The Impact of Internet Use on Inter-Firm Relationships in Australian Service Industries

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Abstract

The impact of the internet on inter-firm relationships has received little attention in the academic literature. This theory building research develops a conceptual framework about internet-facilitated relationships based on the literature and research findings from convergent interviews. The convergent interviews were conducted with CEOs and/or marketing managers of 10 Australian service companies. Results show that the internet does not appear to hinder inter-firm relationships as the internet is not being used at the expense of more traditional and personal forms of communication and has little impact on the level of trust in internet exchange partners and the dependence they have on one another at this relatively early stage of adoption. Rather, internet use is thought to be linked with improved business performance and satisfaction with the exchange partner's performance. The findings of this research add to the body of marketing knowledge and provide guidelines for managers to more effectively use the internet in managing their relationships with other businesses.

Keywords: Internet marketing, relationship marketing, B2B relationships

1. Introduction

The impact of the internet on business is increasing worldwide. Business-to-business transactions account for over 80 percent of all transactions conducted over the internet (Australian Bureau of Statistics, 2001), totalling more than US$400 billion in 2000 and an estimated US$2 trillion by 2003 (Global Internet Statistics, 2001). Australia is one of the leading nations in terms of using the internet in both business-to-customer (B2C) and business-to-business (B2B) settings. Recently, the focus of e-commerce in Australia has shifted from B2C e-commerce to the effective use of e-commerce tools to make business processes and B2B relationships more efficient (National Office for the Information Economy, 2001). While practitioners are realising this potential for using the internet to build profitable, long-term relationships with their trading partners, this topic has received little consideration from marketing scholars.

Moreover, the value of a high quality relationship, particularly the relationship between a service provider and their customers, is noteworthy in the service sector. Customers often rely on the credibility of service providers and their previous experiences with them due largely to the intangible nature of services. Next, the production of many services requires that customers and service providers interact with one another (Claycomb and Martin, 2001). Customers' perceptions of the quality of the relationship with a service provider may be commensurate with the quality of the service itself. Thus a strong relationship between customers and the service provider engenders trust that is necessary for customers to commit to the service. Essentially, we argue that relationship quality between trading partners and their business performance is enhanced through the use of the internet, with the internet affecting technical bonds more than social bonds.

This paper has three parts. First, research issues from the literature are identified. Then, the methodology of convergent interviewing is briefly described. Finally, findings are presented and discussed, and a theoretical framework presented that integrates the findings of the convergent interviews.

2. Conceptual Background

2.1 Relationship Marketing

This research investigates the intersection of relationship marketing and internet marketing. Relationship marketing was first investigated in the 1970s. Driven by global competition, relationship marketing was noticed when many businesses learnt that they must collaborate to compete (Palmer 1997, 2000). However, it was not until the late 1970s and the 1980s that the term "relationship marketing" emerged in the marketing literature. Simultaneously but independently, researchers in the United States (for example, Wilson, 1976; Jackson, 1985) and Europe (for example, Gummesson, 1987; Hakansson, 1982; Johanson and Mattsson, 1987) began to look beyond simple dyadic transactions and began to explore the notion of dyadic relationships (Healy, Hastings, Brown and Gardiner, 2001). The two major theoretical streams of relationship marketing were the Nordic school focusing on services marketing, and the Network Approach to industrial marketing developed by the international marketing and purchasing group (IMP) (Gummesson, Lehtinen and Gronroos, 1997).

Since then relationship marketing has evolved over the last two decades with the emphasis shifting with different approaches. One of the earliest approaches to relationship marketing research was social exchange theory, which placed importance on interactive marketing activities (Anderson and Narus, 1984; Araujo and Easton, 1996; Sheth and Parvatiyar, 1995). Other approaches have been grounded in inter-organisation theory (Van de Ven, 1992) and industrial network theory (Mattson, 1985). Some scholars claim that only people create relationships, while others believe that customised and personalised technologically delivered services may strengthen long-term relationships (for example, Thirkell, 1997; Schultz, 1997). For example, a recent approach to relationship marketing is predicated on the interactivity of the internet and the opportunities this provides for relationship marketing to be practiced at a one-to-one level (Geiger and Martin, 1999; Gillenson, Sherrell and Chen, 1999; Peppers, Rogers and Dorf, 1999).

In brief, representative scholarly literature on relationship marketing is organised around several themes. There have been attempts at defining the components of relationships, but the number of components and their definitions are widely divergent. As well, there seems to be no consensus on the role of technology in the establishment of relationships.

2.2 Internet Marketing

In the last five years, internet marketing literature has increased dramatically as a result of the rapid adoption of the internet in marketing practice (Smith, 1998). The bulk of the early practitioner's literature on internet marketing was aimed at telling entrepreneurs how to go about establishing a place in cyber market space, such as how to set up a web page. In the 1990s, attention among scholars focused on the revolutionary impact of internet technologies on the marketing discipline. Hoffman and Novak (1996) were among the first to recognise the consequences of the development of a new medium in which all parties interact with each other. In the same vein, Deighton (1996) suggested that the practice of marketing would be completely remoulded by the emergence of the internet. Attention in the literature has focused on the revolutionary impacts of internet on the marketing discipline (for example, Hoffman and Novak, 1996; Deighton, 1997; Geller, 1998), particularly the connection between the internet and international marketing (Poon and Jeven, 1999; Quelch and Klein, 1996; Hamill, 1997; Hamill and Gregory, 1997; Bennett, 1997) and relationship marketing (Geller, 1998; Geiger and Martin, 1999).

