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DETERMINANTS OF SUCCESSFUL CUSTOMER RELATIONSHIP MANAGEMENT

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ABSTRACT

Frameworks and fragmented evidence of factors leading to success of customer relationship management (CRM) are available in past research. However, there is little comprehensive understanding yet of the initiatives necessary for deriving organizational benefits from CRM systems. Apart from customers, CRM systems also embrace environmental factors that extend beyond organisational boundaries. Thus, CRM initiatives must address relevant organisational factors as well as the extra-organisational environmental factors. This framework validates the usefulness of the work system (WS) framework as a guide to investigating the CRM initiatives undertaken by Shanghai General Motors (GM). Our findings suggest that the individual slices of the WS framework and their interaction and interdependencies must be comprehensively managed for successful CRM deployment. The study also indicates that cultural values of the organisation and that of its customers have a significant bearing on CRM success.

Keywords: CRM, CRM success, Work system (WS), Information system (IS)

INTRODUCTION

CRM has been viewed as business strategy that enables seamless integration of every area of business that touches the customer—namely marketing, sales, customer service and field support – through integrated management of people, process, and technology [29]. It has received considerable attention from businesses and vendors alike as a tool that could provide competitive advantage to businesses through management of the crucial customer relationship function [17]. According to IDC [21], the worldwide CRM analytics software market in 2006 reached US\$1.3 billion, with a growth rate of 14.7%. Meanwhile, the worldwide CRM software market is expected to grow at a healthy compound annual rate at 12.6% in the next five years. In fact, CRM is believed to

be a magic wand that could produce customer satisfaction and business profits.

While frameworks and fragmented evidence of factors leading to success of CRM are available in past research, there is little comprehensive understanding of the process that leads to successful CRM deployment [34]. CRM systems are complex, in that they embrace factors that extend beyond the organisational boundaries such as customers, as well as other environmental factors. Through this case study we therefore attempt to answer the following question: “What factors are relevant to successful deployment and achievement of benefits from CRM systems?”

The Work System (WS) framework [1] captures the dimensions that embrace the deployment of a system in terms of the work flow concept and therefore also provides guidance on the issues that embrace the successful

deployment and execution of a complex system such as a CRM initiative. We therefore use it as a guide to investigate and explain the success of a CRM initiative in Shanghai General Motors (GM).

Differences in the extent of use of CRM exist across countries. Compared to the western world, use of CRM in China is relatively new [6]. Despite the positive prediction of worldwide growth, adoption of CRM in China is still sporadic and very little is known about the deployment and usage of CRM in China [27]. Success stories are rare. Thus the Chinese context provides an interesting background for the present study.

The next section of this paper is a review of literature on IS success, CRM and the WS framework. The research method is also discussed in the next section. Section 3 analyses the CRM initiative in Shanghai GM in the light of the adopted WS framework. The paper concludes with a discussion of the findings and their implications, limitations and directions for future research.

THEORETICAL FOUNDATION

CRM, first coined by Gartner Group Research [16], continues to be a pervasive issue both for enterprises and academics [10]. According to Romano and Fjermestad [34], CRM research can be classified into five major non-mutually-exclusive areas: CRM markets, CRM business models, CRM knowledge management, CRM technology, and CRM human factors. These five research areas influence each other and also the process, practice and outcome of CRM adoption [33, 34]. However, there is little understanding as yet about organisational success of CRM initiatives. [33].

In the context of CRM, scholars [25, 30] point out that the integration of customer strategy, organizational processes, and information technology is the key to CRM success. Hewson and McAlpine [19] propose that CRM implementation differs from that of other information systems in respect of eight sets of risks that must be managed. They are risks from (1) the dominant characteristics of the sales people who are the primary users (2) complexity of various business processes that CRM embraces (3) rapid environmental changes affecting users of

the system (4) politics (5) multiple means of technical access to CRM system (6) lack of established implementation methodology (7) the need to rework extant processes and (8) funding requirements. Roh and his colleagues [32] assert that process fit, customer information quality and system support are the key factors of CRM success. Cannon [4] mentions that insufficient planning causes CRM project implementation problem, while Cavaye [5] and Davenport [12] stress that business processes must be aligned to meet the need of the system users. CRM success has also been measured in terms of the efficiency of business processes [5, 12, 32, 36], appropriate strategy formulation [18, 20, 26, 39], customer satisfaction [8, 18, 28, 32], as well as system design perspective [28, 38].

