in communication and influence concerning the buying. Data will be collected with regards to this by obtaining information on what levels of the firm are involved in providing (sellers) and obtaining (buyers) information via these various marketing communication tools.

2. *Lateral involvement*: The number of different departments and/or divisions involved in communication and influence concerning the buying. Here data will be collected by collecting data on the number of departments involved in both the selling and buying centers when it comes to providing/obtaining information.
3. *Extensivity*: The total number of individuals involved in the buying communication network. Here we will focus on obtaining data about how many people are involved in the decision to provide information on the buying side, as well as how many are involved on the buying side in the purchase of capital equipment and must therefore obtain information.

The other dimensions listed by Johnston and Bonoma (1981), including *connectedness* (i.e. the degree to which the members of the buying center are linked to each other) and *centrality* (i.e. how central the purchasing manager is in the communication network known as the buying center) will not be focused on. The reason for this is that these two dimensions are beyond the scope of this study, as they with the communication patterns within the buying center, rather than between the buying and selling centers.

This study will use all three of these variables (i.e. *vertical involvement*, *lateral involvement*, and *extensivity*) in describing the composition of both the selling and buying centers. As briefly explained in Chapter Two, the justification for this is based on the study by Moon and Armstrong (1994), which found the *selling center* to be consistent with the Johnston and Bonoma's (1981) notion of the *buying center*. Furthermore, as with the buying center, the selling center, according to Moon and Armstrong, can range in size from one individual to several when the purchase becomes more complex. Moon and Armstrong add that membership in the selling center is not limited to only those with direct customer contact: "This involvement can include direct customer contact, but it can include providing information or advice to other selling center members..." (op. cit., p. 21). These authors also state that by including these individuals whose contributions can be critical to the success or failure of the selling effort, "keeps the conceptualization of the selling center consistent with that of the buying center" (op. cit., p. 21). For this reason, we view the conceptualization of the composition of the selling and buying centers to be able to be described in the same way (i.e. using the same three variables of *vertical involvement*, *lateral involvement*, and *extensivity*).

It should be noted here that the aim of this review of the selling and buying centers is to provide the following basic information for this study:

1. Assist in the investigation of who in the selling center decides which marketing communication tools to use to provide information to members of the buying center; and to look at who within the buying center collects information via these various promotional tools (i.e. research question number one).
2. Assist in defining who it is that should be contacted at the firms which will be under investigation (i.e. sample selection).

With the purchase situation and stage(s) in the selling/buying processes isolated, as well as the composition of the selling and buying centers conceptualized, the study now goes on to the next set of variables to be conceptualized. This involves research question number two and how the mix of marketing communication tools for both sellers and buyers can be described.

2.3.2 The Marketing Communication Tools Used (and Why): *Research Questions Two and Three*

In section two we covered the studies conducted on the marketing communication tools used by industrial sellers to provide information, as well as those studies on the tools industrial buyers used to obtain information. The few studies covering sellers and buyers simultaneously were also presented. These studies were reviewed in order to gain an understanding that, in many instances, sellers and buyers are not using the same tools, and thus ultimately not communicating. This is important because the 1990s have ushered in a communication revolution, with new communication tools evolving at a pace which makes the traditional tools we have been using different as well. Chapter Two then provided a background on these more traditional marketing communication tools (e.g. personal selling, advertising, sales promotion, and public relations), as well as the new and emerging tools ushered in by recent developments in information technology (e.g. the Internet).

What we put in our marketing communication toolbox for the industrial seller and buyer to choose from should not be limited, but instead categorized. With this we are referring to the dichotomies as provided by many of these studies (i.e. commercial/non-commercial, personal/non-personal, etc.). For our purposes, we will present an eclectic list of marketing communication tools based on the personal versus non-personal dichotomy, as this was the most common and consistent dichotomy used in the studies presented in Chapter Two (McNutt, 1978; Hart, 1993; Kotler, Armstrong, Saunders, & Wong, 1996). This dichotomy will be a way for us to not only organize the toolbox, but more importantly to know just what should be included in it.

This list is organized into five main sections: Personal Selling, Advertising, Sales Promotion, Public Relations, and the Internet. As stated earlier, what are one firm's public relations efforts may very well be another firm's personal selling. The point being that where each individual tools is placed is not nearly as important as its inclusion on the list (or in the toolbox). Data will be collected in these areas by finding out what, from this eclectic list of possible tools, is actually used to provide information (by sellers) and on the other side, which tools are used to obtain information (by buyers). Should a tool not be used, data on this will also be collected (as to why it is not used).

For this study, this list is considered *eclectic* (i.e. composed of elements drawn from various sources), including all of the literature on tools covered in Chapter Two, various textbooks, documentation from advertising agencies, as well as personal experience. We will present these potential tools in the paragraphs that follow, starting with the personal tools and then presenting the non-personal ones.

Personal forms of promotion are the first considered. Personal marketing communication tools would include either face-to-face or voice-to-voice forms of communication. Such personal selling efforts could include the face-to-face sales calls/meetings, telephone sales calls, videoconferencing, trade shows/exhibitions, conferences/seminars, as well as word-of-mouth from either internal or external sources. Although many may find word-of-mouth to not be a form of marketing communication but instead a more informal way of communicating (Webster, 1970), we are including it in this study. The reason for this is the fact that it is included in Sheth's (1973) list of information sources used by buyers. More precisely, his model of industrial buying behavior includes the following information sources: Salesmen, exhibition and trade shows, direct mail, press releases, journal advertising, professional and technical conferences, trade news, word-of-mouth, and "other."

Non-personal forms of communication are then organized via print advertising, broadcast advertising, outdoor advertising, sales promotion, public relations, and finally the Internet. Again, the purpose of these "compartments" is to simply keep our marketing communication toolbox in some type of order.

- *Print advertising* could include direct mail (letters, brochures, information, etc.), print ads in trade journals/magazines, ads in business magazines, ads in consumer magazines, ads in newspapers, yellow page ads (in either normal telephone books or industry/corporate directories).

- *Broadcast advertising* could include television ads (on broadcast or cable/satellite stations, be they on a local, regional, national, or international level), cinema/movie theatre ads, and finally radio ads (local or regional).
- *Outdoor advertising* could include such communication tools as billboards/other outdoor signs, company cars/vehicles, buses, taxis, sports sponsoring (uniform, stadium, etc.), other sponsorships (Olympics, civic and cultural events, etc.), and even the packaging of the capital equipment.
- *Sales Promotions* could include gifts for buyers, trade show items (stickers, pens, etc.), discounts/premiums (on large purchases, for early payment, etc.) trade-in offers, credit/financing of major purchases, free services, training/education seminars for buyers, and special meetings/get-a-ways for buyers (business golf outing, for example).
- *Public Relations* tools could be press releases/news conferences (to generate publicity), training or news videos sent to buyers, business cards and letterhead stationary, annual reports, bids and spec reports/submissions, and even holiday (e.g. Christmas) or personal greeting (e.g. Birthday) cards, etc.
- *The Internet* is still emerging as a collection of many tools, and can, in many ways, include many of the marketing communication tools listed in the “compartments” above. Here we will add the use of Web page(s)/sites, and whether they have their own Web site or sponsor other sites. We will also include Electronic Mail (E-mail) on this list of tools.

2.3.3 The Emerged Frame of Reference

As stated, the conceptualization above is what will allow us to answer this study’s research questions. The frame of reference, which results from this conceptualization, is what will guide this study’s data collection. The emerged frame is presented graphically below (see Figure 2.5).

Figure 2.5: The Emerged Frame of Reference for *Study A*
SOURCE: Foster (1998), p. 80

The frame of reference presented shows that an industrial seller (of capital equipment) can go to a toolbox to provide information via certain personal and non-personal forms of communication. The industrial buyer can also go to that toolbox to obtain information using these same tools. In the middle of all of this is the opportunity to conduct this communication, either personally or non-personally, via the Internet, or what can be referred to (because we are studying *industrial* marketing communication), as “Industrial Cyberspace.” The Internet remains the one element of the marketing communication toolbox that eludes placement. This is considered fitting in this day and age that is referred to as a communication revolution (Gates, 1995). Therefore, “Industrial Cyberspace” is put in the middle of this frame of reference, not so much as the “heart” of this study, but instead a new and evolving marketing communication tool that utilizes a mixture of both personal and non-personal communication.

The emerged frame of reference presented as an eclectic model in Figure 3.2 will be the foundation from which data will be collected. Sellers can utilize a number of personal and non-personal marketing communication tools to supply information to industrial buyers. Buyers can utilize these tools to obtain information as well. This chapter has provided the conceptualization that will allow us to answer this study’s research questions. The frame of reference, which resulted from this conceptualization, is what will guide this study’s data collection, which will be covered in the next section.

2.4 Synopsis of the methodological approach used in *Study A*

The purpose of this section is to provide a synopsis of the research methodology used for collecting the data necessary to obtain answers to the research questions as originally outlined in Study A. To do this a series of steps will be followed. In following these steps, a research paradigm oversees the methods, while at the same time using certain quality criteria (i.e. reliability, validity, etc.) to make sure the study meets certain standards. This is schematically presented below (see Figure 2.6).

Figure 2.6: A Schematic Presentation of the Methodological Approach in *Study A*

SOURCE: Adapted from Foster (1998), p. 81

As presented in the figure above, before the research purpose is stated it is important to know from where the researcher in this study comes from (i.e. his view of the scientific world). Another name for this is the *research paradigm*.

2.4.1 Research Paradigm

Denzin and Lincoln (1994) state that a paradigm is a set of basic beliefs (or metaphysics). It represents a worldview, and this view defines the nature of the “world,” the individuals place in it, and the range of possible relationships to that world. They add that there are four basic inquiry paradigms in the social sciences: positivism, postpositivism, critical theory, and finally constructivism. Each of these paradigms faces three basic questions:

1. *The ontological question:* What is the form of nature and reality? What is there that can be known about it?

2. *The epistemological question:* What is the nature of the relationship between the knower (or the would-be knower) and what can be known?
3. *The methodological question:* How can the inquirer go about finding out whatever he believes can be known?

Denzin and Lincoln (1994) add, “that except for positivism, the paradigms discussed are all still in the formative stages; no final agreements have been reached even among their proponents about their definitions, meanings, or implications” (p. 109). We will focus on each of these questions regarding the postpositivist paradigm, as this is where I place myself as a researcher (i.e. this is where I feel most “at home” in my view of the world and of reality in general). According to Denzin and Lincoln, the above three questions can be answered for the postpositivist in the following way: *Ontologically*, the nature of reality for the postpositivist exists, albeit imperfectly. In terms of *epistemology* for the postpositivist, objectivity is the ideal with emphasis placed on external guardians of objectivity (i.e. do the findings fit with preexisting knowledge?), as well as the critical community (i.e. editors, referees, and professional peers). As for *methodology*, the emphasis for the postpositivist is on critical multiplism, a form of triangulation (i.e. the use of multiple sources of evidence), where data is collected in natural settings and soliciting emic viewpoints to assist in determining the means and purposes that people ascribe to either actions, as well as to contribute to “grounded theory” (with reference to Glaser & Strauss, 1967; Strauss & Corbin, 1990). All of these aims, according to Denzin and Lincoln (ibid.), are accomplished largely through the increased utilization of qualitative techniques.

Staying on the subject of qualitative research as a postpositivist, these scholars added that, “The methodology aims to redress some of the problems by doing inquiry in more natural settings, collecting more situational information, and reintroducing discovery as an element of inquiry, and, in the social sciences particularly, soliciting emic (i.e. insider) viewpoints to assist in determining the meaning and purposes that people ascribe to their actions, as well as to contribute to grounded theory. What all this means is that a postpositivist can utilize both quantitative and/or qualitative methods in any study. The methods used in this study will be presented next follow. For now, from the above discussion, it can be stated that postpositivism is the paradigm that will rule this study. This way of viewing the world does influence the way I approach my research. This is further discussed in the next section, covering the purpose of research.

2.4.2 The Purpose of Research

As presented in Farhang (1990), “To research (i.e. re-search) is to search again, to take another more careful look, to find out more. Research, a combination of experience and reasoning, is universally accepted to be the generating power for the advancement and utilization of science; in short it has been defined as the ‘paradigm of scientific inquiry’” (p. 39, with reference to Nachmias & Nachmias, 1981).

According to Denzin and Lincoln (1994), the obtainment of knowledge for a postpositivist, “accumulates by a process of accretion (i.e. growth or enlargement), with each fact (or probable fact) serving as a kind of building block that, when placed into its proper niche, adds to the growing ‘edifice of knowledge.’ When the facts take the form of generalizations or cause-effect linkages, they may be used most efficiently for prediction and control. Generalizations may then be made, with predictable confidence, to a population of settings” (pp. 113-114). However, such generalizations cannot be made without first exploring and discovering, which is supported in the next section covering the specific stages that research often follows.

Stages of Research

Reynolds (1971) discusses what he refers to as the *composite approach*, versus the research-then-theory or the theory-then-research approaches. He states that the research-then-theory strategy has the disadvantage that a great deal of effort will go into collecting data that has no real purpose, but that at least some information could be useful for inventing theories. The theory-then-research strategy, on the other hand, has the disadvantage of the researcher possibly not having any initial information on which to base the first attempts at a theory, with the view that research is more efficient when one collects information related to a few important hypothesis. A composite of these two strategies could provide a more efficient overall procedure and, at the same time, a more accurate representation of the process that actually occurs in building up scientific knowledge. This composite approach divides research into three distinct stages, as presented by Reynolds (1971, pp. 154-55):

- *Exploratory Stage:* Here, research is designed to allow an investigator to just “look around” with respect to some phenomenon, with the aim being to develop suggestive ideas. The research should be as flexible as possible and conducted in such a way as to provide guidance for procedures to be employed during the next stage.

- *Descriptive Stage:* The objective of this stage is to develop careful descriptions of patterns that were suspected in the exploratory research. The purpose may be to develop inter-subjective descriptions (i.e. empirical generalizations). Once such generalizations begin to emerge, they are thus worth explaining, which of course leads to theory development.
- *Explanatory Stage:* The goal here is to develop explicit theory that can be used to explain the empirical generalizations that evolved from the second stage. This provides a cycle then of: 1) Theory construction; 2) Theory testing (attempts to falsify with empirical research); 3) Theory reformulation (back to step one).

The above presentation of the “composite approach” differs from the research-then-theory approach in that the data collected in the exploratory stages is not thought of as the final answer, but is instead recognized as being exploratory in nature using a flexible research design. According to Reynolds (1971), collecting data this way is often a procedure that uses hunches and insights, which of course have an effect on data collection. It differs from strict theory-then-research approaches in that it assumes that a useful theory is hard to invent without some acquaintance with the phenomenon. This acquaintance with the “phenomenon” under investigation thus takes place during the exploratory and descriptive stages of research. It is this composite approach which will be utilized for this study.

The Aim of this Study: Explore, Describe, and begin to Explain

In following the discussion above, the primary aim of this study is to explore and describe, with the possibility that some early explanations from the findings will be possible (i.e. by answering the research questions, the aim is to *begin* to explain). However, this study is considered to be primarily exploratory and descriptive for the following reasons:

- First of all, the fact that few (if any) studies on industrial marketing communication tools within Sweden or within the industries selected in Sweden were found to exist.
- Second, the emergence of such modern communication tools as the Internet has ushered in a “communication revolution” (Gates, 1995) that both industry and academia must face. For those of us on the academic (research) side, such a revolution requires exploration first, followed by a description of our findings. Over time, when enough has been explored and described, propositions and hypotheses will

emerge which will allow for testing. This in turn will allow for us to slowly begin to generalize and begin to build or adapt models and make more and more abstract statements. It is at this point that stronger theory will truly begin to develop.

Yin (1994) says the goal of exploratory research is to, “develop pertinent hypothesis and propositions for further inquiry” (p. 5). Phillips and Pugh (1994), add that this type of research often involves the tackling of new problems/issues/topics about which little is known, so the research idea is not formulated very well at the beginning.

Based on the overall research problem (purpose) and the research questions involved, the overall purpose for this research project will be to explore, describe, and possibly begin to explain the phenomena under investigation. However, the way in which one must go about investigating must be based on the research approach, which will be discussed next.

2.4.3 Research Approach: *Qualitative*

Rudestam and Newton (1992), state that the current research done within the social sciences seems to be steeped in the empirical and quantitative traditions. They go on to add that most social science research within the 20th Century has been quantitative in nature. They continue that there has been a recent expansion of qualitative research in the social sciences and they emphasize the further need and advantages of the qualitative approach. “A countervailing trend in social science research calls for side-stepping the artificiality and narrowness of experimental studies by promoting studies that allow researchers to be more spontaneous and flexible in exploring phenomena in their natural environment” (op. cit., p. 29). For our purposes, the natural environment would mean collecting information at the companies being investigated.

Whereas quantitative studies emphasize the measurement and analysis of causal relationships between variables, Denzin and Lincoln (1994) explain that qualitative research emphasizes processes and meanings that are not rigorously examined or even measured (in terms of quantity, intensity, amount, or frequency). Data are usually non-quantitative and are in the form of words versus numbers. Qualitative research, inductive in nature, allows the researcher to first collect the data, and then go on to possibly generate hypothesis or propositions that can be tested (quantitatively).

Gummeson (1988) writes that qualitative methodology “provides powerful tools for research in management and business administration” (p. 9). Gummeson

continues to state that, too often, business schools oppose the use of qualitative methods of research and classify them as “second rate.” He argues that the limited use of qualitative research and its often-incorrect use, as well as an exaggerated reliance on quantitative techniques, is due to both tradition and ignorance in academia.

According to Polkinghorne (1991), qualitative research methods are also very useful in the “generation of categories for understanding human phenomena and the investigation of the interpretation and meaning that people give to events they experience” (p. 112). From this statement it can be added that, in order to understand and characterize the marketing communication tools used in industrial markets, as well as the people using them and being affected by the current communication revolution, a qualitative approach may be best. As Silverman (1993) states, “qualitative research can be used to familiarize oneself with a setting before the serious sampling and counting begins” (p. 20). Yin (1994) adds that the best research method to use for any one study depends on that studies research problem and the accompanying research questions. These qualitative approaches for the social sciences will be covered in the next section. For these reasons, as well as the others presented earlier, the data collected for this primarily exploratory and descriptive study is deemed to best be conducted via qualitative methods versus quantitative ones.

2.4.4 Research Strategy: *Case Studies*

With the focus now on qualitative research as a general research approach, the focus now turns to the research strategies available to collect the data. Yin (1994) lists five primary research strategies in the social sciences. These include experiments, surveys, archival analysis, histories, and case studies. The selection of any of these strategies depends upon three distinct conditions:

1. *The type of research question posed:* This study asks primarily how and why research questions.
2. *The extent of control an investigator has over actual behavioral events:* This researcher has none; his job is to observe and interview.
3. *The degree of focus on contemporary as opposed to behavior events:* This study focuses on the how and why of a contemporary event (i.e. the current use of marketing communication tools by sellers to provide information and buyers to obtain information).

For our purposes, an experiment is ruled out, as control over behavioral events is not possible in a study such as this. History is also ruled out, as the lack of focus on contemporary events with this method of data collection is not how this study is designed. As for survey research, the emphasis is often quantitative, and it has been established that this study will use a qualitative approach.

This leaves two choices for data collection. Each of them, *archival analysis* and *case study* research, ask “how,” “why,” questions (which is how our studies research questions have been asked). Yin (1994) states that a case study approach is best used as a method for gathering data when a “how” or “why” question is being asked about a contemporary set of events over which the researchers has little if any control. Yin continues that a case study approach helps investigators to refine their data collection plans with respect to both the contents of the data and the procedures to be followed (in collecting that data). As concluded by Yin, a qualitative, case study approach has a distinct advantage when a how or why question is being asked about a contemporary set of events over which the investigator has little or no control. Therefore the case study is deemed as the best method of data collection for this study. How the case study as a research strategy will be utilized in this study is presented in the next section on data collection.

2.4.5 Data Collection: *Interviews and Documentation*

According to Yin (1994), data can be collected for case studies via six different sources: Documentation, archival records, interviews, direct observations, participant observations, and physical artifacts. Yin adds, “a major strength of case study data collection is the opportunity to use many different sources of evidence” (p. 91). Yin calls this use of multiple sources of evidence “triangulation,” which means that the researcher has the opportunity to obtain multiple measures of the same phenomenon, which in turn adds to the validity of any scientific study.

Yin (ibid.) writes that, “no single source has a complete advantage over all the others. In fact, the various sources are highly complementary and a good case study will therefore want to use as many sources as possible” (p. 80). This study will utilize two of the sources from which evidence can be collected, allowing for triangulation (multiple sources of evidence) to still be possible. These two sources of evidence will include:

- *Documentation* in the form of annual reports, sample ads, and other documents will be utilized as well. This will be done in order to be able, in more detail, to describe the choice of both the sellers and buyers’ choice of a marketing communication tools, as well as gain

more information on the company, the industry, and the product under investigation.

- *Interviews*, will be the primary form of data collection used. These will allow for us to target specific individuals within the respective selling and buying centers in order to obtain the data needed. Interviews can be defined as the collection of information from respondents.

For this study, it is determined that a *focused interview* is the best choice, as our topic (i.e. contents of the marketing communication toolbox) is pre-determined. Another reason for the use of focused interviews is that, although the researcher in this study has a conversational ability with the Swedish language, the use of English is considered paramount in obtaining accurate data. Using pre-determined topics allows for “informal conversation,” which is important in overcoming certain linguistic barriers that may arise. Such a setting will also make it possible for additional questions and topics to be given during the course of the interview. It is also important that non-verbal queues and social interaction in general can be utilized while conducting such interviews.

This section has narrowed down the means by which data will be collected. Case studies have been chosen as our overall research strategy, and interviews will be the primary means by which data is collected, along with the use of documentation (when and where available). The interviews will be used in order to gain a better understanding of the choices sellers and buyers make with regards to their selection of marketing communication tools to either supply information or obtain it. In other words, we will not only look at *what* they are using, but *why*, as well as why not (i.e. the reasons behind their selection/non-selection) of certain marketing communication tools.

With the purpose of this study (which again is primarily to explore and describe), what the approach will be (qualitative), the specific research strategies that will be used (case studies), and the way data will be collected (interviews/documentation), it becomes necessary to now choose *who* it is we will conduct our interview with. This leads to the next section on sample selection.

2.4.6 Sample Selection: *Timber Industry in Sweden*

The purpose of this section is to explain the way in which companies will be selected, as well as the individuals within those companies, for this study. Already in Chapter One, the study was narrowed down based on three factors:

- Country: *Sweden*

- Industry: *Timber industry*
- Product type: *Capital equipment*.

What is left in terms of sample selection, therefore, are the actual companies that will be used in order to conduct the interviews. The Swedish timber industry is actually full of many sub-industries. Sölvell, Zander, and Porter (1993) refer to this general industry as the “Forest Products Cluster, with a number of linked smaller clusters” (p. 76). They list the leading smaller clusters as:

- Pulp and paper
- Sawmills
- House construction
- Furniture
- Matches

For this study, companies within the pulp and paper and the sawmill industries will be focused on, as these are two of the leading sub-industries within the timber/forestry industrial cluster as presented in Chapter One. Sölvell, *et al.*, provide this study with a population of both sellers and buyers of capital equipment. The companies mentioned as manufacturers of such equipment by these authors will be described below in our overview of each of these two smaller industrial clusters.

The Swedish Pulp and Paper Industry

According to Sölvell, *et al.*, the pulp and paper industry has developed into one of Sweden’s largest net exporters, well ahead of many other major Swedish industries, including transportation equipment, engineering products, and metals. These authors present what they refer to as the “full diamond” being at work. In other words, the pulp and paper industry in Sweden includes: domestic rivalry, competitive Swedish supplier and related industries (logging equipment, machinery, chemicals, etc.), specialized and continuously upgraded factors of production (including specialized training institutes and research institutes), and finally, sophisticated domestic buyers.

Of interest to this study is the fact that there is more than one competitor, several opportunities to investigate capital equipment (e.g. logging equipment, machinery), as well as the existence of buyers within Sweden. Sölvell, Zander, and Porter (1993) then provide a breakdown of those who sell the pulp, products from the pulp as “Primary” users of such equipment, and these firms can be considered the buyers of such machinery (capital equipment). They then provide a list of those sellers that produce this “machinery” (pp. 83-84). It was from this

list that our sample selection of both the sellers and buyers for our study took place.

As stated in Chapter One, this study will focus on the sellers and buyers of capital equipment. From the above-mentioned list, this would include the sellers and buyers of many of the items listed above. However, we will choose to focus on the machinery most related to the production of pulp and paper. According to Sölvell, *et al.*, the pulp and paper industry in Sweden has become highly consolidated since the end of World War Two.

Producers of the machinery (i.e. capital equipment) for these manufacturers of paper include three sub-industries: Logging, pulp, and paper. Mechanization in logging, according to Sölvell, *et al.*, led to international positions in specially designed tractors, forwarders, processing machines (limbing and ducking), log harvesters (felling and processing), machines for thinning, and machines for planting. Development in the Swedish pulp industry provided several manufacturers of pulp machinery. It was further noted by Sölvell, *et al.*, that the forest products cluster was also closely related to the transportation equipment cluster in many ways. Heavy trucks, also considered capital equipment, are used to transport both timber and paper.

The above discussion on the Swedish pulp and paper industry has given us a breakdown of the products (especially capital equipment and more specifically machinery) used, as well as those firms that both sell and buy such capital equipment. It is from the listing of “primary” (buyers) and “machinery” (sellers) that this study will focus its case studies on. The objective here is to have at least one seller and two buyers in the pulp and paper industry take part in an interview. Overall, this makes our sample selection purposive, rather than random, in nature. However, as stated, the sellers and buyers within another forest products cluster in Sweden, namely sawmills, will also be focused on.

The Swedish Sawmill Industry

According to Sölvell, Zander and Porter (1993), the Swedish sawmill industry has a long history. While there were over 6,000 mills in the 1950s, this number has been consolidated to around 2,000 today, with the top 300 mills accounting for over 90% of the output. It is on these 300 that we will attempt to focus our research, with the leading sawmills and those that supply the capital equipment to them being focused on.

As of the early 1990s, the Swedish sawmill industry was the largest in Western Europe. Sawmills carry out a number of different production steps: sawing,

planing, fingerjointing, and pressure impregnation, etc. Each of these steps requires different machines. Such machines include conveyors, drying kilns, and saw tools. As with the sellers and buyers of pulp and paper machinery (capital equipment), a list of these 300 largest sawmills will be used in order to provide a population from which agreement from a number of these firms to become case studies can be obtained. This list of 300 was obtained from the Swedish “Statistiska centralbyrån (Statistics Sweden).” Again, this makes our sample selection for this industry to be purposive rather than random.

For those firms that agreed to become a single case for this study, it became important to assure anonymity for each firm and each participant. In setting up one of the first interviews for this study, it was asked by the respondent that his name and his company’s name be left out. Yin (1994) states that anonymity can, at times, be important when the case report may affect the actions of those studied...and that anonymity can also serve to protect the case and its participants. Because anonymity was requested by one of the early interviewees for this study, anonymity was then provided to all participants. It was also felt that a more open and honest response would be possible if an interviewee was assured that neither their company name nor their name would be used. For this reason, we will discuss and present such firms under the heading of each industry. For example, the sellers in both the Pulp and Paper or as Sawmill industries will be labeled as “S1, S2”, respectively and the buyers being referred to as “B1” and “B2” (for the Pulp and Paper industry) and then “B3” and “B4” (for the Sawmill industry).

Finally, it must be determined who should be interviewed at each firm taking part in this study. Our initial contact person for both sellers and buyers will be based on what many of the other studies in Chapter Two listed as their primary contacts: For industrial sellers, the *marketing manager* will be our primary contact person to set up interviews with. As for buyers, the most common position mentioned was that of the *purchasing manager* or purchasing executive. It is these two individuals who we will first contact in order to set up interviews within their firms.

Upon initial contact with each selling and buying firm, it will be through these primary contacts that a second person to interview will be agreed to. This second person will be someone identified by the primary contact person as a key member of the selling (or buying) center who could contribute to the study. We will of course remain open to the possibility that more than two interviews would be made available.

2.4.7 Data Analysis: *Reduce and Display*

Yin (1994) states that every case study should start with a general analytical strategy. These general analytical strategies with regards to case studies provide the researcher with a system by which s/he can set priorities for what it is they need to analyze and why. As Herriott and Firestone (1983) stated in Yin, “The evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being more robust” (p. 45). The way in which the data will be analyzed is very important for any research study. For this study, it will involve the analysis of the depth interviews conducted, as well as the review and use of any documentation that the firms feel they are able to hand over (i.e. annual reports, brochures, etc.). As previously stated, these multiple sources of evidence (i.e. “triangulation”) are what add to a study’s validity (Yin, 1994).

In writing about qualitative data analysis, Miles and Huberman (1994) state that the focus is on data in the form of *words* – in our case words that emanate from the interviews conducted at each of the selling and buying firms. These words require processing, according to these authors, and this processing is itself a form of analysis. Miles and Huberman further define data analysis, “as consisting of three concurrent flows of activity: data reduction, data display, and conclusion drawing/verification” (p. 10). Upon first obtaining data during a “data collection period,” They explain the three stages of qualitative data analysis as follows:

1. *Data reduction* should not be considered to be separate from analysis, but as a part of it. This reduction of the data is analysis that helps to sharpen, sort, focus, discard, and organize the data in a way that allows for “final” conclusions to be drawn and verified. They add that data can be reduced and transformed through such means as selection, summary, paraphrasing, or through being subsumed in a larger pattern.
2. *Data display* is the second major activity which the researcher should go through, and this means taking the reduced data and displaying it in an organized, compressed way so that conclusions can be more easily drawn. These authors explain that, “humans are not powerful processors of large amounts of information,” and that “extended text can overload humans’ information-processing capabilities” (op. cit., p. 11, with reference to Faust, 1982). It is further explained that good displays are, “a major avenue to valid qualitative analysis” (op. cit., p. 11). In conclusion, they state that, as with data reduction, the creation and use of displays is not separate from analysis, but is a part of it.

3. *Conclusion drawing and verification* is the final analytical activity for the qualitative researcher. It is here that the researcher begins to decide what things mean. They do this by noting regularities, patterns, explanations, possible configurations, causal flows, and propositions. However, Miles and Huberman also add that the competent researcher should hold such conclusions lightly, while maintaining both openness and a degree of skepticism.

In following the three steps above with regards to analyzing this data, it is our aim to *present* the collected data (in Chapter Five) from each of the six case studies. We will then *reduce* the data, whereupon it can then be *displayed*. From such ordered displays, *conclusions* can be more easily stated. Because the actual type of “display” cannot be decided upon until the data is collected, presented, and reduced, we will save that decision until our final chapter on analysis for this study.

2.4.8 Quality Standards for Research: *Beyond Validity and Reliability*

In setting standards for the quality of our work, according to Miles and Huberman (1994), “getting it all right” is an unworkable aim. Instead, in conducting research, we should do as Wolcott (1990a) suggests, which is to try and “not get it all wrong” (p. 277). Miles and Huberman present five main (somewhat overlapping) issues with regards to validity and reliability of a study:

1. *Objectivity/Confirmability*: Here, it is asked whether the conclusions depend on “the subjects and conditions of the inquiry” rather than on the inquirer (Guba and Lincoln, 1981)? A few of the many questions (Miles and Huberman, 1994, p. 278) which could be asked with regards to this, along with answers to them regarding our study, are provided.
  - *Are the study’s general methods and procedures described explicitly and in detail; do we feel we have a complete picture?* For this study, we have tried to lay out precisely what we wanted to accomplish in terms of methodology and data collection earlier in this chapter, starting with the presentation of my research paradigm and ending with how analysis of the data would be handled.
  - *Can we follow the actual sequence of how data were collected?* We presented in the analysis section of this chapter that we would follow Miles and Huberman’s (1994) means for collecting the data, reducing the data, displaying the data, and drawing conclusions from the presented data.

2. *Reliability/Dependability/Auditability*: Here, the issue is whether or not the study is consistent, reasonably stable over time (i.e. have things been done with reasonable care?) Some of the relevant questions, according to Miles and Huberman (1994) to be asked here include:
  - *Are the research questions clear, and are the features of the study design congruent with them?* For this study, careful steps have been taken to state the research question in a proper manner. Colleagues also provided feedback on the development and use of these research questions.
  - *Were any forms of peer or colleague review in place?* Throughout this process, those within and outside of academia were used to provide feedback and suggestions on this research project during the time of its undertaking.

3. *Internal Validity/Credibility/Authenticity* is what Miles and Huberman (1994) refer to as “truth value” (p. 278). In other words, do the findings of the study make sense? Are they credible to the people we study and to our readers? Do we have an authentic portrait of what we are looking at? Here, important questions include:
  - *Does the account “ring true,” make sense, seem convincing or plausible for the reader?* We feel the way in which we plan to present the data, reduce it, display it, and conclude from it will make sense to the reader(s), and that it will all make sense.
  - *Are the presented data well linked to the categories of prior or emerging theory?* By using a review of literature to provide us with a series of research questions, which in turn were conceptualized and turned into a frame of reference for this study, this path is being followed.

4. *External Validity/Transferability/Fittingness* is Miles and Huberman’s (1994) way of asking if “the conclusions of a study have any larger import?” (p. 279). The question posed regarding this was, do they fit and can they be *generalized* with previous theory? Here they use what Maxwell (1992c) calls “theoretical validity,” where a study’s findings gain added power if they are connected to theoretical networks beyond the immediate study. Questions here include:
  - *Are the findings congruent with, connected to, or confirmatory of prior theory?* The answer to this of course lies in the analysis chapter during our within-case analysis, where we compare the findings within each case with the frame of reference (i.e. prior research) for this study.

- *Does the report suggest settings where the findings could be fruitfully tested further?* The answer here is that any good research project would allow for the continuation of research within the same or related areas to the phenomenon under investigation.
5. *Utilization/Application/Action Orientation* means asking whether the study will lead to more intelligent action (here meaning on the part of practitioners). According to Gummesson (1991), qualitative research is often relied upon by managers and consultants, therefore the researcher should ask himself:
- *Are the findings intellectually and physically accessible to potential users?* (Noted here was Gummesson's 1991 tongue-in-cheek dictum that, "a scientific report should be boring and difficult to read."). It is our aim that the findings in this study will be useable by practitioners.
  - *Do the findings stimulate "working hypotheses" on the part of the reader as a guidance to future action (Donomoyer, 1990)?* Again, we hope that the findings will stimulate such action by both sellers and buyers within the industries outlined for this study (as well as more formal hypotheses which can be stated by researchers in order to be able to conduct future research in this area).

In addition to the above general discussion on quality standards in research, which dealt with issues revolving around reliability and validity, more can be said on each of these with regards to this study. Shipman (1982) (as quoted in Gummesson, 1988) states that reliability centers around one main question: "If the investigation had been carried out by someone other than the author, using his methods, would the same results have been obtained?" (p. 146). Yin (1994) adds that reliability is shown when the operations of a study, such as the data collection procedures, can be repeated with the same results.

In this study, the steps taken in collecting the data for all case studies were done carefully so as to make the data collection as objective and thorough as possible. First, more than one member of each selling and buying center was interviewed. Next, all interviews were recorded on a tape recorder and notes via the interview guide were taken simultaneously. Finally, multiple cases (i.e. one seller and two buyers) in more than one sub-industry (i.e. pulp & paper, and sawmill) within the Swedish timber industry were conducted, thus providing what will be more generalizable and therefore more reliable results.

With regards to the validity of this study, we refer the question asked by (Shipman, 1982, as quoted by Gummesson, 1988): “Does the evidence really reflect the reality under examination?” (p. 146). Validity in a study such as this is actually an ongoing process, requiring the researcher to continuously assess his assumptions, revise his results, retest his theories and models, and re-appraise the given limitations that have been set for the study” (Hägg & Heglund, 1978, as quoted by Gummesson, 1988, p. 81). Yin (1994) speaks of construct validity, which is defined as “establishing correct operational measures for the concepts being studied” (p. 33).

For this study, we use what Yin (1994) refers to as “triangulation,” where multiple sources of evidence are used. In our case, this would include the interviews conducted, using more than one member of each selling and buying team, as well as documentation involving the review of the actual ads, company reports, brochures, etc. (when and where available). The interview guides for this were developed under the guidance and feedback of several researchers at a Swedish university throughout the entire process. Supervisors, colleagues, as well as people from outside academia critiqued such guides, in order to make sure the questions asked were not only proper, but also clearly stated and understandable.

Finally, the data for each case was first written out based solely on the information written down on the respective interview guides. This was followed up with going back and listening to each of the interviews on cassette tape once again, following along and comparing what was written with what was said a second time.

Summary

The purpose of this research is to explore and describe (and possibly begin to explain). The research approach will be a qualitative one with case study as the research strategy utilized. Data will be collected via open interviews as well as documentation when and where made available. The sample selection is purposive in nature and involves the selection of selling and buying firms that can become case studies, as well as the individuals within those companies who can be interviewed. Finally, analysis of the data will follow the three steps of reducing the data, display the data, and drawing from what is presented, as laid out by Miles and Huberman (1994). Chapter Five will present data from each of the six cases in detail, giving us an abundance of material (i.e. words) which will eventually be reduced in the analysis chapter (Chapter Six).

2.5 Synopsis of the Data (case studies) in *Study A*

The purpose of this section is to present the empirical data collected from the six case studies conducted here in Sweden. As outlined in the previous section, this set of case studies will be comprised of two selling organizations (S1, S2), and four buying organizations (B1, B2, B3, B4), involving two different industries (Pulp & Paper and Sawmill) in Sweden. Each case will consist of an introduction, which includes information on the organization in question, followed by a brief summary of the data for the three research questions: The data collected was a result of focused interviews conducted with representatives from the respective selling or buying center in each of these organizations. See *Appendix A* for the interview guide used with sellers and *Appendix B* for the one used with buyers.