Some scholars have argued that the internet has created a new marketing arena, moving organisations closer to their customers (Griffith and Palmer, 1999; Heinen, 1996). Others have even posed the question of whether a new marketing paradigm is required in an era of increasing electronic business (Berthon, Pitt and Watson, 1996; Schubert and Selz, 1999). However, most of the literature agrees with the notion that the internet can be placed in the technological context of emerging interactive marketing technologies. It is one of the most important marketing tools because it has the potential to facilitate relationships in both B2C and B2B contexts.

Business-to-business (B2B) internet marketing includes the use of all three forms of e-commerce (internet, intranet and extranet) for purchasing goods and services, buying information and consulting services, and submitting requests for proposals and receiving proposals (Kalakota and Whinston, 1997; Watson, Berthon, Pitt and Zinkhan, 2000). The B2B internet-based technologies provide effective and efficient ways in which corporate buyers can gather information rapidly about available products and services, evaluate and negotiate with suppliers, implement order fulfilment over communication links and access post-sales services (Vlosky, Fontenot and Blalock, 2000). From the supplier's side, marketing, sales, and service information is also readily gathered from customers (Archer and Yuan, 2000). This application of internet-based systems for improving supply chain performance forms the basis for B2B e-commerce. The pace of change in this area has been rapid, making it difficult for companies to examine thoroughly the advantages and disadvantages of different ways of managing inter-firm relationships.

2.3 Research Objectives

In brief, the literature suggests that B2B internet usage emphasises the generation and exploitation of new business opportunities, and the enhancement and transformation of inter-organisational relationships in order to make business more efficient. However, there have been no attempts to empirically test the relationship-facilitating aspects of the internet in a B2B situation. Indeed, most of what is known about the potential for internet-facilitated relationships seems to be anecdotal, experiential, ad hoc and descriptive (Peterson, Balasubramanian and Bronnenberg, 1997). Therefore there is a need to construct a comprehensive theoretical framework that incorporates the relationship facilitating aspects of the internet in a B2B context.

Two types of bonds should be incorporated into this theoretical framework. Researchers have identified and categorised elements in relationship exchange processes, using different terms such as technical and social elements (for example, Perry, Cavaye and Coote, 2002), or structural and social bonds (for example, Buttle and Ahmad, 1999; Gordon, 1998; Mattson, 1985; Turnbull and Wilson, 1989). To synthesise these elements, we use the terms "social bonds" and "technical bonds" to categorise the most mentioned elements in the literature because they describe the functions of these elements in a relationship. Social bonds are non-economic investments of time and energy that produce positive interpersonal relationships between the partners. These can range from formal, organisational contacts through to informal, personal ones. Social bonds are often non-economic and more personal than organisational bonds (Buttle and Ahmad, 1999; Rao and Perry, 2003). In contrast, technical bonds are forged when two organisations adapt to each other in some economic or technical way such as product or process adjustments (Wilson and Mummaleni, 1986). Examples include investments in assets that are dedicated to the relationship such as 'just in time' deliveries on demand, or internet capabilities.

Social bonds are not necessarily independent of technical bonds. For example, calculative commitment is centred on the presence of switching costs that 'lock in' at least one partner into the relationship. These switching costs may be created by investments in the technical bonds of the relationship. For example, switching by one partner in a relationship to another supplier could involve costly re-engineering of its processes. More generally, social bonds may need to be in place before knowledge-based technical bonds develop (Turnbull and Wilson, 1989). That is, opportunities for technical bonding emerge as a result of social bonds being in place (Buttle and Ahmad, 1999).

The scant literature on marketing relationships in an internet environment seems to emphasise the internet's influence on several relational constructs individually without distinguishing between the two types of bonds (social and technical) as this research does (for example, Morrison and Firmsone, 2000; Sahay, Gould and Barwise, 1998; Ratnasingam, 2000). For example, research into the internet as a communication medium has concluded that internet technologies are different from other information technology system in terms of the way they transform business operations and practices (Hoffman, Novak and Chatterjee, 1995; Sahay, Gould and Barwise, 1998), particularly the way in which they communicate. However, these bonds are affected by the use of the internet and this needs to be investigated to provide a more holistic view of the internet's impact on inter-firm relationships. In order to address the overall research question, 'How does B2B Internet usage affect bonding in inter-firm relationships in Australia service industries?', three more specific questions were developed:

1. How are the technical bonds in an inter-firm relationship influenced by internet use?
2. How are the social bonds in an inter-firm relationship influenced by internet use?
3. How do firms perceive the impact of internet use on their business performance?

3. Qualitative, Theory-Building Methodology

To explore the internet use and its impact on inter-firm relationships in Australian service industries, the qualitative methodology of convergent interviewing was used. This choice of methodology was justified for its theory-building capability (Bonoma, 1985; Carson, Gilmore, Gronhaug and Perry, 2001). That is, this research was exploratory in order to gather insights into the phenomenon and to provide a better understanding of the issues involved (Mahotra, Hall, Shaw and Oppenheim, 2002).

