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# An Examination of Customer Relationship Management (CRM) Technology Adoption and its Impact on Business-to-Business Customer Relationships

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**ABSTRACT** *This study explores the linkage between CRM technology adoption and B2B relationships. CRM technology adoption is considered as a possible antecedent to relationship strength and relationship performance. Ten marketing and sales managers, and their respective customers, from a variety of New Zealand companies were interviewed. Their perspectives on the relationship between CRM technology and relationships were recorded and analysed. In addition, their views of what are elements of strong relationships and relationship performance were explored. Findings indicate that CRM technology does have a role to play in sustaining and maintaining B2B relationships, but it is the customer communications and people aspect that may be most important. Customers have expectations of CRM technology and are generally more optimistic that CRM will provide benefits to the customer in terms of customer satisfaction and service. Respondents were in agreement that the important elements of relations include trust, commitment and communications. Relationship performance is generally measured using customer satisfaction, loyalty and/or customer retention. Future research will focus on developing a CRM technology adoption instrument and empirically testing the conceptual model with larger samples.*

**KEY WORDS:** CRM, customer relationship management, conceptual model, information technology, business-to-business, relationship strength, relationship performance

## Introduction

The marketing, management, IT, and practitioner literatures make numerous references to the impact of customer relationship management on business orientation and performance

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(Almquist *et al.*, 2002; Goodhue *et al.*, 2002; Payne & Frow, 2004; Rigby & Ledingham, 2004). The rapid growth of CRM can be attributed to (a) fierce business competition for valuable customers, (b) economics of customer retention (i.e. life-time value) and (c) technology advances (Buttle, 2004; Winer, 2001).

Although CRM technology is available today from a variety of suppliers, the increased adoption of CRM systems to help manage customer information and knowledge is perceived by some practitioners and researchers as not uniformly delivering proven business value (IDC, 2004; Raman & Pashupati, 2004). In many cases CRM implementations have faced serious difficulties or even outright failures (Davids, 1999; Raman & Pashupati, 2004). These include the inability to deliver profitable growth and in some cases even damaging existing customer relationships (Reinartz *et al.*, 2004; Rigby *et al.*, 2002).

Underlying the adoption of CRM technology in business are the concepts of marketing orientation (MO) and relationship marketing (RM) (Grönroos, 1995; Kohli *et al.*, 1993). Other research also indicates that differences in CRM technology adoption and outcomes within a firm may reflect the firm's IT management orientation and sophistication (Karimi *et al.*, 2001).

CRM involves IT to a significant degree, yet little research exists on the design, use or success of IT systems to support CRM *from the marketing perspective* (Reinartz *et al.*, 2004). CRM research is considered by many researchers as limited in nature and scope (Reinartz *et al.*, 2004; Romano & Fjermestad, 2003), due to the lack of empirical and generalisable research (Gummesson, 2004; Stefanou *et al.*, 2003). Much of the IT-related research is focused on the functional aspects of implementation and there continues to be a call from marketers for additional research in order better to understand, explain and benefit from the CRM phenomenon (Reinartz *et al.*, 2004). The limited number of CRM specific empirical studies and theories available today needs to be expanded and explored further (Goodhue *et al.*, 2002).

The research has two objectives. The first is to explore the linkage between CRM technology adoption and business-to-business relationships. The second objective is to determine how firms and customers characterise relationships and explore how firms and customers assess relationship performance, and what if any specific measures they use for each. The results will help validate (or challenge) the conceptual model, and will provide the basis for further examination of the impact of CRM technology on B2B customer relationships.

Current literature implies a relationship between CRM and RM (e.g. Gummesson, 2004), but there is little published empirical CRM research in this area. In addition it is important to further expand, explore and explain the potential links between RM theories and CRM application.

The primary contribution of this research is the conceptualisation and empirical testing of CRM technology impacts on B2B relationships.

This paper reports preliminary findings from a study that was undertaken to explore the CRM technology–customer relationship linkages. Open-ended interviews with both marketing/sales managers and respective customers (buyers) were conducted to understand better the perspectives and impressions of such managers on the linkages between CRM technology adoption and business-to-business customer relationships. Following an overview of relevant literature and a description of the basic research model, the study's methodology is described. The study's findings are then presented and discussed, with indications for further research.

