A study of SSTs in Australian banking from a business customer perspective  
– streams for further research

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Abstract

Technology has dramatically altered the way businesses operate in a Business-to-Business (B2B) context and has had profound influences on services, altering the way services are delivered (Bitner, Ostrom & Meuter, 2002). The increased use of self-service technologies (SSTs) could have a great impact on B2B relationships, yet there is little understanding of this in the literature. Electronic banking is one technology that has streamlined business transactions, encouraged by banks as a way to reduce service delivery costs and improve service quality for customers (Australian Bankers Association, 2000). The importance of developing and fostering relationships with customers has long been regarded as important within services marketing (Berry, 1983) and also within B2B relationships (Ford, 1990). In the 1980s and 90s, a shift in marketing focus has seen an increased emphasis on Relationship Marketing (Morgan and Hunt, 1994). Recently, marketing theory has emerged with a focus on a service dominant logic (Vargo and Lusch, 2004). Therefore it is important to consider both Relationship Marketing and Service Dominant Logic in order to have an increased understanding of the impact of SSTs on business relationships. This is the beginning of a research project aimed at answering the research question “What impact does the use of SSTs have on relationships within a B2B context”? This will be examined in the context of electronic banking, however it is anticipated that this will be applicable in other contexts where SSTs are used by businesses.

Introduction

Businesses are increasingly using technology in their business-to-business operations, and as a result, it is important to understand the impact of these technologies on the relationship, business processes and productivity. In particular, the increasing use of Self Service Technologies (SSTs) within B2B relationships removes face-to-face contact traditionally believed to be important in relation to service delivery between two organisations. What this does to the relationship is not understood – eg. How does it impact on trust, commitment and ultimately the relationship itself? Trust is widely researched in business-to-business relationships due to its high importance and the fragile nature of B2B relationships (Harris & Dibben, 1999). Another area that has been investigated in great detail is how technology can be utilised in a business-to-business context (Berthon, Lane, Pitt and Watson, 1998), however research has rarely considered SSTs and the impact of this on relationships. Literature indicates that organisations increasingly understand the importance of managing relationships (Wilkinson and Young, 2002) yet the increased use of SSTs may actually hinder this process – more information is needed on this within a B2B context and that is the objective of the study.
Banking has been selected as the industry to examine this research question. Financial services are increasingly using technology in their transactions. Furthermore, banking tends to develop and foster longer-term relationships compared to many other industries, and therefore is appropriate to be examined from a Relationship Marketing perspective. In the context of this paper, commercial banking customers will be considered “B2B” customers, regardless of the industry they work in. This definition is consistent with the existing literature where this type of relationship is considered a B2B relationship and also that of the American Marketing Association definition of industrial markets (eg. See Hawke & Heffernan, 2005a and http://www.marketingpower.com/mg-dictionary-view1502.php).

From a theoretical perspective, Relationship Marketing Theory will be utilised to discuss the use of self-service technologies in a B2B context. Relationship marketing theory gives an underlying theoretical basis to this framework, despite the fact that this has not been discussed in the literature. Nevertheless, relationship marketing theory does not consider the use of SSTs and with the increased use of SSTs in a business context, this gap needs to be filled. It is agreed that adoption of organisational technology systems at the industry level lack sufficient theory bodies (Johnston and Gregor, 1999). Relationship marketing theory therefore will also be used to ground the study. Within services marketing (Berry, 1983), B2B Marketing (Ford 1990) and even technological marketing (McKenna, 1993) it is apparent that long term relationships benefit both buyers and suppliers. A thorough literature review of relationship marketing theory has indicated that although applicable to a B2B context, it does not consider the use of technology and removal of face-to-face contact (Yen and Gwinner, 2003). Therefore this study will utilise relationship marketing theory, but will relate it to the use of SSTs within the relationship.

Few studies have examined business use of SSTs, and those that have have looked in a general sense and request further research to develop theory in this area – examining SST use, satisfaction and consequences, particularly within a B2B context (Pujari, 2004). With the increased use of SSTs in business relationships, this is increasingly important. Therefore, this study will contribute to the literature by examining relationship marketing theory within a new context (SSTs). This study will be underpinned by the principles of the Service Dominant Logic framework, also within a new context (SSTS and B2B).