The organization and layout of the cases is provided below (see Figure 2.7). Miles and Huberman (1994) explain that writing out the cases is actually a form of analysis onto itself, as the researcher is taking data from field notes, recordings, etc., and putting them down on paper in the form of a story we would like to tell. They further imply that qualitative research is repetitive. It is repetitive in terms of the data due to the “data reduction-data display” steps recommended by them. It is repetitious in terms of literature based on the data being compared (within each case) against the conceptual framework developed for any one study. Because of this repetition (of the data) in the analysis portion of this study, this empirical section will simply provide a background to each case and a summary as to the findings in that case. The empirical data will be provided in more detail in the analysis section that follows.

Figure 2.7: A Schematic Presentation of the Six Case Studies in *Study A*

SOURCE: Adapted from Foster (1998), p. 102

2.5.1 CASE ONE: Seller One (S1)

This company (S1)⁵ considers itself to be a leading supplier of machines and process systems to the pulp and paper, fiberboard, and chemical industry, offering technology for chemical and mechanical pulping, recycled fibers, fiberboard, recovery of chemicals and energy, and production of bleaching chemicals. The firm's pulp and paper division is part of a global operation with other business interests in oil and gas, shipbuilding, metals, and more. In 1996, the total number of employees worldwide for its pulp and paper division was listed as 3,942. A member of the selling center put their local total number of employees at around 1,500, with approximately 300 sitting in the same office complex with them. Operating revenues for this division were NOK 6,637 million, with an operating loss of NOK 522 million. This substantial loss, according to the company's 1996 Annual Report, was due primarily to cost overruns and delays on several large contracts. These reasons, along with a slow market turned 1996 into a year with large losses.⁶

This firm's pulping efforts are broken into two major divisions: Fiberline and Power. Our interviews took place at the firm's Power division main offices in Sweden, with Sweden again being the location that this study would take place, as was outlined in Chapter Four. The Power division provides over 100 years of experience and expertise in every aspect of chemical recovery and power generation. This division has become one of the world's leading suppliers of boilers and evaporators, with hundreds of successfully operating plants here in Sweden and around the world. With this information on the organization in mind, we will now turn to those within the selling company who are involved in the planning and use of marketing communication tools used to provide information to buyers of such equipment and processes.

RQ1: The Selling Center

As presented in Chapter Three, those in the selling center involved in the decision making of which tools to use will be described based on three criteria. First there is *vertical involvement*, i.e. the number of levels of the organizational hierarchy involved in the marketing communication tool decision. Next is *lateral involvement*, or the number of different departments and/or divisions involved in communication. Finally *extensivity*, which is the total number of individuals involved in these decisions on which marketing communication tools to use to provide information to buyers.

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⁵ Source for some of this information was from the company's brochure, "A Brief Presentation," on its pulp and paper division (April 1997).

⁶ From S1's 1996 Annual Report.

Information regarding the selling center was obtained via a contact person within the company, previously known by the researcher. This contact person worked in the marketing and sales department, and more specifically a “sub department” (as she described it) called the promotion department. This person’s official title was *market analyst*. This person’s role within the selling center was described as a link between the promotions department and the actual sellers out in the field. A second person identified by the market analyst was also asked to provide information regarding the selling center, as described above. Again, this was done in order to add to the validity of the data collected. In terms of the *vertical involvement* in this firm, when it came to the decisions of which marketing communication tools would be utilized to provide information to buyers, four levels of the organization’s hierarchy were described: Executive level (i.e. Managing Director/President); upper-level management (i.e. Vice President of Sales and Marketing); middle-level management (i.e. Promotion Manager); promotion staff (illustrators, etc.), as well as technical staff (i.e. salespeople with engineering backgrounds).⁷

As for *lateral involvement*, the number of departments involved in the decision making of which marketing communication tools to use included two main divisions and one “sub division:” Marketing and Sales; Promotion (a part of Marketing and Sales); Finance

Finally, with regard to *extensivity*, the total number of individuals identified (and their roles/titles) by S1 as being involved in the planning and development of marketing communication tools included: Vice President, Marketing and Sales (VP); Marketing Communication Manager (MC); Promotion Manager (PM); Market Analyst (MA); Illustrators (x 2) (IL); Layout Designer (LD); Staff Photographer (SP); Sales Manager (SM). The Market Analyst was our main contact at S1. A total of four subjects were made available at S1 for interviews, all of them from the above selling center. This included the following (presented in the order interviewed): Market Analyst (MA); Promotion Manager (PM); Sales Manager (SM); Vice President, Sales and Marketing (VP)

RQ2 & RQ3: Tools Used & Why

In this section we will present the data on what S1 is using to provide information via *personal marketing communication tools* and why. Additionally, we will also find out their view on why they may choose to not use other tools. As laid out in

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⁷ This interviewee stated that by “technical staff” they meant the salespeople in the firm with education/backgrounds in engineering.

Chapter Four, in order to increase the validity of the study, at least two interviews were conducted.⁸

These interviews were done with those individuals in the selling center who were identified as those making decisions/providing input on the use of marketing communication tools that would be used in order to provide information to buyers. For S1, a total of four interviews were conducted, as this was how many individuals were made available. We will present the data collected by the marketing communication tool being investigated (e.g. we will get all four interviewees response to “advertising via direct mail” and present all of the data on this tool in the same paragraph).

As a reminder, we are trying to make things more presentable by organizing the toolbox with “compartments.” With this we mean that, within each case study, the print advertising tools are presented first, followed by sections on broadcast advertising, outdoor advertising, sales promotion, public relations, and finally the Internet. Again, as discussed in Chapter Three, the order in which the data is presented is not as important as the fact that it is included somewhere in the toolbox. Additionally, as previously presented, what is one person’s sales promotion may be another person’s personal selling effort (e.g. taking the customer to lunch), so in which “compartment” they are placed is not considered pertinent here; again, it just makes the data more presentable.

Summary: S1

In addition to the information obtained on the tools used by S1 to supply information to buyers of their capital equipment and processes, two other pieces of information emerge from these interviews. First, in two of the interviews, the lack of coordination and cooperation between the promotions department and the sales side of the marketing and sales department was rather evident. Also, two interviews provided insight into the nearly complete lack of follow up research done to measure the effectiveness of nearly all of the marketing communication tools used. Both of these items were of concern to members of the selling center.

On the promotion side, it was felt that what was developed the most (from a marketing communication standpoint) were ads, brochures, exhibitions, seminars, press releases...i.e. many of the *non-personal* forms of communication utilized by S1. Even though the sales side often used or referred to these tools, information

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⁸ Three complete interviews were actually conducted, while the fourth, with the VP for Sales & Marketing only meet for a few minutes. Thus only general information on personal, print, broadcast, outdoor, sales promotion, PR, and the Internet could be obtained, rather than info on a tool-by-tool basis.

from sales before these items were developed as well as feedback from them once they were was almost nonexistent. The sales side, on the other hand, had the *personal* (face-to-face or mouth-to-mouth) contact with the customers, but information from these communication efforts were then not shared with the promotion people. “It should be a close relationship, but it its not,” admitted one interviewee at S1...“we are beginning to learn.” In further discussing this division between marketing (promotion department specifically) and sales, the sales side was associated mostly with technicians, engineers, finance people, and even a lawyer. On the marketing side were the promotion people. Not a “rivalry” per se, but it was observed that a direct division (and therefore lack of communication) between these two parts of the Sales and Marketing department (and therefore within the *selling center*) was quite evident.

This first case (S1) has also shown that there is a wide array of thinking on the various marketing communication *tools used* to supply information to buyers within this industry. Within the *selling center* itself, opinions vary at times as to whether a specific tool is or should be used and whether it is a useful way to supply information (i.e. is viewed favorably as a tool, regardless of use). This of course goes beyond the scope of this study’s research problem (which involves comparing sellers with buyers), but is a worthy consideration for future research. With the selling company behind us, we will now turn our attention to the two other cases done within this industry, on the buyers of such capital equipment and which tools they feel are the most useful to obtain information, and why.

2.5.2 CASE TWO: Buyer One (B1)

Established in 1941, this company (B1)⁹, located in northern Sweden, is a pulp and paper mill and has been a buyer of capital equipment from S1 in the past. With approximately 500 employees today, total revenue for the 1996 fiscal year was around SEK 1.3 billion. Further financial details were not made available, although the firm was expecting a profit for fiscal year 1997.

Capital equipment used in their mill includes wood handling equipment, refiners, cookers, digesters, washers, electrical motors, data equipment, etc. The cost range for such equipment can be from the several thousand crowns up to SEK 500 million.

RQ1: The Buying Center

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⁹ Some information for this section came from the interview, some from B1’s Annual Report from 1996.

The buying center for such capital equipment is most often made up of several different individuals, according to the purchasing manager and the production manager for B1. Additionally, the production manager explained in detail who was involved in a recent capital equipment purchase by providing an organizational chart. Data on the buying center involving those individuals who were likely to have the need to obtain information on capital equipment (machinery) in this industry will be presented in the same way such information was presented in the first case.

In terms of the *vertical involvement* in this firm, when it came to which levels of the organization's hierarchy could be involved in obtaining information when purchasing capital equipment for their mill, these interviewees described four levels: Executive level (i.e. Managing Director/President); upper-level management (i.e. Deputy Managing Director/Vice President); middle-level management (i.e. department managers); technical staff (i.e. users of equipment, engineers)

As for *lateral involvement*, the number of departments that could become involved in the decision making revolving around the purchase of capital equipment for the firm included: Finance; Personnel; Purchasing; Production; Marketing,

Finally, with regard to *extensivity*, the total number of individuals identified (and their roles/titles) by S1 included the following: Purchasing Manager (PuM); Production Manager (PrM); Mill Manager (MM); Maintenance Manager (MaM). The first two individuals on the list above were the ones interviewed, namely the Production Manager (PrM) and the Purchasing Manager (PuM).

RQ2 & RQ3: Tools Used and Why

As with the first case, this case on B1 provides a detailed look at the contents of the marketing communication toolbox, which contains those non-personal *promotional tools* that industrial buyers can utilize to obtain information from sellers on capital equipment. The case also provided data collected on what this firm's *buying center* members felt with regards to various personal marketing communication tools as well.

What seems to stand out with this case is the fact that, on more than one occasion, members of the same buying center seemed to disagree or at least hold different views on the value of a particular marketing communication tool for obtaining information on capital equipment (or on the company that made manufactured that equipment -- i.e. the brand). In addition, the viewpoints expressed by these

buying center members at times came from the perspective of the seller (i.e. that a particular tool would not be good as it means the seller was not hitting their intended target audience with “that” media choice). We will now move to our third case, covering the data collected from the second buying firm in the Swedish pulp and paper industry.

2.5.3 CASE THREE: Buyer Two (B2)

This pulp and paper mill (B2)¹⁰ was established in 1962 and today employs approximately 677 individuals. As part of a much larger organization with interests in the timber industry, packaging, pulp and paper and more, annual revenue from this mill alone in 1996 was given as “around SEK 2.5 billion.” No other financial data was made available. B2’s primary business is in the manufacturing of packaging for consumer products, adding that they make their own pulp as well at the plant.

The type of capital equipment purchased by B2 was described as paper machinery, recovery equipment, boilers, washers, digesters, screens, and much more. This was considered an overview of the larger pieces of capital equipment the firm invested in. There are often several individuals involved in the purchasing process of such equipment, and this is represented in the next section.

RQ1: The Buying Center

In the three interviews conducted at this firm, the buying center for B2 can be described as consisting of the following members when it comes to major capital equipment purchases. In terms of the *vertical involvement* in this firm, when it came to which levels of the organization’s hierarchy could be involved in obtaining information when purchasing capital equipment for their mill, three levels were described: Upper-level management (i.e. Deputy Managing Director/Vice President); middle-level management (i.e. department managers); technical staff (i.e. users of equipment, engineers).

As for *lateral involvement*, the number of departments that could become involved in the decision making revolving around the purchase of capital equipment for the firm were divided into three main categories by the interviewees: Purchasing; Production; Technical (i.e. maintenance, users, electrical).

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¹⁰ Portions of this section contain data obtained from the publication “1996 Review/1997 Preview.”

Finally, with regard to *extensivity*, the total number of individuals identified (and their roles/titles) as being involved in the purchasing of capital equipment included the following: Purchasing Manager (PuM) x 2; Mill Manager (MM); Project Group. The project group consisted of the Project Manager (PM), an engineer; Project Leader (PL), also an engineer; a Civil Engineer (CE); an Electrical Engineer (EE); Production people (PR), including a superintendent and two operators); Foreman (FO) from maintenance department.

The interviewees made available for this project included two purchasing managers (PuM1 and PuM2) as well as a project manager (PM). The data collected from the interviews with them will be presented below. It should be noted here that the interviews with the two purchasing managers were done with both of them at the same time. This was due to (PuM1)'s feeling that his English speaking capabilities were limited, so (PuM2) was asked to join us in order to translate and explain for (PuM1). However, as we got started, (PuM1)'s English was discovered to be more than adequate, and the interviewers ability with the Swedish language aided in this as well. Therefore, data from both of them was collected as two separate interviews, as this is the way the interview unfolded. The interview with the (PM) was done separately at another time.

RQ2 & RQ3: The Tools Used and Why

This case on B2 has provided us with a look into which marketing communication tools a second buyer (and buying center) within the same industry use to obtain information on capital equipment. As with the other cases, differences begin to emerge as to the types of tools various members of the buying center utilize to obtain information. However, in order to make our research more generalizable, we will turn our attention to another industry, where we will look at a seller and two buyers all over again.

As presented earlier in Section 2.4.6, the Swedish sawmill industry is one of Sweden's oldest industries. As provided, the top 300 sawmills in Sweden today are accounting for over 90% of the output. It is on a two of these 300 that we will attempt to focus our research, along with a selling firm that supplies the capital equipment to them.

As stated earlier, sawmills carry out a number of different production steps: sawing, planing, fingerjointing, pressure impregnation, etc. Each of these steps requires different machines. Such machines and the companies that produce such capital equipment include conveyors, drying kilns, and saw tools. We will be focusing our research on one of the manufacturers (sellers) of such capital equipment from the list as well as provided by Sölvell, et al. (see Chapter Four).

Again, companies on both the selling and buying side were selected based on their inclusion on these lists as well as their geographic proximity to the university from which this research was being done and their availability to participate. With this in mind we turn to our first case in the sawmill industry, which is on the manufacturer and seller of the capital equipment.

2.5.4 CASE FOUR: Seller Two (S2)

This Swedish manufacturer of capital equipment to the sawmill industry (S2)¹¹ was established in 1953 and today is going through the transition of new ownership by a larger, international conglomerate. With approximately 120 employees at their plant, the firm saw a 1996 profit of SEK 4.0 – 4.4 million on total revenue of SEK 127 million. The types of capital equipment manufactured and sold to sawmills were described as machines such as board handling equipment, dry sorters, stackers, etc.

The firm (S2) is organized into three primary “profit areas.”¹² These include: 1) Products; 2) Technics (Techniques); and 3) Production. The “Products” profit area deals with sawmill sales, engineering industry sales, aftermarket sales, layouting, calculation, project managing, and project purchase. Technics (as spelled by S2) dealt with mechanical design and electrical design. Finally, Production focused on preparing/planning, purchasing raw materials, manufacturing, assembly, and on-site setup. We will be focusing on the Products area, as this is where sales and marketing efforts directed towards the buyer are most active. With this in mind, we now turn to the firm’s selling team.

RQ1: The Selling Center

The selling team for S2 varies depending upon the project (capital equipment being manufactured and sold). As the key contact person for our interviews at S2, the marketing manager explained that on the day of the interview, besides himself as the manager of Profit Area 1, he was working with five sales engineers from the sawmill industry and one sales engineer from the steel industry (for whom they also produce capital equipment). He explained that their salespeople must also be engineers in order to be able to sell the kinds of machinery they do. It is with one of the sales engineers for the sawmill industry that the second interview for this case was conducted. In describing their marketing efforts, this marketing

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¹¹ Portions of this data came from S2’s parent company “Annual Report 1996” as well other brochures.

¹² This information was provided by the marketing manager of the firm while he presented S2’s organizational chart during the interview.

manager said that S2 is constantly seeking new buyers for their equipment, both in Sweden and abroad.

In terms of the *vertical involvement* in this firm, when it came to which levels of the organization's hierarchy could be involved in the planning of providing information via various marketing communication tools when selling capital equipment for their firm, four levels were described by these interviewees: Executive level (i.e. Managing Director/President/General Manager; upper-level management (i.e. profit area managers, including the marketing manager for Profit-Area One); middle-level management (i.e. managers of areas within each profit area); technical staff (i.e. sales engineers)

As for *lateral involvement*, the number of departments that could become involved in the decision making revolving around the sale of capital equipment to sawmills, and thus providing information to these buyers, included: Executive (i.e. General Manager); Research & Development; Quality; Profit Area One (Products); Profit Area Two (Technics); Profit Area Three (Production)

Finally, with regard to *extensivity*, the total number of individuals identified (and their roles/titles) by S2 included the following: Marketing Manager (MM); Technics Manager (TM); Production Manager (PM); Sales Engineer(s) (SE)

The first and last individuals on the list above were the ones interviewed, namely the Marketing Manager (MM) and a Sales Engineer (SE). Data from their interviews covering which marketing communication tools were used to provide information to buyers and why are presented in the sections that follow.

RQ2 & RQ3: Tools Used & Why

As with the previous cases, this case on S2 has provided us with a glimpse into what the selling firm uses to communicate with buyers in yet another industry, namely the Swedish sawmill industry. Comparatively speaking, this case also provides data that provide some interesting insights into which marketing communication tools members of a specific selling center are using to provide information to buyers of capital equipment within this industry. Although both the (MM) and the (SE) convey similar feelings on many of the marketing communication tools, different opinions about some of the tools within the same selling center emerge as well. Although beyond the scope of this study's research problem, these differences within the same selling center are interesting to note here. We will now move on to the two cases covering the promotional tools buyers use to obtain information within this industry.

2.5.5 CASE FIVE: Buyer Three (B3)

As one of the 300 sawmills on the list discussed in section 2.4.6, this sawmill (B3)¹³ is one of Sweden's bigger producers of lumber. Established in 1944, this family-run business currently has approximately 65 employees. Annual revenue for 1996 was given as SEK 140 million. The firm did not provide profit/loss figures. Most of the capital equipment they purchased for their sawmill was done from Swedish sellers (manufacturers), and such equipment included saws, planers, sorters, and much more.

RQ1: The Buying Center

The buying team for B3 was described as often being made up of the following individuals. In terms of the *vertical involvement* in this firm, when it came to which levels of the organization's hierarchy could be involved in obtaining information when purchasing capital equipment for their mill, four levels were described: Executive level (i.e. Managing Director); upper-level management (i.e. Deputy Managing Director); middle-level management (i.e. production manager, purchasing manager, line manager); technical staff (i.e. users of equipment, engineers, maintenance personnel)

As for *lateral involvement*, the number of departments that could become involved in the decision making revolving around the purchase of capital equipment for the firm included and who often actively obtained information regarding this equipment included: Purchasing; Production; Executive (i.e. managing or deputy managing director).

Finally, with regard to *extensivity*, the total number of individuals identified (and their roles/titles) by B3 included the following: Managing Director/Deputy Managing Director (MD); Purchasing Manager (PM); Production Manager (PrM); Line Manager (LM); User (US)

From the above list, the Deputy Managing Director (MD) and the Purchasing Manager (PM) of B3 were interviewed and provided the data on which this case is built. This data is presented in the sections that follow.

RQ2 & RQ3: Tools Used and Why

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¹³ Portions of this data came from a number of B1's brochures provided during the interview.

This case on B3 provides us our first look at what a buyer uses to obtain information on capital equipment within the sawmill industry in Sweden. As with the other cases, members of the same buying center agree on the usefulness or importance of several different marketing communication tools, both personal and non-personal. However, differences also arise. Our next case provides data from a second buying firm in the sawmill industry in Sweden.

2.5.6 CASE SIX: Buyer Four (B4)

Another sawmill (B4)¹⁴ that purchases capital equipment in order to process timber, B4 was founded in 1871 and is part of a much larger Swedish conglomerate of sawmills, pulp and paper plants, as well as other business concerns. Revenue for 1996 was given as approximately SEK 600 million, and with 165 employees, this sawmill also appeared on the list of Sweden's largest 300 sawmills list discussed earlier. Capital equipment purchased at this sawmill was described as such machinery as saws, drying equipment, conveyors, sticking machines, chip-making machines, etc. The two members of the buying center interviewed for this case were the Managing Director (MD) and the Sawmill Manager (SM).

RQ1: The Buying Center

According to the interviews conducted with both Managing Director (MD) and the Sawmill Manager (SM), the buying team for B4 varied from purchase to purchase, but for most major capital equipment purchases for the sawmill, a typical buying center could be described as follows:

In terms of the *vertical involvement* in this firm, when it came to which levels of the organization's hierarchy could be involved in obtaining information when purchasing capital equipment for their mill, these interviewees described four levels that were involved: Executive level (i.e. Managing Director/Board members of the parent company in Stockholm); upper-level management (i.e. Deputy Managing Director); upper-level management (i.e. Deputy Managing Director); middle-level management (i.e. Sawmill manager, plant manager, finance manager, etc.); technical staff (i.e. technical specialists from head office, maintenance manager at plant)

As for *lateral involvement*, the number of departments that could become involved in the decision making revolving around the purchase of capital equipment for the firm (i.e. those who could be interested in obtaining information

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¹⁴ Data in this section partially provided by information obtained in B4's "Year-End Report, 1996" and "Pocket Directory 1997."

via various marketing communication tools) included the following: Finance; Plant/Production; Purchasing; Maintenance

Finally, with regard to *extensivity*, the total number of individuals identified (and their roles/titles) by (MD) included the following: Manager Director (MD); Finance Manager (FM); Sawmill Manager (SM); Maintenance Manager (MM)

However, in the interview with (SM), a new type of “traveling” buying center emerged. In this case he used the example of some debarking machinery that was needed for the sawmill recently. (SM) explained that, when the need for this new piece of capital equipment arose, a small group was organized in order to visit other sawmills in Sweden to look at this type of debarking machinery. The idea behind such visits was to be able to primarily discuss capacities (i.e. logs per minute that the machine could strip the bark from). In this sense, B4 was able to obtain information from sources that had actually used the machinery for a couple of years, rather than rely solely on the personal and non-personal marketing communication tools used by the seller.

This traveling (or “mobile”) buying center was not the same as the “stationary” one described by (MD) that existed at the sawmill’s offices. Here, (SM) describe four individuals within B4 that often travel together on such information seeking tours: Sawmill Manager; Maintenance Manager; electrical installation person; user of the equipment

He then explained that these four individuals from the buying firm would work together to discuss and debate whether this was the right machinery for their sawmill. They would then provide their ideas to the rest of what could be described as the “stationary” buying center back at the sawmill, including other influencers and decision-makers on such major purchases. With this in mind, we now turn to present the data collected on the thoughts of which personal and non-personal marketing communication tools were best in obtaining information on such capital equipment purchases.

RQ2 & RQ3: Tools Used and Why

As with the other cases on buyers obtaining information, this case on B4 has provided a detailed overview of which tools certain members of this company’s buying center are using and why (or why not). This chapter has provided six cases covering two industries within what is known as the Swedish forest products cluster (“timber industry”). We have provided interview data on a seller and two buyers of capital equipment (machinery) within the pulp and paper industry, as well as a seller and two buyers in the sawmill industry.

The data was collected based on the three research questions for both the selling and the buying side of the seller-buyer relationship, as outlined in Chapter Two and conceptualized in Chapter Three. Information was also presented on the organization, providing basic background facts to each selling and buying company. In the chapter that follows we will take this mass of data and analyze it according to the steps laid out in Chapter Four. This means the beginning of the next chapter will focus on reducing this data, present it again, and finally draw conclusions from it.

2.6 Synopsis of the Data Analysis in *Study A*

As stated earlier at the beginning of the data presentation for *Study A* (section 2.4), qualitative data analysis has stages that focus on data reduction, data display, in order to verify and draw conclusions (Miles and Huberman, 1994). In the previous section, a synopsis of the data, as collected from the interviews and from the documentation made available from the selling and buying firms under investigation, was presented. This section will use the data presented in those six case studies and analyze it according to this three-step process. Miles and Huberman (ibid.) also state that presenting the data, from the raw notes and recordings (and in this study into case studies) is in itself a form of analysis. In the interest of reducing *Study A*, the primary presentation of the data will be in the form of the cross-case (i.e. data display) conducted in Study A. From this, both the data, as well as the similarities/differences uncovered in all six case are presented. Each cross-case table will also include a synopsis of the within-case (i.e. data against the frame of reference).

For each of the research questions, data will first be reduced via what is referred to as within-case analysis (Yin, 1994), where a condensed form of the original data from within a specific case is compared against prior theory (i.e. those studies used to construct the study's frame of reference). We also consider this to be a form of "theoretical validity" (Miles and Huberman, 1994, p. 279), where the findings are found to either support or contradict previous research. The objective is to be able to discover a means by which the reduced data can then be displayed so that final conclusions can be drawn. Displaying of the data will be the second stage of our analysis, providing the opportunity for cross-case analysis (Miles and Huberman, 1994). After this, a summary and some tentative findings based on what is observed in the data displays presented. Final conclusions will be made in Chapter Seven.

2.6.1 The Selling and Buying Centers: *Research Question One*

In this section the data from each of the six cases with regards to the composition of the selling and buying centers will be analyzed following the analytical steps provided above: *Data reduction* (within-case analysis), *data display* (cross-case analysis), in order to *draw conclusions*. where the focus will be on the comparison of our data with what previous literature (as used in our frame of reference) have found with regards to the composition of these centers. In our frame of reference, we relied on Johnston and Bonoma's 1981 study on the purchase of capital equipment. As explained and justified in Chapter Three, the selling center will be described in the same way in which we would be describing the buying center.

DATA DISPLAY: The Selling and Buying Centers

Miles and Huberman (1994) recommend the use of a "meta-matrix," explained as an analytical tool to bring together basic information from several cases into one big chart. More specifically, "Meta matrices are master charts assembling descriptive data from each of several cases in a standard format" (p. 178). Summary and conclusions from this data display will immediately follow. In displaying the data, we will be going back to our original research problem and comparing the total numbers involved with regards to the *vertical involvement*, *lateral involvement*, and *extensivity* of sellers versus buyers in these industries, as presented graphically below (see Table 2.10).

Table 2.10: Data Display of selling and Buying Center Compositions: *Providing/Obtaining Info*

Composition of Selling & Buying Centers						
Factors/Cases	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Vertical Involvement	4	4	3	4	4	4
Lateral Involvement	3	5	3	6	3	4
Extensivity	9	4	10	4	5	6*

SOURCE: Foster (1998), p. 203

*B4 described both a "stationary" buying center and a "mobile" buying center, with each one having four members, two of them being represented in both groups.

FINDINGS: The Selling and Buying Centers

From the above reduction and displaying of the data above, the overall finding is that the selling and buying centers can be described is simply that there is more

than one individual in all cases. This includes those in the selling centers who are involved in deciding and providing information to buyers, as well as within the buying centers, where more than one individual is involved in the purchasing decision of capital equipment and therefore seeks information via various promotional tools.

This not only supports previous research (i.e. Johnston and Bonoma, 1981), but it also goes to show that communication within and between selling and buying centers is complex due to the many individuals involved in each scenario. This implies that more research on communication, both within and between such groups in industrial markets, is needed. This will be covered more specifically in Chapter Seven.

2.6.2 The tools Sellers and Buyers are Using to Provide/Obtain Information and Why: *Research Questions Two and Three*

Here a comparison of the sellers' and buyers' use of various marketing communication tools to supply/obtain information, respectively. Our frame of reference for this study stated that both sellers and buyers use a variety of *personal* and *non-personal* marketing communication tools, thus providing an eclectic collection (list) of such tools for the interviewees to comment on. We will start going within each of the seller cases and compare what these sellers use to provide information with previous studies, then move on to comparing with what buyers use to obtain information versus previous research.

DATA DISPLAY: Comparing Findings between Sellers and Buyers

As brought forth in the within-case analysis (data reduction) in the previous section, a series of similar comments began to form. These patterns of comments were centered on how often a similar response from a large number of interviewees was received. What was noticed (as a pattern) in most of the responses was the following: First, whether or not the seller/buyer used a specific tool to provide/obtain information; and second, Regardless of using it or not, whether or not they felt positive or negative towards its use. Therefore the following comments, for each marketing communication tool, from each respondent, in all of the selling and buying centers, could have any one of the following codes (see Figure 2.11):

Table 2.11: Coding for Comparison of Seller vs. Buyer Comments on the Marketing Communication Tools Used

PATTERN CODING	EXPLANATION FOR CODE
(++)	Used tool and felt positive about using it to provide/obtain information
(+-)	Used tool but felt negative about using it to provide/obtain information
(-+)	Did not use it to supply/obtain information but was positive about its use to do so
(--)	Did not use it to supply/obtain information and was negative about its use to do so

SOURCE: Adapted from Foster (1998), p. 249

Miles and Huberman (1994) state that in cross-case analysis, a strategy known as "pattern clarification" is used in order to more fully explain a variable (i.e. to have it become more clear). Yin (1994), speaking of cross-case analysis (i.e. comparing one case to another) refers to this as "pattern matching." In our case, our variables include all the personal and non-personal marketing communication tools. In using a variable-oriented strategy such as pattern clarification, researchers often look for certain themes that cut across the cases they have. Coding can be used as well (such as ++, +-, -+, --).

In continuing their review of various methods for cross-case analysis, As stated earlier in this chapter, Miles and Huberman (1994) refer to what is known as a meta-matrix, explained as an analytical tool to bring together basic information from several cases into one big chart. More specifically, "Meta matrices are master charts assembling descriptive data from each of several cases in a standard format" (p. 178). They continue that upon gathering all the data on such a chart, the researcher often partitions the data further and cluster it so that contrasts between sets of cases on the variable can become clearer. For us, we have assembled the data, partitioned it, and via the coding explained above, looked for such contrasts via the similarities between sellers' use of various promotional tools to provide information with what buyers are using to obtain it.

Since more than one interview took place within each selling and buying center, differences of opinion could occur between members of the same center. Therefore, if this occurred, it will be reflected in more than one code within a single buying/selling center box being presented (see Tables 6.2 through 6.10 below). In addition to partitioning this "meta-matrix," in order to make the tables

below more readable, we have shaded in gray the industries, the case numbers, the sellers in each industry, as well as each toolbox “compartment.”

In staying focused on our research problem, as well as making this extensive analysis more manageable and readable, we will be focusing the data collected on what sellers are using to supply information and compare this to what the buyers in this same industry are using to obtain information. Analysis will be organized by comparing personal tools used, then in doing the same with non-personal tools by breaking up the toolbox, section by section, as we have done throughout Chapters Five and Six. Comments will be made after each sections as well.

DATA DISPLAY: Personal Tools Used to Provide/Obtain Information

We will begin by displaying the data presenting the coding on the personal tools used by industrial sellers and buyers (see Table 2.12). In this table, as well as the tables which follow on the non-personal tools, a comparison between sellers and buyers is possible, allowing us to remain focused on our research problem (i.e. how do sellers and buyers compare).

Table 2.12: Data Display of Personal Tools

Personal Tool/Cases	Personal Tools					
	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Face-to-face sales meetings	(++)	(++) (+-)	(++)	(++)	(++)	(++)
Telephone sales calls	(--) (+-)	(+-) (--)	(+-)	(--)	(++) (--)	(++) (--)
Videoconferencing	(++) (-+)	(++) (-+)	(-+) (--)	(-+)	(++) (--)	(-+)
Trade shows/ Exhibitions	(++) (+-)	(++) (+-)	(++)	(++)	(++)	(++)
Training/Education seminars	(++)	(++)	(+-)	(++)	(++) (+-)	(++) (+-)
Sales meetings/ Get-a-ways	(++) (--) ¹	(++) (+-)	(++) (--) ¹	(++) (--) ¹	(+-) (--) ¹	(++) (+-)
Word-of-mouth communication	(++)	(++)	(++)	(++)	(++)	(++)

SOURCE: Foster (1998), p. 250

¹ Sales meetings received the (++) and get-a-ways received the (--) in all responses in each case

In comparing the data from sellers with buyers in all six cases, it is obvious that certain tools stand not only as being used, but being positively viewed by sellers as a way to provide information and for by the buyers as a means to obtain it. Based on the table above, we are speaking primarily of *face-to-face sales meetings*, *trade shows/exhibitions*, *training/education seminars*, and *word-of-mouth communication*. Not only were these ways of providing/obtaining information by each respondent used in all of the selling and buying centers, but it was considered a positive means to do so as well. In only five instances did the use of it result in negative comments (S1, B1, B2, B3, and B4). It is worth noting that the use of a tool to obtain information by buyers even if they felt negative about it. This may mean that even though they are exposed to a certain tool, they do not have to think that that particular tool is the best way to obtain information about capital equipment. An example of this comes from respondents in these centers mentioning that going to a trade show was more out of necessity than desire. For the most part, however, these personal promotional tools seem to be the most common and most attractive means for obtaining information on capital equipment within these industries here in Sweden.

The next most positive means for providing/obtaining information seemed to be *videoconferencing* and *sales meetings/get-a-ways*. Both of these tools were also used to provide/obtain information in each center, and all were perceived as a positive way to do so within each buying center. However, there were more negative comments with regards to their use. As noted with several of the sales meetings/get-a-ways, the positive comments were focused more on sales meetings and visits by buyers to sellers (considered a sales meeting by many of those interviewed). However, “get-a-ways,” such as a fishing expedition or any sort of “extra” like this around a sales attempt were considered unethical by many. As for videoconferencing, only two centers used it (S1 and B1), however, even though no one else really utilized this as a way to communicate personally, at least one member in each of the other centers were open (i.e. positive) to its use.

The least popular personal marketing communication tool, with regards to its non-use or, if used, to provide/obtain information, it received the largest number of negative comments was *telephone sales calls*. It seems, for capital equipment at least, sellers do not want to use this to make sales calls, and buyers do not want to be disturbed with such calls. The exceptions to this arose with comments surrounding the use of the telephone after the sale or as some sort of follow-up to previous contact. The other use for the telephone was when a buyer would say that if they needed certain information, they may use it to call the seller...but the seller calling them was considered extremely negative.

The only anomaly, with the exception of members of the same selling or buying center disagreeing as to its use (see B3 and B4, for example), is in the observation of a buying center member in cases B3 and B4. One individual in each buying center used sales calls from sellers as a way to obtain information (or they at least called the seller), and both felt positive about it, thus the (++) rating for each of them. However, the other members in the same buying centers did not use the same tool and felt very negative about its use (--). This is of course beyond the scope of our research but is worth mentioning only as a springboard to future research.

Finally, the respondents in these cases (see Table 2.13) mentioned a total of nine other personal promotional tools. The addition of these tools by these respondents shows that no one can truly put a lid on the marketing communication toolbox and say, “here it is.” The “toolbox,” be it personal or non-personal, is whatever a seller or buyer makes it, depending on their needs and wants for the providing or obtainment of information.

Table 2.13: Data Display of “Other” Personal Tools

”Other” Personal Tools						
Personal Tool/Cases	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
-Cookers Club	(++)					
-Theme days	(++)					
-Social gatherings	(++)				(++)	
-Road Shows				(++)		
-Association participation				(++)		
-Customer Days		(++)				
-Intranet			(++)			
-Visiting sawmills					(++)	
-Benchmarking						(++)

SOURCE: Foster (1998), p. 252

So what do these findings mean? How do these personal marketing communication tools compare between sellers and buyers? For the most part, it seems as though sellers and buyers are communicating effectively. With a few exceptions, those personal tools used to supply information by sellers matches nicely with what buyers are using to obtain information. And those tools not being used seem to match as well. Additionally, positive comments made by sellers about certain tools are matched by positive comments about its use by the

buyers (i.e. personal sales visits). The same goes for the negative comments (i.e. telephone sales calls). We now turn our attention to the non-personal tools.

DATA DISPLAY: Non-personal Tools Used to Provide/Obtain Information

In the following seven tables, we will present and compare the non-personal tools used by industrial sellers/buyers to provide/obtain information. We will compare the use of these tools, as well as why or why not they were used, on a section-by-section basis, starting with print advertising below (see Table 2.14). Comments will be made after each section.

Table 2.14: Data Display of Print Advertising Tools

Non-personal Tools/ Cases	Print Advertising					
	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Direct mail/mass mailings	(++) (+-)	(+-)	(++) (+-)	(++) (--)	(++) (+-)	(+-)
Print ads in industry magazines, etc.	(++) (+-)	(++)	(++) (+-)	(++) (-+)	(++) (+-)	(++) (+-)
Print ads in general business magazines	(--)	(-+) (--)	(--)	(-+) (--)	(--)	(-+) (--)
Print ads in consumer/ general interest mags.	(--)	(--)	(--)	(-+) (--)	(--)	(-+) (--)
Print ads in newspapers	(--)	(-+) (--)	(--)	(-+) (--)	(--)	(--)
Yellow page/Industry directory advertising	(++) ¹	(++) ¹	(++) ¹	(+-)	(++) ¹ (--)	(++) ¹

SOURCE: Foster (1998), p. 253

¹These responses are based only on the use of industry directories to supply/obtain contact information and are not based traditional telephone catalog yellow page advertising, which was not used at all.