## Literature Review

### *CRM Technology Adoption (CTA)*

Studies have focused on the effect of CRM technology adoption on sales agent performance (Avlonitis & Panagopoulos, 2005), technology as a dimension of CRM conceptualisation (Sin *et al.*, 2005), and diffusion of CRM in organisations (Wu & Wu, 2005). However, few studies have investigated the functionality and magnitude of CRM technology adopted by a firm and the impact on relationship development, strength and performance (Dishaw & Strong, 1999; Venkatesh *et al.*, 2003). A firm adopting contact management software as a CRM technology initiative is less likely to dramatically improve business or relationship performance. However, a firm implementing highly sophisticated CRM analytics and integrated collaborative CRM applications may find improvement in both business and relationship measures. Supported by the IT technology adoption literature (e.g. Dishaw & Strong, 1999), CRM technology adoption (CTA) is considered a higher-order construct comprised of user acceptance, functionality and integration within the firm. Acceptance relates to the habitual use of the technology as part of the job function and to achieve results – for example using customer information on a regular basis to complete the job requirements (Kim *et al.*, 2004). User acceptance has also been shown to be influenced by a number of factors including perceived ease of use, attitude toward the system, and usefulness (Davis *et al.*, 1989).

CRM functionality refers to the type of CRM technology adopted and is often overlooked by researchers or not considered as a primary factor affecting the successful adoption of CRM within a firm and by users. CRM functionality includes a broad range of possible applications such as sales force automation, customer service functions, marketing automation, collaborative communication and customer analytics (Raman & Pashupati, 2004; Speier & Venkatesh, 2002).

The integration of CRM technology within the firm refers to the incorporation and synthesis with legacy IT systems, and business processes. CRM technology integration has been identified by IT researchers as an important factor in the successful adoption of CRM within a firm (Ling & Yen, 2001). There is a significant difference between a standalone customer contact application for individual sales people, and an enterprise-wide centralised customer database accessible by all authorised users. The integration aspect reflects how well the CRM technology is linked to other aspects of the business to provide a seamless customer experience.

### *Firm Orientation*

Firm orientation can be conceptualised as comprising a combination of market orientation and IT management orientation.

*Market Orientation (MO).* MO is considered by many researchers and academics as an adequate indicator of the level of market philosophy within a firm that guides the firm's customer orientation (Day, 1994; Hunt & Morgan, 1995; Sanzo *et al.*, 2003; Slater & Narver, 1995). The most common MO characteristic is the degree of 'focus on the customer' (Gray *et al.*, 1998; Helfert *et al.*, 2002).

The degree of MO within a firm may influence the functionality, acceptance and level of integration (departmental or enterprise-wide) of the CRM solution as well as have an impact on the utilisation of CRM technology to maintain customer relationships.

*IT Management Orientation (TO).* IT management sophistication and leadership practices have been shown to affect the organisation's ability to utilise technology in support of marketing (Karimi *et al.*, 2001). In addition, a firm's IT management orientation (TO) influences the acceptance and adoption of information technology solutions (Karimi *et al.*, 1996, 2001). In particular, the firm's IT management sophistication and IT leadership reflects the technology orientation of the firm and is expected to play an important role in the implementation, utilisation and adoption of CRM within the organisation (Karimi *et al.*, 2001; Ling & Yen, 2001).

The areas of CRM technology adoption (CTA) and firm orientation reflect a range of factors likely to influence the nature of customer relationships. We need to consider the work that has focused upon the conceptualisation of relationships within a marketing context.

#### *Relationship Strength (RS)*

Business relationships are generally considered higher-order constructs and have been investigated previously through a number of distinct factors and dimensions (e.g. Crosby *et al.*, 1990; Morgan & Hunt, 1994). Relationship quality and relationship strength have been shown in previous research to be similar, if not synonymous, constructs (e.g. Lages *et al.*, 2005; Storbacka *et al.*, 1994). In particular, relationship strength, embodying trust and commitment, has been shown to vary significantly between firms (Hausman, 2001).