The use of SSTs is expected to have a great impact on relationships – therefore, this study argues that removal of face-to-face contact could have a negative affect on B2B relationships.
The second part of this study will focus on the research question “**what impact does the use of SSTs have on relationships within a B2B context**”? Answering this question as proposed will fulfill the following objectives:

**Objective 1:** To utilise relationship marketing theory in a new context (SSTs)

**Objective 2:** To understand how the removal of face-to-face contact can impact on relationships in a B2B context

**Objective 3:** To understand how the use of technology impacts on trust and relationship commitment in a B2B context

**Objective 4:** To determine how SSTs impact on service delivery within a B2B Context.

This paper will examine the literature, and will then discuss the hypotheses for testing, as well as how these issues will be examined.

**Relationship Marketing Theory**

This section will give an overview of Relationship Marketing Theory, and will then discuss particular constructs of Trust and Commitment, which are important in this area.

In contrast with a discrete transaction or sale, which has a beginning and end (Dwyer, Shurr and Oh, 1987), relationship marketing is a longer-term relationship where building trust and commitment is seen as important. In order to compete effectively in the marketplace, it is acknowledged that organisations need to be trusted cooperators (Morgan and Hunt, 1994), a philosophy that seems consistent with the beliefs of Service Dominant Logic, as previously discussed. This is where the importance of relationship marketing emerges. Within services marketing, Relationship marketing is defined as “attracting, maintaining and… enhancing customer relationships” (Berry 1983:25). Within B2B marketing, relationship marketing is “marketing orientated toward strong, lasting relationships with individual accounts” (Jackson 1985:2). Noticing a lack of overall definition, Morgan and Hunt define relationship marketing overall as “all marketing activities directed toward establishing, developing and maintaining successful relational exchanges” (1994: 22). All definitions emphasise a long-term relationship. Despite the focus of relationship marketing theory in the literature, it is accepted that very few studies examine SSTs in a B2B context (Pujari, 2004) and none consider this use from a relationship-marketing viewpoint.
Commitment and Trust are key to relationship marketing, as they encourage marketers to maintain relationships and focus on fostering long term relationships. Commitment and trust can produce cooperative behaviours, resulting in successful relationships (Morgan and Hunt, 1994). Literature suggests that successful relationships require commitment and trust in order to foster (Morgan and Hunt, 1994). Trust in turn fosters cooperation, functional conflict and has a negative relationship with uncertainty. (Morgan and Hunt, 1994). Figure One indicates the number of factors leading to trust in relationships, and how trust then leads into a number of issues, such as cooperation and uncertainty. It is obvious from this model how important trust is to relationship commitment. Trust and Commitment will be discussed in more detail throughout this paper. It is important to note that although relevant to this study, this model does not consider self-service technologies, rather simply considers traditional business relationships.

**Figure One: Relationship Commitment**

(Source: Morgan and Hunt, 1994)

Relationship marketing orientation is viewed as more important than a transactional orientation within a B2B context (Anderson, 1995), and trust, commitment and satisfaction are the driving forces in maintaining business relationships (Morgan and Hunt, 1994; Pujari, 2004). The IMP Group, based primarily in Europe, has conducted numerous studies on relationship marketing theory, with the emphasis on the nature and role of interactions and networks within B2B relationships (Welch and Wilkinson, 2002). The group sees activity
links, resource ties and actor bonds as contributing towards business relationships as well as relational norms (Welch and Wilkinson, 2002) which can create a dependency in the relationship (Lusch and Brown, 1996). There are numerous types of B2B relationships, but within the context of this study, we are interested in relationships with the focal firm and service supplier (ie. Customer and bank) or between the focal firm and ultimate customers (eg. Bank and customer). These relationships are viewed as supplier partnerships or buyer partnerships respectively (Morgan and Hunt 1994). For simplicity, the focal firm will be viewed as the bank; with the business customer as the ultimate customer, meaning that the relationship under focus will be a buyer partnership. This is the type of relationship often examined within Services Marketing literature (Berry 1983) and is applicable to this study due to the emphasis on services.

The above discussion has indicated the growing use on Relationship Marketing Theory, particularly since the 1990s. Much of the theory on Relationship Marketing relates to face-to-face relationships, however, the increasing use of technology in B2B Relationships has decreased or eliminated this face-to-face contact. Prior to understanding the gaps in Relationship Marketing Theory, Trust and Commitment must be addressed as they contribute to relationship marketing.

