CRM TECHNOLOGY AND BUILDING MATERIAL SUPPLIERS

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Abstract

Customer relationship management (CRM) is a comprehensive business and marketing strategy that integrates technology, process and business activities around the customer. CRM is assumed to lead to bottom line benefits for the organization. Advances in information and communication technologies have provided an effective platform to deliver electronic CRM functions. Despite widespread agreement that CRM can have a direct and indirect impact on customer satisfaction, loyalty, sales and profit, the significance of CRM and its features in influencing customer satisfaction has not been well researched in construction. This paper examines the critical success factors of CRM implementation by using a questionnaire survey to obtain data from 68 building material suppliers. Using a structural model and the evaluation technique of partial least squares the analysis revealed that CRM technological initiatives are successful when adequate top management support and accurate knowledge management capabilities, supported by a suitable information technology structure, measured by technological readiness are in place. Construction organizations who are considering the implementation of CRM strategy can utilize these results to become better acquainted with CRM technological initiatives.

Keywords: CRM, technology, suppliers, knowledge management capability, PLS.

1 INTRODUCTION

Construction organizations have begun to embark on the implementation of enterprise systems such as Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) (Chia and Ling, 2003; Barthorpe *et al*., 2004; Tatari *et al*., 2007). Such systems use information technology (IT) based applications to support and integrate various business functions so to achieve standardization, synchronization, coordination, improved information management and customer responsiveness (Tatari *et al*. 2007).

To obtain the benefits of investing in such IT applications there is a need for construction organizations to better understand and be aware of the bottom-line financial returns of *business automation* initiatives (Love and Irani, 2004). Moreover, having knowledge about customers and what their requirements are is deemed to be a critical for long term business success (Nargundkar and Srivastava, 2002). Yet only a small percentage of businesses have basic information about their customers (McKeen and Smith, 2003; Kale, 2004). In recognizing the need to be more customer-centric many businesses have adopted CRM applications to gather, organize, understand, anticipate, and respond to the constant evolution of customers' requirements and demands (Reinatz and Chugh, 2002). Effective CRM is assumed to lead to bottom line benefits for the organization (Tschohl, 2001; Payne and Frow, 2005). Advances in IT have provided an effective platform to deliver CRM functions. Despite widespread agreement that CRM can have a direct and indirect impact on customer

satisfaction, loyalty, sales and profit, the significance of CRM and the factors that lead to its successful implementation is an area of widespread debate (Rigby *et al.*, 2002; Feinberg *et al.*, 2002; Romano and Fjermestad, 2003; IBM, 2004; Hendricks *et al.*, 2007). A study by Gartner Dataquest released in 2002 showed that CRM sales were US$22 billion in 2001, a 10.6% increase in revenue of $19.9 billion in 2000 (Eisenfeld and Denashish, 2002). This report also forecasted sales growth to continue and reach over $47 billion in 2008. The release of Microsoft's CRM application in 2004 also substantially increased the demand for CRM applications in the small and medium business sectors, despite the widespread disenchantment that had been experienced with such applications (Thompson, and Outlaw, 2004).

Many businesses operating the construction industry have been trying to respond to the demands being imposed on them by utilizing IT applications such as CRM and ERP, but immediate benefits and improvements in business performance have not been forthcoming (Love and Irani, 2004; Hendricks *et al*., 2007): the 'Red Queen' syndrome. With this in mind, the research presented in this paper aims to provide material suppliers operating the construction industry with the underlying knowledge to overcome the 'Red Queen' syndrome often associated with enterprise applications such as CRM and ameliorate their chances of obtaining improvements in business performance.

2 CUSTOMER RELATIONSHIP MANAGEMENT

Customer relationship management is a broad term that has evolved from systems such as Marketing Information Systems, Database Marketing, Decision Support Systems, Call Centre Management, and Transaction Support Systems and can cover a wide array of technologies and business processes (Woodcock and Starky, 2001; Kotorov, 2002). Software vendors use the term to refer to any system that facilitates 'better' relationships with its customers. This can be at a number of levels, ranging from facilitated transactions, higher retention rates, better marketing, and lower transaction and service costs.