Marketing and IT researchers have attempted to measure relationship strength by focusing on components of trust, commitment, conflict, social bonds, communications quality, customer satisfaction and information flow (Dorsch *et al.*, 1998; Lages *et al.*, 2005; Lang & Colgate, 2003; Roberts *et al.*, 2003; Wong & Sohal, 2002). In this respect, trust, commitment and communications quality appear to be robust and consistent measures of relationship strength.

*Trust.* Trust is commonly considered the primary and fundamental requirement for successful relationship development and enhancement (Grönroos, 1996; Medlin *et al.*, 2005). RM theory proposes that business relationships are based on trust (Dwyer *et al.*, 1987; Fontenot & Wilson, 1997). Numerous studies have investigated the components, antecedents and outcomes of trust with respect to business relationships (Morgan & Hunt, 1994; Narayandas & Rangan, 2004; Sako, 1992).

*Commitment.* Commitment is considered by many researchers as the second most common variable theorised as necessary to create, build and maintain relationships (Geyskens *et al.*, 1998; Morgan & Hunt, 1994). To this end the underlying motivation for relationship commitment is important in order better to understand, investigate and predict ongoing relationship performance (Gounaris, 2005).

Previous research has considered commitment to be an attitude and/or a behaviour (or intention) (O'Malley & Tynan, 1997) and the majority of buyer–seller commitment research has focused on the single construct, affective form of commitment (e.g. Anderson

& Weitz, 1992; Morgan & Hunt, 1994). However, a useful typology to study relationship commitment involves measures of affective and calculative commitment (Gounaris, 2005). Affective commitment reflects the desire to continue a relationship because of a psychological attachment, kinship or bond. Calculative commitment, on the other hand, is based purely on a cost–benefit analysis, separate and distinct from the relationship context. This type of commitment manifests itself in the perceived need to maintain the relationship, due to the calculated investment and/or termination costs of leaving the relationship.

### *Communication Quality*

Communication has been ‘... defined broadly as the formal as well as informal sharing of meaningful and timely information between firms ... [focused] on the efficacy of information exchange rather than the quantity or amount, and ... inherently taps past communications’ (Anderson & Narus, 1990: 44). This form of communication definition has been used extensively in the RM literature (Lewin & Johnston, 1997; Sharma & Patterson, 1999).

RM researchers view communications effectiveness and quality as important factors in relationship development and performance (Fontenot & Wilson, 1997; Selnes, 1998), if not key factors (Duncan & Moriarty, 1998), significantly affecting the initiation and development of trust and commitment directly (Geyskens *et al.*, 1998). Hence communication quality is considered important in developing and maintaining relationships (Morgan & Hunt, 1994). Key dimensions of communications quality include timeliness, frequency, openness and accuracy. However, research investigating the potential affects of CRM technology adoption on communications quality within a business relationship environment is sparse.

The third main area of consideration was to examine the outcomes of relationship strength, characterised simply as relationship performance.

### *Relationship Performance (RP)*

Relationship performance considers the overall relationship behaviour, and reflects the quality of the relationship (Kim *et al.*, 2004). Researchers (Geyskens *et al.*, 1999) have suggested that under certain circumstances satisfaction with business performance may outweigh a lack of trust within the relationship and that more research needs to be conducted on performance and satisfaction. Customer loyalty (i.e. exhibited through positive referral behaviour) is generally viewed as a desired outcome of successful RM and is considered a measure of overall relationship performance (Reichheld, 1996). Customer retention reflects relationship performance through the willingness to maintain or invest in the relationship (Gounaris, 2005; Hennig-Thurau & Klee, 1997) and is also considered an outcome of affective commitment (Verhoef, 2003).

Relationship performance can be considered as observed behaviour partially resulting from relationship strength. For this study, the RP measure comprised customer satisfaction, loyalty intention and customer retention (Jutla *et al.*, 2001), measured from both the firm and customer perspectives.