Table 1:
Summary of Results from Convergent Interviews

Comments	Interviewees									
	A	B	C	D	E	F	G	H	I	J
The internet's role in inter-firm relationships.										
■ The usage of the internet is a facilitator to the inter-firm relationship	√	√	√	√	√	√	√	√	√	√
The internet facilitates inter-firm communication.										
■ The internet does not replace other forms of communication	√	√	√	x	√	√	√	√	√	√
■ The use of the internet increased inter-firm communication quality.	*	*	√	√	√	√	√	√	√	√
■ The use of the internet facilitates inter-firm information sharing.	*	*	√	√	√	√	√	√	x	√
■ The use of the internet has a positive effect on participation	*	*	√	√	x	√	√	√	√	√
Internet use and technical bonds.										
■ The usage of the internet has little effect on interdependency between our customers and us.	√	√	√	√	√	√	√	√	√	√
■ We are still very dependent on strategic customers and suppliers.	√	√	√	√	√	√	√	√	√	√
■ We are not as dependent on less strategic suppliers.	*	x	√	√	x	√	√	√	x	√
■ Using the internet place higher barriers to leave our strategic relationships.	*	*	√	x	x	√	√	√	x	x
Internet use and social bonds.										
■ Need for cautious use of the internet in relationship management	*	√	√	√	√	√	√	√	√	√
■ Need to develop long-term, close relationship with customers	*	√	√	√	√	√	√	√	√	√
■ The use of the internet has little effect on trust development in the relationship.	x	√	√	x	√	√	√	√	√	√
■ The use of the internet has positive effect on the maintenance of trust	√	√	√	√	√	√	√	√	√	√
■ The use of the internet has positive effect on the satisfaction level with the relationship	√	√	√	√	√	√	√	√	√	√
■ The use of the internet has positive effect on commitment to the relationship	*	*	√	√	√	√	√	√	√	√
The internet is perceived to be positively associated with business performance.										
■ Internet use has positive effect on sales and market share	*	√	√	√	√	√	√	√	√	√
■ Internet use has little effect on short-term profit level	*	*	√	x	√	√	√	x	√	√
■ Internet use has positive effect on long-term profit level	*	*	√	x	√	√	√	√	√	√
■ Internet use has positive effect on return on asset	*	√	√	x	√	x	√	√	√	x

Notes: √ = interviewee is in conformity with the statement
x = interviewee is in disconformity with the statement
* = question had not been raised in the interview

Source: analysis of field data

This convergent interviewing process took the form of a series of ten in-depth interviews in which data was analysed after each interview and used to refine the content of subsequent interviews (Dick, 1990). That is, the process was structured, although the content of each interview remained unstructured to allow for the flexible exploration of the subject matter without determining the answers. Where there was consensus between more than one interviewee about a certain issue, a series of probes was initiated to test the information. Where there was disagreement, probes were initiated for clarification and explanation. Convergence was achieved when no new information could be uncovered (Nair and Riege, 1995).

The interviews were undertaken face-to-face with either the CEO or the general/marketing manager of each of ten services firms varying in size and age. These businesses represent a range of industries, including IT services, delivery, business consulting, financial services and telecommunication. A snowballing technique was used to recruit interviewees. That is, the interviewee was asked to recommend the next interviewee after being interviewed. These managers were key informants because they were closely involved in the relationship building activities in their respective firms and had an understanding of the entire decision making process. The interviews lasted for approximately one hour each in which a semi-structured interviewer's guide, with mainly broad, open-ended questions based on the literature review, was used to ensure a consistent pathway for the interviewing.

In addition, the usual quality control mechanisms including triangulation were used (Carson, Gilmore, Gronhaug and Perry, 2001). Content analysis was used to analyse the interview information, attaching codes to data. This research developed a starting list of codes prior to commencing the fieldwork that was progressively added to as the interviews proceeded. When the coding was complete, matrices were developed to summarise the data (Miles and Huberman, 1994).

4. Discussion of Findings

The first outcome of the convergent interviewing process is a list of issues or themes progressively raised and investigated in the interviews. Table 1 contains the list of the themes that arose from our interviews about our three research objectives. The table shows how the number of issues involved in the topic area increased as each interviewee in turn added their insights to what had been said before, until the final interview added no new issues. Agreements between interviewees are shown, as are disagreements that could be explained. The interviewees' names are disguised with the letters A to I used to maintain confidentiality. These findings are discussed next, before they are placed within the literature to develop a theoretical framework of internet-facilitated B2B relationships.

4.1 Overall Picture

Overall, the findings presented in Table 1 from the convergent interviews provided evidence that using the internet in a B2B setting affects the inter-firm relationship. However, it would appear that the internet does not change the general nature of an intended inter-firm relationship. Respondents agreed that delivery of service quality is essential to building and maintaining relationships. For example, one interviewee (Interviewee E) commented, 'If I don't have the solution to your problem or you don't have the needs for certain services, the relationship does not exist.'

Most interviewees believed that the use of the internet enables them to effectively and efficiently improve their services to customers, and that this has generally enhanced their relationship with another business, particularly, their customers. Moreover, interviewees agreed that the internet had become a strategic part of their overall business activities. More specifically, the internet appears to be a facilitator of inter-firm relationships because it provides a new information infrastructure which enables them to develop and maintain their relationship with core trading partners. Interviewees also emphasised that internet usage probably plays a more important role in customer relationship management than supplier relationship management. Most of the interviewees indicated that the usage of the internet has little effect on their relationships with suppliers. The bonds shown in the middle part of Figure 1 were the most important ones in each of the two categories explored. They appeared to be more relevant in an internet environment than other alternatives that are in the relationship marketing parent literature such as 'conflict'.