Customer relationship management is a term for methodologies, processes, systems and software that help a business to manage customer relationships in an organized and effective manager (Bernett and Kuhn, 2002). According to Nargundkar and Srivastava (2002), CRM is essentially a business strategy, which creates better value and profitability through a systematic approach to efficiently acquire, collaboratively manage, and effectively retain the 'right' customers. It has also been defined as "any application or initiative designed to help an organization optimize interactions with customers, suppliers, or prospects via one or more touch points – such as a call center, sales person, distributor, store, branch office, Web, or e-mail – for the purpose of acquiring, retaining, or cross-selling customers" (Goodhue *et al.*, 2002, p.81). It is emerging as an important technology tool that is used by many businesses as a way to maximize existing business models, create new revenue streams, and increase new growth in existing markets (EPS, 2001). This process can span end-to-end operations thus integrating all relationships from suppliers to the consumers and each business entity in this value chain can be viewed as the preceding business's customer, transforming the value chain into a chain of customers (Nargundkar and Srivastava, 2002).

3 FACTORS CONTRIBUTING TO CRM SUCCESS

Within the last five years thousands of businesses have been trying to improve their interaction with customers using CRM. While many businesses and software vendors have advocated the benefits of using CRM, many others have been disappointed (Payne and Frow, 2005). A plethora of studies have indicated the failure rate of implementing CRM technological initiatives to be as high as 70 to 90% (Giga, 2001; Feinberg *et al.*, 2002 CRMGuru, 2002 IBM 2004; Payne and Frow, 2005). The common pitfalls of CRM implementation include lack of cross-functional planning, an incoherent CRM strategy , poor business process management, inappropriate organization structure, lack of

commitment from senior management, and lack of a knowledge management capability (Rigby *et al.*, 2002; Wilson *et al.*, 2002; Kale, 2004; Irani *et al.*, 2005).
To address such problems there have been a number of strategic implementation frameworks propagated to help broaden the understanding of CRM and its role in enhancing customer value and enhancing shareholder value (e.g., Hansortia, 2002; Reinartz and Chugh, 2002; Romano and Fjermestad, 2003; Payne and Frow, 2005). When such frameworks are applied to case studies important lessons can be learned. In this instance, CRM has to be viewed as more than just a marketing and customer-service initiative, and success depends on extending the effort throughout all levels of the organization. Developing a culture that is adept to change, and implementing a process and technology improvement initiatives have been identified as predictors of CRM success (Reinartz and Chugh, 2002; Payne and Frow, 2005; Wilson *et al.*, 2007; Irani and Love, 2008). According to Yu (2001) a CRM effort needs to move beyond sales, marketing, customer services and assisting customers to include operations and strategic planning. For example, the integration of sales-force automation with demand planning efforts, which then can feed directly into supply chain systems. Such factors are akin to the research undertaken within the domain of ERP (Law and Ngai, 2007). There has been limited research that has examined CRM in the construction industry. The construction industry has typically lagged other sectors, with the exception of agriculture, in terms of IT adoption, particularly in the enterprise applications (Love and Irani, 2004). With the need for firms to obtain business 'value' from their CRM applications the following research question is addressed: What are the critical success factors that best support CRM technological initiatives for material suppliers in the construction industry? In addressing this question, a modified version of Iacovou *et al.* (1995) 'adoption and impact of technology framework' is used and applied to CRM. Figure 1 presents the research model to be assessed.