## Conceptual Model

A common theme throughout the IT and marketing literature is that CRM technology is viewed as a RM enabler (Bose, 2002; Buttle, 2004). Through technology, tracking, customising, integrating, communications, minimising errors, augmenting core services and personalising can be implemented quickly and cost effectively (Berry, 1995).

The conceptual model shown in Figure 1 has been derived from the literature on CRM. Firm orientation is hypothesised to positively affect a firm's adoption of CRM technology, and also the strength of the relationship between the firm and its customer organisations. The degree, extent and acceptance of the CRM technology adopted (CTA) also positively affects relationship strength. Finally, Relationship Strength and CTA are both expected to affect relationship performance (RP) positively.

Again, drawing on the literature in technology adoption, CRM and relationship marketing, each of the four main constructs are also hypothesised to comprise certain sub-constructs, as indicated in Figure 1. Firm Orientation is shown as consisting of a combination of market orientation, and technology orientation. CRM Technology Adoption (CTA) consists of CRM functionality, acceptance, and degree of integration. Relationship Strength includes components of trust, commitment, and communications quality. Finally, Relationship Performance comprises customer satisfaction, customer loyalty, and customer retention.

The model shown in Figure 1 provides the overarching research framework for this study. The present study does not attempt to analyse the model in its entirety, rather, this study focuses specifically on the linkages between CRM Technology Adoption, Relationship Strength and Relationship Performance.

## Research Methodology

A qualitative approach was adopted, consisting of individual in-depth interviews. The interviews were semi-structured with a combination of open-ended and closed questions. An interview protocol was developed, drawing on the literature and various instruments used in previous studies. A sample of ten private sector organisations was selected for the study based on industry, employee size and CRM system implemented. A broad range of CRM systems, industries and firm size was solicited representing 'typical' relationships. See Table 1 for a brief description of organisation demographics.

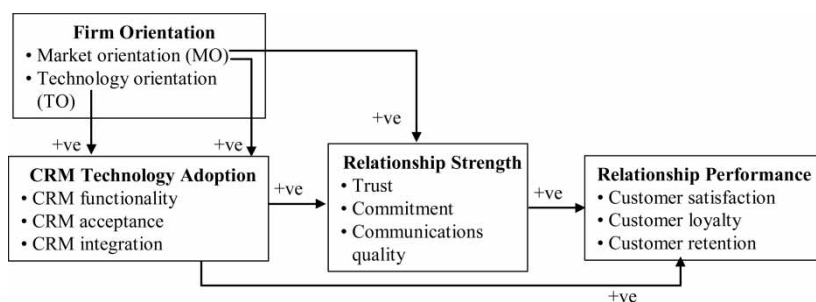


Figure 1. CRM technology adoption – relationship model



In each firm, the most senior individual responsible for sales or marketing was interviewed. The interviews lasted 60 minutes on average. Each of the firms provided contact details for three of their customers. One customer from each firm was contacted and asked to participate in the study. Dyad data collection has been used successfully in marketing relationship research (Anderson & Weitz, 1989; John & Reve, 1982). All of the customers contacted agreed to participate. Each customer interview lasted 25 minutes on average. All 20 of the interviews were recorded, transcribed, and an opportunity provided for the interviewees to check the transcriptions for accuracy. Each transcript was coded, data displays constructed and the results analysed for common themes and insights within and between the cases (Miles & Huberman, 1994). In addition Leximancer 2.21 software was used to help extract concepts contained within the transcriptions (Smith, 2005).

## Findings

### *General Observations*

All of the contacted firms had implemented some form of CRM technology (refer to Table 1 for details). TecCo and BldCo had implemented a popular and simple CRM contact management system, while three firms (RecCo, MarCo and FinCo) had undertaken their own in-house or custom system development. Comtel had implemented a hosted CRM solution; the other telecommunications firm (Telco) continued to use an old CRM system that it had implemented some years earlier. The financial services company (BankCo) purchased an integrated credit card CRM application, and the document services firm (DocCo) implemented their own commercial in-house CRM product. Only the computer-consulting firm (CompCo) purchased and implemented a CRM system from a major CRM player. The participating firms provided a broad distribution of CRM products from small to large CRM implementations, with a wide variety of functionality.

