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Abstract

Owing to the turbulent and fast changing environment in which Chinese firms operate, Information Systems (IS) implementation triggers important organizational changes in these firms. Starting with the premise that both the depth and nature of such changes are markedly different from what firms experience in other economies, this paper makes an attempt in conceptualizing issues relating to IS implementation in the Chinese context. It addresses critical success factors, expounds on the processes involved, and deals with the criteria for assessing a firm's success or failure. A case study was conducted which entailed the examination of two key applications, financial accounting and personnel administration. This initial exploration indicates relevance of certain factors in the existing literature, and brings to light the potentiality of several factors pertinent to the current state of the Chinese business environment, which is heavily influenced by the cultural and economic backgrounds of this huge country. The study is the beginning part of a larger research program, which aims to include multiple cases in different but major industries. The findings enrich the literature on IS implementation by offering some new dimensions of understanding.

Keywords
IS implementation, Critical Success Factors (CSFs), China

1. Introduction

The Chinese economy, previously a closed system dominated by the communist party, is on a reform path toward an open, market-driven system. Faced with fierce competition in world wide economy, especially after China's entry into the WTO in December 2001, Chinese companies are undergoing fast-paced, fundamental change processes. Various efforts have been made to secure the success of this process; among these efforts is the strategic use of Information Systems (IS), which is of key interest to this paper.

IS implementation is defined as "an organizational effort to diffuse and appropriate information technology within a user community" (Kwon & Zmud 1987, p. 231). It is fair to say that in general, the outcomes of IS implementation in Chinese firms are less than desirable, and not as successful as in firms of Europe or North America. Practitioners, including managers, vendors and consultants, are keen on acquiring insight into this phenomenon. Previous works on IS implementation in China (e.g., Dologite, Fang, Chen, Mockler & Chao 1998) have largely drawn on factors suggested in the literature, and tested them using surveys (e.g., Zhang, Lee, Zhang & Chan 2002, Reimers 2002). Shanks, Parr, Hu, Corbitt, Thanasankit and Seddon. (2000) have investigated critical success factors (CSFs) for IS implementation in China in a case study with a phase model. However, Shanks et al. (2000) only studied the CSFs for ERP success from a project-success perspective in the setting of a joint venture between a Chinese partner and a Japanese manufacturer; this may not be a typical setup for examining the CSFs of IS implementation in the Chinese context. To add to the existing knowledge, the current study looks at the issues from an organizational-change perspective; at the same time, this study examines IS implementation in China from a political respective, which is a crucial dimension considering the unique political systems in China (Dologite 1998). In sum, it is of significant value to research on the critical success factors of IS implementation in China and how and why they take effects. Critical success factors are defined as the limited number of areas which if satisfactory "will ensure successful competitive performance for the organization. They are the few key areas where 'things must go right' for the business to flourish'" (Rockart 1979). This definition implies that CSFs are causally linked with a "successful" organizational change; accordingly they should be carefully attended to when implementing IS.

This paper addresses the following questions: (1) What are the critical success factors leading to successful IS implementation in a Chinese firm? (2) Which factors are peculiar to a particular phase of the implementation process? In seeking to answer these questions we hope to arrive at a brief account as to the unique phenomenon in China. This paper is organized as follows. The next sections deliberate on the dependent variables of implementation outcome, and independent variables which form the critical success factors. Stage models for implementation process are subsequently visited. The case study is then analyzed, followed by a discussion of findings and their implications.

2. Research Model

2.1 Dependent Variables – IS Implementation Outcomes

To date, no research has measured IS success in China; the difficulty in such gauging efforts has plausibly to do with the complex nature of events and conditions in China. For example, most claims of success or failure of IS projects in China are made by IS vendors or leaders of the company, who are often biased for their own benefits. The current research attempts to overcome some of these difficulties by gaining direct access to different levels of managers and users, rather than relying upon official pronouncements of implementation outcomes.

MIS success is a multidimensional construct and has been measured in such way. DeLone and McLean (1992) summarized the measurements into six dimensions including systems quality, information quality, information use, user satisfaction, individual impact and organizational impact. Different dimensions serve different research purposes. Since the current study examines IS implementation from an organizational change prospective, organizational impact should be measured. Considering that success should be judged vis-à-

vis the organization's specific goals, the exact items to measure organizational impact were addressed while doing the field study. Further, to gauge the impact of IS implementation which may take some time to become visible, user satisfaction was considered a useful indicator.

Since there has been no previous studies on China-specific CSFs for IS implementation, CSFs is proposed by synthesizing findings from studies conducted in Europe, America, Australia and China, and published in leading outlets of IS including Information Systems Research, MIS Quarterly, Management Science, and International Conference on Information Systems; the synthesizing effort was mainly guided by two preliminary models which identified major areas or variables for inquiry (Kwon & Zmud 1987, Zwass 1998). This is a reasonable starting point as the Chinese companies are shifting toward a free economy, following the business strategy in North America; many information systems adopted in China originate from North America. The approach to some extent parallels that of Reich and Benbasat (1990).