Here again a sort of ranking or hierarchy seems to unfold regarding the most positive (when comparing between sellers and buyers) down to the most negative marketing communication tools. In terms of the data collected, the most positive forms of **print advertising** between sellers and buyers include *direct mail*, *print ads in industry magazines*, and *industry directory advertising*. These tools seemed to be the most positive information sources for both sellers and buyers. Although several selling and buying center members used *direct mail* and had negative comments about using it, in many of those centers the other member

interviewed also said it was used to provide/obtain information, but felt positive towards its use (see S1, B2, S2, B3). Another interesting finding was from S2, where one selling center member said the firm used direct mail and liked using it to provide information, while the other member said that not only did he not like it, but the firm did not use it. This is again beyond our research problem, but worth mentioning because it too serves as a bridge to further research on communication within the selling and buying centers.

Print ads in industry magazines, as well as *industry directory advertising* also received a (++) from at least one member in each case. For the industry directory advertising, just as all cases contained a (++) for this information source, the “yellow pages” (i.e. from consumer telephone catalogs) received primarily a (--) from sellers and buyers. Furthermore, industry directories were considered information sources where sellers could provide contact names and information for the selling firm, and where buyers could obtain contact information. Such contact information by several interviewees was considered part of the capital equipment purchase.

Where the less favorable print advertising tools seem to emerge are from the consumer print media choices. Print ads in *general business magazines*, *consumer/general interest magazines*, as well as *newspapers* were not used by any of the sellers and considered a positive tool by only one member of the selling center in S2. Buyers as well did not use such consumer media to obtain information. This was often because they simply did not expect it or because they think it would be a waste (or lack of focus on proper targeting). Furthermore, very few could find anything positive to say about it even when using it.

What conclusions can be drawn from this comparison between sellers’ and buyers’ use of print media, then? One simple conclusion seems to be to stay with the industry publications and use direct mail routes carefully, while avoiding the consumer print media. Sellers risk wasting their money on such media buys and buyers never expected to see ads in most of these consumer media anyway. Although the buyers may not use the ads in an industry journal to obtain specific information (i.e. because they don’t read/trust ads), they are at least potentially exposed to it when they pick up and read the editorial content in such a publication. When reading, they seem to at least be potentially reminded of the seller’s (brand) name via such print ads. Focus now turns to advertising on the broadcast media (see Table 2.15).

Table 2.15: Data Display of Broadcast Advertising Tools

Non-personal Tools/ Cases	Broadcast Advertising					
	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Local/regional television advertising	(--)	(--)	(-+) (--)	(--)	(--)	(--)
National television advertising	(-+) (--)	(--)	(--)	(--)	(--)	(-+)
Cable/satellite television advertising	(-+) (--)	(-+) (--)	(--)	(--)	(--) (-+)	(-+)
Movie/cinema advertising	(--)	(--)	(-+) (--)	(--)	(--)	(-+) (--)
Local/regional radio advertising	(--)	(--) (-+)	(--)	(--)	(--)	(-+)
National radio advertising	(--)	(--)	(--)	(--)	(--)	(-+)

SOURCE: Foster (1998), p. 255

This negative trend towards the consumer media as a means to supply/obtain information by industrial sellers/buyers continues with the **broadcast advertising** media (see Table 2.15 above), including all forms (i.e. local, national, satellite) of *television and radio advertising*. Sellers especially are not using this nor do they feel positive towards it. With the exception of two instances in S1 where selling center members found something positive to say about using a particular broadcast vehicle, no other selling center members did in either of these industries. And although each buying firm had a buying center member making a positive comment towards a particular broadcast media's use to possibly obtain information, none of them currently used it to do so. They may watch TV and listen to the radio, but they do not do so with the intention of searching for or finding information on capital equipment in their industry.

Generally speaking, sellers are not using these media to provide information and, with a couple of exceptions with some selling center members, in general they don't feel positive about its potential use either (unless for publicity purposes). The same goes for buyers; they are not using TV and radio to try and obtain information, and even if sellers were using it, they would not feel positive about such a media being utilized to reach them. Analysis now turns towards outdoor advertising.

Table 2.16: Data Display of Outdoor Advertising Tools

Non-personal Tools/ Cases	Outdoor Advertising					
	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Billboard/outdoor signs	(--)	(--)	(--)	(+) (-)	(-) (-)	(-) (-)
Company cars/vehicles	(++)	(--)	(--)	(-) (-)	(-) (-)	(-)
Transit advertising (planes, buses, taxis)	(-) (-)	(-)	(-)	(-) (+)	(+) (-)	(-) (-)
Other outdoor (park benches, buildings)	(+) (-)	(-) (-)	(-)	(+)	(+) (-)	(-)
Sports advertising (uniforms/stadiums)	(+) (+)	(-)	(+)	(+) (+)	(-)	(+)
Other events (Olympics, Theater)	(+)	(-)	(-) (-)	(-) (-)	(-) (-)	(-) (-)
Packaging/shipping crates	(++)	(+) (+)	(+) (-)	(+) (-)	(+)	(+) (-)

SOURCE: Foster (1998), p. 256

As for *outdoor advertising tools* (see Table 2.16 above), a larger variety of data emerged. Like print advertising, this gives an opportunity to “rank” (non-numerically) those outdoor tools which seem to be used more and held in a more positive light (++) on down to those that are not used and held in a negative view (--). At the top of the list (i.e. those tools which were either used more and/or viewed in a positive way) there were several tools that seemed to emerge. *Transit advertising (primarily seatbacks/trays on airplanes), sports advertising (uniforms and stadiums) and packaging/shipping materials, as well as other outdoor (i.e. signs at the seller’s place of business).* Here buyers and sellers alike spoke mostly of the brand name (i.e. company name) as the advertising message. In their eyes, this brand name was often a part of the capital equipment.

Of these three outdoor advertising tools, *packaging/shipping materials* stands out at the very top, as in each selling and buying center (i.e. in each of the six cases), a (++) rating was obtained by at least on member of the respective selling/buying center. For some it helped to tell them the machinery has been delivered, while for others it served as a reminder of the seller’s name/logo. Once again a difference both in the use and as well as with the positive versus negative comments about this tool emerges within a single case (S2), and this is mentioned only as a tool for future research on communication within a selling/buying

center. Next comes *sports advertising/sponsorships*, where both sellers used it and at least one member of the selling center found it a positive way to provide information. Again, a lot of information was on the “message” (i.e. the image and brand name/company recognition). This ties in with the advertising of the capital equipment in at least an indirect way according to the information many of the respondents volunteered during the interviews with them.

As for *transit advertising* (i.e. inside airplanes), sellers did not currently use this to provide information, and buyers had not really experienced receiving information this way. However, as the data shows, at least one member in each selling and buying center was positive in their comments/views towards this as a potential source of information. The same goes for sports advertising, where due to their enthusiasm for sports (either as participants or fans), firms either used it to provide/obtain information and/or held positive views about its use to do so.

Next comes a couple of promotional tools which were not used as much or receiving as much positive comments as to their usefulness, namely *other outdoor (buildings, etc.)*, and *other events (i.e. Olympics, theater, etc.)*. The positive data received on *other outdoor* centered almost exclusively on the use of signs on the sellers’ building(s). Here comments were focused on the sellers using it to “announce” their name to a visitor, but the buyers felt the quality of the sign was important with regards to the quality (and professionalism) of the company they were or possibly doing business with.

The *other events* category really covered a number of other alternative outdoor advertising tools not in the other “categories.” Although meeting with some negative comments, primarily about sellers spending money that should instead be saving the buyers money by lowering their prices, still met with a large number of positive comments. Some comments centered around more of a PR approach, saying supporting the local theater is important, while other comments centered around how they (as a buyer) would feel impressed to see a seller’s name associated with the Olympics. As you can see, although not all of the seller’s are promoting /associating their name with such events, three out of four buyers either use it (are exposed to it) or are at least positive towards its use for seeing the seller’s name being associated with/supporting such events.

The promotional tools *not* favored by both sellers and buyers seemed to center around *company cars/vehicles* and *billboard/outdoor signs*. As for *company-owned cars and vehicles*, only one seller actually did this and found it positive. The other seller did not advertise on their cars but thought it was a good idea (especially for their service vehicles). For *billboard/outdoor signs*, we say not favored because no one in the pulp and paper industry used such a source to

supply/obtain information, nor did any of the respondents have anything positive to say about it. As for billboards, etc., not one seller or buyer in the pulp and paper industry used them (or were positive towards their potential use) to obtain any kind of information. Interestingly, in S2 in the sawmill industry, one selling center member stated they used this tool to provide information but did not care for them, whereas the other member stated they did not use this tool but was positive towards being their possible use. Both buyers in this industry did not use (were not exposed) to such outdoor signs, but were positive in their comments in seeing them and using them with regards to obtaining information on the seller's name (the brand name of the capital equipment). This data also shows that the use of a specific tool to provide/obtain information may have to do with the industry within which it is being investigated. Of course a lot more research is needed to test such a proposition.

So, is using outdoor marketing communication tools a good way to supply information for buyers or obtain it for buyers? The answer lies in the message, as both sellers and buyers volunteered in their interviews that the brand name (of the machinery) is what they would communicate or seek in terms of message. Also, what type of outdoor adverting should be used differs not only among type of outdoor tool, but possibly from one industry to the next. From outdoor advertising, and advertising in general, analysis now focuses on sales promotion as a marketing communication tool.

Table 2.17: Data Display of Sales Promotion Tools

Sales Promotion						
Non-personal Tools/ Cases	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Gifts for buyers	(++)	(++)	(++)	(++)	(++)	(++)
	(+-)	(+-)	(+-)		(+-)	(+-)
Trade show items	(++)	(++)	(++)	(++)	(++)	(+-)
	(+-)	(+-)		(+-)	(+-)	
Trade-in offers	(--)	(--)	(--)	(--)	(++)	(++)
			(++)			(+-)
Discounts on payments	(++)	(--)	(--)	(--)	(--)	(--)
			(-+)			
Credit on purchases	(-+)	(--)	(--)	(-+)	(--)	(--)
	(--)			(--)		
Free services (warranty, etc.)	(++)	(++)	(++)	(++)	(++)	(++)

SOURCE: Foster (1998), p. 259

We now turn to *sales promotion* (see Table 2.17 above), which also had a series of “stronger” tools which sellers and buyers were more positive towards, and “weaker” ones where there was little use of them or mostly negative feedback on their use. *Gifts for buyers*, *trade show items* and *free services* were the strongest, whereas those sales promotions that seemed to focus more on pricing were the weaker ones (with variations of course). At least one member of each selling and buying center found *gifts for buyers* to be used and feel positive about it as a marketing communication tool. Five out of six cases also had one member of the respective selling/buying center who received gifts but were negative towards using this marketing communication tool. Important findings along with this included the type of gift given away and the timing. Laws in Sweden prohibit giving away gifts beyond a certain value, and more than one respondent stated that they often received a “bad” gift (i.e. the project manager who received a tie from a seller but he never wore ties to work). Furthermore, most of those interviewed said that receiving a gift should only be done at the end of the selling/buying process after the contract for the purchase had been signed.

Trade show items was also common for being exposed to the seller’s name or at least garnishing a positive feeling/image about the seller. Across all six cases, it was found that just as many who did receive a small gift liked it, versus those who received them and did not like getting such items. Interestingly, food and beverage were the “item” of choice from most of the buyers. Perhaps with the differences within each selling and buying center (with the exception of B2, whose members all received gifts at trade shows and were positive towards receiving “information” this way), more research should be done on items at trade shows and gifts given to buyers in general. For example, research could be done on what the various members of industrial buying centers would like to receive; or whether or not they would like to receive anything at all. This might save sellers money and reputation, as many of their gift items are thrown away, given away or not even desired it seems.

As for *free services*, it must be noted here that none of the selling or buying center members interviewed really felt any such services were “free.” However, the services added to the purchase of a piece of machinery for their pulp and paper mill or sawmill was not only used by all respondents, but looked upon as a very positive marketing communication tool by all members in all six cases. This is one of the few marketing communication tools where 100 percent of the respondents used the tool and felt positive as to its uses as a form of promotion.

As for those sales promotions which were focused more on pricing issues, including *trade-in offers*, *discounts*, and *credit on purchases*, only *trade-ins* on old capital equipment really received any positive support. In the pulp and paper industry, nearly all selling and buying center members interviewed felt this was not used and they did not find it a positive form of sales promotion. Interestingly, buying center members in B2 held completely different views. One member found that trade-in offers were used and considered a positive sales promotion, while the other member of the same buying center stated that it was not used and thought it to be a negative form of sales promotion. The seller in this industry (S1) neither used it nor found it as a good way of communicating anything about the machinery they produced. In the sawmill industry, however, the seller (case S2) did not use it and did not have anything positive to say on it. In comparison, a member from each of the two buying firms (cases B3 and B4) said that not only did their firm use it, but they were also favorable towards it as a form of sales promotion in their industry.

With the exception of one interviewee in case B2 being favorably disposed to *discounts*, all other interviewees in both selling and buying firms did not use them as a sales promotion nor were did they provide and positive feedback as to their use. The same seems to be true for *credit on purchases*, as each case had respondents with a (--) rating. However, for each of the selling cases, one member stated that, although they did not offer credit to their customers, they made positive comments on its use and were open for it as a form of sales promotion to be offered by their firm.

So, do sales promotions work as marketing communication tools? It seems as though sellers and buyers are openly positive to the use of *gifts for buyers*, giving away *items at trade shows* (not usually considered gifts) and “*free*” *services* that come with the sale of the machinery. However, sellers and buyers across both industries also feel that such pricing promotions as *trade-ins*, *discounts*, and *credit on purchases* are not only not used, but not positively viewed as sales promotions either. As one respondent said, pricing is the least important issue to begin with. Data on PR tools will be displayed next.

TABLE 2.18: Data Display of Public Relations Tools

Non-personal Tools/ Cases	Public Relations					
	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
Publicity/the news in the media that results	(++)	(++)	(++)	(++)	(++)	(++) (+-)
Training videos	(++)	(+-)	(++)	(++)	(++) (-+)	(++) (-+)
Business cards/Letter- head stationary	(++)	(++) (+-)	(++)	(++)	(++)	(++)
Brochures	(++)	(+-)	(++) (+-)	(++) (--)	(++) (--)	(+-)
Annual reports	(--)	(+-) (+-)	(-+) (--)	(++) (+-)	(--)	(++)
Company newsletters	(++)	(++)	(++)	(++)	(++) (--)	(+-)
Bids/spec sheets/ quotations	(++)	(++)	(++)	(++)	(++) (+-)	(++) (+-)
Christmas/greeting cards	(++)	(++) (+-)	(++) (+-)	(++) (--)	(++) (+-)	(++)

SOURCE: Foster (1998), p. 261

Public Relations (see Table 6.8 above) takes into account everything from publicity efforts to collateral materials such as business cards, as well as printed matter including brochures, annual reports and Christmas cards. One glance at the above data display and one is immediately noticing the overwhelming use of many of these tools and how positive selling and buying center members are about their use as marketing communication tools for capital equipment. The most positive PR tools seem to be *publicity*, *training videos*, *business cards/letterhead stationary*, *company newsletters*, *bids/spec sheets/quotations*, as well as *Christmas cards*. Sellers and buyers across both industries and within each case not only used these to provide/obtain information, but nearly all selling and buying center members interviewed provided positive comments on their use to do this. No “ranking” here, as sellers and buyers alike seem to not only used these tools, they seemed to appreciate their uses.

Slightly more negative in this study were *brochures* and *annual reports*. *Brochures* were viewed more negatively by buyers to obtain information, as many interviewees did not like getting them and admitted throwing them away before

even reading them. Sellers could find them negative as well, however this is based on the results of S2, whose two selling center members had conflicting views. One found that they not only used brochures, but he felt it was a positive way to provide information to buyers. The other person interviewed stated they did not provide brochures to buyers, but he felt negatively about doing it anyway. This same internal communication problem occurs once again in B3 regarding brochures. This will be six separate times that B3's member had a (++) versus a (--) ranking on a single marketing communication tool. This kind of frequency is worth mentioning because, as stated earlier, such a finding deserves more study in future research efforts. Annual reports were the least used PR tool used by sellers to provide information, as it was either confidential or considered not important to supply. For buyers, at least one member in each buying center, with the exception of B4, found that they either did not use it and/or was not positive as to its use as a marketing communicating tool. If used, it was primarily to find out more about the selling company and its financial position.

PR tools are often a mixture of "leftover" marketing communication tools, however, their importance in industrial markets is highlighted by the responses received for this study. It might only be a *Christmas card*, but for buyers receiving it, it leaves a (positive) impression or good feeling about the seller who send it. Overall, both sellers and buyers are not only using a variety of PR tools, but they are positive on the use of such tools as well. More emphasis (in terms of research) should be placed here. From public relations, focus will now turn to the latest marketing communication tool, the Internet.

TABLE 2.19: Data Display of Internet Tools

The Internet						
Non-personal Tools/ Cases	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
E-mail	(++)(-+) (--)	(-+)	(++) (+-)	(++)	(-+) (--)	(++) (-+)
On-line videoconferencing	(-+)	(-+)	(-+)	(-+)	(--)	(-+) (--)
Web page(s)	(-+)	(-+)	(-+)	(-+)	(-+)	(++) (-+)

SOURCE: Foster (1998), p. 263

The Internet (see Table 2.19 above), with specific reference to *E-mail*, *on-line videoconferencing*, and *Web pages*, shares one thing in common for all three of these forms of Cyberspace communication tools: It is the future of marketing communication efforts for industrial sellers and buyers. How can we arrive at

such a conclusion? The answer lies in the fact that very few of any of the selling and buying center members used any of these tools as of the time the interviews with them took place.

With the exception of one selling center member with regards to *E-mail* (S1) and the members of the buying center at B3, whose responses were (--), most of the rest of the responses are this: (-+). In other words, sellers and buyers are not using these tools now but they feel very positive about their use in the future. The use of *E-mail* as a way to contact or stay in touch with a seller or buyer seemed to be positively accepted as a fact for these respondents.

On-line videoconferencing seemed to be a way to not only save money and time, but it allowed for the face-to-face contact that so many sellers and buyers find important in their work revolving around the selling and buying of capital equipment. The majority of selling and buying team members were open to the use of this promotional tool, even more so than the traditional videoconferencing methods (see personal tools analysis).

As for *Web pages* by selling firms, these will come to represent, according to our data, and in agreement with limited past research, everything from an on-line trade show to a brochure, training video, Tele-directory (contacts via *E-mail* from the Web page), and much more. Most of the firms who took part in this study were either in the process of getting connected to the Internet, or were doing so in the near future. As both a seller and buyer explained, the use of such technology to provide and obtain information will help to speed up the selling and buying processes, respectively. Future research into this, as well as what *Web pages* become (as a collection of many types of promotional tools) and who within selling and buying centers use them for the information needs they have, will provide many exciting opportunities. As one interviewee stated in their interview on the Internet: "We have no choice."

TABLE 2.20: Data Display of "Other" Non-personal Tools

Other Non-personal Tools						
Non-personal Tools/ Cases	Pulp & Paper Industry			Sawmill Industry		
	Case S1	Case B1	Case B2	Case S2	Case B3	Case B4
-Free-lance journalists	(-+)					
-Presentation materials	(++)					
-Specialty seminars				(++)		
-CD-ROMS				(-+)		

SOURCE: Foster (1998), p. 264

Finally, given the opportunity to add *any other tools* (Table 2.20 above) to the toolbox, industrial sellers were the only ones who provided any ideas. Case S1 said that, the use of freelance journalists as tool to obtain additional and more objective publicity was an idea, while the selling in the selling team mentioned additional presentation materials, such as overheads. At S2, specialty seminars and CD-ROMS were brought to the table as other forms of non-personal marketing communication tools they could/did use to provide information to buyers.

Through the above cross-case analyses, comparing what sellers use to provide information with what buyers use to obtain it (i.e. our original research problem), it seems as though a number of differences and similarities between sellers and buyers exist. In this study, these similarities and differences are based on the following two factors discovered via the information collected from the interviews for this study's data collection:

1. Whether or not the seller/buyer used a specific tool to provide/obtain information.
2. Regardless of using it or not, whether or not they felt positive or negative towards its use.

If a seller used a single marketing communication tool and felt positive about its use (++), and then an industrial buyer within the same industry used it and felt positive about its use (++), then one could assume that the potential for effective communication to take place was higher. Next we could assume that, if an industrial seller was using a tool to supply information but was not positive towards its use (+-), one would have to wonder why such a tool was being utilized at all. If a supplier was (++) about a specific tool, but a buyer within their target market was not using it to obtain information but positive about its use (-+), then communication could be considered, from seller to buyer, to not be effective. However, effective communication between these two sides of the industrial marketing relationship could eventually take place. Those scenarios where a seller was not using a tool because they felt negatively towards it (--) and the buyers generally felt the same way (--), then one could assume that sellers are making a good choice to not use such a tool to supply information to buyers.

Such are some of the many scenarios that are a part of the results and general conclusions of this study's cross-case analysis. Such conclusions are based solely on the comments made in the interviews by members of the respective selling and buying centers identified in each of the six cases. Chapter Seven will offer some final, more specific conclusions for this study. This in turn will lead to this

study's implications for managers, for theory, as well as for future research considerations.

2.7 Synopsis of the conclusions for Study A

Analysis of the data has allowed for general findings, as presented above. Findings are the broader answer to each research question, while conclusions are more specific answers to each research question. This section will provide more specific conclusions regarding the findings of this study in the form of a final answer to the research questions stated at the end of section 2 (literature review). These conclusions will then lead to a final section presenting the implications this study has for management, for theory, as well as some recommendations for future research. Note that all conclusions are based on the findings in the Swedish pulp and paper and sawmill industries investigated in this study.

2.7.1 RQ1: How can the composition of those in the selling/buying center, who are involved in supplying/obtaining information on capital equipment, be described?

Overall, in terms of the composition of the selling and buying centers investigated, it can be stated that there are multiple members in each one. In terms of *vertical involvement* (regarding the number of levels of the organizational hierarchy involved in communication and influence), there is a consistency in the size (all had four levels involved except one of the buying centers, which had only three levels involved). It is also noted that those from upper-level (executive) management roles were involved, as were those in middle management within both the selling and buying centers represented here.

As for *lateral involvement* (regarding the number of different departments or divisions involved in communication and influence), it was found that in the selling centers investigated both the marketing and technical departments were involved in supplying buyers with information. This was true on the buying side as well, where members from both of these areas also sought information regarding the purchase of capital equipment. Here there is a lack of consistency in the size, as some teams had higher lateral involvement (B2 and S2), while others remained more consistent (S1, B2, B3, and B4).

In terms of *extensivity* (regarding the total number of individuals involved in the buying center) it can be concluded that the pulp and paper industry (average of 7.7 members) has larger buying centers as compared to the sawmill industry (average of 5.0 members) in Sweden. This further implies that the larger the organization, the more extensive the buying center. Furthermore, the more complex the capital

equipment, the more extensive the buying center. There also seems to be an interesting differences in the buyers in the pulp and paper industry, where B1 had four members while B2 had 10 (S1 in this group had nine). The sawmill industry seemed more consistent, with S2 having four members, and B3 and B4 having five and six, respectively.

2.7.2 RQ2 (and RQ3): *How (and why) can the mix of marketing communication tools used by industrial sellers/buyers to provide/obtain information on capital equipment be described?*

The conclusions that can be drawn from the above analysis of the six case studies in these two industries regarding research questions one and two are organized by the three categories for each of the research questions: Those conclusions we can draw on the *selling side*: those we can draw on the *buying side*; those conclusions drawn on *both sides* of the seller-buyer relationship.

Conclusions on the Selling Side

Industrial sellers (of capital equipment) seem to use a variety of personal and impersonal marketing communication tools to provide information when in the process of selling capital equipment within their respective industry. Personal tools are more important than impersonal tools, especially in the form of face-to-face meetings between buyers and those trying to sell to them. The tools used, whether personal or impersonal, not only vary between buying centers, but within them as well. More specifically, the following conclusions can be made:

- Personal marketing communication tools that involve face-to-face contact (e.g. sales meetings, trade shows, training seminars etc.) are used more and viewed more favorably than the voice-to-voice tools (e.g. telephone sales calls).
- The usefulness (or importance) of many of the mass media tools used in consumer markets are not such an important way to provide information for many of the sellers interviewed for this study. However, some selling center members stated that they had an interest in possibly using this as a means of supplying information, given that they had more information on the personal (consumer/mass) media habits of buyers within their industry.
- The opinions shared by one selling center in one industry may not be shared by another selling center in another industry. Based on this data, one could propose that opinions regarding use/usefulness of certain marketing communication tools to provide information could differ from one industry to the next.

- The use of marketing communication tools to supply information on capital equipment can include the communication of that equipment's or processes' brand name, which, in these two seller cases, meant the company name and logo.
- Besides using marketing communication tools to provide information on their capital equipment, industrial sellers want to communicate the company's image and other services as well.
- Technical and sales people (who are often technical in their backgrounds – i.e. engineers) differ in opinion as to the value of certain marketing communication tools versus those working more on the marketing/advertising side of the selling center.
- Sellers' opinions of a specific tool at times has to do with the financial effectiveness (i.e. sales generated) rather than the communication effectiveness of that promotional tool (and message).
- If more was known on the media habits of buying center members, industrial sellers may use more unconventional (i.e. consumer) media to provide information.

Conclusions on the Buying Side

It seems as though buyers in industrial settings also use a variety of personal and impersonal marketing communication tools to obtain information when in the process of buying capital equipment within their respective industry. Personal tools are more important than impersonal tools, especially in the form of face-to-face meetings between buyers and those trying to sell to them. The tools used, whether personal or impersonal, not only vary between buying centers, but within them as well. More specifically, the following conclusions can be made:

- Industrial buyers differ in their opinion of marketing communication tools based on the role they play (we note the technical versus non-technical roles) in the buying center.
- Buyers in the Sawmill industry are more open to personal marketing communication tools such as telephone sales calls than those in the pulp and paper industry. Type/size of industry may play a role in determining which personal tools are more effective versus others.
- Buyers view of direct mail as a means to obtain information depends upon what is sent to them in the mail (i.e. information packs are more likely to be read than a brochure, which is more likely to be read than a sales letter).
- Buyers' use of consumer media, such as consumer magazines, daily newspapers, television, and radio, are neither used nor are the considered positive sources for information on capital equipment in the Swedish pulp and paper or the Swedish sawmill industries.

- The usefulness of television ads as a means for buyers to obtain information will depend on the level of the station the ads are placed on (i.e. local broadcast, national broadcast, or cable/satellite).
- Buyers seem to be more positive towards the use of trade-in offers versus sellers' willingness to provide this sales promotion.
- Buyers view the receiving of more extensive PR materials such as sales videos or "information packets" would be of more use than simple brochures.
- Buyers in the sawmill industry view the use of bids/quotations more negatively than buyers in the pulp and paper industry. Industry type/size may have an influence on the use of such materials to obtain information by industrial buyers.

Conclusions for both Sellers and Buyers

Although one can look at things from just a buying *or* just a selling perspective, it is also important to look at things from more of a relational (buyer-seller) perspective. It seems as though there is often a mismatch between what sellers are trying to use in order to obtain information compared to what marketing communication tools buyers are using to obtain information. This implies that the selling organization is being neither *effective* (i.e. reaching their communication and ultimately marketing objectives) nor are they being *efficient* (reaching such objectives with just the right mix of resources).

- Sellers' use of certain marketing communication tools to provide information to buyers does indeed differ from what buyers are often using to obtain information. These differences give rise to the conclusion that industrial sellers and buyers, in many instances, are not communicating effectively.
- Members of the same selling and/or buying center often do not agree on which marketing communication tools are the best to use, with certain instances of these members contradicting whether or not the firm actually used a certain tool or not. This means that communication within the individual selling and buying centers, with regards to the use of supplying and obtaining information via certain tools, is not all that effective either.
- The decision by to use a particular marketing communication tool by a seller is based on using the viewpoint of the buyer and looking at it from their (potential) perspective. Conversely, buyers question the use of a tool based on their concern for whether they seller was hitting the proper target audience.

- Within each compartment of the marketing communication toolbox, for both personal and non-personal tools, certain tools seem to “rank” higher than others do in terms of their value or importance.
- The usefulness (or importance) of certain personal marketing communication tools, such as personal sales calls, will continue to remain important for both sellers and buyers of capital equipment within industrial markets.
- Both sellers and buyers regard personal forms of marketing communication to be more important than non-personal tools
- Although certain tools may not be viewed as the best to use for supplying or obtaining information on actual capital equipment, both sellers and buyers feel that advertising the company (i.e. brand) name should be considered. The brand name was often the name behind the equipment being sold.
- The use of industry publications is a more important way for sellers/buyers to provide/obtain information than any of the consumer print media.
- The broadcast media does is neither used nor favorably viewed as a way for sellers/buyers to provide/obtain information, with the exception of the use of television (primarily local) to obtain publicity.
- Sales promotions involving the giving away of gifts or trade show items is both used more and more positively viewed than are sales promotions centered on pricing issues (e.g. trade-in offers, discounts, and credit on purchases) by both sellers and buyers.
- The Internet, and more specifically E-mail and Web Sites, will become and increasingly important marketing communication tool in the future.
- The Internet will begin to replace certain non-personal marketing communication tools (e.g. brochures), while having little or no effect on the use of certain personal tools (e.g. personal sales calls).

2.8 Implications

In short, this section will focus on the criteria for all scholarly research that revolves around the question: So what? First, what managers can gain from this study will be briefly discussed, followed by what this study has contributed to theory. Finally, how research can continue within this area will be presented.

Implications for Management

For practitioners, on both the selling and buying side of the industrial marketing relationship, this study’s usefulness could include:

- What industrial sellers are using to provide information does not always coincide with what industrial buyers are using to obtain information, and this implies that sellers and buyers are in fact not communicating.
- Different members of the same selling/buying center have different (often opposite) opinions of the same promotional tool, and this could undermine the use of such a tool to either supply or obtain information using it.
- Sellers who utilize a variety of marketing communication tools to supply information to buyers must find a means by which they can measure the effectiveness of the tools they use.
- In this age of information technology such as with the Internet, the way in which we supply/obtain information must be re-evaluated, as both sellers and buyers feel this is the future of marketing communication in industrial markets.

Implication for Theory

The possible contribution to theory that this study has offered is simply that it has provided the observation of phenomena within a specific industry and geographic setting. In other words, this study has utilized past research in the area in order to arrive at a series of research questions. These research questions were then used to develop a conceptual framework from which an interview guides was developed that allowed for the collection of data. This data resulted in six case studies which were then analyzed against the conceptual framework as well as across the cases in order to find patterns (similarities/differences) that allowed for clear conclusions to be drawn (i.e. answer our research questions) in the end.

As stated in the methodological discussion in section 2.4, the meaning of research is, “to search again.” More specifically, the purpose of scholarly research is to explore, describe and/or explain. The implication (meaning) for theory revolves around these two questions, then:

1. *Have we “searched again?”* The answer for this study is, yes. Investigating these organizations, at this time, from these respondents’ (and this researcher’s) perspective have allowed us to take another look – to search again and not only add to previous theory, but to also open up the door to continued and new research areas.
2. *Have we explored, described, and/or explained anything?* The answer is yes – to all three. What we have explored is based on our research problem (purpose), as laid out at the end of section 2.1. What has been ***explored*** is how the use of marketing communication tools used by industrial sellers to provide information on capital equipment in the

Swedish timber industry compares with the tools used by the buyers of such equipment in the same industry to obtain information. The strongest contribution of this study is through what we have *described*, which is tied to our research questions: The composition of the selling centers involved in supplying information and the composition of the buying centers obtaining information during the purchase of capital equipment in the Swedish timber industry. Regarding whether anything has been *explained*, it can be stated that this study has allowed for me to begin to explain through the process of being able to answer the research questions.

The primary contribution to theory for this study has been in terms of rich and in-depth description. Although this contribution is important, there is much left to be explored, described, and explained within the area of marketing communication in industrial (business-to-business or B2B) markets, especially in the midst of this communication revolution we find ourselves in the midst of.

Implications for Future Research

As for future research, there are many possibilities that open themselves for continued empirical investigations. These too are organized into research on the industrial selling side, then the industrial buying side, and finally further research within industrial marketing communication in general. As the marketing communication process (as presented in Chapter One) shows us, there is a lot more than just the tools used to provide/obtain information. There is also the message, the effect, as well as separate research on both the sender and receiver of such messages in industrial markets.

Industrial Selling:

- Further investigating the communication patterns within the selling center itself.
- Further investigating the use of such tools by stage of the selling process.
- Further investigating the views on the use of such tools by different members of the same selling center.
- Further investigating the usefulness of such tools for providing information for products other than capital equipment.
- Further investigating the use of tools in providing information in more than just the timber-related industries, as well as in other geographic and cultural settings.
- Further investigating the differences of opinion as to the value of certain tools that those on the technical/selling side have versus what those on the marketing/advertising side have.

- Further investigation as to the other “publics” (groups) – other than customers (buyers) – that an industrial seller must communicate with via various marketing communication tools.

Industrial buying:

- Further investigating the communication patterns within the buying center itself.
- Further investigating the use of such tools by stage of the buying process.
- Further investigating the use of such tools to obtain information by different members of the same buying center (it was noted on more than one occasion that the technical versus non-technical membership in a buying center may influence which tools are used/not used and held in a positive or negative view).
- Further investigating the usefulness of such tools for products other than capital equipment.
- Further investigating the effectiveness of such tools in obtaining information by stage in the buying process.
- Further investigating the use of tools in obtaining information in more than just the timber-related industries, as well as in other geographic and cultural settings.

Industrial marketing communication research in general:

- Further investigating the use of *personal* marketing communication tools to supply/obtain information on a more individual (tool-by-tool) basis.
- Further investigating the *non-personal* tools of the marketing communication toolbox via the sections (compartments) of the toolbox (i.e. print advertising, broadcast advertising, print advertising, outdoor advertising, etc.).
- Further investigating of the marketing communication toolbox by any one of several different dichotomies (i.e. personal/non-personal; commercial/non-commercial, etc.).
- Further investigating the ranking (in terms of value or importance) of tools within each compartment of the non-personal marcom toolbox and the personal tools as well for both sellers and buyers.
- Investigating the “message” portion of such promotional choices, including the limitless creative aspects that go into such marketing communication tools.
- Investigating the effectiveness of such marketing communication tools (and the messages they carry) for sellers, who seem to rarely find out yet seem to want to know the effectiveness of their communication efforts with buyers.

- Investigating the implications of the Internet and websites on the evolution of the marketing communication toolbox...i.e. what does “Industrial Cyberspace” hold for industrial sellers and buyers (in terms of providing and collecting information)?

With the long list of further research possibilities mentioned above, as well as the presentation and justification of *Study B* in *Chapter One* of this thesis, the future for research in this field is deemed both necessary and valuable. As Gates (1995) said, we are all beginning another great journey, this one centering on the way in which human beings, be it in business or other social settings, will communicate with one other. We now turn to *Study B* to take a closer look at this communication revolution.

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3 STUDY B: *The Internet as a Marketing Communication Tool*

*This chapter will provide the four articles published in, accepted to, and/or submitted to scholarly journals. These four articles make up **Study B** for this doctoral thesis. The first main section (3.1) will provide a synopsis of each article, allowing the reader to obtain a glimpse of each article and more importantly recognize the connection to each of them. The second main section (3.2) will simply provide a copy of the actual article (as submitted). Where an article has actually been published (rather than accepted or submitted but not yet published), an actual copy of that article and/or a link to where a copy of the article can be downloaded will be provided in an appropriate appendix.*

3.1 Synopses of the four articles

As presented in the first chapter, in building on the findings and recommendations of *Study A*, the purpose of *Study B* is to provide a better understanding on the use of the Internet as an industrial marketing communication tool. In contrast to the monograph that made up *Study A*, a series of articles make up *Study B*. Presented below are brief introductions of the four articles that make up *Study B*. Each contains the article's title, the outlet it was submitted to, its status (published, accepted, submitted), a brief synopsis of the subject of the article, the overall purpose and research questions, major findings, and finally limitations and recommendations for future research (including a connection to the next article that follows).

3.1.1 Synopsis of ARTICLE 1

TITLE: Into the Depths of the I-E-I Framework: Using the Internet to Create Value in Supply Chain Relationships

JOURNAL: *Supply Chain Management: An International Journal*

STATUS: Accepted – to appear in Volume 12, Issue 1, 2007 (see *Appendix C*)

SYNOPSIS: This article introduces the conceptual framework, known as the I-E-I framework, and presents empirical support for its use via a single, in-depth case study at LKAB, a mining company in northern Sweden.

PURPOSE AND RESEARCH QUESTIONS: The purpose of this study is to provide a better understanding on how industrial (B2B) organizations use their websites as a marketing communication tool to create value through their supply (value) chain relationships.

- RQ1: How can the Internet level of the I-E-I framework be described?
RQ1: How can the Extranet level of the I-E-I framework be described?
RQ1: How can the Intranet level of the I-E-I framework be described?

MAJOR FINDINGS: There is support for value being created at all three levels (Internet-Extranet-Intranet) of this industrial website, lending support to the I-E-I framework. It was found that the deeper one goes, the more value that is created in the information being provided and used. Value was found to be focused on using the website to make communication more effective and more efficient between the organization and various primary and secondary stakeholders with access to the various levels of the I-E-I framework. The most value being created at the time was within the Extranet level between the industrial seller (LKAB) and some of its key buyers in Scandinavia. This made the Extranet level the primary focus in the next article.

LIMITATIONS AND FUTURE RESEARCH: The importance of website design, especially as it relates to specific stakeholder groups, is vital in terms of creating true online value. Of specific interest from this study is the use of the Extranet level by an industrial seller to create mutual value with its buyers as a future research interest. This study is limited by being a single, in-depth case study and in no way intends to generalize to other organizations. It is suggested that the I-E-I framework be further tested empirically so that this researcher, as well as others, add to, delete from, discuss and debate its use in developing what can be considered an ongoing, dynamic (always changing) understanding of how to use websites to create true online value between an organization and its many stakeholders.