Review of prior research indicates that the management of process (the fit between organisational strategy and CRM strategy), people (management of users, user satisfaction and access to the software), technology (ubiquitous access points to users and management of the technology deployment and usage) and information (management of quality of customer information captured and knowledge generated from the information) seem to be the crucial factors of CRM success. In addition, there is indication that ability to address the environmental factors resident outside the organisation also impacts the successful deployment and usage of CRM.

It is evident that inconsistencies in prior studies on CRM success have been found because they have addressed one or the other factors of people, process and/or technology. A comprehensive view of the entire set of factors and their effective management seems to be missing. [41]. In order to enhance the understanding, we therefore need a framework that the entire space that impacts a system's deployment and usage. This paper therefore attempts to add to the understanding of CRM success by using the theoretical tenets of the WS framework [1], already established through prior research as a useful tool to comprehensively understand systems deployment and success. The framework is shown in Figure 1.

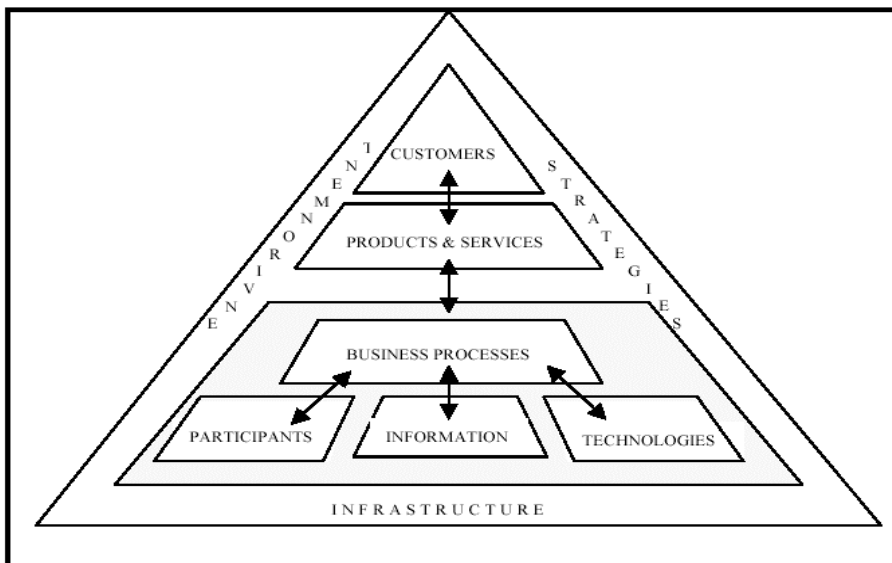


Figure 1: The Work System Framework (Source: [1])

We argue that an integrated perspective, as depicted in the WS framework, is necessary to understand CRM systems success. This is consistent with Pan and Lee's definition of CRM [29] and Rapp's practical report [30]. In the CRM context, this is evident from the statement of the Vice Director at the Shenzhen Branch of Shanghai GM (a respondent in our study): "We don't treat our CRM system as a single system, but more importantly, we integrate the things surrounding our CRM system together in order to achieve the full benefit of CRM. CRM is not a plug-and-play system. It is more about whether you understand the philosophy of integration."

Since the issue under investigation has little prior theoretical foundation, the case method was considered appropriate for this study [3, 24, 40]. The approach is positivist in that an established framework (the WS framework) has been adapted to the CRM context to guide the investigation. Field data was collected through semi-structured interviews and on-site observation. The examined materials include company documents related to CRM project implementation such as project plan, training materials, annual reports, and systems user' feedback documentation.

In the next section, we analyze how elements of the WS framework as conceptualised in the CRM context map on to the situational context of GM Shanghai.

METHODOLOGY

The situational context of the study is a multinational firm - Shanghai GM, a 50-50 joint venture between GM and Shanghai Automotive Industry Corporation with an investment of US\$1.52 billion and the biggest Sino-US joint venture enterprise in China. Apart from first-hand field data obtained through on-site observation, semi-structured discussions with Shanghai GM customers, sales agents, internal publications in Shanghai GM, and secondary data published in CCID [6], CNNIC [9], and newspapers in China were used to triangulate our findings. The reason for choosing GM Shanghai was that there are very few known cases of successful CRM initiatives in China, unlike the West and it therefore allows us to investigate success of CRM in the typical Chinese context. We discuss the CRM initiatives at Shanghai GM in the two stages of planning and deployment (implementation) and map them to the components of the WS framework with interpretive arguments of the relevant data.