**Trust and Commitment**

Within services marketing, trust is viewed as essential, particularly as a service must be purchased before it can be experienced (Berry and Parasuraman, 1991) increasing perceived risk. It is also important from a B2B perspective, being the focus of many studies by the IMP Group (Morgan and Hunt, 1994).

Trust, in a B2B context, exists where one party has confidence in an exchange partner’s reliability (Morgan and Hunt, 1994). Confidence is highly important in order to establish and maintain trust. Furthermore, willingness to act indicates whether or not there is trust, for if one party is not willing to act, they are also unlikely to trust (Morgan and Hunt, 1994). Trust is also important in e-business and has been addressed in depth over the years, however mostly from a Business to Customer (B2C) approach (Jevons, Gabbott, 2000). The way in which technology can be utilised in a business-to-business context is important, (Berthon, Lane, Pitt, Watson, 1998) however research has tended to focus on communication and distribution, rather than enhancing trust or the impact on technology on business relationships.
Despite trust being viewed as essential to relationship marketing, some authors have argued that there is limited understanding of what trust really is (Ganesan and Hess, 1997).

The fragile nature of these business relationships and importance means trust is key to developing relationships (Harris and Dibben, 1999). Trust can be defined as “the belief in the integrity, honesty and the reliability of another person” (Dwyer and Tanner, 2002). In general, trust leads to relationship commitment (Dwyer and Tanner, 2002), which is what marketers are striving to achieve. Trust is a key element for relationship success and tends to be related to a number of elements such as competitive advantage and satisfaction (Ratnasingam & Pavlou, 2003) in addition to commitment. There are two key types of trust in business relationships – trading partner trust and technology trust (Ratnasingam & Pavlou, 2003). As the name suggests, trading partner trust is about trust between the business network participants. When purchasing from other businesses, either for use within the business, or for resales, issues such as whether the products are of appropriate quality, whether the appropriate quantity will be delivered, whether delivery will be on time, and whether the price is appropriate are issues for buyers are issues for buyers. For sellers, it is usually a payment issue that can impact on trust (Violino, 2002).

In contrast, Technology Trust has been defined as “the subjective probability by which an organization believes that the underlying technology infrastructure and control mechanisms are capable of facilitating inter-organizational transactions according to its confident expectations” (Ratnasingam & Pavlou, 2003). As technology use has increased in business-to-business networks, technology trust has become an important issue that must be addressed. Some of the requirements to ensure technology trust include confidentiality, integrity, authentication, non repudiation, access controls, availability, best business practices (Bhimani, 1996; Jamieson, 1996; Marcella et al, 1998; Ratnasingam & Pavlou, 2003). When considering SSTs, it would be expected that technology trust is an important factor.

Furthermore, it is also argued that interpersonal trust and organisational trust can impact on commitment differently in a B2B context. Credibility of staff is essential and organisational compassion also contributes to commitment (Ganesan and Hess, 1997). Trust can be established through and enhanced shared interactions over time (Young & Wilkinson, 1989), and is vital to establishing and maintaining B2B relationships. From a service perspective, trust is essential as a way of reducing perceived risk and also impacts on the choice of technology use in a B2B context.
Criticisms of using the Internet in business-to-business relationships tend to centre around the separation of buyers and sellers (Ratnasingam & Pavlou, 2003) impacting on the success of the relationship. It is this separation that removes the level of trust from the relationship. Trust is often developed over the long term, through observing shared values, and communication, and therefore, it is important to foster relationships, regardless of whether the internet is used in business or not. Further, as trust leads to commitment, the use of the internet in B2B relationships could be viewed to remove this essential factor for Relationship Marketing.