In general, CRM technology was considered by both groups of respondents as a sales and marketing support tool that can facilitate superior processes for customer data collection, analysis and retrieval. No discernable patterns emerged to suggest that either firm size or industry were related to the companies' reasons for CRM adoption. Table 2 indicates the occurrence of salient relevant CRM-RM relationship themes from the interview transcripts (Barnes & Morris, 2000).

### *Perceptions of CRM Technology*

There were many different perceptions of CRM technology by both the firms and the customers. Analysis of the qualitative data indicates that firms with CRM technology, for the most part, do consider CRM technology as potentially benefiting B2B relationships and performance.

[CRM] gives me clear direction in terms of targeting what I want to achieve when I have a client meeting or a call . . . it allows me to add substance to the relationship.  
(BldCo – Owner, CRM's impact on relationships in general)



**Table 1.** Demographic summary of firms interviewed

Firm	Informant	ANZSIC	Industry	Emp	Turnover (m)	CRM System
TecCo	Owner/manager	L7834	Computer consultants	2	\$0.2	ACT!
RecCo	Account Executive	L7861	Employment placement	180	\$19.0	Database
MarCo	Account Director	L7853	Market research services	18	\$3.0	Inhouse
FinCo	Manager Investor Services	K7340	Financial Investment	52	\$48.5	Custom
Telco	Account Director	J7120	Telecommunications	8,000	\$5,600.0	Vantive FOCiS
BldCo	Owner/manager	F4539	Buildings supply	3	\$0.2	ACT!
DocCo	Account Manager	L7832	Info storage & retrieval	420	\$144.0	CoWeb
Comtel	Account Executive	J7120	Telecommunications	1,300	\$842.0	Salesforce.com
CompCo	Relationship Executive	L7834	Computer consultants	300	\$119.0	Siebel
BankCo	Head of Operations	K7321	Banks	190	\$1,400.0	Certegy

Depicting the disguised firm name, informant interviewed, Australian and New Zealand Standard Industrial Classification (ANZSIC), industry segment, number of employees, turnover in \$mNZD and CRM system in use.

Table 2. Recurrence of relevant themes

Firms	RecCo		RecCo		MarCo		FinCo		Telco		BldCo		DocCo		Comtel		CompCo		BankCo		Total	
	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C	F	C
Theme A: CRM effect on Relationships		3	2	2	1	1	3	1	1		1	1	1	1	1	1	2	2	1	1	15	13
Theme B: CRM effect on RS																						
Trust					1	1			2		4										7	1
Commitment			1						1		1	2			1		1				3	4
Communications		2	3	3	4	4	2	2	3	5	3	4	3	1	4	1	3	3	3	2	28	27
Theme C: CRM effect on RP																						
Customer satisfaction	1				1	1	1		2	2	1	1	2		1	1	1	2	2		12	7
Customer loyalty					1	1	1		1	1	1	1			2		1		1		8	3
Customer retention	1	1			1	1	1				1		1		1		1		1		8	2

Note: F = Firm responses; C = Customer response. Numbers represent the number of occurrences of the salient keywords and themes.

CRM users indicated that their reasons for adopting CRM technology were many and varied. One general theme revolved around the collection and management of customer information, in some cases to help manage customer relationships, in other cases simply to provide an efficient and standard internal reporting process for management.

[CRM technology] helps building relationships because you can really easily grasp a bigger understanding of an organisation by looking at what else has been happening in the past and what else is happening across your business. (RecCo – Account manager, CRM's impact on relationships in general)

Users' expectations of CRM technology centred on sales support and knowledge management, with CRM technology expected to provide the 'big picture' of customers, products and services. Users saw the benefits of CRM technology as including the provision of a common information repository available to any authorised internal party, the ability to identify customer and/or product trends, and improved customer management through automated 'pop-ups', reminders and scheduling.