4.2 Technical Bonds

Technical or structural bonds, such as dependence and communication in the business process, emerged when the first research question was investigated ('How are the technical bonds in an inter-firm relationship influenced by internet use?'), as shown in Table 1. However, communication emerged as both a technical bond and a social bond. The importance of communication and sharing of information in exchange relationships has been particularly emphasised in the literature (Anderson and Narus, 1990; Bialaszewski and Giallourakis, 1985; Duncan and Moriarty, 1998; Wilson and Mummalaneni, 1986). Indeed, the study of communication is fundamental in a study of any relationship (Mohr and Sohi, 1995) and is the foundation of customer-centric relationship marketing (Duncan and Moriarty, 1998). Admittedly, communication is categorised as a social bond in most literature (for example, Buttle and Ahmad, 1999; Ulrich, 1989). Nevertheless, in this research about internet-facilitated relationships, the economic investment in technical infrastructure initially made communication seem to be a technical bond.

However, the convergent interviews showed that it is both a technical and social bond. The interviewees commented that while informal and personal contacts make internet-facilitated communication a social bond, it also acts as a technical bond because internet-facilitated communication involves economic investment in the communication technology and adjustments of business processes such as the exchange of formal documents such as agreements and invoices.

Convergent interviews also showed that the use of the internet improves communication quality and increases the amount of information that can be shared among the relevant parties. Firms still rely heavily on personal, face-to-face communication when establishing social bonds in their relationships with other businesses. The internet also makes communication flow easier when compared with other media. For example, one of the interviewees (Interviewee B) commented: ‘We communicate a lot more now with our overseas customers’. Furthermore, the internet creates time effectiveness and reduces errors in commercial data. As interviewee H stated: ‘When dealing with documents, graphs and figures, information can be shared in a timely and accurate manner.’ Nevertheless, there is an improvement in communication quality and effectiveness. In particular, the speed of transmission of documents, the number of businesses they can communicate with, the frequency and reach of communication are thought to have improved through the use of the internet. For example, one interviewee (Interviewee B) commented: ‘We communicate with a much larger range now…like our partners’ partners...the communication circle is certainly a lot wider.’

Most interviewees commented that the usage of the internet does not have much effect on the interdependency between the firm and their exchange partners. This is because dependence on an exchange partner is determined by a number of factors such as sufficient knowledge about the trading partner and the degree of operational integration, rather than just product-related factors such as price and location. For example, ‘The reliance on our customers is high regardless of whether we use the internet or not’ (Interviewee J). However, some interviewees commented that the internet creates switching barriers because the competency of using the internet has become one of the criteria for choosing new business trading partners. For example, ‘We don’t start anyone if they are not on the internet…Once they are locked in, not financially but in the sense of their business processes and systems, it is harder to leave the relationship’ (Interviewee F).

4.3 Social Bonds

Social bonds such as trust, satisfaction and commitment emerged when the second question was examined (‘How are the social bonds in an inter-firm relationship influenced by internet use?’). Findings indicate that the internet is considered by the interviewees to have had only little impact on the social bonds in an inter-firm relationship. Most interviewees agreed upon cautious use of the internet. That is, most interviewees emphasised that a business relationship cannot rely solely on the use of the internet to build trust. Indeed, if the internet is not used properly, it can damage and hinder the relationship. As one interviewee (Interviewee E) stated: ‘If it (the internet) is not used properly it can destroy the relationship built over time.’ As another example, most interviewees commented that emails could not convey emotions, body language, tone of voice and general atmosphere in the communications between the two parties – ‘…trust does not come from the relationship built over the internet. It comes from face-to-face contact and the ability to deliver satisfactory performance’ (Interviewee B).

Nevertheless, the internet is thought to have some impact on satisfaction with the relationship with trading partners. For example, one interviewee commented that, ‘The internet allows us to provide something we wouldn’t or couldn’t do before…it certainly improved customers’ satisfaction levels’ (Interviewee B); and ‘The internet provides information to our business partners as to how well we are performing on the particular job, and that determines how satisfied they are’ (Interviewee C). Similar to its effect on trust, the internet has some effect on commitment. In turn, the social bonds like commitment are somewhat related to technical bonds such as dependence. For example, one interviewee commented that '…the more you are dependent on another business, the more likely you are committed to the relationship with them' (Interviewee D).

Finally, we address the last research question 'How do firms perceive the impact of internet use on their business performance?'. When firms consider the impact of the internet use on their business performance, they define this with reference to sales and market share, profit level and return on assets. Indeed, our findings indicate that businesses believe that the use of the internet is, or should be, integrated into the business strategy, and that it is perceived to have positive effects on long-term business performance. For example, as one interviewee (E) commented: '…there is a lag time from the time we started and the time we actually started making money from it.' In turn, this perceived positive or negative feedback about their business performance determines the level of internet use by a firm.

In brief, the convergent interviews found that the major relational bonds affected by internet usage are communication, dependence, trust, satisfaction and commitment, which underpins the theoretical framework discussed in the next section.

4.4 Theoretical Framework of Internet-Facilitated B2B Relationships

From the scant internet/relationship marketing literature and the findings discussed above, the final outcome of the convergent interviewing methodology – a new theoretical framework – was developed. This framework links together the technical and social bonds in an inter-firm relationship when firms use the internet in their exchange processes. Versions of the framework were discussed and progressively revised with each convergent interviewee. The final framework is provided in Figure 1. The model's linkages between the bonds are discussed next, within the context of the non-internet relationship marketing literature because the internet/relationship marketing literature is so sparse.