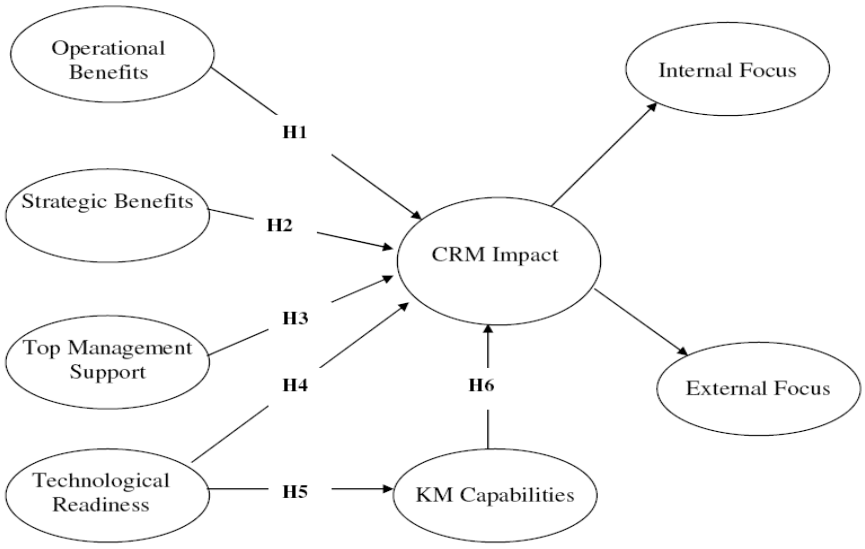

Figure 1. Research model

Iacovou *et al.* (1995) framework is applicable because it encapsulates key constructs that impact the adoption of new technological initiatives. The identified constructs influencing the adoption of technology in the context of CRM are: perceived strategic and operational benefits (Iacovou *et al.*, 1995; Irani and Love, 2001), top management support (Raj and Bajwa, 1997; Hansotia, 2002; Wilson *et al.*, 2002), technological readiness (Iacovou *et al.*, 1995), and knowledge management capabilities (Kaplan and Norton, 1992; Alavi and Leidner, 1999; Irani *et al.*, 2007). The aforementioned constructs can have an impact on the CRM application from an internal (organizational) and external (customer)

focus (Jutla *et al.*, 2001). Here CRM impact refers to the actual benefits businesses receive through the use of its application. Jutla *et al.* (2001) indicates that there are three customer metrics that should be considered when examining CRM impact:

1. *Retention* – refers to the existing customer retention rate for new, old and repeat and loyal customers
2. *Satisfaction* – refers to the degree of customer satisfaction due to the introduction of innovative products and services, improved lead times, on-time delivery, customization, convenience and team spirit
3. *Profitability* – refers to the organization position towards its competitors in terms of ratio of customer costs per market, market and wallet share in targeted segments.

3.1 Operational and Strategic Benefits of CRM

The literature is replete with studies that have examined the benefits of CRM applications (e.g., Goodhue *et al.*, 2002; Coltman, 2006; Hendricks *et al.*, 2007; Wilson *et al.*, 2007). Perceived benefits are the extent to which managers comprehend and recognize the relative advantage that a specific technology can provide the business before the implementation of an application. Two major categories of benefits have been identified: direct and indirect (Iacovou *et al.*, 1995; Irani and Love, 2001). Indirect benefits are typically strategic in nature as they are difficult to quantify. Direct benefits on the other hand are operational inasmuch as they can be more readily quantified and focus on improving the internal efficiency of the business. The operational benefits of CRM for material suppliers may include (Goodhue *et al.*, 2002):

- improved response time to customer requests for information;
- delivered product meets customer requirements;
- reduced costs of buying the product/service;
- reduced costs of using the product/service;
- immediate access to order status;
- greater breath of solution options; and
- more responsive technical support.

Other benefits of CRM include increased market share, increased profit margin, increased revenues, reduced costs of buying and using products and services, and reduced costs of customer handling (e.g., lower call centre costs). While such benefits are often espoused by software vendors Hendricks *et al.* (2007) state that there is no evidence that CRM leads to improvements in stock returns or profitability. Contrary to this, the Hewson Consulting Group (2000) has suggested that CRM applications can yield a target revenue growth of 16% within two years. The determination of the return on investment (ROI) is an arduous task as there is generally no baseline data prior to the use of the system, rendering before and after comparisons almost impossible. The Gartner Group, Forrester, AMR Research, and the Yankee Group have claimed that approximately 60% of CRM implementations do not return the expected ROI and (Foley, 2002). In addition, many benefits are soft or intangible and hard to quantify (Irani and Love, 2001). Invariably the costs of a new system are placed onto customers, though whether they are prepared to pay for the new services offered is something that the business needs to research before implementing their CRM application.