The customers' perception is that companies adopt CRM technology in order to capture and store information about customers that will be used to improve business efficiencies and customer service. A minority (30%) of customers stated that they expected customer information to be retained over time in order to provide improved levels of service. Customer information capture and retention, and customer knowledge management (CKM) is a common characteristic attributed to CRM technology by the customers interviewed.

I expect a supplier to have access to our account history, to know what's gone on. And from that information to know where all the hot buttons are that are going to wind us up and I don't expect to have to teach every new account manager or to go through that. So you sort of expect that that account history is somewhere and that they know what's gone on without us having to go through it all again. (PropCo – GM, CRM used for customer information)

The potential to use CRM technology, both as an analytic tool, and as a potential vehicle for improved communications between supplier and customer was another common theme. CRM was strongly viewed as an enabling technology that can add value to a relationship by utilising the customer knowledge management capabilities. However, some customers believed CRM also has the potential to depersonalise or detract from one-to-one contact between customers and suppliers. This leads to the possibility that, from the customer's perspective, inappropriate CRM technology adoption may hinder relationships over time.

Unfortunately they've forgotten what we look like because our account manager was filling in the CRM and wasn't going to talk to the customer any more. (PropCo – GM, CRM impact on relationships)

Forty percent of the customers indicated that CRM technology adoption might focus too much on standardised practices, data entry and improving business processes to the

detriment of the relationship. Relationships depend on people, not systems or computers, was another common theme.

The perception of CRM-technology related issues uncovered through the interviews indicated potential concerns around the functions, integration and acceptance of CRM technology by the firm users and possible positive and negative effects on customer relationships.

[CRM] has become an administration thing, which they [sales people] resent to a certain extent. (Comtel – Account Executive, CRM impact on relationships)

I'm not very happy with the supposed integration. (TecCo – Owner, CRM adoption)

I think people want to have a relationship with people, rather than the machine side of things. (InsCo (a MarCo customer), CRM impact on relationships)

#### *Ratings of CRM Adoption within the Firm*

In order to get a perception of the level of CRM adopted within a firm, each marketing/sales manager was asked to rate the perceived level of functionality implemented at their firm. In addition, each firm respondent was asked to indicate, from a list provided, the functions provided by the firm's CRM technology.

Table 3 indicates that the majority of CRM users felt the CRM functionality was at the lower end of the scale (i.e. less than 4.0). Some respondents indicated that CRM functionality in their firm comprised functions in more than one area along the scale. For example, TecCo believed their CRM implementation included some integration with customer support, but was not completely integrated, but offered more than sales support.

Only two firms thought the CRM technology implemented functioned at the Enterprise or Partner collaboration level (Rating of 6.0 and 6.5). From an optimistic point of view (using the highest possible ratings) 5 of the 10 firms (50%) believed the CRM system was integrated with departments outside marketing and sales. The opportunity to maximise the benefit of customer information is leveraged by the integration of CRM throughout the firm, a key consideration of CRM to add value is the use of CRM technology to manage the single point of contact. However, regardless of the level of CRM technology implemented in the firm, the customers interviewed did not perceive the CRM information as being integrated or leveraged across departments.

#### *Relationship Strength and Relationship Performance*

Although the firm respondents considered both trust and commitment as important elements of a B2B relationship, communications came through most strongly of all in the interviews (refer to Table 2). Understanding the customer's business (strategy, products, objectives), building rapport, having appropriate face-to-face interaction, and communicating clear messages is of primary importance to building and sustaining long-term B2B relationships.

[Using CRM] implies reliability. I think there's a level of transparency too. It's a great credibility tool. (BldCo, CRM impact on trust)

**Table 3.** Summary of CRM functionality ranking

Firm	Stand-alone address book 1	Contact Management 2	Sales support 3	Integrated with customer support 4	Integrated with some departments 5	Enterprise- wide integration 6	Partner collaboration 7	Average rating	Lowest rating	Highest rating
TecCo			X	↔ X				3.5	3.0	4.0
RecCo						X	↔ X	6.5	6.0	7.0
MarCo		X						2.0	2.0	2.0
FinCo			X					3.0	3.0	3.0
Telco			X	↔ X ↔	X			4.0	3.0	5.0
BldCo		X						2.0	2.0	2.0
DocCo						X		6.0	6.0	6.0
Comtel		X ↔ X						2.5	2.0	3.0
CompCo					X			5.0	5.0	5.0
BankCo		X			X			3.5	2.0	5.0
<b>Total</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3.8</b>	<b>2.0</b>	<b>7.0</b>

The X's indicates the informants' perceived level of CRM functionality and integration, within their firm, on a scale of one (standalone) to seven (fully integrated with partners). The arrows indicate a range of integration and functionality.