The literature suggested the interactivity and customisation elements of the internet can not only enhance the interchange of information between partners (Teich, Wallenius and Wallenius, 1999), but also overcome time and geographic limitations and multimedia transmission (Poon and Swatman, 1996). The convergent interviews confirmed this influence of internet usage on communication, thus, in the framework, B2B internet usage is thought to be positively associated with communication. As well, the internet may empower buyers to find lower-priced suppliers at lower search costs, thus serving as a relatively cost-effective, alternative form of information-gathering for businesses (Hoffman and Novak, 1996), and thus facilitating substitutability of the exchange relationship (Poon and Swatman, 1996). Thus, a firm's dependency on a single supplier or a single buyer may be reduced (Ratnasingam, 2000). However the convergent interviews disconfirmed this influence of the internet usage on dependence. Indeed, exchange partners may be locked into an internet-facilitated relationship. Thus, we argued that B2B internet usage is positively associated with dependence.

Next, the benefits provided by the internet such as availability and transparency of information, efficient information transfer and interactivity have a positive effect on trust when exchange partners deal with each other via the internet (Warrington, Abgrab and Caldwell, 2000; Bauer, Grether and Leach, 2002). The internet also has the potential to increase customer satisfaction levels (File and Prince, 1993; Pine, Peppers and Rogers, 1995), particularly through customisation and personalisation of the technologically-delivered service (Peterson and Lucas, 1996; Kalakota and Whinston, 1997). Therefore, B2B internet usage is positively associated with both trust and satisfaction.

Our convergent interviews also confirmed the interaction of structural and social bonds. That is, literature identifies communication as a major precursor of trust (Anderson and Weitz, 1989; Anderson and Narus, 1990; Morgan and Hunt, 1994). Communication fosters trust by assisting in resolving disputes and aligning perceptions and expectations. Similarly, trust in an exchange partner significantly enhances satisfaction with business performance. That is, trust is the critical determinant of greater satisfaction (Achrol, 1997; Siguaw, Simpson and Baker, 1998; Garbarino and Johnson, 1999).

In turn, according to the framework, high levels of trust lead to high levels of commitment to the relationship, as noted in the literature (Moorman, Zaltman and Deshpande, 1992; Morgan and Hunt, 1994). Indeed, relationships with high levels of trust are highly valued and therefore participants are willing to commit themselves (Morgan and Hunt, 1994). Next, in the service context of the framework, customer satisfaction

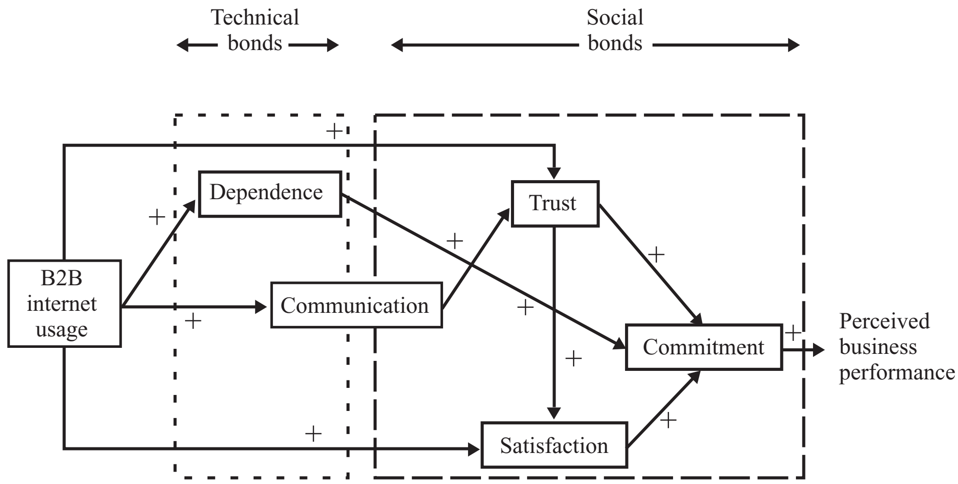

Figure 1. A model of the Theoretical Framework Developed from the Literature and Interview Data

Source: developed for this research.

leads to commitment to a service provider (Keaveney, 1995). Dependence of a buyer on a supplier leads to buyer compliance (Joshi and Arnold, 1998), acquiescence (Morgan and Hunt, 1994; Bendapudi and Berry, 1997) and commitment (Ganesan, 1994). High interdependence between exchange partners not only allows mutual adjustments in the ongoing relationship in order to cope with the changing environment more effectively (Heide, 1994), but also motivate exchange partners to cooperate with each other, proactively share information, commit to the relationship, and align individual interests to the ongoing relationship. The final part of the framework shows that the outcomes of social and technical bonding are linked with higher levels of business performance, although this had not been identified in the literature.

5. Conclusions and Implications

In summary, this research found that the internet does not hinder inter-firm relationships. The internet is not being used at the expense of more traditional and personal forms of communication. Moreover, internet use seems to have little influence on the level of trust in internet exchange partners and the dependence they have on one another at this relatively early stage of adoption. It is also thought that internet use is linked to improved business performance.

Earlier research asserted that the relationship between end consumers and businesses may suffer because of a reduced level of interpersonal interaction (for example, Sweeney, 2000). In contrast, this research found that the internet had little negative impact on relational bonding in the B2B context studied. This suggests that internet use in service industries is not detrimental to established relationships because trade efficiencies are more of a concern for businesses than the social aspects. In brief, because to date there is little research about the impact of internet use on an inter-firm relationship, the major contribution of this paper is the conceptual framework that has been developed in the light of findings of the exploratory work undertaken to date. In turn, this work can be used to guide future research in this growing area of academic inquiry.

The results of this study point to several issues that managers need to consider when incorporating the internet into their exchange processes. The focus on both technical and social bonds in an inter-firm relationship should further help managers by more precisely identifying the issues that their businesses may wish to consider in their relationship management.