Once trust is present, commitment can exist (Morgan and Hunt 1994). Relationship commitment, defined as “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it” is viewed as key to relationship marketing (Morgan and Hunt, 1994: 23). Services Marketing also sees relationship commitment as essential (Berry and Parasuraman, 1991). Both commitment and trust are viewed as essential to relationship marketing, as they encourage marketers to preserve relationships, focus on the long term interaction and avoid high risk actions that may have implications on relationships (Morgan and Hunt, 1994). It is believed that relationship termination costs, and benefits influence commitment; and shared values influence both trust and commitment. Communication and opportunistic behaviour influence trust, ultimately influencing commitment (Morgan and Hunt, 1994). As these antecedents have been tested, and viewed as central to trust and commitment, they have been included in the conceptual diagram for this study; however, they only contribute to trust and commitment, and do not consider the impact of SSTs on trust and commitment – this is why the study is being undertaken.

This research project will therefore utilise relationship-marketing theory, within a service dominant logic framework and will seek to undertake research to fulfil gaps in both areas as neither look specifically at SSTs. These gaps in Relationship Marketing will now be discussed.

Research gaps and problems with Relationship Marketing Theory
The Research Question for this study is “what impact does the use of SSTs have on relationships within a B2B context”? While Relationship Marketing Theory assists in grounding the study, it cannot answer this research question alone. There are gaps in the use
of this theory – namely, it does not address the impact of SST use on relationships. As the use of SSTs has increased in B2B contexts, this gap needs to be examined - this is the objective of the research.

The Banking Industry

The banking industry has been selected for this study, as it is well known to provide a wide range of services (Eriksson and Marquardt, 2001) and is increasingly using SSTs. Internet Banking in particular has been selected as it can impact on the relationships that have long been regarded as key in a B2B context. The impersonal nature of Internet Banking could have either a positive or negative affect on relationships. It could be argued that it would be more likely to be negative, as literature in both services marketing and relationship marketing recommend working closely with customers.

Whilst there is a potential danger in considering just one industry, a lot of research within a B2B context does this. Furthermore, from the B2B perspective Morgan and Hunt’s paper on Commitment –Trust (1994) examined just one industry (automobiles) and is widely cited and highly relevant to this study. From a customer perspective, banks are increasingly seeking ways to encourage consumers to use technology – from ATMs to telephone banking, and now, electronic banking. In order to ensure that banks remain competitive, they have considered alternative means of distributing banking products for many years. In recent years, banks have been promoting electronic banking as a convenient method for customers, and ultimately for cost savings for the banks (Saythe, 1999; Hughes & Hughes, 2004).

Within banking, self-service delivery has become a driving force since the mid 1990s (Pikkarainen, Pikkarainen, Kajaluoto & Pahnila, 2004), and, in general, the use of SSTs is increasing. A rapid increase in the use of Internet banking within financial services also makes the industry applicable to this study (Eriksson and Marquardt, 2001). From a business-to-business perspective, banking is also interesting as both standard products and tailor-made products are utilized. Long-term relationships are often likely within banking (Eriksson and Marquardt, 2001) and this relates well to the literature on relationship marketing.

Furthermore, financial institutions perceive distribution as a means of differentiating themselves in an increasingly competitive environment (Easingwood and Storey, 1996).
The Research Project

Through an extensive literature review, a conceptual model has been developing using Relationship Marketing Theory and the framework of Service Dominant Logic. This model will be further developed throughout the study. Traditionally, marketing has focused on the transfer and exchange of goods, however, the increase in service-orientated industries, has changed this. Vargo and Lusch have proposed a framework, which is suitable in the service context, however, they do not consider SSTs nor a B2B Context. From a B2B point of view, relationship marketing theory is viewed as important, however, again, it does not necessarily consider services, and certainly does not address SSTs. Therefore, while both bodies of work will ground the work in the study, it is important to address this gap in the literature.

Research Hypotheses

Now that an understanding of the literature has been provided, and the conceptual diagram has been discussed, the hypotheses will now be discussed.

Literature indicates that a number of attributes related to the focal firm influence relationship marketing (Morgan and Hunt, 1994) and Innovativeness (Rogers, 2003). It is anticipated that from a firm perspective, attributes impacting on trust perception include:

- Prev Experience
- Perceived risk
- External marketing
- Characteristics (firm & manager)
- Innovativeness
- Technology trust
- External Factors (connected relps and network envir)

All of the above attributes come from the literature as previously discussed, however either come from B2C work, or alternatively, from work that does not consider the use of SSTs. Therefore, after considering the literature, Hypothesis One states that:

\[ H1: \text{Focal firm attributes and perceptions influence trust perceptions} \]