Just quality of interaction and the timeliness of interaction and that consistency means that they rely on my consistency and over time . . . you know they can see I want a relationship. (BldCo, CRM impact on commitment)

Both users and customers considered personal communication as the most critical element for B2B relationships, which cannot be easily duplicated by CRM technology. However the majority of respondents considered CRM technology as a key enabler that can improve customer relationship by centralising information and data, and can provide important, timely and more relevant communications.

Obviously it [CRM technology] leads on that the more you know about your customers the more accurately you can communicate with them. (Comtel, CRM impact on communication)

From the customer's perspective, trust, communications, performance and understanding the customers business were important relationship elements. Table 4 shows the results of a prioritisation exercise, where the respondents ranked the set of eight relationship characteristics. Prior to this ranking exercise, respondents were asked to describe key terms, elements and drivers of B2B relationships. Trust, performance and commitment were ranked the top three characteristics by both groups of respondents to describe B2B relationships. Performance in most cases referred to the ability to deliver what was promised and hence was more reflective of the type of trust termed competence trust (Sako, 1992).

Communications, and communications quality, was highlighted quite often as extremely important within a B2B relationship. A number of respondents indicated that clear messages, mutual understanding, and goal and strategy alignment between the parties only became evident through appropriate and timely communications.

Other factors related to strong relationships included dealing with the right people and creating mutual value. Relationship performance was generally described using terms such as customer satisfaction, mutual benefit, and added value. Customer satisfaction surveys, loyalty metrics and customer retention are common measures of relationship performance.

At the end of the day it [CRM technology] must improve our ability to service our client. The client must therefore see an improved service. They may not know why it occurs or how it occurs but if it doesn't improve their lot it's just no use to us whatsoever. (TecCo, CRM impact on satisfaction)

It's critical. It's having a CRM system that allows us to both measure, report and reward our customers for loyalty and also to drive retention and satisfaction. (Comtel, CRM impact on loyalty).

The satisfaction and loyalty not as much because I think that's down to the personal things, but retention, . . . people like to think that they're being thought of regularly and the CRM system helps remind you to do that. (TecCo, CRM impact on retention)

Table 4. Summary of ranked relationship characteristics

Characteristics	TecCo	MGTCo	RecCo	Gov	MarCo	InsCo	FinCo	BroCo	Telco	ProCo	BldCo	SupCo	DocCo	EdCo	Comtel	UniCo	CompCo	HlthCo	BankCo	NproCo	Avg	Rank Order
Trust	1	1	1	1	1	3	1	1	1	1	1	1	1	3	1	1	2	1	1	7	1.55	1
Power	7	6	7	7	8	5	7	8	8	8	6	8	7	8	7	8	7	8	8	4	7.10	8
Control	8	7	8	8	7	6	8	7	7	7	4	7	6	7	8	7	6	7	7	5	6.85	7
Commitment	6	2	2	4	4	7	5	2	2	2	3	2	2	4	4	2	1	2	3	6	3.25	3
Satisfaction	4	4	5	3	3	8	3	6	4	5	8	3	5	2	3	6	5	5	6	2	4.50	5
Cooperation	2	5	3	5	5	1	4	3	5	4	2	4	4	6	5	4	4	4	2	3	3.75	4
Performance	3	3	4	2	2	2	2	5	3	3	5	5	3	1	2	3	3	3	5	1	3.00	2
Conflict & conflict resolution	5	8	6	6	6	4	6	4	6	6	7	6	8	5	6	5	8	6	4	8	6.00	6

List of typical relationship characteristics (taken from the relationship literature) ranked by firm and customer informants. Pseudo-names have been used to disguise the firms.