First, the study found that the benefits of effectively implemented internet technology applications leads to positive outcomes in terms of relationship marketing. By using the internet, relationship partners can create a better understanding of each other through better communication and information exchange. Service firms can use the internet to strengthen relationships with exchange partners in two main ways. The internet can be used to reduce transaction costs and thus improve trade efficiencies. The second way for service firms to use the internet to enhance their relationships with customers is to improve customer service levels by providing new forms of service delivery, improving customer intimacy, responding more rapidly to customer needs, and offering customers the opportunity to help themselves through the internet. This suggests that the internet should be viewed as a complement, rather than as a substitute, to personal interactions.

5.1 Limitations and Need for Further Research

The findings in this research are limited to the business service sectors and to Australia specifically. The impact of the internet may differ from industry to industry, and even from business to business (Pires and Aisbett, 2002). An industry characterised by greater or lesser internet adoption is likely to have different patterns of communication and, in turn, have different effects on exchange relationships as a whole.

Finally, further research is needed to test the theoretical framework proposed in this paper. Specifically, further work is required to validate and generalise the findings to broader settings, using a survey methodology. Thus, after the analytic generalisation summarised in Figure 1 was finalised, structural equation modelling of survey data from firms about how their relationships with banks had changed with internet banking, tested the model of Figure 1 for statistical generalisability. Most of the model's variables and relationships were shown to be valid. Another direction for further research would be to expand the framework to include other variables such as value (Kothandaraman and Wilson, 2000; Eggert and Ulaga, 2002) to further enrich the understanding of the impact of the internet on inter-firm relationships.

References

Achrol, R., 1997. Changes in the Theory of Interorganizational Relations in Marketing: Toward a NetworkParadigm. Journal of the Academy of Marketing Science 25 (1), 56-72.

Anderson, J. and Weitz, B., 1989. Determinants of Continuity in Conventional Industrial Channel Dyads. Marketing Science 8 (4), 310-23.

Anderson, J. and Narus, J. A., 1984. A Model of the Distributor's Perspective of Distributor-Manufacturer Working Relationships. Journal of Marketing 48 (4), 62-74.

Anderson, J. and Narus, J.A., 1990. A Model of Distributor Firm and Manufacture Firm Working Partnerships. Journal of Marketing 54 (1), 42-59.

Araujo, L. and Easton, G., 1996. Network in Socioeconomic Systems. In: Iacobucci, D. (ed.) Networks in Marketing. London, Sage, pp. 63-107.

Archer, N. and Yuan,Y., 2000. Managing Business-to-Business Relationships Throughout the e-Commerce-Procurement LifeCycle. Internet Research: Electronic Networking Applications and Policy 10 (5), 385-395.

Australian Bureau of Statistics, 2001. Australians Embrace the Internet. Australian Government Publishing Service Media Release. Available, http,//www.abs.gov.au/Ausstats/, [Accessed 20 November 2001].

Bauer, H.H., Grether, M. and Leach, M., 2002. Building CustomerRelations Over the Internet. Industrial Marketing Management 3 (2), 155-63.

Bendapudi, N. and Berry, L., 1997. Customer's Motivations for Maintaining Relationships with Service Providers. Journal of Retailing 73 (1), 15-37.

Bennett, R., 1997. Export Marketing and the Internet, Experiences of Web Site Use and Perceptions of Export Barriers Among UK Businesses. International Marketing Review 14 (5), 324-344.

Berthon, P., Pitt, L. and Watson, R., 1996. Marketing Communication and the World Wide Web. Business Horizon 39 (5), 24-32.

Bialaszewski, D. and Giallourakis, M., 1985. Perceived Communication Skills and Resultant Trust Perceptions Within the Channel of Distribution. Journal of the Academy Marketing Science 13 (1/2), 206-17.

Bonoma, T. V., 1985. Case Research in Marketing, Opportunities, Problems, and a Process. Journal of Marketing 49 (5), 199-208.

Buttle, F. and Ahmad, R., 1999. Bonding With Customers. Proceedings of Academy of Marketing Conference. University of Stirling.

Carson, D., Gilmore, A., Gronhaug, K. and Perry, C., 2001. Qualitative Research in Marketing. Sage, London.

Claycomb, C. and Martin, C., 2001. Building Customer Relationships: An Inventory of Service Providers' Objectives and Practices. Marketing Intelligence and Planning 19 (6), 385-399.

Deighton, J., 1996. The Future of Interactive Marketing, Harvard Business Review 74 (6), 151-162.

Deighton, J., 1997. Commentary on 'Exploring the

Implications of the Internet for Consumer Marketing'. Journal of Academy of Marketing Science 25 (4), 347-353.

Dick, B., 1990, Convergent Interviewing, Version 3, Chapel Hill, Brisbane.

Duncan, T. and Moriarty, S.E., 1998. A Communication-based Marketing Model for Managing Relationships. Journal of Marketing 62 (2), 1-13.

Eggert, A. and Ulaga, W., 2002. Customer Perceived Value: A Substitute for Satisfaction in Business Markets? Journal of Business and Industrial Marketing 17 (2/3), 107-18.

File, K.M. and Prince, R.A., 1993. Evaluating the Effectiveness of Interactive Marketing. Journal of Services Marketing 7 (3), 49-58.

Gabarino, E. and Johnson, M.S., 1999. The Different Roles of Satisfaction, Trust and Commitment in Customer Relationships. Journal of Marketing 63 (2), 70-87.