Strategic benefits are associated with the competitive advantage due to the impact of CRM on business processes. The benefits for material suppliers include increased customer satisfaction (retention), improved understanding of the customer, and the ability to better predict what contributes to improved customer satisfaction and customer behavior. Possessing customer knowledge may enable material suppliers to access new customer segments, achieve greater customer control, and achieve greater

customer loyalty (Jutla *et al.* 2001; Goodhue *et al.*, 2002). Such capabilities can provide a material supplier to acquire a competitive advantage over its competitors. In recognizing the relationship between the recognition of benefits (operational and strategic) and the actual benefits achieved from implementing CRM the following hypotheses are posited:

- Hypothesis 1 - Perceived operational benefits from using CRM technological initiatives are positively linked to CRM impact

- Hypothesis 2 - Perceived strategic benefits from using CRM technological initiatives are *positively* linked to CRM impact

3.2 Top Management Support

Customer relationship management initiatives imply the implementation of customer-centric business strategies, a redesign of functional activities and work processes. The decision to implement new technology or upgrade systems is invariably made by top management. Like any technology led initiative, management support is critical for its success (Jarvenpaa and Ives, 1991). This is particularly the case where a redesign of work processes and functional activities is likely to occur. Previous studies that have examined management support and the implementation of enterprise systems have demonstrated that there is a positive association between top management support and the impact of the technology on the organization in terms of its impact on the extent of resistance to change encountered (e.g., Raj and Bajwa, 1997; Irani and Love, 2001; Wagner, 2004; Law and Ngai, 2007). It is suggested that CRM technological initiatives, supported with top management, are able to realize actual benefits. The following hypothesis is posited:

- Hypothesis 3 - Top management support is positively linked to CRM impact Technological Readiness

Technological readiness refers to the level of technological resources that are available to an organization. A CRM initiative is deemed to be costly and complex innovations that demand advanced technological skills, integrated information services and costly information system infrastructures. The cost of a CRM system depends on the scope and existing infrastructure in place. The costs per user can vary from as little as US$ 1000 to in excess of US$10,000 per user (Hewson Group, 2000). Historically, large-scale back-end customer data warehouse applications based on legacy technology has been expensive to implement and maintain. Developments by Microsoft®, for example, such as Dynamics CRM, SQL Server 2005, and Microsoft.net have reduced the overall cost of ownership of such systems because of improved application integration and vendor interoperability. Thus, businesses with greater IT maturity (i.e. technological skills, IT sophistication, and resources) are more prone to achieve actual benefits from CRM (Goodhue *et al.*, 2002; Hendricks *et al.* 2007). Consequently, the following hypothesis is proposed:

- Hypothesis 4 – Technological readiness is positively linked to CRM impact

3.3 Knowledge Management Capabilities

Knowledge management capability is the ability of an organization to capture, manage, and deliver real time authenticated customer, products, services information to improve customer response and provide faster decision-making based on reliable information (Alavi and Leidner, 2001). Such capabilities are inherently based on information, technology and the culture an organization (Alavi and Leidner, 2001; Irani *et al.*, 2007). Information based capabilities address the need for access to

customer and competitor information, product and market information activity-based costing, human resource information, and the current financial status of the business. Technology based capabilities examine issues such as wider bandwidth, email suites, IT infrastructures, interoperability of existing data systems, application integration, and information retrieval. Culture based capabilities refer to the facilitation of change and the promotion of knowledge sharing. Knowledge management is pivotal to the successful implementation of projects, particularly those of technology nature (Love *et al.*, 2005). According to Standing and Benson (2004) an important prerequisite to developing and achieving knowledge management capabilities rests in the information system infrastructure. Therefore, the following hypotheses are proposed:

- Hypothesis 5 – Technological readiness is positively linked to knowledge management capabilities
- Hypothesis 6 – Knowledge management capabilities are positively linked to CRM impact