CASE STUDY - PLANNING STAGE

Initiating CRM in Shanghai GM

In Shanghai GM, customer care and innovation are the company's slogans. The presence of this slogan on

the enterprise website has helped in cultivating a common enterprise-wide understanding of the necessity of customer satisfaction and innovativeness. From a practical point of view, the slogan is about competitiveness -- the ability to fulfill customers' need and the ability to win customers. To achieve innovation and maximize customer satisfaction, employing information technology (IT) has been a well-accepted practice in Shanghai GM, evident from the use of IT in its production and management processes.

In a bid to increase the market share in China, the CRM implementation in Shanghai GM was initiated by GM headquarter in US. Continuous top management support was available and that created positive norms and expectations regarding the CRM system implementation across the entire enterprise. Management support also eliminated resistance to new system. This top-to-down approach of CRM implementation (starting with the top management) was in accordance with the Chinese culture where Confucian collectivism values and obedience to authority are emphasized [23]. The environment component of the WS framework encompasses cultural, competitive, technical, and regulatory environment within which the work system operates [1]. Alter suggests that cultivating a supporting environment for a WS and minimizing unintended conflicts and risks is one of the principles for WS success (p.10) The environmental factor in the WS framework was successfully addressed through top management support from the headquarter, and was one of the crucial factors of CRM success in Shanghai GM. Interaction of the three elements of the WS - strategy, participants and the environment is visible here.

Strategic planning for CRM

Prior studies indicate that many firms dive headlong into CRM project without considering the alignment of enterprise strategy and the CRM implementation strategy [26, 31] - a common fault of in Chinese enterprises in respect of IT initiatives [27]. Shanghai GM attempted to address this problem by aligning its strategy of 'customer care' with the choice of a CRM initiative that could support the business strategy. Shanghai GM chose the Siebel CRM software and planned for a deployment strategy called "plan as a whole and implement step by step". The first consideration in the CRM implementation strategy was to ensure that the goal of CRM project was consistent with Shanghai GM's long-term goal. CRM implementation in Shanghai GM had a fit with the organization's long-term strategy, which in turn encouraged effective cooperation across departments in the organization such as sales, marketing, customer service, and production department, as also from external corporations.

Prior research mentions that strategic alliance with customer and strategic use of information system are critical for an enterprise success [11, 17, 22, 30]. This concept is consistent with the philosophy of WS framework. In order to ensure that CRM strategy was aligned well with the organization's strategy, Shanghai GM and Siebel documented all recognized CRM implementation steps that included long as well as short-term planning, rearrangement of business processes, clarifying the objectives of each business process, drawing up a CRM implementation schedule, and formulating an anticipated return on investment. These documents guided the process of CRM implementation and were used for final appraisal of the project. The strategic documentation helped allocate organization's resource [22, 37], which in turn maximized Shanghai GM's profitability. Thus an integration of strategy, technologies, process and participant perspectives of the WS framework is discernible in the CRM initiative.

Involving participants

In CRM studies, IDC report [21] has pointed out that adequate user involvement, including top management support and advices from customers as well as other system users, is one of the determinants of the CRM success. According to Frontline [15], engaging in CRM initiatives without customer/system user input and without enough top management support is one major reason of CRM failure. The reality is that though CRM technology platform is provided, it is hardly used [15]. Without sufficient participant involvement including internal and external system users and decision-makers' support, a successful CRM system is difficult to implement [11, 29].

Contrary to other systems such as ERP or DSS, sales persons are the principal CRM system users. The change in information storage methods and customer record maintenance creates passive resistance to the new system (CRM). The changed system is often viewed as a loss of power in controlling customer information, in turn affecting the power to control sales commission. In the case of Shanghai GM, prior to CRM implementation, sales personnel controlled sensitive customer information. The CRM project team addressed this issue by forming participation groups, aimed at improving participation level and reducing resistance to the new system adoption. The members of participation group came from various departments including department of finance, R&D, production and material flow, marketing, sales and service. The participation group also included top managers of each department to support CRM deployment at a strategic level. In order to ensure sufficient customer involvement, customers' suggestions on the CRM initiative are discussed in the participation-group meetings. Customers

were also invited to talk about the CRM system design in the consumer panel discussion. The advantages of establishing such a participation group was that it avoided misunderstanding between firms and customers, or among departments, and helped in building a positive attitude in users, fostering inter-departmental cohesiveness and smoothing information flow. Inter- and intra departmental information sharing led to higher user involvement [11]. According to the director in Shenzhen Branch of Shanghai GM, "Departmental sharing of information was increased because through the CRM system we can share our stories with other branches". Meanwhile, communication with the headquarter in Shanghai also increased significantly. Through adequate user involvement, inter- and intra departmental information sharing and real participation in the CRM system was obtained in Shanghai GM. Thus it is argued that the integration of process, participants, customers and information elements of the WS contributed to the success of CRM.