Geiger, S. and Martin, S., 1999. The Internet as a Relationship Marketing Tool – Some Evidence from Irish Companies. Irish Marketing Review 12 (2), 25-36.

Geller, L. K., 1998. The Internet, the Ultimate Relationship. Direct Marketing 6 (5), 36-38.

Ganesan, S., 1994. Determinants of Long-term Orientation in Buyer-Seller Relationships. Journal of Marketing 58 (2), 1-19.

Gillenson, M., Sherrell, D. and Chen, L., 1999. Information Technology as the Enabler of One-to-One Marketing. Communications of the Association for Information Systems [Online], Available, http,//cais.isworld.org/articles/2-18/article.htm, [Accessed 24 January 2000].

Global Internet Statistics, 2001. [Online], Available, http,//www.glreach.com/globstats/index.php3, [Accessed 21 November 2001].

Gordon, I., 1998. Relationship Marketing. Brisbane, John Wiley and Sons.

Griffith, D. A. and Palmer, J. W., 1999. Leveraging the Web for Corporate Success. Business Horizons 42 (1), 3-11.

Gummesson, E., 1987. The New Marketing - Developing Long Term Interactive Relationships. Long Range Planning 20 (4), 10-20.

Gummesson, E., Lehtinen, U. and Gronroos, C., 1997. Comment on Nordic Perceptive on Relationship Marketing. European Journal of Marketing 31 (1), 10-16.

Hakansson, H., 1982. International Marketing and Purchasing of Industrial Goods, An Interaction Approach by IMP-Group, John Wiley and Sons, London.

Hamill, J. and Gregory, K., 1997. Internet Marketing in the Internationalisation of UK SMEs. Journal of Marketing Management 13 (1), 9-28.

Hamill, J., 1997. The Internet and International Marketing. International Marketing Review 14 (5), 300-323.

Healy, M., Hastings, K., Brown, L. and Gardner, M., 2001. The Old, the New and the Complicated - A Trilogy of Marketing Relationships. European Journal of Marketing 35 (1-2), 182-93.

Heide, J., 1994 Inter-Organization Governance in Marketing Channels, Journal of Marketing, 58, (1), 71-86.

Heinen, J., 1996. Internet Marketing Practices. Information Management and Computer Security (4,5), 7-14.

Hoffman, D. L. and Novak , T. P., 1996. Marketing in Hypermedia Computer-mediated Environments: Conceptual Foundations, Journal of Marketing 60 (3), 50-68.

Hoffman, D., Novak, T. and Chatterjee, P., 1995. Commercial Scenarios for the Web: Opportunities and Challenges. Journal of Computer Mediated Communications [Online], Available, http://shun.huji .ac.il/jcmc/vol1/issue3/hoffman/html, [Accessed 24 January 2000].

Jackson, B. B., 1985. Building Customer Relationships that Last. Harvard Business Review 6 (6), 120-128.

Johanson, J. and Mattsson, L. G., 1987. Inter-organisational Relations in Industrial Systems - A Network Approach Compared with the Transactional Cost Approach. International Studies of Management and Organisations 17 (1), 34-48.

Joshi, A. and Arnold, S., 1998. How Relational Norms Affect Compliance in Industrial Buying. Journal of Business Research 41 (2), 105-14.

Kalakota, R. and Whinston, A.B., 1997. Electronic Commerce, A Manager's Guide, Addison-Wesley, Reading, Massachusetts.

Keaveney, S.M., 1995. Customer Switching Behaviour in Service Industries: an Exploratory Study. Journal of Marketing 59 (2), 71-82.

Kothandaraman, P. and Wilson, D.T., 2000. Implementing Relationship Strategy. Industrial

Marketing Management 29 (4), 339-49.

Lewis, M.C. and Lambert, D.M., 1991. A Model of Channel Member Performance, Dependence and Satisfaction, Journal of Retailing 67 (2), 205-25.

Malhotra, N., Hall, J., Shaw, M. and Oppenheim, P., 2002. Marketing Research: An Applied Orientation, 2nd Edition, Prentice Hall, Sydney.

Mattson, L. G., 1985. An Application of a Network Approach to Marketing, Defending and Changing Marketing Positions. In: Dholakia, N. and Greenwich, J. (eds.), Changing the Course of Marketing Alternative and Paradigms for Widening Marketing Theory. JAI press.

Miles, M.B. and Huberman, A.M., 1994. An Expanded Sourcebook, Qualitative Data Analysis. Sage, Thousand Oaks.

Mohr, J. and Sohi, R.S., 1995. Communication Flows in Distribution Channels: Impact on Assessments of Communication Quality and Satisfaction. Journal of Retailing 7 (3), 393-417.

Moorman, C., Zaltman, G. and Deshpande, R., 1992. Relationships Between Providers and Users of Market Research: The Dynamics of Trust Within and Between Organisations, Journal of Marketing Research 29 (4), 314-28.

Morgan, R. and Hunt, S., 1994. The Commitment - Trust Theory of Relationship Marketing. Journal of Marketing 58 (3), 20-38.

Morrison, D. and Firmsone, J., 2000. The Social Function of Trust and Implications for e-Commerce. International Journal of Advertising 19 (2), 599-623.

Nair, G. S. and Riege, A. M., 1995. Using Convergent Interviewing to Develop the Research Problem of a Post Graduate Thesis. Marketing Education and Researchers International, Gold Coast.

National Office for the Information Economy (NOIE), 2001. B2B e-Commerce, Capturing Value Online [on line], Available, http,www.noie.gov.au/publications/NOIE/B2B, [Accessed on 26 September 2001].