3.4 RESEARCH APPROACH

Since a validated survey instrument that encompasses the critical success factors of CRM technological initiatives did not exist, one was created to satisfy the requirements of the research. The operational and strategic perceived benefits constructs of CRM impact research model were adapted from Iacovou *et al*.'s (1995) electronic data interchange (EDI) adoption and impact model, where both constructs were made up of five items rated on a Likert scale varying from 1 to 5 (highly disagree to highly agree). The top management support construct was derived from Rai and Bajwa's (1997) executive information systems adoption model and was formulated in four measurement items rated on a Likert scale varying from 1 to 5 (highly disagree to highly agree). The technological readiness adoption construct was also adopted from Iacovou *et al.'s* (1995) model. The six items were reworded and rated on a Likert scale varying from 1 to 5 (highly disagree to highly agree). The research model is also enriched with knowledge management capabilities construct developed from an adapted version of the Balanced Scored devised by Kaplan and Norton (1992) and complemented with the Alavi and Norton (1992) knowledge management capabilities framework. The six items were rated on a Likert scale varying from 1 to 5 (highly disagree to highly agree), with a not applicable option. The CRM impact construct, operationalized in ten items, is based on Jutla *et al*.'s (2001) original customer metrics framework. These measurement items have been specifically identified as metrics that can be used to measure, monitor, and infuse feedback to assess the performance of CRM technological initiatives. These items were found to highly consistent with items from Icaovou *et al*.'s (1995) technology adoption and impact framework. As indicated previously, the CRM impact construct is a second order factor made of the two-sub constructs that look into the internal and external actual benefits of CRM technological initiatives. The internal focus was made of six items and external one of four items, all rated on a Likert scale varying from 1 to 5 (very low to very high), with a not applicable option.

3.5 Questionnaire Survey

Random sampling was used to select the study sample from the telephone directory 'Yellow Pages' in Western Australia (WA). Prior to determining the sample size for the main study, a pilot survey was conducted with five organisations. This was undertaken to test the potential response rate, suitability and comprehensibility of the questionnaire. Each organization was contacted by telephone and informed of the aims of the research. On obtaining their consent, the questionnaire was mailed, with a stamped addressed return envelope enclosed, for respondents' returns, comments, feedback and completion. The respondents were also asked to review the design and structure of the survey. All comments received were positive, and as a result, the questionnaire remained unaltered for the main survey. The response rate for the pilot survey was 100%. In the main survey, 150 questionnaires were

mailed to material suppliers of building and construction products. 68 valid responses were received from the main survey, representing a response rate of 44%. Of the 68 responding organizations, 49 had adopted a packaged software solution from vendors such *Siebel* and *Microsoft*. The remaining 19 organizations implemented a bespoke application to cater for their specific needs and clients. Table 1 presents an overview of the sample characteristics.

Table 1. Sample characteristics

Firm size by number of employees	**(n=68)**
Less than 51	25
51 - 100	27
101 - 150	10
151 - 200	6
200 - 250	-
Respondents by job type	
Managing Director/General Manager	15
Systems Manager	9
IT Manager	13
Accountant	14
CIO	3
Other	14
Turnover of organizations sampled	
Less than $10M	7
$10-20M	23
$21-50M	32
$51-100M	6
>$250M	-

3.6 Data Analysis

Structural equation modelling with Partial Least Squares (PLS) was used to analyse the dataset (Joreskög and Sörbom, 1996). PLS is a second-generation multivariate statistical technique that allows the testing of psychometric properties of the scales used to measure variables, as well as the strength and direction of relationships among variables (Tabachnick and Fidell, 2007). Two stages are undertaken to form a network of constructs. The first stage involves the assessment of the measurement model, which includes the determination of construct unidimensionality, convergent validity and discriminant validity. The second stage provides an assessment of the structural model that is developed. Items loadings refer to the strength of the items, while the estimated path coefficients indicate the strength and sign of the theoretical relationships between constructs (Kline, 1998; Hulland, 1999).