In addition to the above, literature also indicates that a number of attributes related to the customer can influence relationship marketing (Morgan and Hunt, 1994) and Innovativeness (Rogers, 2003). It is also known that when considering adoption of technologies, a two part study is required examining the decision maker and user (Zaltman, Dunaca and Holbeck, 1973; Leonard Barton and Deschamps, 1988). It is expected that a number of attributes would impact on user perception of the SST, and ultimately trust. Literature indicates a number of attributes impact users. These attributes include:
• Previous Experience with SSTs
• Innovativeness
• Technology trust

As with hypothesis one, these attributes come from the literature, however in many circumstances, they either come from B2C work, or alternatively, from work that does not consider the use of SSTs. This leads to Hypothesis Two:

**H2: User attributes and perceptions influence perception of trust**

Literature indicates that trust must be present in order for relationship commitment to occur. Trust is enhanced through shared values and communication and relationship commitment can be viewed by examining Relationship Termination Costs, Relationship benefits and Shared Values (Morgan and Hunt, 1994). Nevertheless, this does not consider SSTs, and therefore Hypothesis three uses previous literature in a new context, stating:

**H3: Trust leads to relationship commitment, even when SSTs are in place**

B2B literature indicates that where relationship commitment is present, relationship length is positively affected (Morgan and Hunt, 1994). This research, however, does not consider the use of SSTs. Therefore, further research is necessary, however at this stage, the following hypothesis states that:

**H4: Relationship commitment leads to a longer relationship when SSTs are used**

Branding and packaging of technology is important, as is feedback with customers (Coordination). It could be argued that this will reduce perceived risk. Furthermore, an understanding of consumer needs and previous experience is essential (Eriksson and Marquardt, 2001). Therefore, it is hypothesized that when done correctly, coordination and understanding can enhance relationship commitment. This is the premise of Hypothesis Five:

**H5: Coordination and understanding from the focal firm when encouraging SST use increases relationship commitment with the customer**

The objective of the research is to determine the affects of SSTs on business relationships. No literature examines this, however, research does indicate that relationship commitment
leads to positive perceptions of an organisation (Morgan and Hunt, 1994) and brand perceptions (Eriksson and Marquardt, 2001). Therefore, Hypothesis six has been developed based on this literature and indicates that:

\[ H6: \text{A stronger relationship commitment leads to a positive perception of SSTs} \]

**Proposed Methodology and resource requirements**

The research for this project has been proposed to develop a complete understanding of the impact of SSTs on business relationships. Primarily, qualitative research will be utilised to develop a case study of the banking environment. Then, quantitative research will be used to increase understanding and enhance generalisability of the study.

To measure attitudes and perceptions of trust and commitment, it is important to utilise qualitative research such as personal interview to identify important factors (Joseph, McClure and Joseph, 1999). A qualitative method critical incident method has been commonly used in a similar context to this study (Pujari, 2004). Other research, in the B2C sector, has utilized focus groups (Joseph, McClure and Joseph, 1999), however, due to privacy issues, semi structured interviews have been deemed most appropriate. Quantitative methods will be used to enhance the research and give a more objective analysis tool to the data (through the development of a scale ranking trust and commitment and increasing the sample size). Nevertheless, Qualitative Methods will formulate the bulk of the research, with Quantitative methods used to enhance understanding of the impact of SST use on relationships.

**Conclusion**

This study aims at commencing to answer the question “**What impact does the use of SSTs have on relationships within a B2B context**”? As technology is continually improved and utilised in organisations, it is essential to have an understanding of what leads to adoption, and ultimately acceptance. Whilst a number of studies indicate how products are adopted or accepted, few examine B2B relationships and self-service technologies. Self-service technologies have altered the relationship between the service deliverer and customer, however, customers still demand outcomes that are dependable, provide easy access, flexibility and compensation when problems arise (Bitner, 2001b).

It is proposed that the study will use qualitative methods to explore issues in B2B relationships, and technological service adoption. This area is currently under researched, and
as a result, qualitative research will aid the researcher in developing a model to understand the area with more depth. This study will be relevant as it contributes to both marketing theory and practice, and should be applicable to other industries once the research is completed. As businesses seek ways to be more competitive, it is essential to understand the way in which the use of SSTs could impact on business relationships.
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