3.1.2 Synopsis of ARTICLE 2

TITLE: Creating Digital Value: At the Heart of the I-E-I Framework

JOURNAL: *Journal of Business & Industrial Marketing*

STATUS: Published – Volume 20, Issue 4/5, 2005 (see *Appendix D*)

SYNOPSIS: This article looks only at the Extranet level of the I-E-I framework that was developed and empirically tested in the first article. From a review of the literature, “true value” was found to exist only when putting something of value in and not just taking value out (Phairor and Hammer-Lloyd, 2002; Gummesson, 2002). On that basis, it became of interest to peel back and investigate only the

Extranet level, which was found to have the most value in the first article for both the industrial seller and its buyers.

PURPOSE AND RESEARCH QUESTIONS: The purpose of this study is to provide a better understanding on the use of websites for creating value in industrial buyer-seller relationships.

RQ1: What is the value input to this online (extranet) environment by industrial sellers?

RQ2: What is the value input to this online (extranet) environment by industrial buyers?

RQ3: What is the value output to this online (extranet) environment by industrial sellers?

RQ4: What is the value output to this online (extranet) environment by industrial buyers?

MAJOR FINDINGS: The study presented in this article found that access to the Extranet level of the I-E-I framework was not for all buyers, but for those buyers that were both geographically and culturally closer to the selling organization. It seems the further away a buyer was in the real world, the more limited their access in cyberspace. Pre-purchase members of the buying team seemed to find more use (and therefore obtain more value) from the Extranet level than those involved in post-purchase roles of the iron ore. Overall, a value-in/value-out relationship emerges, where “true value” only exists when a seller puts something of value into the Extranet level (i.e. information) for the buyer to take out; and the buyer also puts something in that the seller can, in turn, take out. Of further interest is the fact that “true value” is also based on a combination of online as well as offline information being shared. In the end, the Extranet level is seen as a form of “communication superglue” that binds and holds together seller-buyer relationships in new and exciting ways.

LIMITATIONS AND FUTURE RESEARCH: This article of course only looked at the use of a single Extranet between an industrial seller and a certain number of its buyers. Beyond looking at the use of the Extranet for creating true value in other industrial seller-buyer relationships, future research should also consider value creation between the organization and other stakeholder groups at all three levels of the I-E-I framework. However, it is recommended by various scholars that we not only use the Internet as a focus (subject) of our research, but we should also consider using it when conducting it (Jones, 1999; Hine, 2005). Because the Internet was used in both of the articles above, as well as in *Study A*, it became of interest to develop one article on the use of the Internet when

conducting qualitative research, as little has been done to date on that subject. This is therefore the subject of the next article.

3.1.3 Synopsis of ARTICLE 3

TITLE: Making Sense of a Handful of Jell-O: The Role of the Internet in Qualitative Research

JOURNAL: *Internet Research*

STATUS: Submitted – favorable comments from editor...updated and re-submitted June 2006 (see *Appendix E*)

SYNOPSIS: Because this thesis not only focused partially (*Study A*) or exclusively on the Internet (*Study B*) as a marketing communication tool, but also used the Internet when actually conducting portions of the research in both *Study A* and *Study B*, it was of interest to develop one of the four articles on this topic. This article lifted off from what scholars were consistently saying (Jones, 1999, Hine, 2005) – that if our research was going to focus on the Internet within our field of interest (in this thesis that is “industrial marketing communication”), we should also consider looking at the Internet as a tool used in conducting it. From the framework for qualitative research used in collecting data for *Study A*, a new (updated) framework is presented in this article as a part of *Study B*.

PURPOSE AND RESEARCH QUESTIONS: The purpose of this study is to provide a better understanding on the role of the Internet in qualitative research. To reach this purpose, the following research questions are stated:

RQ1: How can the ontology (and thus epistemology) of cyberspace be characterized?

RQ2: What qualitative methodological approaches are of use on/within the Internet?

MAJOR FINDINGS: The Internet is changing not only the areas of research we focus on, but the approaches we use as well. This article presents an updated approach to the qualitative research process, looking at the researcher as bricoleur, taking into consideration the offline as well as online worldviews, as well as the array of online and offline methodological tools at our disposal. Although the overall (qualitative) research process remained the same, our worldviews must now take into consideration our view on “cyberspace” and not just our view of the “real world” and our place in it. Furthermore, the Internet has changed the way

we look at everything from interviewing to observation, and “interaction” can take place now in these two different worlds, albeit in very different ways.

LIMITATIONS AND FUTURE RESEARCH: The “handful of Jell-O” metaphor from Jones (1999) is accurate: Whether the Internet is the subject of study or is simply being used to conduct research, the rapid pace of development within information technology often ensures that one never knows what one will get. This study is considered a starting point for future research in a world, both online and off, that is dynamic (always changing) and fraught with new challenges and opportunities. Our qualitative approaches must continually adapt to this by utilizing a myriad of online and offline tools and approaches. Both what we find out (i.e. our research area) and how we go about finding it out (or approaches to finding it out) are going through some (r)evolutionary changes. Pulling together *Study A* and *Study B*, and looking back over the 10-year period from which this entire thesis emerged, a period that is considered the first decade of the commercialized Internet, is what the final article looks at.

3.1.4 Synopsis of ARTICLE 4

TITLE: Industrial Marketing Communication: A (R)evolutionary Journey from *Marketplace* to *Marketspace*

CONFERENCE: *Academy of Marketing Science (AMS) Conference Proceedings*

STATUS: Published & Presented – May 2006, San Antonio, Texas (see *Appendix F*)

SYNOPSIS: This article looked back holistically over all of the articles in *Study B* as well as the findings from *Study A* and presented the overall lessons from of the entire 10-year period under which this research took place. In this paper, “Part I” refers to *Study A* and “Part II” refers to *Study B*.

PURPOSE OF THE STUDY: The purpose of this study is to share what was discovered during this 10-year exploration regarding the changes occurring in the use of industrial marketing communication tools and to see whether or not the area was simply evolving, or truly becoming revolutionized.

MAJOR FINDINGS: The years 1994/95 – 2004/05 were significant in a few ways: The year 1994 was the year I started out as a doctoral students; it was also the same year the Internet formally “commercialized” and became a true, viable entity for businesses throughout the world. The decade itself provided an

opportunity to work with an area of research over an extended period of time, a unique opportunity. The findings in this article indicate that industrial marketing communication tools have evolved from sellers and buyers simply using a mix of personal and non-personal tools for supplying and obtaining information, respectively, to including the Internet to the mix as a “multipurpose tool” used in order to create value throughout the supply (value) chain. The area focused for this thesis, industrial marketing communication tools, was found to be in the midst of a “perfect storm” of evolutions and revolutions, or “(r)evolutions.”

LIMITATIONS AND FUTURE RESEARCH: As with all research, and being qualitative in nature, this article provides as many questions as it does answers. Future research should consider that, thanks to the rapid advances in information technology, and specifically the Internet, industrial marketing communication will continue to develop and adapt in ways unheard of only a few years ago. This implies that our research must stay up-to-date as well, and that what we found out today might be simply a springboard for what we must focus on tomorrow. Keeping up with all of it is truly like squeezing a handful of Jell-O – you simply do not know what you will get.

With the four articles briefly introduced and connected above, they are now presented in the same order as above. All articles are presented as they were submitted. For those that have been published, the published article is available in an appendix, as so labeled.

3.2 The Four Articles of *Study B*

On the pages that follow will be the actual articles, as submitted to the respective outlets they were sent to.

Into the depths of the I-E-I framework

Using the Internet to create value in supply-chain relationships

ABSTRACT

Type of paper: Research paper

Purpose

To provide a better understanding of how industrial (B2B) organizations use their websites as a marketing communication tool to create value through their supply (value) chain relationships.

Design/Methodology/Approach

A review of previous studies on B2B websites results in the development of the “I-E-I (Internet-Extranet-Intranet) Framework” with three research questions focusing on how each of the three levels of the I-E-I framework can be described. Via these research questions the framework is tested empirically over a 10-month period in an industrial (B2B) website setting. A qualitative, case study approach is used utilizing multiple sources of evidence.

Findings

It was found that in order to make online (communication) efforts more effective throughout the value chain, an inside-out communication strategy is needed by the organization. Each level seems to have primary versus secondary stakeholders in terms of the access to and interaction with the website level they are interacting with. Overall, it was found that the deeper one went into the I-E-I framework, the more value that was created and that such value was both provided to and received from both the organization and the stakeholder.

Originality/value

The I-E-I Framework developed in this study introduces a framework that can be empirically tested, discussed and debated in other settings and provide a springboard for more in-depth studies on value creation in B2B websites for both scholars and practitioners.

KEY WORDS: Internet, Intranet, Extranet, website, value chain, B2B

INTRODUCTION: Revolutionary times

Vlosky, *et al.* (2000) put it simply in their advice on the use of technology in organizations: “Add value” (p. 438). Chaston (2001) stated that online business-to-business (B2B) revenue could reach upwards of \$1.3 trillion by the end of 2004, whereas Golicic, *et al.* (2002) updated this by stating that projections on B2B e-Commerce reaching upwards of \$8 trillion by the end of 2005, implying that there is value out there to be created. However, several scholars have noted that studies on the Internet, as well as the media attention given to it, have consistently focused on the final consumer segment (B2C) versus the B2B segment (Boyle and Alwitt, 1999; Osmonbekov, *et al.*, 2002; Chakraborty, *et al.*, 2003). Even so, studies within both the B2C as well as B2B literature have agreed that the Internet has changed the way we conduct business and marketing and that the Internet as a focus for academic research is extremely worthwhile (Hoffman and Novak, 1996; Samli, *et al.*, 1997; Berthon, *et al.*, 1998; Evans and King, 1999).

In reviewing the literature as it pertains to creating value on the Internet from a B2B perspective, it seems that every time we turn around, a new “revolution” is affecting our work as scholars. “We” not only includes those of us conducting scholarly research, but also those we are trying to make a practical contribution to, let alone gain a better understanding of, namely those managing and running businesses today (Gummesson, 2000). Whereas the term “revolution” has been recently applied to scholarly research in marketing (Leverick, *et al.*, 1997; Gummesson, 2002; Sharma, 2002), communication (Hoey, 1998; Phairor and Hanmer-Lloyd, 2002), and the Internet (Wen, *et al.*, 2001; Sharma, 2002; Haley, 2002; Cagliano, *et al.*, 2003), another “revolution” is occurring within supply chain/value chain research (McGuffog, 1997; van Hoek, 2001; Dawson, 2002).

Based on the assumption that these “revolutions” are not mutually exclusive and instead are somehow connected or related, the purpose of this study is to provide a better understanding on how industrial (B2B) organizations use their websites as a marketing communication tool to create value through their supply (value) chain relationships. It should be noted that “supply chain” and “value chain” are meant to be one and the same or at least related, which is supported by several scholars (Dawson, 2002; Mudambi and Aggarwal, 2002; Nordberg, *et al.*, 2003). McGuffog (1997) actually refers to VCM (Value Chain Management) as a tool for providing the maximum degree of common expression, common procedures, and common communication. Because of this, and based on the purpose of this study, the term “value chain” will be primarily used, unless referred to otherwise by other scholars.

LITERATURE REVIEW: The 3 C's of website development

The study of websites in industrial (B2B) settings has been limited, as compared to those studies conducted on websites in the B2C sector (Chakraborty, *et al.*, 2002). However, in reviewing studies related to the purpose stated above, it was discovered that scholarly focus on website development in B2B settings seems to have evolved thus far through three stages or “eras” presented and referred to here as the 3 C's of website development: Comparison, Content, and Creation.

As an example, in the first era of B2B website studies, what has been labeled “The Age of Comparison” (estimated to have taken place from ca 1994-1998), the focus seemed to be on comparing websites to traditional, offline concepts: Hoffman, *et al.* (1995) compared the use of (commercial) websites to storefronts and “malls.” Berthon and Pitt (1996) explained that it might be useful to think of the Web as a cross between an electronic trade show and a community flea market. Quelch and Klein (1998) found that the websites of most companies are nothing more than glorified brochures.

As we entered the new millennium, “The Age of Content & Classification” (estimated to have taken place during the years 1999-2001) in B2B website studies emerged, with a focus on what a website should look like or include. Examples of such studies include Perry and Bodkin (2000), who provided a content analysis of Fortune 100 websites; Bauer and Scharl (2000) developed a quantitative evaluation of website content and structure; Cunliffe (2000) discussed what made websites useable via the stages and tasks of development for a site. This of course does not mean that these first two eras in B2B website studies did not make a contribution, nor are we done with scholarly investigations that focus on comparisons or studies that focus on content and classification. This also does not mean that these eras are exclusive to the dates given but are looked upon more as a pattern in how such studies have evolved in recent years.

Starting sometime around 2001-2002, a new focus in our scholarly efforts on B2B websites began to emerge, namely “The Age of Creation,” with creation implying the creating or adding of value in cyberspace. Although certain studies in the first two eras hinted at creating value, it seems that such studies focused on the value of a website being based ultimately on whether that website sold something, i.e. lead to an actual online transaction (Berthon, *et al.*, 1998; Sharma, 2002). However, other studies indicated that adding value online involves more than just “selling” something. Luo (2002) explained that adding value in cyberspace implies relevant, real-time information presented in a useful matter with a degree of entertainment value as well. This new era of websites studies seems to be able to provide a foundation for studies that now focus on helping companies create

value online, not just off.

The era of online value creation

The supply chain today is seen as being an important element in the value creation process (McGuffog, 1997; Dawson, 2002), and communication is seen as the “glue” that holds the relationships within that chain together (Andersen, 2001; Phairor and Hanmer-Lloyd, 2002). Although the Internet (and other applications such as Intranet/Extranet) does not guarantee that we will run businesses within the chain better, through communication and technology it provides a greater opportunity to do so (McGuffog, 1997). In discussing the need to add value through the use of technology in organizations, Vlosky, *et al.* (2000) emphasize that organizations today are seeking the products, processes and technologies that add value to their offerings in an effort to remain competitive.

Sharma (2002) put it another way: “If business marketers do not capture the value that emerging technologies such as the Internet provides, value will migrate from their firms” (p. 77). With this Sharma meant that firms will need to develop an information platform that encompasses all of the functions of a firm and its partners (i.e. the network of organization including but not limited to suppliers, customers, etc.). The value of such an approach is in information exchange leading to a reduction in “exchange friction”, thus allowing for an increase in both the efficiency and effectiveness for such firms. In fact, added value is derived from technology, information, knowledge, and social interaction (Baker, *et al.*, 1998), all of which are key components of what a truly dynamic website can provide.

According to Mohamed (2003), a supply chain network is ultimately about inter-organizational communications and information flows. An important issue for organizations is the effective management of information through the co-operation and collaboration among different stakeholders within the chain. In terms of managing information, marketing communication, or better yet integrated marketing communication (IMC), focuses not only on customer relationships, but on communicating and developing relationships with other stakeholders, i.e. groups who can affect or be affected by the organization, including employees, customers, investors, suppliers, channel members, the media, and many other groups or “publics” (Duncan, 2002). Duncan further explains that the marketing communication tool that truly puts IMC into place is the Internet, or more specifically websites.

Supply chain management, as it pertains to the Internet, has not been completely ignored within the e-Business/e-Commerce framework of scholarly research, but

it has been only lightly touched upon (Cagliano, *et al.*, 2003). Hoey’s (1998) study looked at the effectiveness of web-based marketing communication from a supply chain perspective (see Figure 1).

FIGURE 1: A virtual value chain created and managed by information and connectivity in hyperspace

SOURCE: Adapted from Hoey, 1998, p. 34

Hoey’s model shows that a supply chain, referred to as a virtual value chain, provides its members, through a website, a framework where supporting information (“resources”) are provided for and by each channel member. Each member of the value chain not only provides but is provided information through its own resources (information) and the resources of other members. Through this interaction, the website provides a form of web connectivity. The limitation with Hoey’s (1998) study is with the view on what “web connectivity” can mean. According to Chaffey, *et al.* (2003), various audiences require different access points at the Internet (public), Extranet (specific third parties, e.g. customers, partners, suppliers), and Intranet (employees) levels (see Figure 2)

FIGURE 2: The relationship between access to Intranets, Extranets and the Internet

SOURCE: Adapted from Chaffey, *et al.*, 2003, p. 26

The design of B2B websites is critical (Evans and King, 1999). One of the main opportunities regarding design, according to Honeycutt, *et al.* (1998), is with regards to how the company and/or product are communicated online. They found that one of the downsides of these B2B sites included the development of what can simply be viewed as dull (i.e. static) websites. Yet little research has been done on establishing models and frameworks for maximizing the interaction between an organization's website and its stakeholders (Fink and Laupase, 2000).

The three levels of B2B websites

Wen, *et al.* (2001) explain that website design should be based on one of two generic design strategies. The informational/communicational strategy or the on-line/transactional strategy. According to Luo (2002), at the heart of creating value online is the creation of websites that can provide relevant, real-time information presented in a useful matter, with some degree of entertainment value. Overall,

the potential value to organizational buyers is primarily based on the ability of the website to provide efficient access to vast quantities of potentially relevant information (Lord and Collins, 2002). Not to completely ignore findings from the B2C community, Page and Lepkaowska-White (2002) discuss the importance of adding value via “experiential sites,” offering the visitor, regardless of their role, not only the information they seek, but value in terms of the experience they will have while seeking it. This allows for a more dynamic experience versus a static one. Yet the Internet is only the entrance level to the organization in cyberspace – an organizational portal if you will.

After the Internet level comes the Extranet level. Anandarajan, *et al.* (1998) explain that an Extranet represents a “bridge” between the public Internet site and the corporate (internal) Intranet site as a means for linking an organization with its suppliers and customers. The impact on the value chain, according to these authors, focuses on the activities related to purchasing and those activities related to coordination costs (i.e. procurement, selling, technology development, and human resource management). An Extranet should allow for the secure collaboration and communication between producers, suppliers, distributors, and customers who are separated by distance or circumstances, resulting in improved marketing decision making (Dubas and Brennan, 2002).

Vlosky, *et al.* (2000) explain that an Extranet adds value by allowing firms to share information and data with selected suppliers, partners, and customers, as well as reduce operating costs, savings in time and resources, improvements in customer service, and better relationships in the supply chain. The drawback, they explain, is in the loss of control of the information being provided by the supplier.

Finally, at the innermost Intranet level, studies have shown that the primary use is based on internal information retrieval, sharing and management; communication and collaboration; and access to databases and applications (Lynch, 1997). More recent studies have focused on the value that such uses will provide, with Yen and Chou (2001) focusing on the use of Intranets for an organization to empower its employees by providing an “any-to-any” connectivity in an organizational network. They add to the list of potential uses by including access to research seminars, company announcements, an employee directory, benefits, and administrative help. According to Wanger, *et al.* (2002), Intranet objectives should be followed by a well thought-out Intranet design, with the idea being that no piece of information should be more than three clicks away.

Development of the I-E-I framework

A conceptual framework, according to Miles & Huberman (1994), lifts out and presents the main things to be studied. For the purpose of this study, Hoey's (1998) focus on marketing communication as it related to various stakeholders in an online environment is combined with Chaffey, *et al.*'s (2003) focus on web connectivity (access) being at three different levels. From this, and based on the literature review presented above, a new Internet-Extranet-Intranet (I-E-I) framework emerges (see Figure 3).

FIGURE 3: The I-E-I Framework

Research questions

The preceding literature review has provided a look at the state of website design in B2B markets, attempting to take into account the evolving nature of studies and the current focus on the use of B2B websites as marketing communication tools used in creating value and building long-term (value-chain) relationships. Based on the original purpose of this study, and from the conceptual (I-E-I) framework

presented above, the following research questions emerge:

RQ1: How can the Internet level of the I-E-I framework be described?

RQ2: How can the Extranet level of the I-E-I framework be described?

RQ3: How can the Intranet level of the I-E-I framework be described?

With a focus (for this study) on the web connectivity portion of the I-E-I framework above, the aim is to answer each of these three research questions and provide empirical support for the use of the I-E-I framework for both scholars and practitioners. The methodology used to provide this empirical evidence is discussed next.

METHODOLOGY

The I-E-I framework developed above was empirically tested in a B2B setting during an approximately 10-month time period during 2003-2004. A single case study approach was utilized, which is supported by Yin (1994), who states that a single case study is a good idea when a “critical” case for testing theory is important (in this case the I-E-I framework above) and when the case itself is unique (discussed below). Furthermore, although this study is based on a single case, it is considered to utilize an embedded design by including multiple units of analysis, namely the Internet, Extranet, and Intranet (I-E-I) levels of the organization’s website. Single-case designs are also recommended and used in other Internet-related studies (Yen and Chou, 2001; Wagner, *et al.*, 2002) as is the focus on websites as case studies (Holland and Baker, 2001). For the purposes of this study, the website of LKAB.com, the world’s largest underground iron ore mine located in northern Sweden, became the case study. Access to such organizations is of vital importance (Gummesson, 2000), and having access to and being able to investigate all three levels of such a B2B website over such a long period of time was a unique research opportunity.

Yin (1994) explains that multiple sources of evidence for a case study are important for increasing the validity of the findings for that particular case. Data collection for this case study occurred in three phases: First, initial visits to and interaction with the website took place. Contact was then taken via e-mail with a person made available on the website. From this initial e-mail contact, key qualified informants were identified (by LKAB). This was followed by several hours of face-to-face, focused interviews with these key respondents. LKAB made available the Vice President of Public Relations and Quality, herein referred to as “VP”, as well as the Sales Manager for the Nordic region (primarily Sweden and Finland), herein referred to as “SM.” These two individuals were deemed the

most qualified (by LKAB) to provide the necessary information to answer this study's research questions and ultimately assist in reaching this study's purpose.

Next, observation took place in two different ways: Direct observation in the form of having the respondents in the respective interviews also enter the website (at all three levels) to demonstrate and highlight what they were talking about as the interview took place. During the primary depth interviews with both VP and SM, access to these levels occurred as the interview took place (i.e. the researcher entered cyberspace with them as they talked about their use of the Intranet and Extranet levels, accessible only within the organization). This allowed for them to not only discuss something, but show and interact with it at the same time as the Interviewer watched and asked. Furthermore, a form of continual participant observation was used when entering the public (Internet) site on several occasions during this time period in order to obtain data, continue to interact with the website, as well as contact, interact, and follow-up with the interviewees via e-mail and over the phone.

Finally, documentation (both online and offline) in the form of brochures, pamphlets, annual reports, and internal reports and memos were also made available, adding up to dozens of pages of additional data. Therefore, the methodology for this study was a combination of online and offline sources of evidence which provided a strong (i.e. valid) foundation to stand on.

RESULTS

Although LKAB's worldwide market share is only around four percent, the company feels it is still considered a leader in its field in IT applications, both in terms of product as well as web-based (communication) technologies. In fact, the slogan on the start page for the LKAB website went during the course of this investigation from "*LKAB...World class iron-ore products and services*" to, "*LKAB...An international high-tech minerals group*". The LKAB value chain is made up of an extensive array of suppliers, partners, subsidiaries, customers, and other stakeholders who have a shared interest in the success of the LKAB operation, some wholly-owned subsidiaries, other stakeholders independently owned and operated. How LKAB interacts with those in its value chain depends heavily on the coordination of its production and other value-added services offline with the information that is deemed important by these stakeholders at the various depths (I-E-I) of the LKAB website online. Using data from the interviews and other sources of evidence outlined above, answers and analysis to each of the research questions is as follows.

RQ1: The LKAB Internet – The portal to LKAB in cyberspace

The public (external) face of LKAB is through its general website, www.lkab.com (for the international/English version), or www.lkab.se (for the Swedish version). It is considered the entrance to the organization in cyberspace – an organizational portal, if you will. It is considered “static” and information heavy. This static first level supports the findings of Honeycutt, *et al.*, (1998), who found that this level of B2B sites often risked being static and dull. There is also support for Wen, *et al.* (2001) in that LKAB is definitely following an informational/communicational website design versus an on-line/transactional strategy. LKAB is not trying to sell iron ore through its website, according to VP, but is instead using the site to communicate with various stakeholders in order to further develop and maintain what the LKAB brand stands for.

It seems that the deeper into the levels one travels, the more “dynamic” the website becomes. With this VP means that there is little value in the website in terms of it making a connection *through* the three I-E-I levels. At the time that interviews for this study took place¹⁵, when opening www.lkab.com, one is taken to a static “start” page with the aforementioned slogan. You then either click on “Proceed” or are taken to the main menu page within a few seconds. There is bountiful information that is well organized via a detailed menu and through a large array of graphical and textual links that seem loosely tied together. In other words, a wealth of information is there, and finding what you are looking for (and moving on into the website) seems to depend on whether you are a customer, someone from the general public, or a member of the media, as these are the three primary stakeholder groups the start page seems to focus on. Secondary groups at this level include a link for students and another for subsidiaries.

According to VP, potential ideas today include developing a more entertaining flash intro that would introduce us to a “virtual mining experience” that ends in a start page where you clicked depending on where (and how) in the value chain you were involved, with the option of skipping the intro (either automatically or by clicking) on subsequent visits to the website. This would provide a more dynamic and memorable experience online (for the first-time visitor, at least). However, change and acceptance to make the site more “entertaining” are slow in such an established brick-and-mortar industrial company.

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¹⁵ NOTE: In the time of developing this article, submitting it, and ultimately re-submitting after the review process, LKAB has made some changes to its website. However, the links within the website are still basically available as originally reported.

The (public) Internet level seems to focus on three primary groups: The media, the general public, and the link (bridge) for customers to enter the Extranet level. The connection to customers automatically takes you to a customer log-in site (see the Extranet discussion below). With the intro page being highlighted by “Latest News,” via a menu of clickable online articles, announcements, and corporate information, there seems to be an information overload that takes the visitor time to analyze. Although other stakeholders within the LKAB value chain seem to be loosely connected at this level (e.g. partner firms and subsidiaries), the lack of a strong connection to them is the primary weakness with their online efforts. For LKAB, the value of the website is past this outer (public) level and at the inner (non-public) levels of its websites. Even there, layers of importance (regarding the value given and received) seem to exist.

RQ2: The LKAB Extranet – For qualified customers only

Regarding the Extranet level, the focus on customer applications at this level provides an example of well-organized and dynamic features. It was found that what a company does offline to create value can affect what it does online to do the same. Yet security concerns hold such organizations back, as do their “traditional ways” of doing business. According to SM, for customers, the main issue is access to information, and having it only “one-click” away. This supports Wanger, *et al.*, (2002), where no information should be more than three clicks away. The fewer the clicks, it seems, the greater the value. There is also only limited support for Luo (2002), as LKAB creates value online by using this level of its website to provide relevant, real-time information presented in a useful matter. However, in contrast to Luo (*ibid.*), there is a lack of entertainment value, which VP admits is a weakness. There is also support for Lord and Collins (2002), whereby LKAB provides value to organizational buyers based on their ability to provide efficient access to vast quantities of potentially relevant information.

LKAB selects those (customers) it wants to have access at the Extranet level, and this goes in line with what Vlosky, *et al.* (2000) explained: That an Extranet adds value by allowing firms to share information and data with *selected* suppliers, partners, and customers, as well as reduce operating costs, savings in time and resources, improvements in customer service, and better relationships in the supply chain. According to SM, the relationship with those customers who have access has created added value for both sides. For its Nordic customers, access to information revolving around three primary areas is made available within the LKAB Extranet: Physical needs, IT applications, and customer (i.e. order) data. This dynamic online experience has made it possible to track orders, make changes in shipments, and provide feedback and complaints along the way, which

has made the purchase and shipment of the iron ore orders more effective and efficient for both seller and buyer. According to SM, what was missing from the Extranet connection with customers was the lack of real-time information from the customers to the supplier in order to meet other types of needs and resolve problems *before* they occurred. As it is now, this portion of the Extranet seems to be designed in a reactive versus proactive way, implying that the more proactive a layer becomes, the more value it creates.

As for the connection to other suppliers and partners, either independent or wholly-owned by the organization, this is where the weakest link within the I-E-I framework exists. This implies that their contribution (or involvement) within the value chain is not important (at least online). The relationship with these stakeholders offline might benefit from creating a stronger bond online, as is evidenced by the supplier-customer Extranet value being created. This lends little support to the thinking of Dubas and Brennan (2002), where a secure connection is desirable between *all* stakeholders within a given level of the value chain. Indeed, this seems to exist only at the “focal relationship” (i.e. seller-buyer dyad) level. Perhaps the resources (information) they bring into and/or take out of the web connectivity at the Extranet level is not of the same value as compared to what it is with customers. This implies there is not a single “border” to the Extranet, but perhaps a degree of “layers” (like an onion) in terms of the value that relationship represents to both sides. Again, the further inward one travels, the more value you bring (to the relationship), and therefore the more interactive, information rich, and dynamic that portion of the Extranet becomes.

RQ3: The LKAB Intranet – “Employees Only”

The innermost Intranet level is where online communication and value creation begins. This inside-out strategy affects all communication efforts, both online and off. Internal (Intranet) communication should be the starting point of website development, according to VP. The Intranet and Extranet levels should be developed first, and this could in turn make the (public) Internet site more dynamic and useful (i.e. effective and efficient) almost by default. When it comes to communication, both online and offline, everything needs to start on the inside of the organization, and that translates into also developing the innermost layer of the LKAB website first (i.e. the Intranet). VP, who at the time of the interviews oversaw all internal and external communication efforts at LKAB explains, “If you take care of communication internally, the external communication will take care of itself.” It was explained that one of the biggest hurdles facing LKAB today is the amount of information that is needed to be given out and the method for which they disperse it internally. The LKAB Intranet has gone a long way in taking care of this, but with certain limitations.

The first limitation is based on the type of employee you are trying to reach. While all administrative and upper-level management/executive staff sit behind a desk with a computer and daily access to the Internet, the people down in the mine placing the explosives, hauling the ore out, or running the equipment necessary to process the ore, are not usually behind a desk and rarely if ever connected to the Internet while on the job. At LKAB this has been partially remedied by developing an underground “Internet Café” for such employees, but even then the limited time at lunch or coffee breaks hinders providing such employees the information that management deems important for them to know or at least be possibly interested in knowing. Internal company news and announcements, be it production related, financial, personal (e.g. retirements, births, deaths) or fun (e.g. company hockey team being formed), are produced both online and offline in the form of a corporate newsletter. This supports Yen and Chou (2001), who explain that such communication efforts empower employees to remain informed and stay up-to-date, but only for those in the management and administrative positions. The offline version disappeared for a while but was brought back when VP realized that the information was not reaching certain types of employees, especially those down working in the mine. The further down in the mine you went, the more important the offline newsletter became. To remedy this at the innermost Intranet level, LKAB is beginning to look into offering computers and Internet access to employees at home. Through a series of partnership with computer and Internet service providers, this is being seen as one way of connecting everyone within the organization into the LKAB Intranet. However, getting them online is one thing; getting them to regularly (and securely) connect to the Intranet is another. It was felt that the one barrier to this Intranet access at home is the security risks present when allowing such availability from outside the organization. VP further discussed the need for putting everyone in the organization under the same “information umbrella,” but at the same time doing it in a way that sensitive information stays inside the organization.

Bridges & Glue

LKAB is an organization held together online (and offline) by this conceptual “glue” referred to by Andersen (2001). More specifically, the flow of information within the I-E-I framework is the glue for the organization online. This glue not only provides the bridges between each level, but provides a connection within each level as well, albeit at various degrees of strength. This supports both Andersen (2001) as well as Phairor and Hanmer-Lloyd (2002), who state that it is indeed communication that is the (strategic) glue both within the organization and in its communication outward.

The bridges between each level seem to be fairly weak. There is only limited evidence, therefore, for Anandarajan, *et al.*'s, (1998) focus on the "bridge" aspect between each level. This is where true value can perhaps be created in the future. At the public Internet level, the media and general public (primarily tourists) seem to be the primary focus, with secondary consideration for subsidiaries and students via specific links. From this level a bridge for selected customers to enter the Extranet level is available, with the primary stakeholders being the four customers approved by the selling organization, while secondary ones include all other customers. As for the innermost Intranet level, the primary stakeholders are those in management and administrative positions, whereas secondary stakeholders are those down in the mine actually working with extracting the iron ore deposits. This finding implies that the further down in the organization one goes, the less access such employees have to corporate information made available on the Intranet level.

CONCLUSIONS & IMPLICATIONS

The web connectivity shown in this study demonstrates that when it comes to online communication efforts, there is empirical support for the I-E-I framework. Developing an effective and efficient website strategy within each level is important, but so is the connection between each level. This form of web connectivity provides a strategic approach that serves all potential stakeholder relationships within the value chain, but to varying degrees. Certain levels are not only a priority, but those with access to the various levels are served in different ways. It seems the further you travel into the framework, the greater the value created (at least for certain stakeholder groups). In fact, each layer seemed to break stakeholders into primary versus secondary groups, and the value created for each stakeholder depends on whether that group is primary or secondary. Primary stakeholders at each level have deeper access and a more dynamic experience, versus secondary stakeholders who had limited access/interaction and often a more static experience. Using the inside-out communication strategy suggested by LKAB in developing its website, employees come first at the Intranet level, yet only certain employees had (daily) access. Organizations need to find a way to reach all employees and not just those in management and administrative functions. This is followed by reaching out to qualified customers (at the Extranet level), with the idea that customer-specific information could potentially be of interest to all customers and not just a select few. Finally, at the public (Internet) level, the media, other partners and subsidiaries, as well as the general public and other potential stakeholders (shareholders, scholars, etc.) should all be considered. It is at this level that a more dynamic (useful/entertaining) experience could be created, as has been done on the other (non-public) levels. A means for providing such organizations the tools for doing

this is perhaps the next logical step in gaining a better understanding of B2B website evolution and more specifically how to create value in developing relationships within what has become the online/offline value chain. Could an inside-out, I-E-I approach become the communication “superglue” of online website development and value creation? The answer lies in future research.

Limitations and future research

This communication-as-glue metaphor provides an emphasis on the importance of developing and testing the I-E-I framework in other B2B organizations. Such a framework not only provides managers a tool for recognizing the importance of website design and coordination, but it also provides a conceptual foundation on which other researchers can begin to test empirically, add to, delete from, discuss, and debate. This study in no way attempts to suggest that the I-E-I framework can be generalized to all organizations. The limitation of qualitative, case study research is in its inability to usually generalize in any way. However, by going in-depth, as we did here, such cases, not to mention future research, can provide a continually updated and deeper insight that will help us gain an ongoing and evolving understanding of two areas that are constantly changing and always interlinked: Industrial (B2B) organizations and the Internet they use to create value, both online and off.

Further research should specifically look at web connectivity as it pertains to each level within the I-E-I framework. Like the layers of an onion, each of these three levels needs to be peeled back, one layer at a time, keeping in mind that researching any topic on (or even related to) the Internet is like trying to squeeze a handful of Jell-O: You never know what you are going to get (Jones, 1999). As one example, not only should we open (peel back) the Extranet level more carefully, but we should look at it from the perspective of other stakeholders within that level (i.e. from customers, suppliers, partners, etc.). Of specific interest as a result of this study is the use of Extranets in industrial seller-buyer relationships due to the demonstration of the value created within this relationship in this study. The same goes for the Intranet level, where the usefulness of that level to various types of employees within an organization can shed more light on Intranet development. As for the (public) Internet level, the organization’s portal in cyberspace, many uses and stakeholder perspectives deserve more attention, including how to make the outer (public) face of B2B websites more useful, entertaining, and ultimately dynamic for such stakeholders. In the end, the idea is to create value via the website for the selling organization and its stakeholders at all levels of the I-E-I framework.

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Creating Digital Value:

At the Heart of the I-E-I Framework

ABSTRACT

Type of Paper: Research paper

Purpose

The purpose of this study is to provide a better understanding on the use of websites for creating value in industrial buyer-seller relationships.

Design/methodology/approach

Through an extensive yet not exhaustive review of previous studies on B2B website development, the extranet level of a conceptual model (the I-E-I framework) is tested in an industrial setting in Sweden. Using four research questions as a guide, a qualitative, case study approach is followed in order to uncover both the industrial seller's and buyers' perspectives on the true value of an industrial extranet.

Findings

The findings show that in order for true value to be created at this level, both the seller and the buyer must not only take value out, but also put it in. Value in this setting focuses on information as the heart of true value creation and that the extranet can indeed be considered the “super-glue” of such seller-buyer relationships.

Research limitations/implications

Although the aim of qualitative research is rarely to generalize in any way, it does allow us to go more in depth and uncover detailed clues and descriptions of what is happening in an area of research that is itself dynamic and constantly changing. What practitioners can take from this study is that extranets can be developed to serve and create true value at the (core) seller-buyer relationship.

Originality/value

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¹⁶ For reasons of quality and consistency, the submitted manuscript is provided above, with figures embedded for ease of reading. The final version of the actual article is available at in *Appendix D* or via www.emeraldinsight.com.

Empirical evidence regarding extranets in such settings has been limited. This study helps to fill in this gap and provide a foundation for future research efforts within the area.

KEYWORDS: Extranets, worldwide web, business-to-business marketing, manufacturing industries, buyer-seller relationships, Sweden

INTRODUCTION: *Value creation in a digital world*

Information technology, and more specifically the Internet, provides a myriad of tools for creating value in industrial, or in the wider context, business-to-business (B2B) settings (Vlosky, *et al.*, 2000; Berthon, *et al.*, 2003). In fact, we have entered an “Era of value maximization” when it comes to the Web in such B2B settings (Berthon, *et al.*, 2003, p. 560). Yet the concept of adding value has received little attention in the business marketing literature (Payne and Holt, 2001; Ulaga, 2001; Beverland and Lockshin, 2003), and even less when it pertains to creating value on (or using) the Internet (Vlosky and Fontenot, 1999; Arnott and Bridgewater, 2002). Parasuraman and Zinkhan (2002) add that the need for more Internet research from a B2B perspective is imperative, and that this technological revolution has transformed lives and the way we do business. Yet, according to Deeter-Schmelz and Kennedy (2001), no empirical study since the advent of e-commerce has examined the influence of the Internet as an industrial communication tool. This study aims to make a contribution by filling in the gap that exists within the research area due to a lack of empirical evidence.