## **Discussion**

Firms and customers consider CRM technology as a sales and marketing support tool that can provide customer knowledge management, and superior processes for customer data collection, information analysis and knowledge retrieval. Customers believe that CRM technology can help firms understand the customers business, align objectives and better communicate in customer oriented business terms.

The perceived value of CRM applications appears to be industry related. For example, although there is little consensus across industries on how CRM technology affects relationships, firms in the financial services industry agreed that the knowledge management capability provided by CRM is important and has value in sustaining and maintaining customer relationships. On the other hand, the telecommunications firms indicated that CRM technology could be used specifically to help improve customer loyalty.

A number of users and customers raised the concept of Customer Knowledge Management (CKM) and how CRM technology can be used to 'package knowledge about the customer'.

Although the customers interviewed don't perceive the information collected as being leveraged in any concrete way, customers appeared more positive and optimistic of how CRM technology may be used to help sustain and maintain relationships, especially the potential of CRM technology as a communications facilitator.

## **Implications for Academics and Managers**

Customers do have perceptions of what CRM technology can offer as benefits when CRM is adopted by their supplier firms. CRM academics and researchers need to understand better the direct and indirect impact of CRM technology adoption on customers. While CRM technology does not automatically and uniformly improve relationship value, there appears to be an opportunity for CRM technology to enhance key elements of relationships through improved communications. Customers may be suspicious of the supplier firm's rationale for CRM technology implementation, and it is up to the supplier firms' managers to demonstrate added value from CRM technology implementation. This study provides preliminary evidence of a linkage between the level of CRM adoption and business relationships.

## **Conclusion and Areas for Future Research**

CRM is an exciting and topical area, but there are few rigorous studies exploring the phenomenon within the RM context. Some IT and marketing research indicates that CRM technology may not actually assist in the creation or maintenance of customer relationships (Peters & Fletcher, 2004). In contrast, CRM technology is considered by some academics as the practical implementation of RM theory (Gummesson, 2004). These differences in findings and opinion focus the current research.

The exploratory nature of the study and the small sample size are limitations of the study's generalisability; however, the study did confirm and clarify the key elements of the model. There were interesting variations in the CRM functionality adopted and perceptions of CRM impact on the relationship constructs to merit further exploration. Developing a measure of the impact of CRM technology adoption on B2B relationships should

provide an empirical method for academics to better understand and predict the relationship between CRM technology and RM. Marketing, and IT practitioners ought to benefit from a better understanding of the relationship between CRM technology adoption (i.e. CRM functionality, integration and acceptance) and customer relationship performance.

This exploratory study provides some evidence that CRM technology adoption, in any size firm, will positively impact business-to-business relationships. Future research will involve developing a CRM technology adoption instrument and further testing the conceptual model utilising a national postal survey. Additional areas for research should focus on understanding factors that might shape and influence success or failure of CRM technology implementation in different firm settings. Measuring CRM technology adoption provides the ability to determine whether more intense CRM adoption leads to better customer relationships and improved economic performance.

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## **Appendix A: Sample of Interview Questions**

- What terms would you use to describe B2B relationships?
- What do you consider to be the key elements of a B2B relationship?
- In your opinion what are drivers of a strong B2B relationship?
- How would you prioritise each of the following within a B2B relationship?
  - a. Trust
  - b. Power
  - c. Control
  - d. Commitment
  - e. Satisfaction
  - f. Cooperation
  - g. Performance
  - h. Conflict & conflict resolution
- What role does trust play in a B2B relationship?
- What role does commitment play in a B2B relationship?
- What role does communications quality play in a B2B relationship? How is communications quality improved?
- In your opinion how does CRM technology affect relationship building and relationship strength?
- From your perspective what is relationship performance? How is relationship performance generally measured?
- In your opinion how does CRM technology adoption affect relationship performance?
- In what ways do you see CRM technology affecting these elements of a relationship?