4 RESEARCH FINDINGS

4.1 Assessment of Measurement Model

Construct unidimensionality indicates whether the items measure this construct. Only items carrying a loading of 0.50 and above were included in the analysis (Tabachnick and Fidell, 2007). In addition, the loading must have the highest value for the construct it represents in order to confirm unidimensionality. Convergent validity tests whether the items should be related are reality related. With the structural equation modelling technique, the construct validity is most commonly calculated using rho (ρ) coefficient, which is a coefficient of reliability that measures how well a set of items measures a single latent construct. With PLS, the rho coefficient is calculated from the respective loadings of the items. A value of 0.70 or above indicates a reliable measurement instrument (Nunnally, 1978) and this was found to be the case for all items used (Table 2). The Cronbach's coefficient alpha (α) is used to examine the reliability of measurement instruments. The alpha levels were all above the 0.70 threshold and ranged from 0.72 to 0.88 (Table 2).

Table 2. Descriptive statistics and construct reliability

Constructs	Mean	Median	Std. Dev	Rho (ρ)	Apha (α)
Operational benefits	3.53	3.67	0.87	0.91	0.85
Strategic benefits	3.98	4.00	0.59	0.90	0.82
Top management support	3.66	3.75	0.87	0.90	0.88
Technological readiness	3.55	3.50	0.75	0.89	0.85
Knowledge management Capabilities	3.71	3.67	0.57	0.90	0.87
CRM Impact *Internal Focus*	3.75	3.67	0.55	0.88	0.83
CRM Impact *External Focus*	3.80	3.75	0.55	0.83	0.72

Discriminant validity assesses the extent to which constructs are unique. Discriminant validity must be assessed in the presence of multiple constructs in a research model and can be tested by determining whether the correlation between constructs is significantly different from unity. The first requirement is to make sure that the average variance extracted (AVE) is higher than 0.5 (Kline, 1998). The second requirement is that the AVE calculated for each construct is higher than all the variances shared between two constructs. Results in Table 3 indicate that the criteria of discriminant validity are met.

Table 3. Discriminant validity

Constructs	OB	SB	TMS	TR	KMC	CRM *Internal*	CRM *External*
Operational benefits	0.770						
Strategic benefits	0.067	0.740					
Top management support	0.041	0.003	0.754				

Technological readiness	0.025	0.014	0.108	0.575			
Knowledge management capabilities	0.001	0.052	0.046	0.388	0.611		
CRM Impact	0.001	0.001	0.126	0.101	0.279	0.544	
Internal Focus							
CRM Impact	0.002	0.043	0.072	0.191	0.237	0.246	0.543
External Focus							

4.2 Assessment of Structural Model

Using PLS the estimated path coefficients were calculated using a non-parametric test of significance: the Jack-knife procedure (Shao and Tu, 1995). The R2 was calculated or the proportion of the variance in the endogenous variables that can be accounted for by respective antecedents. Results of the structural model assessment for the three CRM technological initiatives are presented in Figure 2.