Value is in part derived from technology, information, knowledge, and social interaction (Baker, *et al.*, 1998), all of which are key components of the Internet. However, it must also be recognized that doing business in a digital world implies not losing sight of the importance of coordinating online strategies with the ones used more traditionally offline by organizations (Porter, 2001). Sellers in B2B settings are embracing technology-mediated sales communication tools such as websites to reach out to buyers (MacDonald and Smith, 2004). Sharma (2002) explains that if companies do not capture the value that emerging technologies such as the Internet provide, then value will actually begin to migrate from their companies. To overcome this risk, Sharma suggests that firms develop an information platform that encompasses all of the functions of a firm and its partners (i.e. the network of organization including but not limited to suppliers, partners, and customers). The value of such an approach is in information exchange leading to a reduction in exchange friction. This will then allow for an increase in both the efficiency and effectiveness for firms in such a network of business relationships.

The value of long-term relationships

Although it is recognized that little research has been done within the area of online value creation, scholarly research in B2B settings is focusing more and more on the importance of doing so, as this assists organizations in building and maintaining long-term relationships (Beverland and Lockshin, 2003). Even though relationships in B2B settings are often strained (Emiliani, 2003), technology is coming to the rescue and being used to create opportunities for organizations keen on becoming more effective and efficient in such relationships (Sahay, *et al.*, 2003). The use of technology to improve relationships between sellers and buyers, or in any relationship within an industrial network, is pushing organizations to take a more careful look at the use of their websites in creating value for customers (Sharma, 2002), as well as other stakeholders in the value/supply chain network (Fink and Laupase, 2000).

The supply chain today is seen as being an important element in the value creation process (McGuffog, 1997; Dawson, 2002), yet there is a “core” to this network: Ritter and Gemünden (2003) present at the core of a network of innovation partners the focal company, surrounded first by suppliers and buyers, but then also co-suppliers, administration, consultants, competitors, and distributors. For Anderson, *et al.* (1994), the “core” is in fact the buyer-seller relationship, or what they refer to as the focal relationship. Surrounding this core relationship is a number of continuing dyads (business relationships) that connect into a larger business-to-business network. All of this adds up to an ever-changing value chain of inter-organizational relationships. Ulaga (2001) adds that one can investigate value creation at this core (seller-buyer) level from three different perspectives: The seller’s perspective, the buyer’s perspective, or from the seller-buyer perspective. From the discussion above, the purpose of this study is to provide a better understanding on the use of websites for creating value in industrial buyer-seller relationships. In light of the above discussion and the research purpose that results from it, this article will focus on the use of websites only and not broader Internet or IT applications.

LITERATURE REVIEW: *The evolution of B2B websites*

The design of B2B websites is critical (Evans and King, 1999). More specifically, Shoemaker (2001) stipulates that relationships between sellers and buyers can actually be damaged by offering a poorly-developed website. According to Ling and Yen (2001), such sites have evolved from first being developed as general (public) Internet websites, moving on to include new levels, such as employee-only Intranets. Not only are the websites themselves evolving, but the B2B marketer is evolving right along with them (Sharma, 2002). One of the main

opportunities with website design according to Honeycutt, *et al.* (1998) is with regards to how the company and/or product are communicated online. They found that one of the downsides of these B2B sites included the development of what can simply be viewed as dull (i.e. static) websites. Yet little research has been done on establishing models and frameworks for maximizing the interaction between an organization's website and its stakeholders (Fink and Laupase, 2000). Many studies on websites in B2B settings to date have focused on what type of content the site should have (e.g. Perry and Bodkin, 2000; Bauer and Scharl, 2000), the overall website design (e.g. Lord and Collins, 2002; Kim, *et al.*, 2003) or the stages in its development (Arnott and Bridgewater, 2002). Only recently have studies started to look at what truly makes a B2B website more valuable, such as Chakraborty, *et al.* (2003), who asked customers what factors were the most important in using B2B websites. They found that while organization of the website was most important, nontransaction-related interactivity, privacy/security, and how informative the site was were also important. Of relatively little importance were factors such as transaction-related interactivity, personalization, and entertainment.

Yet so many of these studies look at websites as if there was a single layer, when there are actually three broad layers: First, there is the general (public) website mentioned by Ling and Yen (2001), which can also be viewed as the "entryway" or online portal into the organization in cyberspace. Following this is the extranet level, often used for specific, pre-approved stakeholder groups, such as suppliers, partners and/or customers (Lamb, 2003). Finally, there is the innermost intranet level for employees within a specific organization (Ling and Yen, 2001; Lamb, 2003; Chaffey, *et al.*, 2003). In a study that looked at website use from several of these perspectives, Hoey (1998) developed one of the first frameworks focusing on the use of websites throughout a (virtual) supply chain in a B2B setting. Hoey showed that such a supply chain provides its members, through a website, a framework where each member of the value chain not only provides but is also provided information through its own resources (information) and the resources of other members. Through this interaction, the website provides a form of web connectivity. Sharma (2002) shows a similar Internet connection between suppliers, the selling firm, and its customers, referring to it as a "common information platform" (p. 80). However, it was recognized that "web connectivity" according to both Hoey (1998) and Sharma (2002) meant that such a connection existed on only one level. Scholars such as Vlosky, *et al.* (2000), Lamb (2003) and Chaffey, *et al.* (2003), feel that different stakeholders within such a value chain require different access points at the Internet (public), Extranet (specific third parties, e.g. customers, partners, suppliers), and Intranet (employee-only) levels. By combining the work of Hoey (*ibid.*) and Chaffey, *et al.* (*ibid.*), Foster (2004) developed a framework that looked at the use of the

Internet (specifically B2B websites) from the perspective of all three levels across the entire value chain in what can be referred to as the I-E-I framework (see Figure 1).

FIGURE 1: *The I-E-I Framework*
SOURCE: Foster, 2004

The I-E-I Framework can be investigated as a whole but, like an onion, can (and should) be peeled, level-by-level, and within each I-E-I level, layer-by-layer, focusing on the value created for stakeholders across the entire supply/value chain. This study will do just that, focusing on those parts of the framework shaded in grey in Figure 1 above, namely the extranet level and the use of it by a selling organization and its buyers.

The use of extranets in B2B settings

The development of extranet research has been limited at best, and the study of this level represents the next trend in Internet research (Ling and Yen, 2001).

This is not only due to the evolution of the area, but perhaps also due to “access” to such levels being an issue, as gaining access to such sensitive levels of an organization’s online efforts is no easy task. Access, according to Gummeson (2000), is of vital importance in management research. McCune (1998) recognized that very few companies even had extranets before the new millennium. Baker (2000) added that the use of extranets in B2B settings is basically overlooked and underused by most organizations, yet is one of the most important strategic choices an organization can make. The early studies on extranets seemed to focus primarily on the benefits of developing and using one with business partners. McCune (1998) looked at cost benefits, as well as less tangible benefits such as helping customers help themselves and thereby deepening the ties between a seller and buyer. Anandarajan, *et al.* (1998), also looked at the cost-related benefits of an extranet from a value chain perspective, noting that the adoption of an extranet by an organization aids it in three areas: Strategic benefits, tactical benefits, and operational benefits.

Although the early studies made a contribution and pushed both scholars and practitioners to start thinking more about this increasingly important website level, as we entered the 21st century, extranet research grew up: Vlosky, *et al.* (2000) put it bluntly in the first sentence of their article on extranets and their impact on business practices and relationships in B2B settings: “*Add value*” (p. 438). Their overall conclusion was that companies can tailor technologies such as the Internet to their own, unique needs, as well as the needs of others in the value chain. These scholars discussed not only the development of and benefits from extranet use, but went on to discuss the value of extranets in buyer-seller relationships and how they are actually used in such settings. Baker (2000) explained four keys to success in developing an extranet strategy in the form of four functions: First, extranets have always been (and always will be) about information sharing with suppliers, partners, and/or customers; the second function is that, beyond information sharing, an extranet could be used as a strategic form of communication between companies; the third function focuses on providing access to key information application processes (i.e. order entry and production tracking); the fourth function, and possibly most critical according to Baker, is overall security, or the ability to safeguard such information and the way in which it is communicated. From this, Ling and Yen (2001) weighed the advantages versus disadvantages of using an extranet, as well as the use (or applications) of them within sales and marketing, product development, customer service, human resource applications, as well as financial applications.

Starting in 2002, Sharma began to look more at “value” and extranets specifically from a B2B perspective. Taking an evolutionary perspective on the use of the Internet in such settings, Sharma found that value will increase as the users of an

extranet take a journey through various levels of extranet development: Starting with information, then communication, transactions, relationship marketing, and finally e-commerce. The flaw with this thinking is that “value” is only created if something is sold and purchased online, yet in many industrial settings, this is not possible. This is also contradictory to other scholars who feel that information is of much greater value compared to where Sharma places it: Freiden, *et al.* (1998) stated that information itself is a unique and important part of a new concept of “product,” which focuses on an equal integration of tangible good, services associated with, and information included in the “product.” Information, according to Walton (2000), will become the gold of the 21st century.

In 2002 Dubas and Brennan published research on the marketing implications of extranets and webcasting, but again the focus of the article was on the benefits that collaboration among extranet participants (including producers, suppliers, distributors, and customers) brings. It was at this juncture of the literature review that an important question arose: Is what the supplier or buyer receives in terms of “benefits” the only true measure of online value creation? Gummesson (2002) explains that the “value economy” of today means that, “suppliers both produce and consume value...and customers do the same” (p. 587). Phairor and Hammer-Lloyd (2002) focused on the extranet and its profound impact on the way channel members communicate with one another, the value of which is in the improvement of the communication and in the overall relationships themselves (including the putting in of information in order to take it out). Metaphorically, they state that communication is the glue that holds a channel together. Could it be that the extranet has become the “super-glue” of B2B relationships?

Based on the aforementioned purpose of this study, along with the thinking of Phairor and Hammer-Lloyd (2002) and Gummesson (2002), that value is created by both putting something in as well as taking something out, the following research questions emerge as being relevant for this study:

1. What is the *value input* to this online (extranet) environment by industrial sellers?
2. What is the *value input* to this online (extranet) environment by industrial buyers?
3. What is the *value output* taken from this online (extranet) environment by industrial sellers?
4. What is the *value output* taken from this online (extranet) environment by industrial buyers?

METHODOLOGY: *A case study approach*

The methodology employed to collect the data to answer the research questions stated above was an in-depth, longitudinal, multiple-case study approach. This longitudinal approach is recommended by the authors of one of the more recent and extensive studies done to date on technology-mediated communication in a B2B context (MacDonald and Smith, 2004). Longitudinal research is also used when focusing on value creation in seller-buyer relationships (Beverland and Lockshin, 2003). What made this study longitudinal in nature was the fact that the data on the extranet (as well as other levels of the I-E-I framework in this context), was collected over a nearly one-year time period as a part of an ongoing series of research efforts focusing on peeling the I-E-I framework back, level-by-level, layer-by-layer.

The use of case studies is a common approach in B2B research and has been used by various scholars looking at the various levels of websites within such settings (e.g. Anandarajan, *et al.*, 1998; Yen and Chou, 2001). For the purpose of this study, an industrial company with an advanced extranet application was first identified, namely LKAB, a high-tech mineral/mining company in northern Sweden, one of the more advanced IT countries in the world (Deboo, *et al.*, 2003). In early contact with LKAB, a total of four buying organizations within the Nordic region in Europe (i.e. Sweden and Finland) were identified as companies with the only access to LKAB's extranet. Of these four, two buying organizations, along with specific individuals in them, were identified by the sales manager (SM) at LKAB as the most extensive users of the LKAB extranet. The focus on buyers in such situations is of vital importance according to Beverland and Lockshin (2003), who state that to understand "value," one must focus on the customer's perspective and not only the seller's. MacDonald and Smith (2004) support this by asserting that the consideration of buyer reactions to a seller's implementation of technology-mediated communication is vital, as the use of such technology is especially important from a relationship perspective.

CASE 1 will represent the seller's perspective of the extranet. Because such a selling organization has more than one customer, the customer perspective is represented by two of the four buying organizations mentioned above, namely SSAB Oxelösund in Sweden (CASE 2), and Rautaruukki in Finland (CASE 3). These three case studies and the phenomena under investigation, as outline in the purpose, are depicted in Figure 2.

FIGURE 2: Overview of the case study approach used for this study

In case study research, Yin (1994) explains that the use of multiple sources of evidence is very important in order to increase the validity of the findings. Data collection for these three case studies relied upon three sources of evidence: Observation of and interaction with the LKAB extranet; in-depth interviews with those who used it (i.e. key informants within the selling organization and the two buying organizations), and documentation (in the form of anything written that pertained specifically to LKAB's extranet and general website strategies). Those specific individuals who were interviewed will be presented in the findings below. Interviews were conducted both in person and over the telephone, with follow-up via e-mail and phone on several occasions.

THE STUDY: Findings from the three case studies

The findings from the three case studies will be presented following the value in – value out theme of the four research questions, first from the seller's perspective (CASE 1) and then from the buyers' perspective (CASE 2 and CASE 3). In order to gain access to LKAB's extranet, contact was first taken with the Vice President of Public Relations and Quality (herein referred to as VP). Vlosky, *et al.* (2000) used a similar strategy in B2B website research, using e-mail to first establish contact with those in public relations and corporate communication positions in the selling organization. It was VP who presented and discussed all three levels of the I-E-I framework at LKAB, each level developed with certain stakeholders in mind: The Internet (public) level focused on the general public and mass media; the extranet focused on certain customers; and the Intranet on employees at LKAB. From this initial contact with VP, the sales manager for the Nordic region (herein referred to as SM) was made possible. Data from the sales manager in this case is also justified by Shoemaker (2001), who states that salespeople

focus on building relationships that result in connecting customers through the use of extranets.

CASE 1: The LKAB extranet from the seller's perspective

The LKAB extranet was first entered and then experienced through a demonstration by VP, providing a broader overview of LKAB's extranet within the entire I-E-I framework used within the organization. This was followed by a separate demonstration by SM, who provided a more specific and advanced understanding of what a customer actually experiences, which was important before actually talking to those in the buying side case studies. LKAB is primarily in the business of mining and selling iron ore in the form of pellets. Each order of pellets is unique in terms of its intended use, size, makeup, and quality. According to SM, who oversees much of this part of the organization's online efforts, the LKAB extranet is all about giving their four primary customers the information (and interaction opportunities) they need, when they need it, and how they want it. The extranet was developed exclusively with these primary customers in mind. These customers were used early on in the extranet creation process as a sounding board and testing ground for online collaboration and the development of this level of LKAB's I-E-I framework. The LKAB extranet efforts for its Nordic customers is not about "placing orders," as iron ore cannot be bought, sold or shipped over the Internet. Instead, other value-added efforts are being made and coordinated, both online and offline, to enhance the industrial seller-buyer relationship. As SM explained, "We are 98% product flow, 2% information flow." He added, however, that the information is a vital part of the seller-buyer relationship and it is seen as a true value-added service. The key is being able to coordinate these online-offline efforts as a means for truly serving the customer. Everything that LKAB does for its customers online is based on what the customer has asked for. From their offline discussions with their customers, LKAB's extranet was developed around three primary areas: Physical needs, IT applications, and customer data. SM feels that what they make work within these Nordic relationships can be a means for possibly attracting new customers in the future, providing LKAB with a dual offline (the quality of their iron ore) and online (the value-added information services) competitive advantage.

For their *physical needs*, LKAB has developed an offline form of value: "The Experimental Blast Furnace." To process the pellets that LKAB sells, blast furnaces at steel plants are used to melt and develop the steel to be sold further sold to industries dependent on it. Shutting down a blast furnace to "test" something or even for routine maintenance is a costly and risky venture. A "miniature" version of an actual blast furnace was developed by LKAB to be able

to run tests which relate to improving the effectiveness and efficiency of forging steel. Although LKAB sees the blast furnace as a “magnet” for both potential customers as well as a means for taking care of their existing customer relationships offline, their website (online) is seen as a “magnet” for getting this part of the value chain involved in their extranet. They do this by (briefly) discussing the furnace and its potential to offer rich, customer-specific information at the public (Internet) level of their main website, lkab.com. According to VP, the problem with this being launched and used today revolves around online security issues: Each “test” of the blast furnace produces customer-specific data, and this information needs to be shared with that customer only. Although SM also sees incredible value being created by sharing information online via an extranet application, the security risks that both LKAB and its customers feel is always present prohibits this information from going online at the present time.

Regarding *IT applications*, SM logged on and showed the depths of their extranet application as if he were a customer (an actual recent iron ore order was used as the example while we were online). It was explained that, from the customer’s perspective, the extranet is basically an order-tracking IT application, with certain features that are used to create value in the relationship for both sides throughout the respective selling and buying processes. After logging on, each customer will come to their own personalized “extranet” site. Once there, the customer can then click on “Delivery Info,” “Contact Info,” and “CRM”. SM explained that the speed and access to this information is of key importance to customers, and what they feel is lacking now is “one-click” access to the information they want. Once they click on any of these three areas, the customer is then able to go deeper into that area to interact, obtain information, and even supply information back to the LKAB. This includes several main categories from which to choose, including “subscribing” only to those value-added services they are interested in. This menu of choices includes “Delivery Information,” which includes information on where the shipment is in the delivery process or the ability to change vessels to speed up the process; “Document Services,” which offers risk analysis, protocols, PowerPoint presentations, and process overviews; “Remarks,” which is an area where the customer can leave complaints and other postings. SM feels that this is the most important part of the extranet, as it allows for a true, interactive service that provides information to and from LKAB and its customers. Finally, there is “Special Info,” which allows for more group-oriented – i.e. multiple customers – to receive information of interest to all of them.

Regarding *customer information*, this is what SM feels will truly make a difference in allowing LKAB to use the extranet to provide customer-specific information to create true value. Here SM would like to allow LKAB to obtain

real-time access to each customer's data online in order to not only avoid problems, but take advantage of opportunities as they develop. This, according to SM is more of a future objective online rather than a current reality. Included in this future goal would be the ability to create online value in the form of data that originates from offline value being created through the use of a true competitive advantage for LKAB, such as the experimental blast furnace discussed earlier. Again, the sensitivity to such data and the security needed to keep it safe keeps LKAB from allowing such customer-specific information to be placed online at this time.

CASE 2 & CASE 3: The LKAB extranet from the buyers' perspective

For each of the buying side case studies, SM provided specific names of those individuals he thought were relevant to start talking to, as they were identified as the main users of the LKAB extranet within the respective buying organizations. In each case, SM provided someone in an active purchasing role, as well as someone in a more technical non-purchasing role. In both cases, this could be seen as providing a perspective on the use of the extranet from someone in a pre-purchase position and someone in a post-purchase position. At SSAB in Oxelösund, Sweden (CASE 2), the purchaser of raw materials, who negotiated the orders with LKAB and saw to it that LKAB delivered what they agreed to, was interviewed, along with another person more focused on post-purchase issues, namely the person in charge of raw material planning. The buying case at Rautaruukki in Finland (CASE 3) included the purchasing manager (pre-purchase) and the production manager (post-purchase).

As was presented in analyzing the seller case data, analysis of the buyer side interviews also supports the idea that there is not only the value taken out of the LKAB extranet by buyers, but there is also the value they put in to it. In terms of the value they take from using the extranet, the primary value identified in both cases was time saved, which seems to be among their most important reasons for using the extranet. In both buying side case studies, saving time makes their work more efficient. Efficient for them implies a proper use of resources such as time, which also implies money and energy (i.e. work), as they are using such company resources to obtain and use the information they take out of the extranet. However, efficiency is only half the equation. They must also have the right kind of information, and this they feel they are getting when it comes to the IT applications made available by the extranet. Part of the right information comes from the information being more dynamic in nature. Examples of more dynamic data included being able to review a contract signed for a specific order with LKAB, being able to obtain information about the ore itself, as well as the logistics behind the actual shipment, including the ability to change vessels to get

the order delivered faster or to avoid delays. Furthermore, in both cases, old data that used to be saved on their own computers or placed in paper form in an archive somewhere on their office shelves was now permanently available on the extranet, a service that was greatly appreciated. This implies that the extranet is also effective. This mix of increased efficiency (saved time, money, energy, etc.) plus being effective (i.e. getting the right information in the right way) is perhaps where true buyer side value in B2B extranets resides.

One interesting finding across both cases was that the pre-purchase (i.e. both purchasing managers at each company) were more positive regarding the extranet, either in terms of specific features they liked and/or in being more likely to use it. The post-purchase (“technical”) buying team members seemed more negative towards its use: Either they used it less or found aspects they simply did not like. Some of this is based not only on preferring the “old way” of receiving information (i.e. over the telephone or via fax), but also in terms of the effort it took to obtain the information they needed. As one post-purchase buying team user of the extranet explained, the first IT efforts by LKAB were not extranet based, but instead relied upon the use of e-mail. Via e-mail, information about the ore and its shipment was sent regularly, meaning the person on the buying side got the information without having to request it or look for it once they received it. This meant they had to use only one click to open the e-mail before the data was in front of them. With the extranet, e-mail is used now only as a “warning” device that new information is available (click number one), followed by the need to log-on to their specific extranet site (which meant a second click plus filling in username and password info), followed by going to that part of the extranet where the shipping info they might be interested in resides (clicks three and possibly more). One suggestion was that a link within the e-mail being sent allows them to utilize an auto log-on to the extranet that takes them directly to specific types of information. The e-mail, in that sense was a “menu” of information that allowed, by one-click access, an auto log-on to the extranet and a route directly to that information they clicked within the e-mail.

Yet value output (what the buyers take out of the extranet) was only half of it. In terms of value input, what buyers in this setting put into the extranet includes providing information and making known their extranet habits. These buyers are providing LKAB the potential to become more proactive in meeting their needs and solving their problems as customers, which in turn makes LKAB more efficient (use of resources) and effective (giving the customer what they want, sometimes before they realize they even need it). This can come in the form of eventually being able to have access to offline value being delivered online in the form of information about the results of tests on the experimental blasting furnace or getting the customer used to leaving more information in the “remarks” section,

be it a suggestion, complaint, observation, or even a compliment. None of those interviewed in either buying side case study regularly used the “remarks” section of the LKAB extranet, hindering LKAB from not only getting the information, but using it to identify patterns of problems across all of its relationships, which would allow them to become more proactive. In the end, the use of the extranet by the buyers resulted in more satisfied customers through the value added services provided by the efficiency and effectiveness of the information obtained.

CONCLUSIONS & IMPLICATIONS

This article set out to provide a better understanding on the use of websites for creating value in industrial buyer-seller relationships. Through an extensive yet not exhaustive review of previous studies on B2B website development in general, and more specifically the use of extranets, four research questions emerged. These research questions provided a methodological foundation from which empirical evidence could be obtained from an industrial setting in Sweden. Using within-case as well as cross-case analysis (Miles and Huberman, 1994), findings were compared not only with the theory on extranets reviewed, but between the cases as well. From this, the following specific conclusions and implications for future research are provided.

In general, access to the extranet was exclusive to those buyers geographically and culturally closest to the selling organization. It seems the farther away buyers were in the real world, the less access they had in the digital world of cyberspace, at least at the extranet level of this seller’s I-E-I framework. Of particular interest was the finding that within the buying organizations, there was more use (and therefore value) of the extranet by the pre-purchase member of the buying team versus the post-purchase member in that same team. There is not indication as to why this is, leading to the question, is it the role within the buying team that determines extranet use or is it the individual characteristics (i.e. background, personality, etc.) of the member within that team? This of course deserves more research.

Value IN – Value OUT

In order for a stakeholder to take out something of value from the (extranet) level they have access to, they must in turn put something in: For the industrial seller in this study, time, money, effort and talent are all a part of putting the value-added service it provides to its customers. What the seller takes out is a more satisfied customer and the opportunity to become proactive in handling customer problems versus only reactive. The extranet is not the “crystal ball” they might want, but it’s the next best thing. In the end, the industrial selling organization gets out of

their input an improved relationship with its customers in what is becoming an increasingly competitive environment. They are also able to better serve their customers' needs while at the same time saving resources, as the speed to react to customer needs or problems is greatly increased via the use of the extranet.

Industrial buyers also have value inputs into the extranet: Their use of the extranet provides the seller information through not only downloading order-specific information, but also other types of documentation that otherwise required them to save on their own computer or in a notebook on an office shelf. For industrial buyers, time, which they consider highly valuable, is not only put into using the extranet, but they also take out (i.e. save) time. In general, what industrial sellers get out of this extranet is the value of having the right information (current, order-specific information as well as historical data), at the right time (i.e. right now), and in the right way (never more than a few clicks away, with e-mail reminders of when new information is available, or perhaps in the future, via a web link directly from the e-mail with no log-on necessary).

Taking the portion of the I-E-I framework shaded in grey as presented earlier in Figure 1, namely the use of the extranet level of the framework by industrial sellers and buyers, the findings from the case studies presented above results in an online/offline value input-value output relationship between industrial sellers and buyers. The result of this is the development of a B2B online value-creation model shown in Figure 3.

FIGURE 3: *Creating online value in industrial seller-buyer relationships*

The “wedding band” visualization shown on both sides of the B2B online value-creation model above is no accident. It demonstrates that, as in other forms of legally-binding relationships (e.g. “marriage”), where a formal contract is put in writing and an informal one (trust) is often taken for granted, both sides of this relationship must work together and each should have something to offer if true value is to be created. The findings of this study indicate that both seller and buyer must, in order to take out value, collectively and/or individually provide it as well. The model also represents the importance of the link between the online and offline environments, supporting Porter’s (2001) contention that true value is created when integrating the Internet into overall (including offline) strategy. The spiral effect of value emanating from both the online world and the offline world shows that the value input of the industrial seller becomes the value output of the industrial buyer, while the value input of the buyer becomes the value output of the seller. Such a spiral could also provide a basis for certain value inputs and outputs being preferred over others, as was found in this study. In support of Chakraborty, *et al.* (2003), organization of the website, nontransaction-related interactivity, privacy/security, and how informative the site was were also important, whereas transaction-oriented interactivity and entertainment value were not. This also implies that the argument from Sharma (2002), i.e. that “information” was of the least value, needs to be reconsidered. Regardless of where one starts, be it with the selling or buying organization, and regardless of

whether it is an input or output, the idea is simple: The more value that is provided and used between the seller and buyer, coming from both online and off, the more “*true value*” (seen at the heart of the model) is actually developed.

What binds industrial sellers and buyers is metaphorically laid out by Phairor and Hammer-Lloyd (2002): The extranet in this study can in fact be seen as the communication “super-glue” that brings together and creates mutual value between both sides of this focal seller-buyer relationship, but only if both are willing to create value and not just become the beneficiary of it. The extranet is indeed the heart of the I-E-I framework. What remains to be seen is if this “super-glue” holds for other relationships throughout the value chain network and within the other layers of the I-E-I framework.

The future of extranets and the I-E-I Framework

The scholarly contribution of this article, as discussed above and resulting in the B2B online value-creation model, is of no use if it does not also somehow add something to those running (or considering to start up) an extranet as a part of their own corporate I-E-I framework development. What practitioners can take from this study is that extranets can be developed to serve and create value at the (core) seller-buyer relationship in such B2B settings. It can also serve to enhance other relationships with suppliers, partners, investors, etc. Yet it must be kept in mind, value is a two-way street: You get out what you put in. This of course deserves future research. There are more value inputs and value outputs to be discovered, discussed and debated, as this article only got things started.

This look at the heart of the I-E-I framework, in this case the core industrial seller-buyer relationship, is but one example and is presented here as a starting point for future research. As all research should, it likely gives rise to more questions versus providing answers. Based on a qualitative, case study approach, limitations of course exist, the main one being the generalizability of the findings. Although the aim of qualitative research is rarely to generalize in any way, such research does allow us to go more in depth and uncover detailed clues and descriptions of what is happening in an area of research that is itself dynamic and constantly changing. Keeping up with it means taking a continual look at other extranet applications as they pertain not only to industrial seller-buyer relationships, but to other channel relationships as well, regardless of whether such relationships exist on the innermost Intranet level, the Extranet level, or the outermost (public) Internet level. Other examples of and uses for the extranet level are out there and must be shared in order to gain a continuing understanding of how the Internet is used as a marketing (communication) tool to create value for all stakeholders in this ever-changing digital world we live in.

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3.2.3 ARTICLE 3

Making sense of a handful of Jell-O

The role of the Internet in qualitative research

ABSTRACT

Type of Article: Research paper

Purpose

The purpose of this study is to provide a better understanding on the role of the Internet in qualitative research.

Methodology/Approach

The background provides a foundation for the statement of two research questions: How can the ontology/epistemology of cyberspace be characterized? What qualitative methodological approaches are of use on/within the Internet? Using the research questions as a guide, a review of the literature provides an online/offline qualitative research framework. The framework is then empirically tested using a single, longitudinal (10-year) case study approach.

Findings

The framework and findings from the paper highlight the importance of developing a “cyber worldview” in addition to one’s traditional (“real world”) scientific paradigm, as well as the need for researchers to act in a chameleon-like (“researcher as bricoleur”) way in order to adapt to the environment(s) that their research takes them, as well as the process they follow, be it online and/or off.

Research limitations/implications

As with all qualitative research, the aim of this study is not to generalize in any way, but instead to offer insight and understanding on a particular phenomenon. This paper only highlights the opportunities of qualitative research that focuses on the Internet as an area of study and/or uses it as a research tool. This only opens the door to further discussion, debate, and empirical testing.

Practical implications

Others may find application of the findings in practical, non-scholarly qualitative research approaches as well (e.g. marketing research).

Originality/value

The framework presented highlights the importance of a partnership existing between online and offline qualitative research efforts and provides a forum by which other scholars can add to, delete from, discuss and debate.

KEY WORDS: Internet, qualitative research, paradigm, ontology, epistemology, methodology; research process

INTRODUCTION

Just when we thought it was safe to go a little deeper into the realms of qualitative research, the Internet comes along and provides a whole new set of circumstances that we must deal with in our pursuit of a deeper understanding of any number of worthy phenomena, both online and off. Is the Internet affecting the way we approach qualitative research? The Internet has in fact spawned a research revolution (Nancarrow, *et al.*, 2001; Hine, 2003). It has done so in two primary ways, namely the Internet as a focus of our research, as well as a tool used in conducting it (Jones, 1999; Mann and Stewart, 2000; Hine, 2005). However, as Jones (1999) explains, the Internet as a focus of our research as well as an instrument used in conducting it is a bit like getting a grip on a handful of Jell-O¹⁷: “The more you squeeze, the more it changes shape” (p. 12).

The Internet as a focus of study is a challenge because technology is evolving and changing even as you are reading these words. How do we keep on top of something when it is evolving at such a rate? What is the value of research that risks being outdated before we even submit it for review? While so many scholars are screaming for more research on (or using) the Internet, others are saying it’s outdated before we are finished writing the first draft of a paper. It is the general aim of this paper to attempt to alleviate this paradox, or at least confront it. However, before we look at qualitative research as it relates to the Internet, let’s briefly look at the value of qualitative research in general.

Traditionally, qualitative researchers, at least in the management/marketing arena, have faced an uphill battle in attempting to make any sort of scholarly contribution (Gummesson, 2001). Denzin and Lincoln (1994) speak of the ongoing academic and disciplinary resistance to qualitative research. Gummesson (2000) supports this by stating that qualitative methodologies, and more specifically the use of case studies, provide powerful tools for understanding business subjects, yet many in academia continue to oppose their use. Gummesson (*ibid.*) continues that qualitative methods are used only to a limited degree to study such phenomena in business studies, including but not limited to a more specific focus on such areas as management, marketing, organization, corporate strategy, accounting, and more. In another scathing commentary on the

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¹⁷ For those of you outside North America, “Jell-O” is a brand name of gelatin dessert that is often clear, colorful, and “squishy” (i.e. if held in the hand and squeezed, it would ooze through your fingers).

state of qualitative vs. quantitative research today, Gummesson (2001) said, in a “visit to Methodologyland” (p. 29): “I do not subscribe to the assumption that words are unreliable and fuzzy and merely preliminaries to numbers, which are precise and uncover the truth...All (approaches) are languages that represent phenomena with different symbols and a different grammar; all have strengths and weaknesses, and they cannot be ranked in order of excellence” (p. 28).

Qualitative research and the Internet

Nancarrow, *et al.* (2001) look at the Internet as a new research medium for both practitioners and academics, as well as for those doing quantitative or qualitative research. However, to date, there is very little scholarly discussion on qualitative research as it pertains to the Internet, as most of the qualitative research articles have focused on practical (marketing/business) research applications (e.g. Sweet, 2001; O'Connor and Madge, 2003). Hine (2003) explains that due to the revolutionary nature of the Internet an ethnographic methodology is ideal, with “ethnography” (p. 41) focusing on the researcher (ethnographer), participating, either overtly or covertly, in people’s daily lives over an extended period of time, watching, listening, and asking questions...”*In fact, collecting whatever data are available to throw light on the issues that are the focus of the research*” (ibid.). Hine concludes that an “adaptive ethnography” (p. 154) be developed for us as researchers, to suit the individual needs of the study each of us undertakes.

Jones (1999), referring to our scholarly focus on the Internet (and all that relates to it) as a research area and as a “social space,” states that although the Internet is often experienced, it is nonetheless difficult to translate and express. He explains that this is perhaps because there are things wrong with some of our research on the Internet and that until only recently has the online world provided an array of new possibilities and pitfalls for the qualitative researcher. He adds, however, that it is this very discourse that allows academics and researchers to build multiple perspectives, and that this diversity in perspectives is appropriate to the reality of the Internet. This paper will present one such perspective, a perspective built upon a multitude of experiences from several years of qualitative research, both online and off. This paper in fact is the culmination of a decade-long journey (ca 1994/95 – 2004/05), the first decade of the commercialized Internet (Answers.com, 2005).

More recently, Schneider and Foot (2005) explain that, “...*the web necessitates reconsideration of traditional research methods and the development of new ones*” (p. 157). Hine (2005) adds that the Internet indeed provides significant challenges to the understanding of research methods today.

Qualitative research: Online and off

Guba and Lincoln (1994) explain that qualitative research revolves around three fundamental questions: *The ontological question*: What is the form of nature and reality and, therefore, what is there that can be known about it? This question revolves around the premise that we hold a certain “worldview” (paradigm) on how things really are and how things really work. This is supported by Gummesson (2000) who states that how a researcher relates to their object of study revolves around that researcher’s paradigm – the underpinning values, procedures, and rules that govern their thinking and behavior as researchers. However, this “worldview” must now include a “New World” known as cyberspace (Jones, 1999).

The epistemological question: What is the nature of the relationship between knower or would-be knower and what can be known? This question is constrained by (related to) the answer given in the first question. This too is supported by Gummesson (2001) who states that, “...the researcher is the number one research instrument” (p. 28). Finally, there is *the methodological question*: How can the inquirer go about finding out whatever he or she believes can be known? The fundamental curiosity that sparked this paper was whether or not these three fundamental questions regarding qualitative inquiry apply to research on the Internet as well. In a study that used these three questions as a guideline and developed a framework for traditional, offline qualitative inquiry, Foster (1998) outlined a process by which qualitative research could be approached (see Figure 1).

FIGURE 1
A traditional (offline) framework for qualitative research

SOURCE: Adapted from Foster, 1998, p. 81

In this model, a *worldview* (ontology + epistemology), or research paradigm, influences the type of research path taken, in this example a six-step *methodological process*. The model above relates to what Guba and Lincoln (1994) explain: “Questions of method are secondary to questions of paradigm, which we define as the basic belief system or worldview that guides the investigator” (p. 105). This is further supported by that fact that Gummesson (2001) sees methodology as a process. Even individual, qualitative, case study research projects are presented as a process in some of the top journals (e.g. de Weerd-Nederhof, 2001).

The results of that *methodological process*, namely the empirical findings and conclusions drawn from the analysis of such findings, are judged on what should be a solid foundation of *quality standards* (Foster, 1998) or quality criteria (Morse, 1994; Jensen and Rodgers, 2001) for a specific body of research. Yin (1994) calls this foundation validity and reliability. From these three fundamental questions raised by Guba and Lincoln (1994) and by using the framework developed by Foster (1998), the specific *purpose of this study is to provide a better understanding on the role of the Internet in qualitative research*. In order to reach this purpose, the following research questions are posed (a discussion of the “quality criteria” from the above framework will be reserved for future studies):

RQ1: *How can the ontology (and thus epistemology) of cyberspace be characterized?*

RQ2: *What qualitative methodological approaches are of use on/within the Internet?*

In order to answer these research questions, we first turn to a review of the previous research conducted within each respective area, namely the ontology of cyberspace as well as the methodological approaches taken when it comes to research on the Internet or using it as a tool to conduct research.

PREVIOUS RESEARCH

The ontology of cyberspace

Two primary issues should be considered by qualitative researchers when it comes to research on or within cyberspace: First, how does the researcher view “cyberspace”? Second, based on that “cyber worldview,” which scientific paradigm (in this case, we’ll use a positivist versus non-positivist discussion) best supports an overall approach to conducting research on the Internet (or at least using it as a tool for conducting qualitative research)? It is a scientific paradigm that holds for the researcher a basic set of beliefs that defines, for its holder, “the

nature of the world, the individuals place in it and the range of possible relationships to that world and its parts” (Guba and Lincoln, 1994, p. 107).