Making Use of the Infrastructure Support

In Shanghai GM, the well-developed ICT infrastructure largely facilitated CRM implementation. From the very beginning of business, Shanghai GM focused on innovation and the utilization of IT in each department. The well developed IT infrastructure facilitated the integration of the CRM system with other management information systems and thus enabled better information transfer among each department. Besides IT, human resource is another infrastructure component in the WS framework. Before CRM implementation, Shanghai GM engaged in enterprise-wide communication with all departments and users. This action demonstrated the support of top management and executive sponsorship – factors that helped promote positive response to the CRM project from all departments [29]. Since data inputs in the CRM system is mainly by salesperson, technical-support experts and staff of call center, computer literacy of employees was an important consideration.

Besides computer literacy, training on CRM was also seen as an important step in getting internal support for the project [11]. CRM training in Shanghai GM was designed for the people who were supposed to use and benefit from it. Shanghai GM mainly used the method of manager-led CRM training. This method trains first-line managers, who really understand the business, on how to employ CRM system to accomplish business goals; the managers in turn assume responsibility for training their own reps with scenario-based drills, plus technical support from Siebel.

In terms of the WS framework [1], infrastructure component includes human and technical resources that

the WS relies on, even though these resources exist and are managed outside of the CRM system and are shared with other work systems (such as databases, networks and programming technology). According to Alter, taking full advantage of infrastructure is one of the principles of WS success. Zablah et al [41] suggest that both over and underestimating the role of technology could be detrimental to organizational success with technology. Shanghai GM was able to realistically assess the potential of the CRM tool and able to harness its full potential. Misunderstanding of CRM technology has been partly responsible for numerous failure cases [7], while integrating human and informational resource will help achieve CRM success.

Thus, in Shanghai GM, the proper assessment of infrastructural needs and arrangements to deploy the infrastructure (technological and human resource) contributed to successful CRM deployment.

CASE STUDY - IMPLEMENTATION STAGE

Enabling CRM with Technologies

The technology strategy in Shanghai GM's CRM implementation targeted three dimensions: marketing automation, sales automation, and customer self-service. The web-based CRM initiative equipped customers through an electronic channel based on an ease-of-use principle. Compared to traditional CRM, electronic application in eCRM enabled customers to interactively communicate with Shanghai GM. The availability of real-time customer information through the e-CRM enabled the three functions of marketing automation, sales automation, and customer self-service. The powerful electronic application also guaranteed customers with adequate technology performance. Technology deployment helped in increasing visibility of the supply chain through efficient communication links of the enterprise with customers, agents, dealers and upriver suppliers. Advanced technology in Shanghai GM enabled linking front level employees (e.g., sales and after-sales service personnel) and back office (e.g., logistics, data mining) functions to provide efficient and effective interaction within the organization as well as with customers, suppliers outside the organizational boundaries. Thus in terms of the WS framework, the integration of technology, business process, participants and strategy is clearly visible.

Besides advanced technology, CRM system's customization, maintainability and compatibility with the organisational processes also contributed to Shanghai GM's CRM success. Product flexibility was an important

criterion when Shanghai GM chose the CRM software provider. Customization of the CRM package to suit the automobile management function enabled the fit between CRM software and organization's need [35]. Maintainability and compatibility of Siebel's CRM with other deployments of technology at GM Shanghai guaranteed that the CRM system would run properly in the long term [1].

Technology in the WS system context includes tools and techniques that WS participants use while doing their work [1]. Accordingly, ease of use, adequate technology performance, maintainability and compatibility contribute to WS success [1] (p.11), which were all adequately addressed in Shanghai GM's case. Integration of technologies with business processes also contributed to the success of CRM at Shanghai GM.

Reengineering Products/Services for Customers

Business process in the WS framework encompasses activities combining information communication, sense making, decision making, and physical actions that result in a desired business outcome [1, 13]. Performing the work by making use of business process is one of the principles of WS success [1] (p.10). Alter suggests that reengineering of inefficient business processes and integration of the processes with the work system is a crucial determinant. This suggests to the need to manage collaboration across processes, manage conflicts, specify process boundaries and redefine them if necessary and ensure that all workflows align with the business strategy [2, 11].