Palmer, A., 1997. Defining Relationship Marketing: an International Perspective. Management Decision 35 (4) 319-321.

Palmer, A., 2000. Co-operation and Competition: A Darwinian Synthesis of Relationship Marketing. European Journal of Marketing 34 (5/6) 687-704.

Peppers, D., Rogers, M. and Dorf, B., 1999. Is Your Company Ready for One-to-One Marketing? Harvard Business Review 77 (1), 151-160.

Perry, C., Cavaye A. and Coote, L., 2002. Technical and Social Bonds Within Business-to-Business Relationships. Journal of Business and Industrial Marketing 17 (1), 75-88.

Peterson, R.M. and Lucas, G.H., 1996. Consumers and Technology: Are We Creating Relationships or Distance? Proceeding in the Research Conference in Relationship Marketing: Theory, Methods and applications, Center for Relationship Marketing, Roberto C, Goizueta Business School, Emory University, Atlanta.

Peterson, R.A., Balasubramanian, S. and Bronnenberg, B.J., 1997. Exploring the Implications of the Internet for Consumer Marketing. Journal of the Academy of Marketing Science 25 (4), 329-46.

Pine, B.J., Peppers, D. and Rogers, M., 1995. Do You Want to Keep Your Customers Forever? Harvard Business Review 73 (2), 103-14.

Pires, G.D. and Aisbett, J., 2002. The Relationship Between Technology Adoption and Strategy in Business-to-Business Markets: The Case of e-Commerce. Industrial Marketing Management 31 (9), in press.

Poon, S. and Swatman, P., 1996. Internet-Enabled Strategic Advantage: a New Perspective on Small Business Inter-organisational Relationships. Working paper, Swinburne University of Technology.

Poon, S. and Jeven, C., 1997. Internet-Enabled International Marketing, a Small Business Perspective. Journal of Marketing Management 13 (1), 35-58.

Quelch, J.A. and Klein, L.R., 1996. The Internet and International Marketing. Sloan Management Review 38 (Spring), 60-75.

Rao, S. and Perry, C., 2003. Thinking About Relationship Marketing: Where Are We Now, Journal of Business and Industrial Marketing, forthcoming.

Ratnasingham, P., 2000. The Influence of Power on Trading Partner Trust in Electronic Commerce. Internet Research: Electronic Networking Applications and Policy 10 (1), 56-63.

Sahay, A., Gould, J. and Barwise, P., 1998. New Interactive Media: Experts' Perceptions of Opportunities and Threats for Existing Businesses. European Journal of Marketing 32 (7/8), 616-28.

Schubert, P. and Selz, D., 1999. Web Assessment: Measuring the Effectiveness of Electronic Commerce Sites Going Beyond Traditional Marketing Paradigms. The 32nd HICSS Conference, Hawaii.

Schultz, D. E., 1997. Relationship Marketing: Cutting Both Ways. Marketing News (31) 8.

Sheth, J. and Parvatiyar, K., 1995. Relationship Marketing in Consumer Markets, Antecedents and Consequences. Journal of the Academy of Marketing Science 23 (4), 255-71.

Siguaw, J.A., Simpson, P.M. and Baker, T.L., 1998. Effect of Supplier Market Orientation and Channel Relationship: the Distributor Perceptive, Journal of Marketing 62 (3), 99-111.

Smith, M. L., 1998. One to One, Put the Customer in the Information Driver Seat and Build Better Relationships. Direct Marketing 60 (9), 37-40.

Sweeney, A., 2000. The Internet and Customer Relationships in a Financial Institution. PhD thesis, University of Southern Queensland.

Teich, J., Wallenius, H. and Wallenius, J., 1999. World-Wide-Web Technology on Support of Negotiation and Communication. International Journal of Technology Management 17 (1,2), 223 - 39.

Thirkell, P. C., 1997. Caught by the Web: Implications of Internet Technologies for the Evolving Relationship Marketing Paradigm. Proceedings of the Three American Marketing Association Special Conferences, Dublin, Ireland.

Turnbull, P. W. and Wilson , D., 1989. Developing and Protecting Profitable Customer Relationships. Industrial Marketing Management 18, 233-238.

Ulrich, D., 1989. Tie the Corporate Knot: Gaining Complete Customer Commitment. Sloan Management Review 30 (2), 19-27.

Van de Ven, A. H., 1992. Suggestions for Studying Strategy Process, A Research Note. Strategic Management Journal 13 (4), 169-188.

Vlosky, R.P., Fontenot, R. and Blalock, L., 2000. Extranets' Impacts on Business Practice and Relationships. Journal of Business and Industrial Marketing, 15 (6), 438-457.

Warrington, T.B., Abgrab, N.. and Caldwell, H.M., 2000, Building Trust to Develop Competitive Advantage in e-Business Relationships, Competitiveness Review, 10, (2), 160-168.

Watson, R. T., Berthon, P., Pitt, L.F. and Zinkhan, G.M., 2000. Electronic Commerce, The Strategic Perspective. Fort Worth, The Dryden Press.

Wilson, D. T. and Mummalaneni, V., 1986. Bonding and Commitment in Buyer-Seller Relationships, A Preliminary Conceptualisation. Industrial Marketing and Purchasing 1, (3), 44-58.

Wilson, D.T., 1976. Dyadic Interaction: An Exchange Process. In: Anderson, B.B. (ed.) Advances in Consumer Research, Association for Consumer Research, Urbana.

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