Traditionally, “the world” did not need to be defined in such discussions. However, as stated earlier, cyberspace is considered a “New World,” one that we enter and interact with, where the context of what we are researching as well as how we go about doing it is both similar to and at times very different from the “real world” we are used to conducting our research (Jones, 1999). While some researchers may look at “cyberspace” as just a bunch of computers, or a collection of 1’s and 0’s, other scholars in fact support this emerging (or alternative) worldview of “cyberspace” being more than just a catchword but in fact an alternate/additional form of reality, in addition to the view we hold of the real world. So what is “cyberspace” and how can it be defined within the scope of our qualitative research efforts?

Defining cyberspace

As Jones (1999) sees cyberspace as a “New World,” a “New Frontier” where what we are researching and how we go about researching it are both similar to but also very different from what we are used to in the “real world.” According to the an on-line Internet glossary (cnet.com, 2001), *cyberspace* refers to the virtual world of computers and the society that gathers around them, as first referred to by William Gibson (1984) in his fantasy novel *Neuromancer*. This definition also states that *cyberspace* is what many loosely refer to as virtual reality, the Internet, the World Wide Web, and many other kinds of computer systems that users become immersed in. This is also the “world” that has been recognized and has become the focus of scholarly research in management and marketing (Honeycutt, Flaherty, and Benassi, 1998; Evans and King, 1999; Zineldin, 2000). However, in order to expand on what could be considered a rather narrow focus on what cyberspace represents, views by other scholars on what this new world represents were also considered.

In one of the earliest scholarly references to *cyberspace*, Benedikt (1992) offers that it could be considered as, “A new universe, a parallel universe created and sustained by the world’s computers and communication lines. A world in which the global traffic of knowledge, secrets, measurements, indicators, entertainments, and alter-human agency takes on form: sights, sounds, presences never seen on the surface of the earth blossoming in a vast electronic night” (p. 2). In discussing the work of contemporary theorist Jean Baudrillard, Nunes (1995) explains that cyberspace is no longer “fictional,” but instead represents a sort of cybernetic train, working to undermine the symbolic distance between the metaphoric and the real, abandoning the “real” for the “hyperreal.”

From these early references to cyberspace, Gibson (1984), Benedikt (1992) and Nunes (1995) begin to lay the groundwork for the legitimacy of a “New Frontier” known as cyberspace. Although not referring to cyberspace per se, Denzin and Lincoln (1994), in their extensive writing on qualitative research, state that new, electronic worlds will change the concept of community (and therefore how we go about trying to understanding it). According to Goldberg (1998), cyberspace is a world where electronic technology interfaces with the human mind into a continuum of consciousness. Nunes (1999) adds that, “Naming cyberspace reveals and creates a virtual location for actual experiences...for millions of users, cyberspace already ‘exists’ as a place, as real as the work and play conducted ‘in’ it” (p. 1).

Yet, depending on their own perspectives, other scholars have provided hints as to their views on what cyberspace is or represents: Hoffman and Novak (1996) refer to computer-mediated environments (CMEs) as a place where sellers and buyers do not have relationships with one another, but each with the CME. Ranchhod (1998) states that the Internet as a “frictionless business environment,” is theoretically possible, while Cass (1998) concludes that the Web is not only an expression of being, but also a mechanism for being-in-the-world and being-with-others. Johnston and Johal (1999) add that, from their perspective, the Internet is a “virtual cultural region.” Suler (1999) discusses a new dimension of human experience opening up, focusing on cyberspace as a sort of psychological or transitional space that is an extension of the individuals intrapsychic world – a zone between self and other.

Within the management and marketing-related literature, several scholars also view cyberspace as a “new world.” Steinbock (2000) explains that the Internet represents the first evidence of a true information society – a social space made up of and made possible by communication (the cornerstone of community and society), or what can be referred to as a “virtual *marketspace*” (p. 8). Gonchar and Adams (2000), in considering the role of cyberspace, refer to it as an online world, where it is possible for individuals to live in two worlds, the real (or physical) world and the virtual (or cyber) world, simultaneously. Glaser (1997) discusses the real versus virtual worlds as they pertain to marketing and supply chain management. Riva and Galimberti (2001) discuss cyberspace as a universe made up of things that can be seen and heard, but they are neither physical objects nor are they even a representation of a physical object. Mantovani (2001) presents the social model that builds the Internet as a space for the coming together of people, not information. Even scholars focusing on the Internet and qualitative research specifically refer to “virtual worlds” (e.g. Mann and Stewart, 2000, p. 4). However, recognizing that other scholars see cyberspace as a “New World” (or at least an extension of the real one) is only a first step. We now turn

to discussing an offline, post-positivist paradigm that seems to fit best with allowing us as researchers to cross over between the “real world” and this “New World.”

Example of a potential (cyber) paradigm: Constructivism

A scientific paradigm, or belief system, focuses on a myriad of alternative inquiry paradigms (Guba and Lincoln, 1994). Whether one is a positivist, post-positivist, critical theorist, or constructivist, just to name a few competing paradigms, and in following the ontological, epistemological, and methodological comparison of these four paradigms by Guba and Lincoln (1994), there is room for all research approaches in cyberspace. However, within the boundaries of qualitative research and in agreement with Jones’s (1999) idea that research on the Internet is like getting a hold of a handful of Jell-O – you just don’t know what you will get – the constructivist paradigm is highlighted and discussed here as an example of a potential paradigm that could work offline in the “real world” as well as online in cyberspace.

Guba and Lincoln (1994) explain that, ontologically, a constructivist sees reality as being specifically constructed and highly subjective. There are multiple and sometimes conflicting realities that are the product of human intellects, and these may change as the constructor becomes more informed and sophisticated. Constructions are not more or less true, but instead should be looked upon simply as less informed and/or sophisticated. In terms of the epistemology of the constructivist, Guba and Lincoln (ibid.) stress that reality is created in the interaction between the investigator and the respondents (or phenomena under study). In agreement with Gummeson (2000), gaining a better understanding through qualitative inquiry involves several sources including ones own preunderstanding as well as the experience of others. Preunderstanding includes ones own personal experiences, the experience of others, as well as other intermediate forms of information (textbooks, lectures, courses, teaching, etc.). With this look at the combined paradigm of constructivism (traditional worldview) as well as how we view cyberspace (cyber worldview) as being important for online qualitative inquiry, we now turn to a look at previous research on research question two, namely the methodological approaches (or process) in the “New World.”

Methodological approaches in the “New World”

Denzin and Lincoln (1994, p. 2) present a “Researcher as Bricoleur” approach to research that allows for a great deal of flexibility for researchers, ideal for switching between online and offline research efforts. The bricoleur (the

researcher) produces a bricolage, or a pieced-together set of practices that provides a solution to a problem (or problems) and is based on the use of multiple methodologies. According to Denzin and Lincoln, the qualitative researcher-as-bricoleur uses the tools of his or her methodological trade, using whatever strategies, methods, or empirical materials are at hand. This eclectic approach allows the researcher to, "...perform a large number of diverse tasks, ranging from interviewing to observing, to interpreting personal and historical documents, to intensive self-reflection and introspection" (ibid., p. 2). This is also deemed the best approach in trying to obtain a better understanding on the use of qualitative research on and within cyberspace, as well as any efforts one may employ in offline research efforts. This is supported by Miles and Huberman (1994), who explain that qualitative research can be conducted in literally dozens of ways and that it is actually more, "craft than a slavish adherence to methodological rules" (p. 5).

Gummesson (2001) also supports a researcher-as-bricoleur approach by proposing the use of what he refers to as Interactive Research, which combines the approaches used in case study research, grounded theory, anthropology/ethnography, action research, and narrative research. Put another way, the researcher-as-bricoleur focus allows for researchers to become chameleon-like in their ongoing efforts in a world of both online and offline research efforts. To look at this more specifically, we will take a brief, theoretical look at each of the six steps outlined in Figure 1 above. It should be noted that it is recognized that these are not the only "steps" other researchers may follow, but for this study it provided a starting point.

The qualitative research process: An online/offline partnership

In using the qualitative methodological process outlined above in Figure 1 as a guideline for this study, each of the six steps provide the opportunity to discuss the issues that have become important as they pertain to qualitative research online. The first step in qualitative research is to state the overall ***purpose*** of one's research. Foster (1998) focused on the three potential purposes of research to be explore, describe and/or explain. The purpose of qualitative research, and within it more specifically case study research, is to focus on being able to describe, understand, predict and/or control the individual process, animal, person, household, organization, group, industry, culture, or nationality (Woodside and Wilson, 2003). Hamilton (1994), however, poses the question, "Explanation or Understanding?" (p. 63) in discussing the traditions, preferences, and postures of qualitative research, with the emphasis being on qualitative research leading to understanding (instead of prediction and control). Perhaps the best guide to date is Gummesson's (2000, p. 35) iceberg metaphor, which he explains as follows: An

iceberg is known to show only 10-15 percent of its mass above the surface of the water. Are researchers comfortable with looking at only that portion of the (company) that shows itself when watched from above (the helicopter view of economists)? Or are they satisfied with the access gained through the questionnaires and personal interviews of employees – the most common survey techniques used in the social sciences – where they at least set foot on the iceberg? Or should researchers aim at a close-up of the remaining 85-90 percent by going deeper, under the surface, mobilizing more resources and getting involved in order to better understand?

Research approach, the second step in the research process, focuses on the decision to use either a quantitative or qualitative approach, as one can explore, describe and even explain with either approach. However, in following the purpose of qualitative research outlined above by Hamilton (1994) and Gummesson (2000), we will simply state here that a discussion within this area, and more specifically on the use of quantitative research on/within the Internet, must be delegated to future research. Our focus here is the qualitative research perspective. This can become more specific via Hine's (2003) view that the development of a virtual ethnography pushes us as researchers (or "ethnographers") to have a story to tell...a story of what we have encountered in the field.

As for the third step, **research strategy**, several scholars within qualitative research have become proponents of case study research (e.g. Yin, 1994; Hamilton, 1994; Gummesson, 2000; Jensen and Rodgers, 2001; Woodside and Wilson, 2003). When it comes down to it, case studies are what you make them: They depend entirely on the entity under study, be it an organization, a decision, a department, an agency, a person, an institution, a policy, a process, a city, state or country (Jensen and Rogers, 2001). According to de Weerd-Nederhof (2001), although case study research can be either qualitative or quantitative, the use of the case study strategy in qualitative research is extremely valuable. This is supported by Woodside and Wilson (2003) who explain that a new definition of case study research allows us to achieve a deep understanding of processes and other concept variables such as actors' perceptions of their thinking processes, their intentions, as well as various contextual influences.

In conducting case studies, Yin (1994) lists six potential sources of evidence as a means for **data collection**: Documentation, archival records, interviews, direct observations, participant observation, and physical artifacts. All of these are available both online and offline. *Documentation* includes but is not limited to letters, memoranda, other communiqués; agendas, announcements, minutes to meetings; other written reports; administrative documents (e.g. proposals,

progress reports, other internal documents); formal studies; newspaper clippings and other news from the mass media. *Archival records*, which are the same as documentation but often more precise and quantitative could include but not be limited to organizational records (annual reports; financial statements); maps and charts; list of names/contacts; survey/research data; personal data (information specific to an individual person within the organization). All of the items listed above have always been available and used offline for the qualitative researcher.

Interviews are another source of evidence suggested by Yin (1994). Interviews can be face-to-face or at least voice-to-voice (i.e. over the telephone), and Yin discusses them as being open, focused or structured. Interviews are among the most common data collection tools used for qualitative researchers, as it often provides the richest detail in terms of the “How” and “Why” that we often seek in our research. The primary tools for the qualitative researcher, according to Gummesson (2000) are qualitative (informal) interviews and observation. Yet electronic interviewing or “virtual interviewing” is being utilized more and more (Fontana and Frey, 2000, p. 666). *Observation* according to Yin falls into two categories: First, there is *direct observation*, where the event occurs in real time and is often used in providing additional information about the topic being studied: If you are interviewing someone, what do you observe in their facial expressions and/or behavior as they speak? If face-to-face is not possible, then what do you “observe” with your ears in terms of their tone of voice? Yin states that *participant observation* is when the researcher is also immersed in what is being studied and not simply a passive observer, which makes your vantage point and therefore your perspective completely different, as it affords the same advantages of regular observation but also insight into more interpersonal behavior and motives. Finally, there are *physical artifacts* as a source of evidence. Yin refers to “physical” or cultural artifacts as being a technological device (which the Internet is), a tool or instrument, a work of art, or some other physical evidence.

The fifth step in the qualitative research process is ***sample selection***. Gummesson (2000) explains that the number one challenge to many qualitative researchers is, “Access to reality” (p. 14). Here he discusses the importance of access, which he defines as the opportunities involved in finding empirical data (“real-world data”) and information. It is the collection and analysis of this data that affords the qualitative researcher the chance to draw conclusions. Miles and Huberman (1994) add that in qualitative sampling, purposive (vs. random) sampling is often employed and that such samples do not need to be completely pre-specified but instead can evolve as the work unfolds. They add that it is important that qualitative studies have specific boundaries and utilize a framework that outlines what it is you want to specifically investigate.

Data analysis, the final step in the methodological process, means making sense of the data. Miles and Huberman (1994) explain that the most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulated and that there are very few guidelines. They recommend the use of a three-stage process (or flows) of for analysis in qualitative studies. This process includes finding ways to first reduce data, then display data, and from this draw conclusions and verify. All of which allows us as researchers to seek patterns and themes in order to verify and draw conclusions.

A framework for inquiry – online and off

Since this is a qualitative study onto itself, we will follow the advice of Miles and Huberman (1994) and use the previous theory above to present a framework (or update an existing one), to be used as a guidance system for actual data collection for this study. As a result of the research questions asked, and the literature reviewed that relates to each of these research questions, an updated framework (i.e. building on and evolving from Figure 1 above) for qualitative inquiry emerges (see Figure 2).

FIGURE 2
A framework for online and offline qualitative research

From this model of online/offline qualitative inquiry, the researcher must first determine his or her *scientific paradigm*, which no longer only involves how they view the world, but both their offline world view (i.e. traditional research paradigm) and online perspective (i.e. cyber worldview), which work together for what we can only refer to as an updated “21st century research paradigm” that takes into account both worlds. Next, the researcher must determine whether they are focusing their research on a cyber-related phenomena (e.g. the research opportunities that exist by investigating websites, online populations via chat rooms or individual messenger/chat functions; newsgroups, e-mail use, etc.) or are simply using the Internet to collect qualitative data (e.g. using e-mail or chat functions for interviewing; web cams for observation; etc.). All of this influences the approach taken (i.e. the steps the researcher will follow in collecting and analyzing data).

As for the *methodological process* in qualitative research, a combination of and cooperation between various online and offline issues must be considered. In support of Denzin and Lincoln (1994), a researcher as bricoleur approach is recommended, allowing the researcher to adapt any number of approaches and tools towards gaining a better understanding of what they are investigating, be it online or off. This further supports Gummesson’s (2001) contention that the researcher is the most important research instrument. The updated framework above makes the researcher a part of the process; an instrument onto him or herself. Although not considered for this study, the quality criteria, which appear at the base of the model, should also be considered in any research endeavor, as quality criteria (e.g. validity, reliability, truthfulness, accuracy, etc.) are the foundation for any research – the base that supports and balances all we do. It is recommended here that such criteria for online research be investigated in future scholarly studies. Using this updated framework, and through an empirical investigating using it as a guide, specific answers to the research questions will be presented. How these answers were obtained is explained next.

METHODOLOGICAL APPROACH FOR THIS STUDY

In order to empirically test the framework above, and thus ultimately answer the research questions stated, a number of qualitative experiences were drawn upon over a 10-year period to illustrate both the investigation of Internet-related phenomena as well as the use of the Internet as a tool collecting qualitative data (i.e. the opportunity to discuss what Jones, 1999 says the Internet is used for in qualitative research). Considered a longitudinal case study, this series of online and offline experiences were encountered over the course of this researcher’s efforts in conducting qualitative research on and within cyberspace during a 10-year time span (1994-2004). A longitudinal perspective, as well as a presentation of

individualized, qualitative, case study research efforts, is supported in the literature (e.g. de Weerd-Nederhof, 2001). A longitudinal case study is defined by Jensen and Rogers (2001) as the study of a research entity at multiple time points. This approach is further supported by Denzin and Lincoln (1994) who refer to qualitative research as being inherently multi-method in focus with the aim being to secure an in-depth understanding of the phenomenon in question, which this study is. In presenting the findings for each research question below, a discussion in the form of an etic (researcher) narrative (story) is used (ibid.). This will be done by providing a first-person discussion on the mixture of scholarly work that has been used in guiding my research experiences over the past decade of online/offline qualitative inquiry, a period of time which saw the establishment and extreme growth of the Internet, for personal, professional (commercial), as well as scholarly uses. The use of first person (Gummeson, 2001; Vroom, 2003) as well as methodological narratives (Gummeson, 2001; de Weerd-Nederhof, 2001) is not altogether uncommon. In fact, as Gummeson (ibid.) points out, the use of narratives by those of us writing case studies in our qualitative research makes reality come alive and is a good way of presenting our work to an audience. Now the findings (i.e. answers to the research questions) are presented.

FINDINGS

RQ1: How can the ontology/epistemology of cyberspace be characterized?

In my experience, and more importantly from my perspective, not only do I support the view that cyberspace can be considered a “New World” or “New Frontier,” I have in fact found it useful if one does so when conducting qualitative research on various Internet phenomena or if simply using the Internet and the tools it offers the researcher. It is my contention that how one views the Internet will affect the way they approach research on or within it. It certainly has in my case. As I view it as a separate world, a “New Frontier” (or at least a new extension to the one we are used to), I have found that a specific scientific paradigm has provided me the opportunity to approach my research on and within it in a flexible, chameleon-like way, namely the aforementioned constructivist paradigm.

I am a *constructivist*. The constructivist paradigm has worked very well due to the flexibility it affords me in my various approaches to research both in the real world and in the “New Frontier” known as cyberspace. From this I have found that I have evolved (and will continue to evolve) in this way over my years of involvement with online and offline qualitative research efforts. My views and attitude have evolved as technology itself has evolved. I have found that as I have evolved within the constructivist paradigm, I became chameleon-like, adapting

my approaches in my research efforts (e.g. any work I have done on my graduate thesis, doctoral thesis, journal articles, conference proceedings) to the context of the research being undertaken. This has afforded me many benefits, including increased knowledge, more opportunities to publish, and a more effective (i.e. reaching my objectives) and efficient (i.e. saving time, money, energy) research efforts. Overall, I feel that the constructivist paradigm and the flexibility it has afforded me for both online and offline research (or any combination of the two) makes me a more dynamic (versus static) researcher. With this I mean that, as researchers, we often get “stuck” and stay in one place with our viewpoints and perspectives on research and how to conduct it (Gummesson, 2001), but the constructivist paradigm and my acceptance of cyberspace as a “New World” (or at least an extension of the real one) has made it possible for me to adapt and evolve into a more dynamic researcher.

Related to this, and in following the importance that Gummesson (2000) places on preunderstanding, I can say that this is among the most important and beneficial aspects to qualitative research within this 10-year case study. An example of what my *pre-understanding* has been built on comes from many areas of my professional and personal lives, all of which have provided several advantages.

In addition to my research being Internet related, I also teach/have taught courses such as *Internet Marketing* and *Consumer Behavior in Cyberspace* within an e-Commerce program. I was also directly involved in the inception, development and implementation of this e-Commerce (e-MBA) program, which provided many lessons. I also teach other courses that are more and more focusing on the role of technology and the Internet, namely *Creative Advertising* and *International Marketing*. Just as I believe re-search means, “to search again” (Nachmias and Nachmias, 1981), I also believe that teaching means learning again...and again...and again. The opportunity of always being able to stay up on the latest within a given area is in fact the reward of teaching. I have found my years of teaching within these areas invaluable in my research and in my development as a scholar. Finally, in support of the constructivist paradigm is what Gummesson (2001) discusses regarding the one qualitative approach that encompasses all of the others: Interactive research. Just as the constructivist paradigm allows for holding both a “real world” worldview and a “cyber” worldview, interactive research allows for us to adapt methodologically. We will look at such methodological approaches next in the findings for research question two.

RQ2: What qualitative methodological approaches are of use on/within the Internet?

As cyberspace is considered an “online” world, the Internet is considered a “multi-purpose” tool within that world. In general, the Internet plays a role in all six steps, but some become more relevant than others. Here I will briefly articulate my experiences with qualitative inquiry and the Internet via the six stages outlined in the framework provided in Figure 2. In general, I have followed these six stages when doing research on (or using) the Internet. However, some of the stages become more important as compared to other stages when discussing them from an online perspective. It should be noted that by no means does this mean that these are the only stages of research but instead are the ones used for this study.

In terms of the *purpose of research*, like a never-ending iceberg metaphor brought forth by Gummesson (2000), I now believe the depths of the Internet will never be fully uncovered for two reasons: It never ends and it is always changing let alone expanding. Like the iceberg metaphor highlighted earlier, not only is the “Internet iceberg” always changing shape, it is constantly growing. I have found that this is both the risk and the reward, the fun and the frustration, of focusing our research on the Internet, let alone using the Internet as a tool to conduct it (i.e. collect data). What I have found is that through qualitative inquiry on the Internet, one is exposed to people, places, and opportunities that one would never have the chance to access should only the “real world” exist (which is also related to “sample selection”). This makes those of us doing research true explorers who spend their efforts describing what they have discovered. In terms of explanation, the ability to “predict” let alone “control” something that is constantly changing and growing I find at the very least extraordinarily challenging; at the most nearly impossible. I believe the role of “explanation” as a research purpose is evolving as well, or perhaps focusing more and more on developing a better understanding, as presented by Hamilton (1994). In further support of Hamilton, I can say that over this 10-year period my studies have generally focused on purposes that use the term “understanding” rather than exploration, description, let alone explanation. In my experience, “understand” encapsulates all three. In following Gummesson’s (2000) iceberg metaphor, “understand” allows us to hover above the iceberg, land on its surface, or dig deeper and look below the surface, where most of what we should be after actually resides.

As for the *research approach*, as mentioned earlier, the focus of this paper is the presentation of the Internet as a tool for qualitative inquiry. However, by no means does this mean quantitative approaches are not possible. I would only argue that such an approach is equally if not more challenging due to the stricter,

less flexible nature of quantitative research. I will leave it at that, as the focus of this paper is to focus on the qualitative research aspects and not the quantitative ones. I leave the discussion of the Internet and quantitative inquiry in the hands of future research. Moving on to the *research strategy*, I have found that the case study strategy works best with regards to online inquiry within a qualitative approach, which supports Gummesson (2000). I have found a “case” is what we make it, therefore affording us the most flexibility as qualitative researchers, which supports de Weerd-Nederhof (2001). Furthermore, the case study approach has that chameleon-like nature that fits so well within the constructivist paradigm discussed in the answer in research question one above, as well as the research purpose being to understand instead of explore, describe, and/or explain.

The next step in the methodological process is *data collection*. In my experience, this is the most exciting stage in the methodological process for scholars in terms of online qualitative research. For both *documentation* as well as *archival analysis*, I have found that all of the items listed within each of these areas are now available online to the qualitative, case study researcher. I have been able to use the Internet for both documentation and archival analysis, making my life as a researcher much more efficient (i.e. obtaining what I want, when I want it, how I want it). Perhaps the sources of evidence that are going through the most changes for the qualitative researcher are interviews and observation. With *interviews* I have found that there are various forms of interviews that can take place online, eroding the need for but not necessarily replacing the offline, face-to-face interviews we so often rely on, be it with an individual or a focus group. First, I have found use for what I now refer to as the e-mail interview, where specific questions are asked and a reply is given within a certain amount of time. This often results in a game of “e-mail tag” for the qualitative researcher, and when that occurs, other online interviewing techniques are recommended (i.e. pick up the phone offline or online or utilize chat technology online). Furthermore, I have found that if I get more than one e-mail from someone, based on the e-mails I am sending to them, I consider this more a form of long-term, online interviewing. That I keep these e-mails as a record, they evolve into documentation. After a respondent is qualified (see sample selection in the next section), I have found that one of the most effective tools to use is online interviewing (and better than playing “e-mail tag,” are any of the personalized chat functions such as MSN Messenger, Yahoo Chat Google Talk, or ICQ. All of these provide one-to-one, or one-to-many, and even many-to-many interviewing techniques. Like a traditional face-to-face (or voice-to-voice) interviewing, you can allow for the entire conversation to be recorded automatically in text or, if using the audio/video functions, sometimes in that way as well (depending on the chat program used). One thing I have found is, if used correctly, and if you can only use text messaging (instead of incorporating the audio/video functions), these episodes of

online interviewing are among the best means for collecting and analyzing data in qualitative research. Being able to analyze almost at the same time as you collect the data saves a great deal of time.

Regarding *observation*, I have found that the boundaries between direct and participant observation are blurred in cyberspace. If one is visiting a website, are we not in fact interacting (participating) with it? If I am in a chat room “observing” the interaction between active participants in that room, am I not also being observed and possibly invited to interact with the others in that room? If using e-mail, what do you observe in terms of their use of capital letters (often implying that they are screaming or REALLY trying to make a point)? What about the use of graphic elements (a smiley face or other acronyms that imply emotion -- e.g. “l.o.l.” meaning laughing out loud) on an e-mail or even within a website. The beauty of participant observation in cyberspace, unlike doing it in the real world, is that access (Gummesson, 2000) to particular individuals, groups, or cultures is often easier – we can find and then gain access to them in ways we never could before. The “barriers” to access, I have found, are easier to cross in cyberspace when it comes to qualitative data collection, as compared to trying to do the same things in the real world. Like interviews, the use of observation in cyberspace is evolving to mean different things and has become an invaluable tool during the data collection phase of online qualitative research, especially in terms of making your research efforts (i.e. reaching your research objectives) but even more importantly more efficient (saving time, money, effort, etc.).

Finally, there is the source of evidence called *physical artifacts*. What the Internet has done is made me ask, what makes something “physical” to a person? Is it “physical” only if we can use the sense of touch (i.e. hold something in our hands and feel it) or taste? Truthfully, my experience of using such artifacts in my research offline is limited. Online, I have found that the use of artifacts as a source of evidence raises more questions than it answers right now. If I download an annual report, is it a document or a physical artifact? My answer is this: If it’s this year’s, it’s a document; if it’s from 1979, it’s a physical artifact. If I look at print advertisement examples for a particular brand on a website that have also been in magazines I buy at the local newsstand, are they not “tangible”? Does this not make them a physical artifact? If I am chatting with someone and they share a picture of themselves, or draw something in an interview on an online “whiteboard,” have I not received tangible evidence of what they look like or what it is they wanted to illustrate? If someone plays music when I click on their website, isn’t the sense of hearing as a sensory receptor also “physical”? Again, as with the other forms of data that can be collected, my experience is that the Internet blurs the lines of the definitions and understanding we have placed on much of our real-world experiences and terms within our qualitative research

efforts. Technology will continue to let us redefine such tools and their uses, as it is constantly changing and trying to improve as well.

Sample selection, the fifth step in the methodological process, is an interesting dilemma on the Internet: So many organizations, people, and cultures to experience, and so many ways to come into contact let alone interact with them once we do. As with other forms of sampling, the issue is whether the population is purposive (non-random) or random, yet as Miles and Huberman (1994) point out, sampling in qualitative research often focuses on smaller samples nested in a particular context and due to this is often purposive rather than random, yet there is room for both in cyberspace. For example, entering a chat room and interacting or observing who is in there and what they say could be considered random. Finding the right person at a corporate website to interview (online or off) can be considered purposive. Finally, as discussed briefly above, the importance of access (Gummesson, 2000) is made all easier in cyberspace: You can obtain contact and possibly access to individuals, populations, or organizations within a few clicks.

The final step in the qualitative research process is *data analysis*. To illustrate, I provide a specific example: I conducted an interview online using an individual chat function that allowed me to not only interact with the interviewee, but automatically document the entire interview, word-for-word, as well. The text from this one-hour interview was then copied and pasted into a Word document that was read and analyzed several times to see if certain themes emerged in the interview (other software can also be used). The entire interview, when presented this way, became a mega-matrix, which is recommended as a qualitative analysis tool by Miles and Huberman (1994). The time to analyze and uncover patterns was dramatically reduced, as compared to doing the same thing had I been using field notes and/or a tape recorder if the interview taken place face-to-face or over the phone. Similar techniques can be used in analyzing data when visiting websites, which I have done consistently in my online research. I develop analytical matrices based on a conceptual framework for a particular study. As I collect data (observe, interact with the website, for example), the data goes immediately into the Word document I am using to present and analyze the data collected. What emerges again is the idea that all of these steps, when applied or approached online (or maybe only certain steps are online) is that qualitative research on (or at least using) the Internet is making us as researchers both more effective and more efficient. In general, it was found that the online/offline qualitative framework presented in Figure 2 is supported. Furthermore, in support of Denzin and Lincoln (1994), over the course of the past decade of qualitative research (both online and off), I have used a “researcher as bricoleur” approach that has definitely provided a chameleon-like opportunity to “change my colors”

and adapt to my surroundings to be able to take advantage of the myriad of opportunities that qualitative research and the Internet affords. The result of this will be the development and sharing of our stories, our virtual ethnographies, as outlined by Hine (2003). It also provides the opportunity to move back and forth between the two worlds we now live in, namely the “real world” and the one that evolves even faster known as “cyberspace.”

CONCLUSIONS & FUTURE DIRECTIONS

The handful-of-Jell-O metaphor presented at the beginning of this article is accurate for the issues we are facing in qualitative research and the Internet: The outcome of what is “squeezed” in the respective hand of the researcher depends greatly on who that researcher is, what they believe about the world they live in (i.e. their traditional worldview or paradigm), not to mention their “cyber worldview,” as well as the methodological process they follow based on this belief system. From the framework that resulted and was empirically tested, albeit from a single, longitudinal perspective, there are some “clues” that result for other researchers to consider. And that is the best that qualitative research can do: Leaves us with clues that are not generalizable in any way, but instead become a starting point for continued qualitative (digging deeper; understanding) and even quantitative inquiry. In the end, this is what this paper has provided – a starting point to future inquiry into the Internet and qualitative research.

The future of qualitative research in cyberspace is analogous to an adventure in any “New World.” A world fraught with danger and excitement, tempered with caution and discovery. The “old” ways of doing conducting research are not going anywhere, nor am I claiming they have diminished in value, just as the “real world” will not dissolve anytime soon nor has it lost its “value.” However, how we view the “world” and our place in it (i.e. our research paradigm), as well as how we go about conducting research (our approach; the process we follow) is evolving and changing, thank in large part to the challenges and opportunities that technology, and especially the Internet, provide. Like human beings and the societies they make up, the role of information technology is dynamic, not static. It is continually evolving and changing in ways that are possible to capture but increasingly impossible, it seems, to predict or control, due to its Jell-O-in-the-hand, ever-changing nature.

Our qualitative research approaches must adapt to this by using a combination of what is available both online and off to gain a continually updated understanding of what is out there. We must remain open to not only testing, trying, and succeeding with new forms of research, but we must be willing to fail and try again, and even come up with new methods, as suggested by Denzin and Lincoln

(1994), Hine (2005), and practiced by Gummesson (2001). Specifically, future research should focus on looking at all three levels brought forth by the online/offline qualitative framework provided here. Of particular interest is the part of the framework not discussed here, namely how quality standards in qualitative research are affected by the Internet. Finally, it is suggested that we look at the Internet and quantitative research as well.

This paper has provided only a springboard into the development of the Internet as a tool for qualitative research. Its aim was to provide one perspective based on several years of experience with qualitative research, both online and off. In the end, taking a handful of Jell-O and trying to capture and hang on to it is a difficult but worthwhile task. The opportunity to share such experiences will not only move our understanding of the Internet as a focus of our research forward, but it will allow us to also look at the Internet as an excellent tool for qualitative inquiry.

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3.2.4 ARTICLE 4

INDUSTRIAL MARKETING COMMUNICATION: A (R)EVOLUTIONARY JOURNEY FROM MARKETPLACE TO MARKETSPACE

Tim Foster, Luleå University of Technology, Sweden

ABSTRACT

This article looks back over a decade-long research project that investigated the use of industrial marketing communication tools by industrial sellers and buyers in Sweden. It was found that the Internet during “Part I” was simply an evolving tool within the industrial marketing communication “toolbox.” In “Part II” it became a revolutionary, multipurpose tool.

INTRODUCTION

This article takes a look back over a decade-long (1994-95 through 2004-05) research project that focused on industrial marketing communication during a time of change, a true *(r)evolutionary* period within the area. It is referred to as “(r)evolution” because the concepts of evolution and revolution, although related, are not the same. Just as research means to *re*-search, i.e. to search again (Nachmias and Nachmias, 1987), revolution means to re-evolve, or evolve again. The distinction between evolution and revolution is in their more precise definitions. According to Encarta.msn.com (2005), *evolution* means, “gradual development: the gradual development of something into a more complex or better form.” An example of this is in how marketing communication theory has evolved into integrated marketing communication (IMC) (Duncan, 2002). However, from this same online source, *revolution* means, “major change: a dramatic change in ideas or practice.” An example of this is in the groundbreaking article by Hoffman and Novak (1996) that proposed a complete change in the marketing communication process that we have come to know and use since the early work of Schramm (1955) and Shannon and Weaver (1962). Thanks to Hoffman and Novak, we went from our one-to-many, linear way of thinking (i.e. “static communication”) into an additional focus with one-to-one, one-to-many, many-to-many, and even many-to-one interactive possibilities (i.e. “dynamic communication”).

However, just when we thought we were safe within the realm of the research area “industrial marketing communication,” Rayport and Sviokla (1994) came along and told us that, in cyberspace, product becomes place becomes promotion.

Deighton (1996) added that all of these variables do, in fact, interact with one another in ways that they never used to. Not only are all of these research areas merging, but scholars seem to be spouting “revolution” in several of them: Communication (Hoey, 1998; Phairor and Hanmer-Lloyd, 2002); the Internet (Wen, *et al.*, 2001; Sharma, 2002; Haley, 2002; Arnott and Bridgewater, 2002; Cagliano, *et al.*, 2003); relationships with other stakeholders within the supply chain/value chain (McGuffog, 1997; van Hoek, 2001; Dawson, 2002). In fact, Rowley (2004) seemed to pull many of these areas together by looking at the Internet as a marketing communication channel in e-business. In the digital world, Rowley explained, marketing communication is concerned with presence, creating relationships, and ultimately creating value throughout the value chain. What Rowley concluded from this was the need for academics to develop models and frameworks that will support not only future research efforts, but also supporting practitioners in developing insights that will aid their efforts as well. This 10-year perspective has attempted to fill in a few of these gaps.

From this discussion, the purpose of this article is to share what was discovered during this 10-year exploration regarding the changes occurring in the use of industrial marketing communication tools and to see whether or not the area was simply evolving, or truly becoming revolutionized. To achieve this, these pages will take the reader on a journey: A journey from 1994-95 through 2004-05, the first decade of the “commercialized Internet” (Answers.com, 2005); a journey that has had to face many evolutions and revolutions (e.g. Hoey, 1998; Jones, 1999; Phairor and Hanmer-Lloyd, 2002; Wen, *et al.*, 2001; Sharma, 2002; Haley, 2002; Arnott and Bridgewater, 2002; Cagliano, *et al.*, 2003); a journey from *marketplace* to *marketspace*, terms used to denote the evolution from offline to online environments by various scholars (e.g. Graham and Hardaker, 2000; Teo and Yeong, 2003; Berthon, *et al.*, 2003). How this journey took place will be discussed next.

METHODOLOGY

For the sake of how this study itself evolved, it is presented in two parts: “Part I” took place from 1994-1998 and looked at the entire industrial marketing communication toolbox, of which the Internet was only an emerging part. The year 1994-95 is significant as this was the year that the Internet began to commercialize (Fabos, 2005; Peter, 2005). “Part II” began in 1999 and ran through 2004-05 focusing only on the Internet as a marketing communication tool in industrial markets. The context of this 10-year endeavor was in Sweden, a highly-advanced IT country, specifically within the Swedish timber/pulp and paper industries (in “Part I”) and within the mining industry (in “Part II”), two of the largest industrial sectors in Sweden (Sölvell, *et al.* 1993).

For the purpose of this study, both parts are brought together here and presented as a single, 10-year, longitudinal case study. It is not our intention to go back to the details of the work that went on in both parts of the study, as these pages are limited. However, it should be noted that a similar methodology has been used throughout the entire 10-year period, namely a qualitative, case study approach using multiples sources of evidence (Yin, 1994). Put another way, looking back over 10 years is an attempt to try to see (and share) the forest from the trees. The use of a longitudinal perspective, as well the presentation of individualized, qualitative, case study research efforts conducted and shared by those doing the research, is supported in the literature as well (e.g. de Weerd-Nederhof, 2001). Longitudinal studies focusing on B2B Internet issues have also been done (Koh and Nam, 2005). As “longitudinal” can be seen in different ways (Sullivan, 2001), we consider this study to be more of a “quasi-longitudinal perspective” (Leong, *et al.*, 2003) rather than a purely longitudinal approach. Furthermore, due to access and other constraints, those individuals and organizations from which data were collected in “Part I” were not the same as those in “Part II.” This is supported by Sullivan (2001) in that longitudinal research can focus on obtaining data from the same people over time, described as a “panel study,” or it can be considered longitudinal as a “trend study,” in which different people (and this implies from different organizations) are focused on at different times. In fact, a longitudinal case study, as defined by Jensen and Rogers (2001), is the study of a research entity (in this case industrial marketing communication tools) at multiple time points. The journey begins with a look back at the findings from “Part I.”