Before the deployment of CRM in Shanghai GM, when customers bought a vehicle or consulted related information they had to deal with sales agents. Post-purchase and maintenance interactions were between customers and maintenance personnel. Customers could also call 8008202020 for teleservice. Originally, when customers called this number, they were told to call another telephone number, depending on what kind of service customers needed. For example, if customers wanted purchase information, they had to call a sales agent. If car maintenance was needed, they had to call a car-repair shop. This arrangement was inconvenient for customers. However, the situation changed after the implementation of CRM system. Now the call center can provide all kinds of information to a customer ranging from information consultation to car maintenance.

As a part of Shanghai GM's customer and product/service strategy, the company's new website (www.shanghaigm.com) also offered information to customers. Now customers can go online to check information or directly communicate with Shanghai GM in Bai

Chen Tong Channel as a member. In terms of segmentation of customers, Shanghai GM provides individual service for every registered potential vehicle buyer. They can customize their own model, including equipment, colour, and delivery arrangement through the above website. Customers can also do an online check at every point of the supply chain from order booking to delivery. Records of customer interaction are stored in customer's member account and analysed. According to Alter [1], the customers and product/services slice indicates that product design and performance must be consistent with customer needs. In the case of Shanghai GM, the improvement in the service of call center directly enhanced the level of customer service. Customers' comments and suggestions recorded in the CRM system provided opportunities to understand market trend and provide real-time advice for product development. Thus CRM success in Shanghai GM may also be attributed to improved customer service on an ongoing basis, which in turn helped in developing a reliable, profitable, and mutually beneficial customer relationship [41]. Here once again, is an indication of how the people, process, technology and management integrate to drive CRM success.

The group strategically shifted customer service from a decentralized to a centralized method (i.e., managing customer, products/service information in a centralized database), and hence offered customers and internal system users an easier way to approach product and service information. The centralized customer and product/service focus made management become more effective and established higher customers and internal system users' satisfaction [2]. The integration of strategy, process, product and service is highlighted here.

In Shanghai GM, the processes of customer service, sales, manufacturing, technical support for repair shops, and product R&D were all re-engineered according to the "customer-oriented" manifesto, so that they aligned with the CRM objectives. The CRM system also supported workflow execution. For instance, technical support workflow used a knowledge database for the best and quickest support. Through the CRM platform, knowledge workers (majority of them engineers), plan, acquire, search, analyze, organize, store, program, distribute, and contribute to development and transfer of repairing knowledge. Requests from repair shops interface with the repairing knowledge base of the CRM platform. The CRM system automatically asks the related questions and provides a solution. Hence, the CRM system in Shanghai GM, in a macro-level perspective, is the aggregation of numerous sub-processes, such as repairing problem identification and repairing knowledge creation. The CRM tasks can be divided or aggregated into lower or higher level of

processes in order to fulfill the request. This illustration of knowledge support via CRM platform is only one example of reengineering of business processes in Shanghai GM. Other front- and back-office units, e.g., marketing, sales, manufacturing, and supply chain, are now in different phases of integration with the CRM platform. The process design in Shanghai GM is in accordance with Srivastava et al's [36] viewpoint where CRM is about different level of process aggregation. The fit between CRM tasks and designed processes also smoothens the process of fulfilling customers' request [41]. By integrating various information systems and work flow to process customers' request (e.g., database and knowledge repository), the organization profits from reliable customer relationship. There is clear evidence here that the re-engineering of processes to align with the CRM initiatives was instrumental for the success, an example of the process, technology and management strategy integration.

Information Management

Information in the WS context includes codified and non-codified information used and created as participants perform their work [1]. Information in the CRM system mainly refers to customer information and the customer knowledge created. In the case of Shanghai GM, customer information was recorded in various places before implementing the CRM. Sales agents, maintenance shops, and marketing department had their own records of customer information. No cross-referencing of the information across departments existed. The authenticity of the information could not be guaranteed, either. Lack of information sharing led to wastage of resources and failure to effectively analyse information. Now the application of the CRM initiative to various business processes has led to information sharing across departments in Shanghai GM, contributing to CRM success.