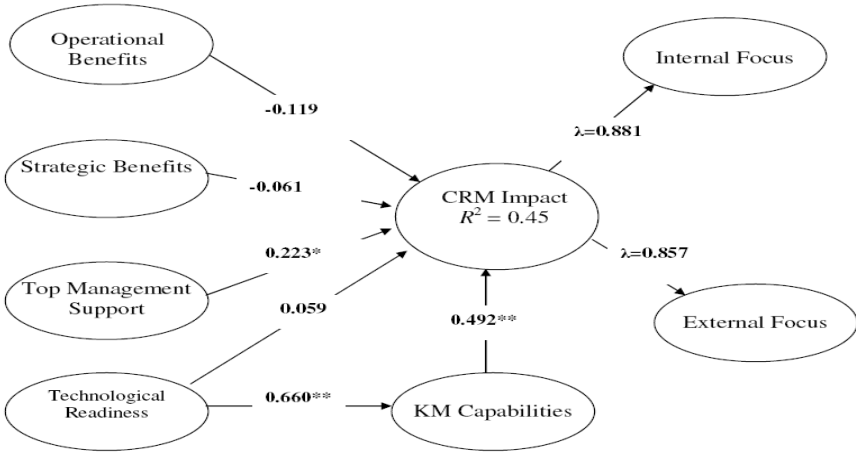

Figure 2. Structural model for CRM technology impact

Hypothesis 1 is not supported here since there is a negative and non-significant relationship between operational benefits and CRM impact (path coefficient = -0.119, p> 0.05). Hypothesis 2 is not supported since the link between strategic benefits and CRM impact is positive yet non-significant (path coefficient = 0.061, p>0.05). Hypothesis 3 is supported since the relationship between top management support and CRM impact is positive and significant (path coefficient = 0.223, p>0.05). Hypothesis 4 is not supported since the link between technological readiness and CRM is positive yet nonsignificant (path coefficient = 0.059, p>0.05). Hypothesis 5 is supported since the relationship between technological readiness and knowledge management capabilities is positive and significant (path coefficient = 0.660, p<0.001). Hypothesis 6 is also supported since the relationship between knowledge management capabilities and CRM impact is positive and significant (path coefficient = 0.492, p>0.01). The proposed research model explains 45% of the variance in CRM impact.

5 DISCUSSION

The research findings revealed that the material suppliers sampled were small-to-medium enterprises (SMEs). SMEs are typically defined as employing less than 250 people (Fink, 1998). This is not

surprising considering in Australia, there are approximately 158,000 firms in the construction industry and the overwhelming majority are micro-businesses, employing an average of 2.3 people (DISR, 1999). Moreover, 94% of businesses in this sector employ fewer than five people and only 800 firms - or less than 1% - employ more than 20 people. Less than 5% of firms account for 90% of the industry's total output and it provides employment for 9% of the total workforce (DISR, 1999). The widespread adoption of CRM packaged solutions by the material suppliers sampled demonstrates recognition for the need to become customer-centric and have knowledge about customers and their requirements.

5.1 CRM Critical Success Factors

There was not significant relationship between strategic and operational benefits with CRM impact identified. These results can be explained by the fact that such innovations are still in their infancy stage in WA. There exist a number of perplexing factors that need to be addressed before overcoming the hype that often surrounds CRM technological initiatives. A more concrete understanding of the strategic and operational benefits of CRM will become evident as material suppliers become better familiarized with the technology. Results indicate that top management support is a significant factor that can positively influence the impact of CRM. Such results indicate that top management support is still crucial fro CRM implementation success. As related in the literature, if executives do not show any interest or involvement in the whole process, organizations members will not believe in such projects and will tend to resist instead. Technological readiness was not significant with respect to CRM impact. It can be an indication that an organization might posses the best IT infrastructure but it does not use it adequately to support and manage its customer relationships, it is simply no being customer centric. Consequently, the actual benefits from using CRM are minimized since the level of knowledge will be minimal. These results indicate that CRM technological initiatives are much more than technological innovations and are not solely technology-driven. In, CRM technological initiatives imply the implementation of a customer-centric business strategy, a redesign of functional activities, and a re-engineering of work processes around all customer touch points using technology as an enabler.

Possessing knowledge management capabilities was found to be the most significant factor affecting CRM impact. This result suggests that a high level of knowledge management capabilities seems to foster effective and efficient management of customer relationships. Possessing knowledge management capabilities also implies that the IT infrastructure is being utilized to reap technological benefits and create operational, analytical and collaborative knowledge about customers, products and services. The relationship between technological readiness and knowledge management capabilities was also found to be significant. These findings are in agreement with the theoretical background because possessing a strong IT infrastructure is a key prerequisite to developing knowledge management capabilities (Irani *et al.*, 2007). Knowledge management capabilities rely on an IT infrastructure to capture, manage, and deliver real-time authenticated customer, products, and services information in order to improve customer response and provide faster decision-making in all customer touch points.

6 CONCLUSIONS

To reap the rewards of CRM technological initiatives material suppliers need to develop a strategy for its implementation. Part of this strategy should be the determining the factors that will influence its successful implementation and then develop a plan to address these issues. In this paper an attempt has been made to determine the critical success factors for CRM implementation using a proven technology adoption and impact framework. The analysis revealed that CRM technological initiatives are successful when adequate top management support and accurate knowledge management capabilities supported by a suitable technology infrastructure (measured by technological readiness) are in place. The results presented in this paper provide

valuable insights into the critical success factors of CRM technological initiatives of Western Australian material suppliers. Material suppliers, as well as other organizations operating in the construction and engineering sector, considering the implementation of a CRM strategy can utilize these results to become better acquainted with CRM applications.

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