Part I (1994-1998): The Internet as an Evolving Tool within the Industrial Marketing Communication Toolbox

In industrial markets, sellers and buyers have traditionally relied on the one-to-many, linear marketing communication process of sender-message-channel-receiver (Turnbull, 1974; Fill, 1995; Hoffman and Novak, 1996). In using this traditional process as a means for narrowing down the scope of “Part I,” it became of interest to look at the “channel” portion, i.e. the marketing communication tools used by industrial sellers and buyers, at a time when the Internet was just emerging in industrial (B2B) markets. In this first half of the study, the development and testing of the entire industrial marketing communication toolbox was completed, specifically focusing on how (and why) the marketing communication tools used by industrial sellers to supply information compared to the tools industrial buyers used to obtain information (see *Figure 1*). It was found that, in the early years of Internet use in industrial markets, not only was the Internet little used as a tool, but scholars at the time were often simply comparing it to “traditional” media: Berthon and Pitt (1996) presented the Web as a cross

between an electronic trade show and a community flea market. Quelch and Klein (1998) stated that the websites of most companies were nothing more than glorified brochures. When compared to the more traditional tools at their disposal, it was found that there was still a heavy reliance on the personal, often non-commercial sources of information that have always been a mainstay of industrial marketing communication efforts (Moriarty and Spekman, 1984; Foster, 1998).

FIGURE 1
The Industrial Marketing Communication Toolbox

SOURCE: Foster, 1998, p. 80

In “Part I,” it was found that the Internet in general, and more specifically websites and e-mail, were the primary tools used by both industrial sellers (to provide information) and buyers (to obtain information), but both sides of the relationship still viewed such tools primarily as “the future” of industrial marketing communication efforts rather than something they relied on at the time. It was found that, whereas the Internet could actually begin to replace the commercial, non-personal tools in the industrial marketing communication toolbox (or at least compliment them), it was generally felt that the personal tools (such as sales calls, meetings, other forms of personal contact) would not be as

affected by the onset of the age of the Internet. However, just as the framework above was being developed and tested during 1996-97, Hoffman and Novak (1996) came along and gave us something to think about: Their study presented the idea that we should begin look at the marketing communication process from a new perspective, a paradigm shift within marketing communication. The “old” way of communicating was not going anywhere because the non-personal, mass communication tools, as well as the personal tools sellers and buyers have used for years to supply and obtain information, respectively, were not disappearing. However, with regards to the use of the Internet, marketing communication was changing...evolving...even revolutionizing into a new process. The limitation with Hoffman’s and Novak’s work was that “Firm” and “Customer” in this new communication process were not completely defined and were left open to interpretation: Were they sending/receiving information? Were they buying/selling something? Seen in another light, this new marketing communication process became an invitation for continued exploration and empirical testing. This became the springboard to “Part II.”

Part II (1999-2004): The Internet as a Revolutionary, Multipurpose Tool

Based on the findings of “Part I,” (that the research during these early years tended to compare the Internet and websites to traditional communication tools; that the Internet and especially websites and e-mail were “tools of the future” and little used at that time; as well as Hoffman and Novak’s [1996] new perspective on the marketing communication process), it became of interest to look more specifically at the Internet independently as a marketing communication tool onto itself. In doing so, the Internet became not only the focus of this research project, but a potential new (methodological) tool in conducting it as well (Jones, 1999). To investigate the Internet as an industrial marketing communication tool, the “industrial cyberspace” compartment of the “toolbox” presented above in *Figure 1* was “lifted out” and focused on. Just as the traditional marketing communication process had been used as a foundation in “Part I,” Hoffman and Novak’s (1996) idea that the communication process itself was changing (and showed us in what ways) provided a foundation to stand on in “Part II.” Leek, *et al.* (2003) added that when it came to such technologies as the Internet, as well as extranets and Intranets, little research had been done into such technologies, including the need for such research to focus on the perspectives of both suppliers and buyers. Using such words as the fuel needed to continue on this journey of looking at the Internet as an industrial marketing communication tool, as well as from using the work of Hoey (1998) and Chaffey, *et al.* (2003), an updated framework for testing the Internet as an industrial marketing communication tool emerged, as shown in *Figure 2* as the “I-E-I Framework” (Foster, 2005).

FIGURE 2
What Evolved from the “Industrial Cyberspace” Compartment of the Industrial Marketing Communication Toolbox: *The I-E-I Framework*

SOURCE: Foster, 2005, p. 247

The I-E-I Framework showed that the Internet was made up of three distinct layers, namely the Internet (public) level, the Extranet (partners & suppliers) level and the Intranet (employee) level. It was found that, by looking at it from the perspective of the I-E-I Framework, all three levels together became a “multipurpose tool” in two distinct ways. In the broader sense, it became a multipurpose tool in that it truly shows that when it comes to our research within industrial marketing communication, product (including information as a part of it) does become place (involving more than just sellers and buyers, but several stakeholders), which in turn becomes promotion (communication that acts at the “glue” that hold the relationships within and between these stakeholder groups together). Even more distinctly, this multipurpose tool showed the many ways in which we are communicating, interacting, and potentially integrating many of the more traditional marketing communication tools that exist offline (e.g.

advertising, sales promotion, public relations, personal selling), as well as the new online tools at our disposal (especially websites and e-mail).

In fact, findings from testing the I-E-I Framework (e.g. Foster, 2005) showed that both online and offline marketing communication efforts must work together in order to create true value for not only industrial sellers and buyers, but all stakeholders within the industrial value chain. This value is derived from the depths of the I-E-I framework: The deeper one goes the more value that seems to be created. The heart of the framework may be at the “core relationship” of industrial seller-buyer within the Extranet level, but there is much more value to be shared and developed beyond this core relationship. This can be done not only at each level (Internet, Extranet, Intranet) but within each level, as there are layers, like an onion, that can be peeled back and investigated within each level. Within the confines of this 10-year study, primarily during “Part II”, the onion was only peeled back a little. There is much more to be done. Overall, true value is derived from making any stakeholder in such B2B markets more effective (i.e. reaching their communication objectives when supplying/obtaining information), as well as more efficient (doing so with just the right amount of resources such as time, money, effort). As technology emerges and makes us even more effective and efficient in our communication efforts, value will continue to emerge in industrial organizations within the context of their marketing communication efforts, further enhancing the relationships among all stakeholders.

CONCLUSIONS & FUTURE DIRECTIONS

This 10-year study started off by looking primarily at the traditional (offline) marketing communication tools available to industrial sellers to provide information as compared to what industrial buyers use to obtain it, but it added the Internet to the toolbox. The study then evolved into a second part by opening up only the “industrial cyberspace” portion of the industrial marketing communication toolbox, whereupon the I-E-I Framework emerged. The I-E-I Framework takes into account not only industrial sellers and buyers as the “core relationship,” but all potential stakeholders. Furthermore, the communication that takes place both online and offline throughout the entire supply (value) chain becomes the springboard for creating mutual value for all stakeholders, by making each both more effective as well as more efficient. In order to do this, it was found that each stakeholder that takes out value, by default, must also provide value, resulting in a sort of “value-in/value-out” relationship not only with one another, but with the computer-mediated environment (CME), or technology, they are a part of as well. This supports but also adds some detail to the ideas put forth by Hoffman and Novak (1996).

From looking back over this entire first decade of the commercialized (B2B) Internet, it is safe to say that we are in the midst of a true revolution within industrial marketing communication research, a revolution that will not go away anytime soon due to the advances in (information) technology and the pace with which those advances occur. In looking holistically at the entire 10-year period, it can be said that, during the first half of this study, the Internet was simply evolving as an industrial marketing communication tool, somewhat used, but primarily representing “the future.” In the second half of the study, it became truly revolutionary. Our findings not only support Hoffman and Novak’s (1996) revolutionary thinking that a new communication process exists, as well as in the fact that stakeholders do have a relationship not only with one another, but with the CME they are a part of as well. Furthermore, in cyberspace, product does become place, which does become promotion, just as Rayport and Sviokla (1994) claimed, and that the “4 Ps” of marketing do not work in cyberspace the way they do in the “real world”; all of the variables do, in fact, seem to interact with one another, as presented by Deighton (1996). The Internet and specifically B2B websites have become not only simple, online “brochures” or “trade shows” but much, much more. In fact, the Internet, and primarily industrial websites, are value-creation tools used throughout the supply (value) chain. The Internet is not a replacement for traditional, offline industrial marketing communication tools, but has instead become a partner in making such communication efforts more effective (in reaching communication and marketing objectives) and more efficient (using just the right mix of resources to reach those objectives). Whereas communication is seen as the glue of all relationships within the value chain (Andersen, 2001; Phairor and Hanmer-Lloyd, 2002), perhaps the value of the Internet as an industrial marketing communication tool is in its capacity to have become some sort of revolutionary communication “super glue.”

A “Perfect Storm” of Revolutions

Now when one looks back at all of the “mini-revolutions” supposedly occurring within the area of industrial marketing communication, as outlined in the beginning of this article, it is suggested that they are not mutually exclusive, but instead part of one, giant “mega-revolution,” where keeping our research areas separate will not only prove to be more and more challenging, but filled with infinite opportunities almost unheard of only a decade ago. We are, in fact, in the midst of a “perfect storm” of mass revolutions within industrial marketing communication, as depicted in *Figure 3*.

FIGURE 3
A Perfect Storm of Mass (R)evolutions

The “tornado” metaphor in *Figure 3* is used for a number of reasons, all of them positive (i.e. constructive rather than destructive): First, it is this very mixture of revolutions that seemingly become sucked in and stirred around together in ways we could not even imagine only a few years ago when product, place, and promotion at least seemed so neatly separated, each in its own little research compartment. Although communication has always been a part of product, place, and even price, there seems to be an even denser relationship between the areas in the online world of cyberspace. Second, this perfect storm constantly feeds itself, being fuelled by the new and many revolutions (e.g. R1, R2, R3, etc.) related to the research areas we are used to, not to mention the many we have not even yet anticipated. Finally, in its path, and through our keeping up with it, the output of this perfect storm of revolutions means finding new ways to study and even present our findings. Technology will make sure of that. However, there is one cautionary note in surviving this perfect storm: As Jones (1999) points out, the

Internet as a focus of our research, as well as a tool for conducting it is like squeezing a handful of Jell-O – you just don't know what you're going to get. From this decade of doing both (i.e. focusing partially as well as solely on the Internet as a subject of study, as well as using it as a tool in conducting research), it is safe to say that we can all look forward to squeezing for many years to come, with no real idea of what things will look like once we do. What comes through our fingers will simply continue to fuel this perfect storm of revolutions -- that is the frustration that technology brings to the table of our research efforts, but it is also part of the fun.

As with any study, this one has several limitations. The journey above is tempered by the fact that, being qualitative in nature, it is not meant to generalize in any way, but instead is meant to share and add a “pinch” of understanding to the mixture of studies already out there, and become a genesis for those that follow. In taking a holistic, “forest for the trees” perspective while sharing this 10-year journey with you, much has been left out in terms of the development and testing of the two frameworks above (*Figures 1 and 2*). Here the intention was to share the *overall* findings of the entire 10-year journey. As technology itself evolves and continues to revolutionize at such a rabid pace, so too will our research. Time will tell if the revolution sticks around, but rest assured, new ones will continue to emerge. So fasten your seatbelts...this “perfect storm” isn't gong to subside anytime soon. Thanks to our research, it perpetually feeds itself. That's what makes it so perfect.

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4 Final Comments & Future Directions

This chapter will look back over the entire thesis, as well as the 10+ years it took to “complete” it. My final comments will be based on answering the question, “So What?” (Day, 1996) and looking at my own evolution and development during what has been an extraordinarily rewarding decade of learning and growth. The chapter will end with a discussion on the limitations of the thesis as a whole, the implications it has for practitioners, as well as some recommendations for future research.

4.1 So What?

According to Day (1996, 2005), a key question that all researchers should ask themselves, with regards to their research, is: “*So What?*” (p. 27). The question of “*So What?*” from Day (1996), focuses on the fact that we, as researchers, assume that we understand our work completely. After all, who could be more familiar with it than the researcher conducting the research and presenting it in a journal (or in this case, a doctoral thesis)? Paradoxically, Day adds, that’s the problem: Being that we are so closely involved in our own research, we often lose sight of its value for others. The implications of what you have done may be obvious to you, but will it be obvious to anyone else? Furthermore, there are conflicting views presented by Hockey (1991) as to what a Ph.D. student actually is supposed to accomplish in writing and defending a doctoral thesis: Either to develop a traditional knowledge-based doctorate, where the test of one’s work is focused on whether or not they made an original contribution to knowledge, or to bring the candidate to the level of demonstrating that they can simply carry out research. My question, humbly stated, is why not a bit of both?

Collectively, the intended contribution of this thesis was to make a sincere, original, albeit extremely limited contribution of knowledge to the *social science(s)* of (and/or related to) industrial marketing communication, with a more specific focus on the industrial marketing communication toolbox and the “tools” contained therein. The true value of any scientific inquiry is in its contribution to both theory and practice, yet often our scholarly knowledge is basically irrelevant to corporate life (Sutton, 2004). Gummesson (2000) discusses two different roles for the academic researcher, that of a “traditional academic researcher” (p. 33) and that of a “consultant” (p. 34). Put another way, *true value* in our research is based on the sum of its scientific (academic) value plus its practical value.

I remember sitting in on and observing a doctoral thesis defense a few years ago (within the area of industrial marketing). The opponent, professor Lars Haglund, brought up an interesting fact at the beginning of the seminar: He explained that in

medical studies (i.e. scholarly articles presented in the medical journals), probably somewhere around 90% of what is written was read by practitioners – i.e. medical doctors. Doctors read such studies to better serve their needs (e.g. updating their knowledge) in order to better serve their patients (e.g. putting that knowledge to good use). In the marketing literature, Dr. Haglund said, the opposite is true: Maybe 10% of what is produced is read (and therefore used) by practitioners. Perhaps he was exaggerating the numbers to make a point, but his point really hit home with me – what is the point of scholarly research in management and marketing if not to advance the practice of marketing, so that the companies and individuals practicing it can use the knowledge to better serve their customer as well as other stakeholder relationships?

My aim, therefore, is to provide both, although I do feel my *primary* role and contribution for a doctoral thesis is that of a traditional academic researcher (in the “beginner” role) adding to the science of industrial marketing communication, and in a *secondary* role as a “consultant” (Gummesson, 2000) providing practical solutions or advice to industry. By doing all of the above, I also hope I am able to demonstrate that I am capable of carrying out research. In support of this final statement, this is another reason I have chosen to write articles for *Study B* rather than creating another monographic contribution, as I did in *Study A*. The overall contribution of these two studies that make up this doctoral thesis is discussed next.

From providing/obtaining information to using it for value creation

The overall purpose of this thesis was to provide a better understanding on the use of industrial marketing communication tools during a (r)evolutionary period. This thesis has tracked the evolution of industrial marketing communication tools over a 10-year period, the first decade of the commercialized Internet. In that time, it has been seen that marketing communication tools in industrial markets have evolved from simply being used to provide (by sellers) and obtain (by buyers and other stakeholders) information in *Study A* towards using such tools for mutually beneficial value creation in *Study B*.

In *Study A* the focus was on the tools that industrial sellers use to provide information, as compared to the tools that industrial buyers used to obtain it, using the entire industrial marketing communication toolbox, and its specific tools within various “compartments.” At that time, the Internet was considered to be an emerging, underused “multipurpose tool”, a “tool of the future,” according to both sellers and buyers. There was still, at the time, and in support of previous theory, a heavy reliance on the personal tools, as well as a limited use to supply/obtain information via some of the non-personal tools. So after completing *Study A*, that

“tool of the future” finding was considered a bridge to *Study B*, which looked exclusively at the Internet as a marketing communication tool in industrial markets.

In *Study B*, the focus narrowed down to how such multipurpose tools as the Internet, and more specifically B2B websites, are being used not only in simply providing/obtaining information, but as theory would guide us, how they are being used in creating value on both sides of the relationship. This value goes beyond just sellers and buyers, but for all stakeholders. In support of Walton (2000), who talked about information as the “gold” of the 21st century, it seems that this is where we are headed. The sharing of information, interactively, has provided a new appreciation for what specific pieces of information can mean in making sellers, buyers, and other stakeholders within the industrial value chain more effective and especially more efficient. This efficiency is the reward for all stakeholders not only taking information that has value for them OUT of the I-E-I framework (as discussed in article one and article two), but also in putting something of value IN. It is only then that true (communication) value can begin to be created.

This value-in/value-out finding becomes a springboard for continued research in seeing information in a new light, as something of value that adds to the total offering of the organizations sharing that information. It is also important to realize that as information technology, and more specifically the Internet, continue to revolutionize marketing communications, the “old” (i.e. offline) tools are not disappearing but simply finding a way to cooperate with these new, online tools and even evolve and work with them. So “true value” is in the value-in/value-out, as well as online/offline dichotomies that exist for an organization and its stakeholders.

This focus on value has also provided the opportunity to take a closer look at the dynamics within industrial seller-buyer relationships, and from that to potentially consider all of the relationships within the industrial value chain. It seems that Hoffman and Novak (1996) were correct in assuming that a relationship would remain not only between a seller and a buyer, but possibly between each side and a computer-mediated environment (CME). In this case that CME was within the context of the Internet and more specifically within the levels of the I-E-I framework. The idea that what one puts in is connected to what one takes out of any level of the framework implies a dependence on and relationship with the CME we now refer to as the I-E-I framework. If a “relationship” with other people and organizations is meant to make us stronger, more effective, and more efficient in the long-run, it seems that the relationship these people have with technology is doing the same thing – making us stronger, more effective, and

more efficient as people (within the selling and buying teams) and therefore stronger (more effective and efficient) as organizations.

Sellers and buyers, as well as others within the industrial value chain, seem to be growing in their dependence on information technology and what it offers both in terms of being more effective, but especially more efficient. Although the reliance on personal contact, or “the need for skin” remains, the reliance and value of information technology (and specifically the Internet) will continue to create opportunities for sellers and buyers, as well as other stakeholders, to create dynamic value, albeit in different ways unheard of only a few years ago.

However, looking back over the past 10 years, it does not seem that the personal and non-personal tools that were the primary focus of *Study A* are fading away anytime soon either. Like the relationship with information technology and the Internet in *Study B*, the relationship to and dependence on these more “traditional” tools is also evolving. As stated, industrial sellers and buyers are no longer simply using such tools to provide/obtain information, respectively; instead they are learning to interact, share, and merge with such tools in such environments in order to find new and beneficial ways to create value for every member of the industrial value chain, from the core seller-buyer relationship and beyond.

Of further interest in this study is the evolution not only of the area of research, but the approaches used in conducting it as well, as outlined in article three. As researchers, we must consider that the ways in which we collect and analyze data are also evolving and even becoming revolutionized thanks to information technology. From this, we must be willing to share our approaches as well, as suggested by Jones (1999), Gummesson (2001) and Hine (2005). Yet the area of research and the approaches we use to conduct it are not enough. It was found through a review of the literature during this decade-long journey that one other entity evolved as well: *The researcher*.

4.2 The Evolution of the Researcher

There is actually a third “evolution” occurring in scholarly research at this level, namely the evolution of the researcher (Hockey, 1991). For the sake of discussion, I will first provide a background as to what other scholars are saying regarding the development of Ph.D. students (candidates) and future researchers *and then provide a response regarding my experience with such perspectives provided in italics immediately following.*

According to Hockey (1991), a Ph.D. candidate¹⁸ in the social sciences goes through what is known as the “Ph.D. Process” (p. 319). The first issue debated by Hockey is the role of the process, and whether the point of completing a Ph.D. is to develop a traditional knowledge-based doctorate, where the test of one’s work is focused on whether or not they made an original contribution to knowledge. This is contrasted with embracing the process as something that brings the candidate to the level of demonstrating that they can simply carry out research. During this process, the developmental changes students will go through will show them that knowledge is actually not in the dichotomous terms they have often been educated with (e.g. clear answers, absolute truths, right and wrong). Instead, the student should learn to appreciate knowledge in its conceptual relativism, where a multiplicity of answers is possible. *This last statement I have not only found to be true, but it is what supports my scientific paradigm of being a constructivist, as discussed earlier in the thesis. I have also found that the process one goes through in completing a Ph.D. can both provide an original contribution, and in doing so (albeit on a very limited basis), we are in fact demonstrating that we can do research. Perhaps the greatest lesson for me in these early stages of my career in academia is that there are simply a multitude of perspectives. Two people can look at the same thing and come away with not only different interpretations on how to study it, but what it actually represents or means as well.*

Lindén (1998) adds to this by proposing a five-step process that Ph.D. candidates go through during the time they are writing their dissertation. *Step 1* involves a period of confusion, loneliness and a feeling of being incompetent. *Step 2* involves a metamorphosis of sorts, an awakening, where the student suddenly thinks he/she knows everything. There is a passion to work and accomplish during this stage. During *Step 3*, a decision is made: To be or not to be a researcher; do I finish my Ph.D. or not? If the answer is to continue, then *Step 4* invites the doctoral student to gain enough confidence within their respective area to continue on and actually see it through to the end. *Step 5* comes after they have successfully completed their doctorate, where they apply their achievement to continue on and build a career. *I can say from personal experience over the course of this 10+ years that I have put into completing a Ph.D. that each one of these steps was not only experienced, but it is not as linear as Lindén presents it (but then again, what process is?). At times I found myself moving one step forward, two steps back, repeating certain stages, but under different circumstances. Another point that I think is important to discuss is that “confusion” is not relegated to the first step – it is in fact a part of the entire*

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¹⁸ In Sweden, you become a Ph.D. candidate automatically upon completion of the Licentiate Thesis, which I did in April 1998.

process. One has to enjoy each stage in and of itself to actually make it through to the end. If anyone is reading this, I assume, or at least hope, that I made it...

Four learning outcomes are also necessary for someone completing a Ph.D. according to Shaw and Green (2002). Each of these, as well as an explanation and comments on what I have learned are presented below in Tables 4.1 – 4.3:

Table 4.1: Learning outcomes from the PhD process

LEARNING OUTCOME	EXPLANATION	MY COMMENTS
Knowledge-based (K)	K1 = Systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice.	<i>The area of industrial (B2B) marketing communication, with a particular focus on the tools used within the industrial marketing communication toolbox, has been an interesting, dynamic area to study during the “first decade of the commercialized Internet.”</i>
	K2 = Creation and interpretation of new knowledge (through original research or other advanced scholarship), of a quality to satisfy peer review, extend to the forefront of the discipline and merit publication.	<i>As Study A was based on a written and defended Licentiate Thesis (Foster, 1998), and Study B was made up of a series of published/ accepted/submitted articles in scholarly outlets, the benefits of peer review and publication have been experienced. However, this is hopefully only the beginning...</i>
	K3 = Detailed understanding of applicable techniques for research and advanced academic inquiry.	<i>Based on my scientific paradigm and the area of focus for this thesis, the research conducted has been qualitative in nature. However, future research can (and will) utilize the findings of this thesis to continue research using a mix of methodological approaches.</i>

SOURCE: Adapted from Shaw & Green (2002), p. 117

Table 4.2: Learning outcomes from the PhD process - *continued* -

LEARNING OUTCOME	EXPLANATION	MY COMMENTS
Research skills (R)	R1 = General ability to conceptualize, design and implement a project (for the generation of new knowledge).	<i>Both Study A and then each article within Study B were conceptualized based on previous research, designed, and implemented for data collection and analysis, in order to provide findings and conclusions that generated new knowledge.</i>
	R2 = Make informed judgments on complex issues in specialist fields, often in the absence of complete data.	<i>Most scholarly research is based on incomplete data. This thesis, in both Study A and Study B, were based on qualitative research, which does not focus on generalizing but instead providing a deeper, ongoing understanding of a dynamic and ever-changing area of research.</i>
	R3 = Able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences.	<i>This thesis has been written with an academic audience (e.g. supervisor, peers, discussant, editors, reviewers, etc.) in mind, as well as an industry audience, hopefully providing a scholarly as well as a practical contribution.</i>

SOURCE: Adapted from Shaw & Green (2002), p. 117

Table 4.3: Learning outcomes from the PhD process - *continued* -

LEARNING OUTCOME	EXPLANATION	MY COMMENTS
Attitudes (A)	A1 = Continue to undertake pure and/or applied research and development at an advanced level, contributing substantially to the development of new techniques, ideas, or approaches.	<i>Although limited in nature, this thesis focused on and utilized the development of new techniques/approaches in research (as discussed in one of the articles in Study B). In general, both Study A and Study B present what are intended as “new” ideas regarding the use of a combination of offline and online research techniques.</i>
Professional skills (P)	P1 = Qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations.	<i>It is my hope that this thesis demonstrates the skills necessary to maintain employment within the academic community. This thesis and the research it contains has been completed alone (however with the aid of my supervisor, colleagues and peers, editors and reviewers, etc.)</i>

SOURCE: Adapted from Shaw & Green (2002), p. 117

The tables above simply highlight some of the key skills/attributes that a Ph.D. student should obtain during their tenuous journey that results in a Ph.D. However, the thesis as a whole, as with the journey used in writing it, is filled with certain limitations. Although highlighted throughout the thesis, a few of the primary ones will be discussed next.

4.3 The Limitations of this Thesis

No study sets out to “conquer all.” As with any scholarly work, this thesis has limitations:

- Being qualitative in nature, the intent is not to generalize in any way. The findings within *Study A* and each of the articles within *Study B* have provided a deeper, ongoing (dynamic) understanding of the marketing communication toolbox (and in one article the research used when studying it). This research was done only within the context of the industries and companies investigated. Good qualitative research, at best, leaves us with clues (the idea that something could be true, but we are not sure). Good qualitative research provides as many questions as it does answers.
- Whereas *Study A* focused on the tools used within the industrial marketing communication toolbox in one industry (or industrial cluster within Sweden), *Study B* focused only on the Internet as a marketing communication (“multipurpose”) tool within another industry (or cluster). What binds the two studies is that these are two of the main industrial clusters within Sweden (Sölvell, Zander and Porter, 1993) and are of relevance especially to northern Sweden, where this university is located. The primary reason that the setting changed between these two separate but related studies is due to access and anonymity.
- In *Study A*, anonymity was requested by some participants and therefore used among all case studies; for *Study B* the aim was to avoid this so that readers could enter the websites focused on in *Study B*. Furthermore, the organization LKAB used in *Study B* provided open access to all three levels (Internet-Extranet-Intranet) of its online communication efforts, something that was found to be a unique challenge.
- Due to the evolutionary and even revolutionary period that the area of study has faced during the past 10 years, in large part due to information technology in general (and the Internet more specifically), this research is considered dynamic. With this it is meant that the area is continually

evolving (as all research should), but at a very rapid pace, and continues to revolutionize as technology continues to emerge and provide communication opportunities that were unheard of only a few years ago. Whereas this could be seen as a limitation, it is offered here more as an opportunity and invitation for keeping up through further research. The choice is to either “run” from this “perfect storm” or get swept up in it.

- Although “quasi-longitudinal” in nature, in that this study looked at the use of all marketing communication tools by industrial sellers and buyers (*Study A*) as well as the use of the Internet (*Study B*) over a 10-year period, it should be noted that several other factors can contribute to the opinions and use of such marketing communication tools by the those organizations and individuals investigated.

With these limitations in mind, some implications of this research for practitioners will be provided.

4.4 Providing Pragmatic Value: *Implications of this Research for Practitioners*

It is intended that this research provides some considerations for practitioners as well. This is in support of Miles and Huberman (1994), who state the need for “pragmatic value” (p. 280) in our research so that a study’s findings can be of use for those we research as well. It is my belief that making a contribution in one of these areas (science or practice) but not the other renders our research, at the very least, less than complete; at the very most, of little or no value. As Gummesson (2000) writes, academic research actually plays two primary roles: Academic researcher and management consultant. The difference, Gummesson explains, is in the relationship between input and output for each of these two roles. The scholarly researcher contributes to theory (output) supported by fragments of practice (input); the management consultant contributes to practice (output) backed by bits and pieces of theory (input). However, there are some thoughts I would like to leave for the managers and employees of industrial companies regarding their online and offline communication efforts:

- Use communication as a value-creation tool. Don’t see it simply as a way to “provide” or to “obtain” information. Every instance of information exchange, using personal or non-personal, as well as online or offline, can be seen as a potential value-creation opportunity for the stakeholder(s) involved.
- Value is in the eye of the stakeholder you are sharing/exchanging information with. Industrial organizations must strike a balance with

various stakeholders, whether they are buyers, suppliers, partners, etc. No two stakeholder groups have the same needs, so an open, direct dialogue with them is vital in determining which information has value and which does not.

- The key question regarding your organization's website(s) is simple but important: *What would your organization be without its website?* So many websites are created today because a "if they have one we should have one" mentality still exists. Because technology provides the opportunity and competitors or partners have their own are not sufficient arguments. However, developing a website to create value (both for your organization as well as other stakeholders) should become the primary reason to develop, maintain, and use technological advances to continually add value to both sides of all of your industrial relationships.
- The outer (Internet) layer is the "portal" to the corporation and is often the "first impression" of the firm in cyberspace. Make sure this is extremely well done and easy to navigate. Getting someone to your website is only a first step. Keeping them there and getting them to come back regularly (and, when possible, inform others to do the same) should be your primary focus. Perhaps, like brands, websites should emphasize image and loyalty as barometers of value, not to mention the increased effectiveness and added efficiencies they provide.
- In designing the other levels (Extranet, Intranet), think first of your stakeholders: Who has or needs access to information and what is the best (i.e. most effective and most efficient) way for doing that? From this, use an inside-out communication strategy (both online and off): As was noted in *Study B*, if you can make the internal communication work properly (effective and efficient), then the external communication should take care of itself.
- Remember that "effective" means reaching your marketing and communication objectives; efficient means doing so with just the right mix of your organization's (and your stakeholders') resources (e.g. time, money, skills/competencies, personnel, etc.).
- The proper mix of online and offline marketing communication tools is important, as various members within the levels of the I-E-I framework have different communication needs and therefore habits on how they find value from using and sharing information. Online marketing communication tools (such as websites) should not be seen as a

replacement to the offline tools, but a “partner” in utilizing both to make your organization’s communication efforts more effective and more efficient. It is in this relationship between effectiveness and efficiency that value for both sides of the relationship in question resides.

The “So What?” question, as well as the limitations and the implications for practitioners presented above all lead to the opportunity to see this thesis as a beginning rather than an end to the research process. There are many opportunities to continue research within the area.

4.5 Future Directions

In the first chapter, Goodman (2001) discussed that change is inevitable in communication research, using a tornado metaphorically as an illustration of the wrath that such change brings. This same tornado metaphor was revisited in the final article of *Study B*, an article that looked back over the entire 10-year period that this research took place. Future research should at least consider the idea that we are perhaps in the midst of a “perfect storm” of research opportunities. As stated in that article, the storm feeds itself as new areas of research continue to emerge and come together in ways that were unheard of only a decade ago. The “Catch-22” with this is that the more we study, the more things change...and so the cycle continues – the perfect storm is perfect because it is always changing and never subsiding; it continually picks up speed and “debris” to feed itself and grow.

Although the end of both *Study A* and each of the articles within *Study B* provide some recommendations for future research, this thesis as a whole provides some specific areas that could be of particular interest in the future:

- The use of a mix of online *and* offline marketing communication tools deserves further investigation. It is not implied that the newer, online tools will replace the more traditional offline tools, but instead work in tandem to find the ultimate communication effectiveness (i.e. reaching communication objectives) and efficiencies (i.e. with just the right amount of resources, such as time, money, competencies, etc.). As information technology evolves, keeping up with the opportunities and risks that arise are vital for both researchers and practitioners.
- All three levels of the I-E-I framework need to be studied, discussed in more detail and across other boundaries (e.g. industries, countries, etc.), as well as discussed and debated as they relate to other organizations, both within and outside of the B2B umbrella. Each layer can also be peeled

back, like and onion, and studied more in-depth. Studies that focus exclusively on the outer (public) Internet level are needed, as are studies that look exclusively at the use of the Extranet and innermost Intranet levels.

- The Extranet level can more specifically be investigated beyond the supplier-customer interface, but also look at its use in other stakeholder relationships as well, such as with suppliers and/or partners.
- Seeing (marketing) communication as a means for creating value (instead of just supplying/obtaining information) is an important step forward in modern industrial marketing communication theory. Previous theory, as well as this thesis, have uncovered that information (and how it is shared) can be seen as “gold” of the 21st century and should be treated as a value-adding commodity onto itself.
- As information technology, and more specifically the Internet, continue to evolve and even revolutionize the way business is done (and how communication is conducted), it is important to consider the times we live in. As computing power doubles every 18 months (“Moore’s Law”), our research opportunities should develop accordingly in trying to keep up with these advances in technology.
- The evolution of the marketing communication process brought forth by Hoffman and Novak (1996) provides an ongoing need to continually investigate the ways in which we as humans, within our respective organizations, continue to communicate and how the (marketing communication) process continues to be affected and how it continues to evolve as technology continues to evolve at such a rapid pace.
- The use of the Internet within buying and selling teams also deserves more attention, as findings do indicate in both studies that members of each can vary from both an inter-organizational and intra-organizational perspective.
- Although “value” here is seen as the relationship between communication effectiveness (i.e. reaching objectives) and communication efficiency (i.e. using just the right amount of resources), the concept “value” deserves more research.
- The use of the Internet as an instrument (tool) in our research should also be considered. It has affected our approaches to research and everything

from how we view “cyberspace” in relationship to the “real world” as well as the process we follow, not to mention issues related to validity, reliability, and other quality standards are also becoming revolutionized.

In general, the overall recommendation for future research efforts is to choose to stand in the path of this “perfect storm” of revolutions depicted in the final article in *Study B* (see Figure 3 on page 209). As presented by Goodman (2001) and confirmed in this thesis, by facing the flurry of a tornado, by choosing to stand in the path of this “perfect storm,” we as researchers have no choice but to get sucked up, twirled around, and become a part of this flurry of activity during what can be considered a truly (r)evolutionary period in industrial marketing communication research. This is especially in regards to the development and continuing (r)evolution of the industrial marketing communication toolbox, as well as the tools within its more traditional and emerging (cyber) compartments. Both the areas of research touched upon in this thesis, as well as the approaches used in conducting it, have drastically changed during this decade-long journey. They will continue to do so as technology continues to re-evolve, or evolve again.

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¹⁹ Because the two main studies in this thesis are a synopsis of a previously published and defended thesis (*Study A* in Chapter Two) and four separate articles (*Study B* in Chapter Three), the references for each is presented independent from the rest of the thesis (i.e. Chapters One and Four)

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Appendix A
Interview Guide: Study A
SELLERS

I. Organizational factors:

- A. Size of firm: _____
- B. Established: _____
- C. Annual Revenues: _____
- D. Profit/Loss: _____
- E. Type of equipment sold: _____
_____.

II. Selling Center Information:

- A. Department you work in: _____.
- B. Your title: _____.
- C. Others you work with to provide information to buyers (i.e. their titles and the departments they work for: _____
_____
_____
_____.
- D. Levels of your firm involved in the planning of supplying such information to buyers (please check and discuss all that apply):
____ Executive (i.e. President, CEO, VD, etc.)
____ Upper-level management (i.e. vice presidents, etc.)
____ Middle-level management
____ Engineers/technical staff
____ Marketing

III. Marketing communication tools:

Please describe for us your use of the following marketing communication (promotional) tools when providing information to buyers (potential/current) about a piece of capital equipment which you supply to the _____ industry.

A. Personal forms of communication:

- 1. Face-to-face sales meetings/sales calls:
- 2. Telephone sales calls:
- 3. Video conferencing sales calls:

4. Trade shows/exhibitions:
5. Training/education seminars for buyers:
6. Sales meetings/get-a-ways, etc.:
7. Do you count on favorable word of mouth to work for you?
  - a. Do you think the buyer uses it from internal or external sources?
8. Any other forms of personal communication tools you use?

B. Non-personal forms of communication:

1. Direct mail (i.e. mass mailings):
  - a. What materials do you tend to mail out:
2. Print ads in trade journals or magazines:
3. Prints ads in general business magazines
4. Print ads in consumer/general interest magazines:
5. Print ads in newspapers:
6. Yellow page advertising:
7. Local/regional television advertising (i.e. TV4 Norrbotten):
8. National television advertising (i.e. TV4, Sweden):
9. Cable/satellite television (i.e. TV 3, TV 5, CNN, etc.)
10. Movie/cinema advertising:
11. Local/regional radio advertising:
12. National radio advertising:
13. Billboard/outdoor signs:

14. Company cars/vehicles:
15. Buses/taxi/subway advertisements:
16. Other outdoor ads (i.e. park benches, buildings, etc.)
17. Sports uniforms or stadiums:
18. Other events, etc. (i.e. Olympics, PGA Tour, Theater, etc.):
19. Packing/shipping crates:
20. Prizes/awards for buyers:
21. Contests/competitions:
22. Gifts for buyers:
23. Trade show items (i.e. pens, luggage tags, etc.):
24. Trade-in offers:
25. Discounts on pre-payments, early payments, etc.:
26. Credit on purchases:
27. Free services (i.e. maintenance/warranty for a certain period, installation, inspections, etc.):
28. Press releases to gain publicity in the media:
29. News conferences/press retreats, etc.:
30. Training videos:
31. Business cards/letterhead stationary:
32. Brochures:
  - a. For mailing:
  - b. For distribution by sales people:

- c. To request via ads in other media:
  - d. All of the above:
- 33. Annual reports:
- 34. Company newsletters:
  - a. Available to who:
- 35. Written bids/spec sheets:
- 36. Holiday or personal cards/notes (i.e. Christmas cards, birthday cards, etc.):
- 37. Electronic Mail:
- 38. On-line video conferencing (i.e. CU-See me):
- 39. Your own company home page:
  - a. What is on your page (i.e. is it a brochure, ordering form, question and answer forum, etc.)?
  - b. Is it replacing any other media/promotional tools?
  - c. Is it being used by buyers:
  - d. Do you feel this is the future of supplying information to buyers of products like this?
- 40. Has the Internet changed the way you promote your products?
- 41. Do you sponsor any other web sites?