Past research indicates that one of the key components in a competitive strategy is to best satisfy the needs of customers [11, 17]. The starting point in satisfying customers is to understand customer needs by analyzing customer information. The CRM enabled Shanghai GM to effectively and efficiently manage different sources of customer information. All customer data are input and mined within the information framework. Based on cus-

tomers knowledge (e.g., customer preferences, customer satisfaction, and customer segmentation etc.) obtained from data mining, customer strategy was developed that aligned with business strategy of the company, ensuring deep-dyed customer-oriented business operations [11]. By utilizing customer knowledge, Shanghai GM hopes to build a complete and real-time understanding of customers, which combines the internal and external resources to optimize the customer relationship and support business programs at different levels. From the viewpoint of information integration, customer information in Shanghai GM is analyzed, and the resulting customer knowledge is used to guide strategy making and re-engineering of business processes. Thus there is indication that the integration of information with business processes and strategy contributed to CRM success.

DISCUSSION AND CONCLUSION

The analysis indicates that the success of CRM project in Shanghai GM is attributed to the company's ability to address the crucial factors of the WS framework listed in Table 1.

Table 1 indicates that the WS framework may be adapted to understand CRM success. The case study also suggests that the top-down approach in Shanghai GM towards CRM project execution was in accordance with the Chinese culture where Confucian collectivism and obedience to authority is valued, thus eliminating resistance and contributing to success. The application of the WS framework concept in CRM implementation suggests that integration of the WS framework components is crucial. Although every firm has its own customer information, not every firm really understands the value of making use of customer information and integrating it with business processes and this negatively impacts success. The checklist in Table 1 may help firms better understand the importance and relevance of each individual segment of the WS framework when embarking on a CRM initiative. CRM project success is achieved only when the individual slices of the WS framework and their interaction and interdependencies are properly managed and executed.

Table 1: CRM Success in Terms of WS Components

WS Components	Checkpoints	Shanghai GM's Performance
Environment	· Management support	√
	· Consistency with collective culture	√
	· <i>Core competitive advantage*</i>	√
	· Low level of turmoil and distraction	Not addressed in the present case
Strategy	· Fit between CRM system strategy and enterprise's strategy	√
	· <i>Long-term and short-term planning*</i>	√
Customers and Product/Services	· Product design consistent with customer needs	√
	· <i>Adequate customer service*</i>	√
	· Adequate product performance	√
Process	· <i>Information systems integration*</i>	√
	· <i>Work flow applications*</i>	√
	· Process re-engineering and fit	√
Participants	· Appropriate skills and understanding	√
	· Interest in work	√ (only job requirement in the present case)
	· Motivation to work	√
	· Ability to work together to resolve conflicts	√ (only department manager level in the present case)
	· <i>Real participative activity*</i>	√
Infrastructure	· Adequate technical infrastructure	√
	· Adequate human infrastructure	√ (not addressing customer literacy in the present case)
Technology	· Ease of use (for IT and other technologies)	√
	· Adequate technology performance ("horsepower")	√
	· <i>Technology customization*</i>	√
	· Maintainability and compatibility	√
Information	· Adequate information accessibility	√
	· Adequate information presentation	√

WS Components	Checkpoints	Shanghai GM's Performance
	· <i>Adequate information mining*</i>	√
	· <i>Adequate information application*</i>	√
	· Adequate information quality	Not addressed in the present case
	· Adequate information security	Not addressed the present case

Notes: * *indicates that the particular element* is not represented in Alter' WS framework [1]

Table 1 indicates that the WS framework may be adapted to understand CRM success. The case study also suggests that the top-down approach in Shanghai GM towards CRM project execution was in accordance with the Chinese culture where Confucian collectivism and obedience to authority is valued, thus eliminating resistance and contributing to success. The application of the WS framework concept in CRM implementation suggests that integration of the WS framework components is crucial. Although every firm has its own customer information, not every firm really understands the value of making use of customer information and integrating it with business processes and this negatively impacts success. The checklist in Table 1 may help firms better understand the importance and relevance of each individual segment of the WS framework when embarking on a CRM initiative. CRM project success is achieved only when the individual slices of the WS framework and their interaction and interdependencies are properly managed and executed.

It would be in order to discuss the limitation of this study. Our interpretation is based on observation and semi-structured interview data from only one case. In order to find out whether the findings may be generalised to the Chinese context, more case studies and possibly a large-scale survey may be required. Nevertheless, the study provides some useful insights on the factors that are crucial in CRM planning and deployment and how these factors interact with each other in shaping CRM success. The study also helps to validate the WS framework and extends it in terms of additional components that enhance the framework and highlights the interaction of the WS components in the specific context of CRM planning and deployment. Further verification of the framework in different countries could provide more useful insights into the efficacy of the framework to explain system related issues in more complex, dynamic settings.

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