Appendix B
Interview Guide: Study A
BUYERS

I. Organizational factors:

- A. Size of firm: _____
- B. Established (year): _____
- C. Annual Revenues: _____
- D. Type of equipment sold: _____
_____.

II. Buying Center Information:

- A. Department you work in: _____.
- B. Your title: _____.
- C. Others you work with when purchasing such equipment (i.e. their titles and the departments they work for: _____
_____
_____
_____.
- D. Levels of your firm involved in the obtaining of such information from sellers (please check and discuss all that apply):

____ Executive (i.e. President, CEO, VD, etc.)
____ Upper-level management (i.e. vice presidents, etc.)
____ Middle-level management
____ Engineers/technical staff
____ Marketing

III. Marketing communication tools:

Please describe for us your use of the following marketing communication (promotional) tools you use to obtain information from sellers of capital equipment (major machinery) your firm purchases in the _____ industry.

A. Personal forms of communication:

- 1. Face-to-face sales meetings/sales calls:
- 2. Telephone sales calls:

3. Video conferencing sales calls:
4. Trade shows/exhibitions:
5. Training/education seminars for buyers:
6. Sales meetings/get-a-ways, etc.:
7. Do you count on favorable word of mouth to work for you?
  - a. Do you, as the buyer, use it from internal or external sources?
9. Any other forms of personal communication tools you use?

B. Non-personal forms of communication:

1. Direct mail (i.e. mass mailings):
  - a. What materials do you tend to get in the mail?
2. Print ads in trade journals or magazines:
3. Prints ads in general business magazines
4. Print ads in consumer/general interest magazines:
5. Print ads in newspapers:
6. Yellow page advertising:
7. Local/regional television advertising (i.e. TV4 Norrbotten):
8. National television advertising (i.e. TV4, Sweden):
9. Cable/satellite television (i.e. TV 3, TV 5, CNN, etc.)
10. Movie/cinema advertising:
11. Local/regional radio advertising:
12. National radio advertising:

13. Billboard/outdoor signs:
14. Company cars/vehicles:
15. Buses/taxi/subway advertisements:
16. Other outdoor ads (i.e. park benches, buildings, etc.)
17. Sports uniforms or stadiums:
18. Other events, etc. (i.e. Olympics, PGA Tour, Theater, etc.):
19. Packing/shipping crates:
20. Prizes/awards for buyers:
21. Contests/competitions:
22. Gifts for buyers:
23. Trade show items (i.e. pens, luggage tags, etc.):
24. Trade-in offers:
25. Discounts on pre-payments, early payments, etc.:
26. Credit on purchases:
27. Free services (i.e. maintenance/warranty for a certain period,
installation, inspections, etc.):
28. Press releases to gain publicity in the media:
29. News conferences/press retreats, etc.:
30. Training videos:
31. Business cards/letterhead stationary:
32. Brochures:
  - a. For mailing:
  - b. For distribution by sales people:

- c. To request via ads in other media:
- d. All of the above:

33. Annual reports:

34. Company newsletters:

- a. Available to who?

35. Written bids/spec sheets:

36. Holiday or personal cards/notes (i.e. Christmas cards, birthday cards, etc.):

37. Electronic Mail:

38. On-line video conferencing (i.e. CU-See me):

39. Do you visit suppliers home page(s) to obtain information:

- a. What do you wish was on home pages (i.e. is it a brochure, ordering form, question and answer forum, etc.)?
- b. Is it replacing any other media/promotional tools you use to obtain information?
- c. Do feel sellers are using it now to supply information to buyers?
- d. As a buyer, do you feel this is the “future” of obtaining information from sellers of products like this?

40. Has the Internet changed the way you obtain info about such products?

41. Do you visit any other web sites?

42. Do you have your own web site?

43. Any other forms of non-personal communication?

Appendix C
Acceptance Letter (e-mail) – ARTICLE 1

From: Dr Andrew Fearne [mailto:A.Fearne@kent.ac.uk]
Sent: den 30 maj 2006 21:11
To: Tim Foster
Subject: RE: Final Submission of article from Tim Foster

Tim

Apologies - struggling with backlog. Paper will appear in first issue of vol.12, 2007. Fax the JAR form to Rosie Knowles at Emeraldinsight - fax number is on the back of the form.

Regards

AF

*Dr Andrew Fearne
Centre for Supply Chain Research
Kent Business School
University of Kent
www.kent.ac.uk/KBS/CSCR
Email: a.fearne@kent.ac.uk
Tel: 01227824046
Mobile: 07775848503*

Appendix D

ARTICLE 2 – Copy of and links to published article

A copy of the actual published article (number two) are on the pages that immediately follow this one. Due to it not being possible to insert a pdf file directly into a Word document, the quality is only marginal. For a (better) quality copy of the article (pdf or html), please find, download and/or print at www.emeraldinsight.com.

The article appears in the *Journal of Business & Industrial Marketing*, Vol. 20 No. 4/5, pp. 245-252.

Creating digital value: at the heart of the I-E-I framework

Tim Foster

Division of Industrial Marketing and E-commerce, Luleå University of Technology, Luleå, Sweden

Abstract

Purpose – The purpose of this study is to provide a better understanding on the use of web sites for creating value in industrial buyer-seller relationships.

Design/methodology/approach – Through an extensive yet not exhaustive review of previous studies on business-to-business (B2B) web site development, the extranet level of a conceptual model (the I-E-I framework) is tested in an industrial setting in Sweden. Using four research questions as a guide, a qualitative, case study approach is followed in order to uncover both the industrial sellers' and buyers' perspectives on the true value of an industrial extranet.

Findings – The findings show that, for true value to be created at this level, both the seller and the buyer must not only take value out, but also put it in. Value in this setting focuses on information as the heart of true value creation, and the view that the extranet can indeed be considered the "super-glue" of such seller-buyer relationships.

Research limitations/implications – Although the aim of qualitative research is rarely to generalize in any way, it does allow one to probe more deeply and uncover detailed clues and descriptions of what is happening in an area of research that is itself dynamic and constantly changing. What practitioners can take from this study is that extranets can be developed to serve and create true value at the (core) seller-buyer relationship.

Originality/value – Empirical evidence regarding extranets in such settings has been limited. This study helps to fill this gap and provide a foundation for future research efforts within the area.

Keywords Extranets, Worldwide web, Business-to-business marketing, Manufacturing industries, Buyer-seller relationships, Sweden

Paper type Research paper

An executive summary for managers and executive readers can be found at the end of this issue.

Introduction

Value creation in a digital world

Information technology, and more specifically the internet, provides myriad tools for creating value in industrial, or in the wider context, business-to-business (B2B) settings (Vlosky *et al.*, 2000; Berthon *et al.*, 2003). In fact, we have entered an "era of value maximization" when it comes to the web in such B2B settings (Berthon *et al.*, 2003, p. 560). Yet the concept of adding value has received little attention in the business marketing literature (Payne and Holt, 2001; Ulaga, 2001; Beverland and Lockshin, 2003), and even less when it pertains to creating value on (or using) the internet (Vlosky and Fontenot, 1999; Arnott and Bridgewater, 2002). Parasuraman and Zinkhan (2002) add that the need for more internet research from a B2B perspective is imperative, and that this technological revolution has transformed lives and the way we do business. Yet, according to Deeter-Schmelz and Kennedy (2001), no empirical study since the

advent of e-commerce has examined the influence of the internet as an industrial communication tool. This study aims to make a contribution by filling in the gap that exists within the research area due to a lack of empirical evidence.

Value is in part derived from technology, information, knowledge, and social interaction (Baker *et al.*, 1998), all of which are key components of the internet. However, it must also be recognized that doing business in a digital world implies not losing sight of the importance of coordinating online strategies with the ones used more traditionally offline by organizations (Porter, 2001). Sellers in B2B settings are embracing technology-mediated sales communication tools such as web sites to reach out to buyers (MacDonald and Smith, 2004). Sharma (2002) explains that if companies do not capture the value that emerging technologies such as the internet provide, then value will actually begin to migrate from their companies. To overcome this risk, Sharma suggests that firms develop an information platform that encompasses all of the functions of a firm and its partners (i.e. the network of organization including but not limited to suppliers, partners, and customers). The value of such an approach is in information exchange leading to a reduction in exchange friction. This will then allow for an increase in both the efficiency and effectiveness for firms in such a network of business relationships.

The value of long-term relationships

Although it is recognized that little research has been done within the area of online value creation, scholarly research in B2B settings is focusing more and more on the importance of doing so, as this assists organizations in building and maintaining long-term relationships (Beverland and Lockshin, 2003). Even though relationships in B2B settings

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The current issue and full text archive of this journal is available at www.emeraldinsight.com/0885-8624.htm

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are often strained (Emiliani, 2003), technology is coming to the rescue and being used to create opportunities for organizations keen on becoming more effective and efficient in such relationships (Sahay *et al.*, 2003). The use of technology to improve relationships between sellers and buyers, or in any relationship within an industrial network, is pushing organizations to take a more careful look at the use of their web sites in creating value for customers (Sharma, 2002), as well as other stakeholders in the value/supply chain network (Fink and Laupase, 2000).

The supply chain today is seen as being an important element in the value creation process (McGuffog, 1997; Dawson, 2002), yet there is a “core” to this network: Ritter and Gemünden (2003) present at the core of a network of innovation partners the focal company, surrounded first by suppliers and buyers, but then also co-suppliers, administration, consultants, competitors, and distributors. For Anderson *et al.* (1994), the “core” is in fact the buyer-seller relationship, or what they refer to as the focal relationship. Surrounding this core relationship is a number of continuing dyads (business relationships) that connect into a larger business-to-business network. All of this adds up to an ever-changing value chain of inter-organizational relationships. Ulaga (2001) adds that one can investigate value creation at this core (seller-buyer) level from three different perspectives: The seller’s perspective, the buyer’s perspective, or from the seller-buyer perspective. From the discussion above, the purpose of this study is to provide a better understanding on the use of web sites for creating value in industrial buyer-seller relationships. In light of the above discussion and the research purpose that results from it, this article will focus on the use of web sites only and not broader internet or IT applications.

Literature review

The evolution of B2B web sites

The design of B2B web sites is critical (Evans and King, 1999). More specifically, Shoemaker (2001) stipulates that relationships between sellers and buyers can actually be damaged by offering a poorly developed web site. According to Ling and Yen (2001), such sites have evolved from first being developed as general (public) internet web sites, moving on to include new levels, such as employee-only intranets. Not only are the web sites themselves evolving, but the B2B marketer is evolving right along with them (Sharma, 2002). One of the main opportunities with web site design according to Honeycutt *et al.* (1998) is with regards to how the company and/or product are communicated online. They found that one of the downsides of these B2B sites included the development of what can simply be viewed as dull (i.e. static) web sites. Yet little research has been done on establishing models and frameworks for maximizing the interaction between an organization’s web site and its stakeholders (Fink and Laupase, 2000). Many studies on web sites in B2B settings to date have focused on what type of content the site should have (e.g. Perry and Bodkin, 2000; Bauer and Scharl, 2000), the overall web site design (e.g. Lord and Collins, 2002; Kim *et al.*, 2003) or the stages in its development (Arnott and Bridgewater, 2002). Only recently have studies started to look at what truly makes a B2B web site more valuable, such as Chakraborty *et al.* (2003), who asked customers what factors were the most important in using B2B

web sites. They found that while organization of the web site was most important, nontransaction-related interactivity, privacy/security, and how informative the site was were also important. Of relatively little importance were factors such as transaction-related interactivity, personalization, and entertainment.

Yet so many of these studies look at web sites as if there was a single layer, when there are actually three broad layers: First, there is the general (public) web site mentioned by Ling and Yen (2001), which can also be viewed as the “entryway” or online portal into the organization in cyberspace. Following this is the extranet level, often used for specific, pre-approved stakeholder groups, such as suppliers, partners and/or customers (Lamb, 2003). Finally, there is the innermost intranet level for employees within a specific organization (Ling and Yen, 2001; Lamb, 2003; Chaffey *et al.*, 2003). In a study that looked at web site use from several of these perspectives, Hoey (1998) developed one of the first frameworks focusing on the use of web sites throughout a (virtual) supply chain in a B2B setting. Hoey showed that such a supply chain provides its members, through a web site, a framework where each member of the value chain not only provides but is also provided information through its own resources (information) and the resources of other members. Through this interaction, the web site provides a form of web connectivity. Sharma (2002) shows a similar internet connection between suppliers, the selling firm, and its customers, referring to it as a “common information platform” (p. 80). However, it was recognized that “web connectivity” according to both Hoey (1998) and Sharma (2002) meant that such a connection existed on only one level. Scholars such as Vlosky *et al.* (2000), Lamb (2003) and Chaffey *et al.* (2003), feel that different stakeholders within such a value chain require different access points at the internet (public), extranet (specific third parties, e.g. customers, partners, suppliers), and intranet (employee-only) levels. By combining the work of Hoey (*ibid.*) and Chaffey *et al.* (*ibid.*), Foster (2004) developed a framework that looked at the use of the internet (specifically B2B web sites) from the perspective of all three levels across the entire value chain in what can be referred to as the I-E-I framework (see Figure 1).

The I-E-I Framework can be investigated as a whole but, like an onion, can (and should) be peeled, level-by-level, and within each I-E-I level, layer-by-layer, focusing on the value created for stakeholders across the entire supply/value chain. This study will do just that, focusing on those parts of the framework shaded in grey in Figure 1, namely the extranet level and the use of it by a selling organization and its buyers.

The use of extranets in B2B settings

The development of extranet research has been limited at best, and the study of this level represents the next trend in internet research (Ling and Yen, 2001). This is not only due to the evolution of the area, but perhaps also due to “access” to such levels being an issue, as gaining access to such sensitive levels of an organization’s online efforts is no easy task. Access, according to Gummesson (2000), is of vital importance in management research. McCune (1998) recognized that very few companies even had extranets before the new millennium. Baker (2000) added that the use of extranets in B2B settings is basically overlooked and underused by most organizations, yet is one of the most

Figure 1 The I-E-I framework

Source: Foster (2004)

important strategic choices an organization can make. The early studies on extranets seemed to focus primarily on the benefits of developing and using one with business partners. McCune (1998) looked at cost benefits, as well as less tangible benefits such as helping customers help themselves and thereby deepening the ties between a seller and buyer. Anandarajan *et al.* (1998), also looked at the cost-related benefits of an extranet from a value chain perspective, noting that the adoption of an extranet by an organization aids it in three areas: Strategic benefits, tactical benefits, and operational benefits.

Although the early studies made a contribution and pushed both scholars and practitioners to start thinking more about this increasingly important web site level, as we entered the twenty-first century, extranet research grew up. Vlosky *et al.* (2000) put it bluntly in the first sentence of their article on extranets and their impact on business practices and relationships in B2B settings: "Add value" (p. 438). Their overall conclusion was that companies can tailor technologies such as the internet to their own, unique needs, as well as the needs of others in the value chain. These scholars discussed not only the development of and benefits from extranet use, but went on to discuss the value of extranets in buyer-seller relationships and how they are actually used in such settings. Baker (2000) explained four keys to success in developing an extranet strategy in the form of four functions: First, extranets have always been (and always will be) about information sharing with suppliers, partners, and/or customers; the second function is that, beyond information sharing, an extranet could be used as a strategic form of communication between companies; the third function focuses on providing access to key information application processes (i.e. order entry and production tracking); the fourth function, and possibly most critical according to Baker, is overall security, or the ability to safeguard such information and the way in which it is communicated. From this, Ling and Yen (2001) weighed the advantages versus disadvantages of using an extranet, as well as the use (or applications) of them within sales and

marketing, product development, customer service, human resource applications, as well as financial applications.

Starting in 2002, Sharma began to look more at "value" and extranets specifically from a B2B perspective. Taking an evolutionary perspective on the use of the internet in such settings, Sharma found that value will increase as the users of an extranet take a journey through various levels of extranet development: Starting with information, then communication, transactions, relationship marketing, and finally e-commerce. The flaw with this thinking is that "value" is only created if something is sold and purchased online, yet in many industrial settings, this is not possible. This is also contradictory to other scholars who feel that information is of much greater value compared to where Sharma places it: Freiden *et al.* (1998) state that information itself is a unique and important part of a new concept of "product", which focuses on an equal integration of tangible good, services associated with, and information included in the "product". Information, according to Walton (2000), will become the gold of the twenty-first century.

Dubas and Brennan (2002) published research on the marketing implications of extranets and webcasting, but again the focus of the article was on the benefits that collaboration among extranet participants (including producers, suppliers, distributors, and customers) brings. It was at this juncture of the literature review that an important question arose: Is what the supplier or buyer receives in terms of "benefits" the only true measure of online value creation? Gummesson (2002) explains that the "value economy" of today means that, "suppliers both produce and consume value ... and customers do the same" (p. 587). Phairor and Hanmer-Lloyd (2002) focused on the extranet and its profound impact on the way channel members communicate with one another, the value of which is in the improvement of the communication and in the overall relationships themselves (including the putting in of information in order to take it out). Metaphorically, they state that communication is the glue that holds a channel together. Could it be that the extranet has become the "super-glue" of B2B relationships?

Based on the aforementioned purpose of this study, along with the thinking of Phairor and Hanmer-Lloyd (2002) and Gummesson (2002), that value is created by both putting something in as well as taking something out, the following research questions emerge as being relevant for this study:

- What is the value input to this online (extranet) environment by industrial sellers?
- What is the value input to this online (extranet) environment by industrial buyers?
- What is the value output taken from this online (extranet) environment by industrial sellers?
- What is the value output taken from this online (extranet) environment by industrial buyers?

Methodology

A case study approach

The methodology employed to collect the data to answer the research questions stated above was an in-depth, longitudinal, multiple-case study approach. This longitudinal approach is recommended by the authors of one of the more recent and extensive studies done to date on technology-mediated communication in a B2B context (MacDonald and Smith, 2004). Longitudinal research is also used when focusing on

value creation in seller-buyer relationships (Beverland and Lockshin, 2003). What made this study longitudinal in nature was the fact that the data on the extranet (as well as other levels of the I-E-I framework in this context), was collected over a nearly one-year time period as a part of an ongoing series of research efforts focusing on peeling the I-E-I framework back, level-by-level, layer-by-layer.

The use of case studies is a common approach in B2B research and has been used by various scholars looking at the various levels of web sites within such settings (e.g. Anandarajan *et al.*, 1998; Yen and Chou, 2001). For the purpose of this study, an industrial company with an advanced extranet application was first identified, namely LKAB, a high-tech mineral/mining company in northern Sweden, one of the more advanced IT countries in the world (Deboo *et al.*, 2003). In early contact with LKAB, a total of four buying organizations within the Nordic region in Europe (i.e. Sweden and Finland) were identified as companies with the only access to LKAB's extranet. Of these four, two buying organizations, along with specific individuals in them, were identified by the sales manager (SM) at LKAB as the most extensive users of the LKAB extranet. The focus on buyers in such situations is of vital importance according to Beverland and Lockshin (2003), who state that to understand "value", one must focus on the customer's perspective and not only the seller's. MacDonald and Smith (2004) support this by asserting that the consideration of buyer reactions to a seller's implementation of technology-mediated communication is vital, as the use of such technology is especially important from a relationship perspective.

Case 1 will represent the seller's perspective of the extranet. Because such a selling organization has more than one customer, the customer perspective is represented by two of the four buying organizations mentioned above, namely SSAB Oxelösund in Sweden (case 2), and Rautaruukki in Finland (case 3). These three case studies and the phenomena under investigation, as outline in the purpose, are depicted in Figure 2.

In case study research, Yin (1994) explains that the use of multiple sources of evidence is very important in order to increase the validity of the findings. Data collection for these three case studies relied upon three sources of evidence: Observation of and interaction with the LKAB extranet; in-depth interviews with those who used it (i.e. key informants within the selling organization and the two buying organizations), and documentation (in the form of anything written that pertained specifically to LKAB's extranet and general web site strategies). Those specific individuals who were interviewed will be presented in the findings below. Interviews were conducted both in person and over the

telephone, with follow-up via e-mail and phone on several occasions.

The study

Findings from the three case studies

The findings from the three case studies will be presented following the value in – value out theme of the four research questions, first from the seller's perspective (case 1) and then from the buyers' perspective (case 2 and case 3). In order to gain access to LKAB's extranet, contact was first taken with the vice president of public relations and quality (herein referred to as VP). Vlosky *et al.* (2000) used a similar strategy in B2B web site research, using e-mail to first establish contact with those in public relations and corporate communication positions in the selling organization. It was VP who presented and discussed all three levels of the I-E-I framework at LKAB, each level developed with certain stakeholders in mind: The internet (public) level focused on the general public and mass media; the extranet focused on certain customers; and the intranet on employees at LKAB. From this initial contact with VP, the sales manager for the Nordic region (herein referred to as SM) was made possible. Data from the sales manager in this case is also justified by Shoemaker (2001), who states that salespeople focus on building relationships that result in connecting customers through the use of extranets.

Case 1: the LKAB extranet from the seller's perspective

The LKAB extranet was first entered and then experienced through a demonstration by VP, providing a broader overview of LKAB's extranet within the entire I-E-I framework used within the organization. This was followed by a separate demonstration by SM, who provided a more specific and advanced understanding of what a customer actually experiences, which was important before actually talking to those in the buying side case studies. LKAB is primarily in the business of mining and selling iron ore in the form of pellets. Each order of pellets is unique in terms of its intended use, size, makeup, and quality. According to SM, who oversees much of this part of the organization's online efforts, the LKAB extranet is all about giving their four primary customers the information (and interaction opportunities) they need, when they need it, and how they want it. The extranet was developed exclusively with these primary customers in mind. These customers were used early on in the extranet creation process as a sounding board and testing ground for online collaboration and the development of this level of LKAB's I-E-I framework. The LKAB extranet efforts for its Nordic customers is not about "placing orders", as iron ore cannot be bought, sold or shipped over the internet. Instead, other value-added efforts are being made and coordinated, both online and offline, to enhance the industrial seller-buyer relationship. As SM explained, "We are 98 per cent product flow, 2 per cent information flow". He added, however, that the information is a vital part of the seller-buyer relationship and it is seen as a true value-added service. The key is being able to coordinate these online-offline efforts as a means for truly serving the customer. Everything that LKAB does for its customers online is based on what the customer has asked for. From their offline discussions with their customers, LKAB's extranet was developed around three primary areas: Physical needs, IT

Figure 2 Overview of the case-study approach used for this study

applications, and customer data. SM feels that what they make work within these Nordic relationships can be a means for possibly attracting new customers in the future, providing LKAB with a dual offline (the quality of their iron ore) and online (the value-added information services) competitive advantage.

For their physical needs, LKAB has developed an offline form of value: "The Experimental Blast Furnace". To process the pellets that LKAB sells, blast furnaces at steel plants are used to melt and develop the steel to be sold further sold to industries dependent on it. Shutting down a blast furnace to "test" something or even for routine maintenance is a costly and risky venture. A "miniature" version of an actual blast furnace was developed by LKAB to be able to run tests which relate to improving the effectiveness and efficiency of forging steel. Although LKAB sees the blast furnace as a "magnet" for both potential customers as well as a means for taking care of their existing customer relationships offline, their web site (online) is seen as a "magnet" for getting this part of the value chain involved in their extranet. They do this by (briefly) discussing the furnace and its potential to offer rich, customer-specific information at the public (internet) level of their main web site, lkab.com. According to VP, the problem with this being launched and used today revolves around online security issues: Each "test" of the blast furnace produces customer-specific data, and this information needs to be shared with that customer only. Although SM also sees incredible value being created by sharing information online via an extranet application, the security risks that both LKAB and its customers feel is always present prohibits this information from going online at the present time.

Regarding IT applications, SM logged on and showed the depths of their extranet application as if he were a customer (an actual recent iron ore order was used as the example while we were online). It was explained that, from the customer's perspective, the extranet is basically an order-tracking IT application, with certain features that are used to create value in the relationship for both sides throughout the respective selling and buying processes. After logging on, each customer will come to their own personalized "extranet" site. Once there, the customer can then click on "Delivery info", "Contact info", and "CRM". SM explained that the speed and access to this information is of key importance to customers, and what they feel is lacking now is "one-click" access to the information they want. Once they click on any of these three areas, the customer is then able to go deeper into that area to interact, obtain information, and even supply information back to the LKAB. This includes several main categories from which to choose, including "subscribing" only to those value-added services they are interested in. This menu of choices includes "Delivery information", which includes information on where the shipment is in the delivery process or the ability to change vessels to speed up the process; "Document services", which offers risk analysis, protocols, PowerPoint presentations, and process overviews; "Remarks", which is an area where the customer can leave complaints and other postings. SM feels that this is the most important part of the extranet, as it allows for a true, interactive service that provides information to and from LKAB and its customers. Finally, there is "Special info", which allows for more group-oriented – i.e. multiple customers – to receive information of interest to all of them.

Regarding customer information, this is what SM feels will truly make a difference in allowing LKAB to use the extranet to provide customer-specific information to create true value. Here SM would like to allow LKAB to obtain real-time access to each customer's data online in order to not only avoid problems, but take advantage of opportunities as they develop. This, according to SM is more of a future objective online rather than a current reality. Included in this future goal would be the ability to create online value in the form of data that originates from offline value being created through the use of a true competitive advantage for LKAB, such as the experimental blast furnace discussed earlier. Again, the sensitivity to such data and the security needed to keep it safe keeps LKAB from allowing such customer-specific information to be placed online at this time.

Case 2 and Case 3: the LKAB extranet from the buyer's perspective

For each of the buying side case studies, SM provided specific names of those individuals he thought were relevant to start talking to, as they were identified as the main users of the LKAB extranet within the respective buying organizations. In each case, SM provided someone in an active purchasing role, as well as someone in a more technical non-purchasing role. In both cases, this could be seen as providing a perspective on the use of the extranet from someone in a pre-purchase position and someone in a post-purchase position. At SSAB in Oxelösund, Sweden (case 2), the purchaser of raw materials, who negotiated the orders with LKAB and saw to it that LKAB delivered what they agreed to, was interviewed, along with another person more focused on post-purchase issues, namely the person in charge of raw material planning. The buying case at Rautaruukki in Finland (case 3) included the purchasing manager (pre-purchase) and the production manager (post-purchase).

As was presented in analyzing the seller case data, analysis of the buyer side interviews also supports the idea that there is not only the value taken out of the LKAB extranet by buyers, but there is also the value they put in to it. In terms of the value they take from using the extranet, the primary value identified in both cases was time saved, which seems to be among their most important reasons for using the extranet. In both buying side case studies, saving time makes their work more efficient. Efficient for them implies a proper use of resources such as time, which also implies money and energy (i.e. work), as they are using such company resources to obtain and use the information they take out of the extranet. However, efficiency is only half the equation. They must also have the right kind of information, and this they feel they are getting when it comes to the IT applications made available by the extranet. Part of the right information comes from the information being more dynamic in nature. Examples of more dynamic data included being able to review a contract signed for a specific order with LKAB, being able to obtain information about the ore itself, as well as the logistics behind the actual shipment, including the ability to change vessels to get the order delivered faster or to avoid delays. Furthermore, in both cases, old data that used to be saved on their own computers or placed in paper form in an archive somewhere on their office shelves was now permanently available on the extranet, a service that was greatly appreciated. This implies that the extranet is also effective. This mix of increased efficiency (saved time, money, energy,

etc.) plus being effective (i.e. getting the right information in the right way) is perhaps where true buyer side value in B2B extranets resides.

One interesting finding across both cases was that the pre-purchase (i.e. both purchasing managers at each company) were more positive regarding the extranet, either in terms of specific features they liked and/or in being more likely to use it. The post-purchase (“technical”) buying team members seemed more negative towards its use: Either they used it less or found aspects they simply did not like. Some of this is based not only on preferring the “old way” of receiving information (i.e. over the telephone or via fax), but also in terms of the effort it took to obtain the information they needed. As one post-purchase buying team user of the extranet explained, the first IT efforts by LKAB were not extranet based, but instead relied upon the use of e-mail. Via e-mail, information about the ore and its shipment was sent regularly, meaning the person on the buying side got the information without having to request it or look for it once they received it. This meant they had to use only one click to open the e-mail before the data was in front of them. With the extranet, e-mail is used now only as a “warning” device that new information is available (click number one), followed by the need to log-on to their specific extranet site (which meant a second click plus filling in username and password info), followed by going to that part of the extranet where the shipping info they might be interested in resides (clicks three and possibly more). One suggestion was that a link within the e-mail being sent allows them to utilize an auto log-on to the extranet that takes them directly to specific types of information. The e-mail, in that sense was a “menu” of information that allowed, by one-click access, an auto log-on to the extranet and a route directly to that information they clicked within the e-mail.

Yet value output (what the buyers take out of the extranet) was only half of it. In terms of value input, what buyers in this setting put into the extranet includes providing information and making known their extranet habits. These buyers are providing LKAB the potential to become more proactive in meeting their needs and solving their problems as customers, which in turn makes LKAB more efficient (use of resources) and effective (giving the customer what they want, sometimes before they realize they even need it). This can come in the form of eventually being able to have access to offline value being delivered online in the form of information about the results of tests on the experimental blasting furnace or getting the customer used to leaving more information in the “remarks” section, be it a suggestion, complaint, observation, or even a compliment. None of those interviewed in either buying side case study regularly used the “remarks” section of the LKAB extranet, hindering LKAB from not only getting the information, but using it to identify patterns of problems across all of its relationships, which would allow them to become more proactive. In the end, the use of the extranet by the buyers resulted in more satisfied customers through the value added services provided by the efficiency and effectiveness of the information obtained.

Conclusions and implications

This article set out to provide a better understanding on the use of web sites for creating value in industrial buyer-seller relationships. Through an extensive yet not exhaustive review

of previous studies on B2B web site development in general, and more specifically the use of extranets, four research questions emerged. These research questions provided a methodological foundation from which empirical evidence could be obtained from an industrial setting in Sweden. Using within-case as well as cross-case analysis (Miles and Huberman, 1994), findings were compared not only with the theory on extranets reviewed, but between the cases as well. From this, the following specific conclusions and implications for future research are provided.

In general, access to the extranet was exclusive to those buyers geographically and culturally closest to the selling organization. It seems the farther away buyers were in the real world, the less access they had in the digital world of cyberspace, at least at the extranet level of this seller's I-E-I framework. Of particular interest was the finding that within the buying organizations, there was more use (and therefore value) of the extranet by the pre-purchase member of the buying team versus the post-purchase member in that same team. There is no indication as to why this is, leading to the question, is it the role within the buying team that determines extranet use or is it the individual characteristics (i.e. background, personality, etc.) of the member within that team? This of course deserves more research.

Value in-value out

In order for a stakeholder to take out something of value from the (extranet) level they have access to, they must in turn put something in: For the industrial seller in this study, time, money, effort and talent are all a part of putting the value-added service it provides to its customers. What the seller takes out is a more satisfied customer and the opportunity to become proactive in handling customer problems versus only reactive. The extranet is not the “crystal ball” they might want, but it's the next best thing. In the end, the industrial selling organization gets out of their input an improved relationship with its customers in what is becoming an increasingly competitive environment. They are also able to better serve their customers' needs while at the same time saving resources, as the speed to react to customer needs or problems is greatly increased via the use of the extranet.

Industrial buyers also have value inputs into the extranet: Their use of the extranet provides the seller information through not only downloading order-specific information, but also other types of documentation that otherwise required them to save on their own computer or in a notebook on an office shelf. For industrial buyers, time, which they consider highly valuable, is not only put into using the extranet, but they also take out (i.e. save) time. In general, what industrial sellers get out of this extranet is the value of having the right information (current, order-specific information as well as historical data), at the right time (i.e. right now), and in the right way (never more than a few clicks away, with e-mail reminders of when new information is available, or perhaps in the future, via a web link directly from the e-mail with no log-on necessary).

Taking the portion of the I-E-I framework shaded in grey as presented earlier in Figure 1, namely the use of the extranet level of the framework by industrial sellers and buyers, the findings from the case studies presented above results in an online/offline value input-value output relationship between industrial sellers and buyers. The result of this is the

development of a B2B online value-creation model shown in Figure 3.

The “wedding band” visualization shown on both sides of the B2B online value-creation model above is no accident. It demonstrates that, as in other forms of legally-binding relationships (e.g. “marriage”), where a formal contract is put in writing and an informal one (trust) is often taken for granted, both sides of this relationship must work together and each should have something to offer if true value is to be created. The findings of this study indicate that both seller and buyer must, in order to take out value, collectively and/or individually provide it as well. The model also represents the importance of the link between the online and offline environments, supporting Porter’s (2001) contention that true value is created when integrating the internet into overall (including offline) strategy. The spiral effect of value emanating from both the online world and the offline world shows that the value input of the industrial seller becomes the value output of the industrial buyer, while the value input of the buyer becomes the value output of the seller. Such a spiral could also provide a basis for certain value inputs and outputs being preferred over others, as was found in this study. In support of Chakraborty *et al.* (2003), organization of the web site, nontransaction-related interactivity, privacy/security, and how informative the site was, were also important, whereas transaction-oriented interactivity and entertainment value were not. This also implies that the argument from Sharma (2002), i.e. that “information” was of the least value, needs to be reconsidered. Regardless of where one starts, be it with the selling or buying organization, and regardless of whether it is an input or output, the idea is simple: The more value that is provided and used between the seller and buyer, coming from both online and off, the more “true value” (seen at the heart of the model) is actually developed.

What binds industrial sellers and buyers is metaphorically laid out by Phairor and Hanmer-Lloyd (2002): The extranet in this study can in fact be seen as the communication “super-glue” that brings together and creates mutual value between both sides of this focal seller-buyer relationship, but only if both are willing to create value and not just become the beneficiary of it. The extranet is indeed the heart of the I-E-I framework. What remains to be seen is if this “super-glue”

Figure 3 Creating digital value in industrial seller-buyer relationships

holds for other relationships throughout the value chain network and within the other layers of the I-E-I framework.

The future of extranets and the I-E-I framework

The scholarly contribution of this article, as discussed above and resulting in the B2B online value-creation model, is of no use if it does not also somehow add something to those running (or considering to start up) an extranet as a part of their own corporate I-E-I framework development. What practitioners can take from this study is that extranets can be developed to serve and create value at the (core) seller-buyer relationship in such B2B settings. It can also serve to enhance other relationships with suppliers, partners, investors, etc. Yet it must be kept in mind, value is a two-way street: You get out what you put in. This of course deserves future research. There are more value inputs and value outputs to be discovered, discussed and debated, as this article only got things started.

This look at the heart of the I-E-I framework, in this case the core industrial seller-buyer relationship, is but one example and is presented here as a starting point for future research. As all research should, it likely gives rise to more questions versus providing answers. Based on a qualitative, case study approach, limitations of course exist, the main one being the generalizability of the findings. Although the aim of qualitative research is rarely to generalize in any way, such research does allow us to go more in depth and uncover detailed clues and descriptions of what is happening in an area of research that is itself dynamic and constantly changing. Keeping up with it means taking a continual look at other extranet applications as they pertain not only to industrial seller-buyer relationships, but to other channel relationships as well, regardless of whether such relationships exist on the innermost intranet level, the extranet level, or the outermost (public) internet level. Other examples of and uses for the extranet level are out there and must be shared in order to gain a continuing understanding of how the internet is used as a marketing (communication) tool to create value for all stakeholders in this ever-changing digital world we live in.

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Appendix E
E-mail for review – ARTICLE 3

From: Dr. David G. Schwartz [mailto:dschwar@mail.biu.ac.il]
Sent: den 1 november 2005 17:24
To: Tim Foster
Subject: RE: Article submission to Internet Research

Dear Dr. Foster,

I would be happy to send the paper out for review, but before doing so would suggest that you update your references. I obviously do not know when this paper was written, but you have cited nothing later than 2003 and my feeling is that this field is developing rapidly. One place you can look is at the work of [Christine Hine](http://www.soc.surrey.ac.uk/christine_hine.htm).
http://www.soc.surrey.ac.uk/christine_hine.htm and her book on virtual methods in social science research on the internet:
http://www.bergpublishers.com/uk/book_page.asp?BKTitle=Virtual%20Methods

That being said, I do think you are addressing an interesting topic and would like to see this paper developed.

best regards,

--David Schwartz

Appendix F
Acceptance Letter – ARTICLE 4

Academy of Marketing Science

January 23, 2006

Tim Foster
Luleå University of Technology
97187 Luleå
SWEDEN

Dear Tim:

Congratulations on the acceptance of your paper titled “Industrial Marketing Communication: A (R)evolutionary Journey from Marketplace to Marketspace” for presentation at the 2006 Academy of Marketing Science Annual Conference to be held May 24-27 at the Hyatt Regency in San Antonio, Texas. The reviewers were asked to provide comments to forward to you. The comments on your paper are enclosed. The manuscript is being returned to authors only in cases in which a reviewer wrote his/her observations on the actual manuscript.

Please revise your paper based on the reviewers' comments. Then, send me an electronic copy of the revised manuscript by e-mail no later than January 31, 2006. I will forward copies to the Session Chair and Discussant. Details regarding the revision format for the *Proceedings* will be forthcoming from the Proceedings Editor.

Please remember that **at least one author must attend the conference to present the paper. Also, all authors of papers presented must be members in good standing of the Academy of Marketing Science at the time of the conference.** In preparation for your conference presentation, please note that **only overhead projectors will be available (i.e., no computer projectors).** This equipment will only support acetate transparencies.

At a later date, you will receive the particulars on the session that includes your paper. The information will include time, chairperson's name, and discussion leader's name. However, because of the large number of competitive paper and special sessions, sessions will begin as early as noon on Wednesday, May 24, 2006. If making early arrangements, please plan your travel to accommodate the possibility that your session may be placed into the earliest time slot.

Sincerely,

Jeffrey Lewin, Track Chair
2006 AMS B2B Track

E-MAIL: LewinJ@unt.edu
Enclosures