Factors are organized in the following categories (Kwon & Zmud 1987): individual factors, technological factors, task-related factors, and structural factors (see Figure 1). The CSFs in each category are described in Table 1.
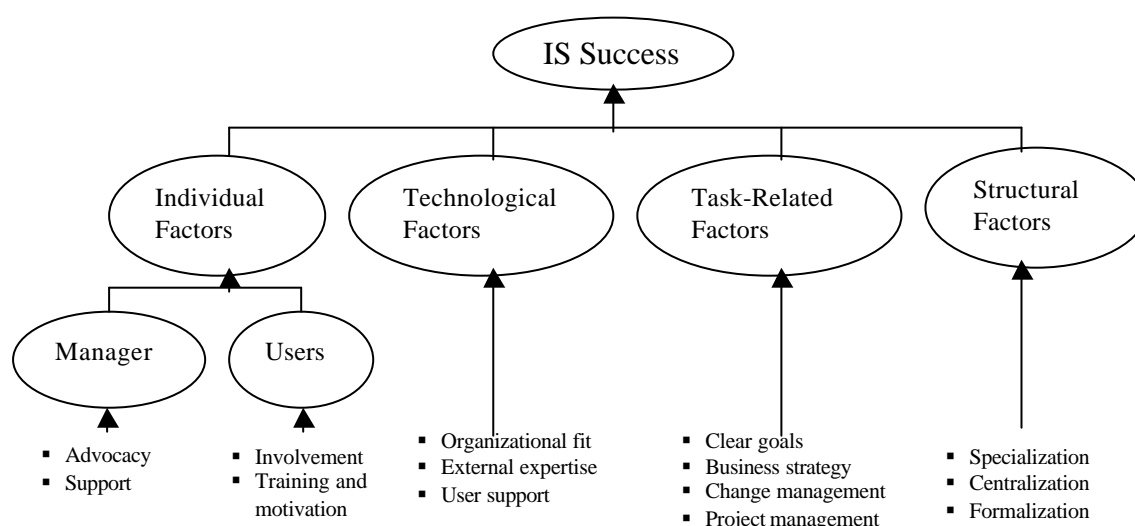

Figure 1. Potential CSFs for IS implementation in China

The above model provides but a starting point; put simply, the current work attempts to add to or subtract from the set of factors, based on the uniqueness the Chinese environment has offered, and an analysis of empirical data.

Adopting the position that implementation efforts should be viewed as consisting of a sequence of generic stages (Kwon & Zmud 1987), this paper seeks to understand the role of different critical success factors in different stages. Several stage models exist in the literature. In this section, we briefly review two of them which are IS success-oriented, corresponding with the research questions raised in the introduction. The six-phase model developed by Cooper and Zmud (1990) consists of initiation, adoption, adaptation, acceptance, routinization, and infusion. This model provides insight on the whole dynamic process of IT innovation. However, a critical examination of this model indicates that the lines between its stages are hard to identify for practitioners. This limitation was addressed by the four-stage model of Markus and Tanis (2000); the four stages are (1) "charting", which

comprises decisions leading to the funding of a system, (2) "project", which comprises activities intended to get the system up and running in one or more organizational units, (3) "shakedown", which relates to the organization's coming to grip with the enterprise system, and (4) "onward and upward", which continues from normal operation until the system is replaced with an upgrade or a different system. Detailed descriptions can be found in (Markus & Tanis 2000). The four-stage model was adopted here for two reasons. First, it is deemed more comprehensible from a practitioner's perspective; second, existence of stage-dependent success indicators in addition to the overall success will help provide greater insight for conducting our case study.

Factors		Descriptions	References
Individual	Involvement (End users)	Participation of end users	Ives and Olson 1984, Alavi and Joachimsthaler 1992; Zwass 1998
	Training and motivating (End users)	Equipping and motivating users with appropriate knowledge of the IS and the skills to operate	Shanks et al. 2000, Zwass 1998
	Support (Managers)	Support of senior managers in terms of adequate resources, policy, etc	Zwass 1998
	Advocacy (Managers)	Advocating of the benefits of IS by senior managers with enthusiasm and commitment	Krcmar and Lucas 1991, Shanks et al. 2000
Technological	Organizational Fit	Fitness between the information system's objectives and organizational objectives	Zwass 1998
	External expertise (vendors and consultants)	Adequacy and quality of vender support, and consultant effectiveness	Thong, Yap and Raman 1996, Shanks et al. 2000
	User support (from IT department)	Technical support for end-users	Bergeron and Bérubé 1988
Task-Related	Clear goals	Clearly defined and well understood goals	Shanks et al. 2000
	Business strategy	Adoption of a system important for business strategy	Millett and Powell 1996
	Change management	Effort to change management process to fit the IS process	Shanks et al. 2000, Zwass 1998
	Project management	Managing the information systems development appropriately and effectively	Zwass 1998, Shanks et al. 2000
Structural	Specialization	Diversity of specialists within the company	Steers 1977
	Centralization	Degree of concentration of decision-making activities	Steers 1977
	Formalization	Degree of functional differentiation	Steers 1977

Table 1. Description of CSFs

2.3 The role of Politics

Ever since Markus' (1983) use of the concepts of politics and power in the context of IS implementation, politics has been borrowed to explain many apparently irrational or inconsistent implementation behaviors and outcomes (Kwon & Zmud 1987). Anecdotal evidence and industry experience suggest that behaviors in IS implementation in China could not be fully explained without considering the political factors. Correspondingly, we have accorded explicit attention to this factor and evaluate its significance in our data analysis.

2.4 Proposed Model

A research model is produced based on the above discussions (see Figure 2). Four stages are depicted within the implementation process. Stage-specific outcomes are accommodated. The political factors are present as antecedent conditions. Major outcomes are presented in terms of organizational impact and user satisfaction.

3. Research Methodology

3.1 Appropriateness of Case Study Research

The case research method is appropriate when the phenomenon under investigation is broad and complex, when the existing body of knowledge is insufficient to permit posing of causal questions, and when the phenomenon cannot be studied outside its context (Bonoma 1985).

The topic of IS implementation in China fulfils these conditions. First, IS has the potential of altering Chinese industry to a great extent in an intricate manner. Second, studies on IS implementation and diffusion process in Chinese corporations have been mainly conceptual and anecdotal in nature, so it is almost impossible to form causal research hypotheses. Third, the business context and environment play a very important role in the IS implementation and diffusion processes.
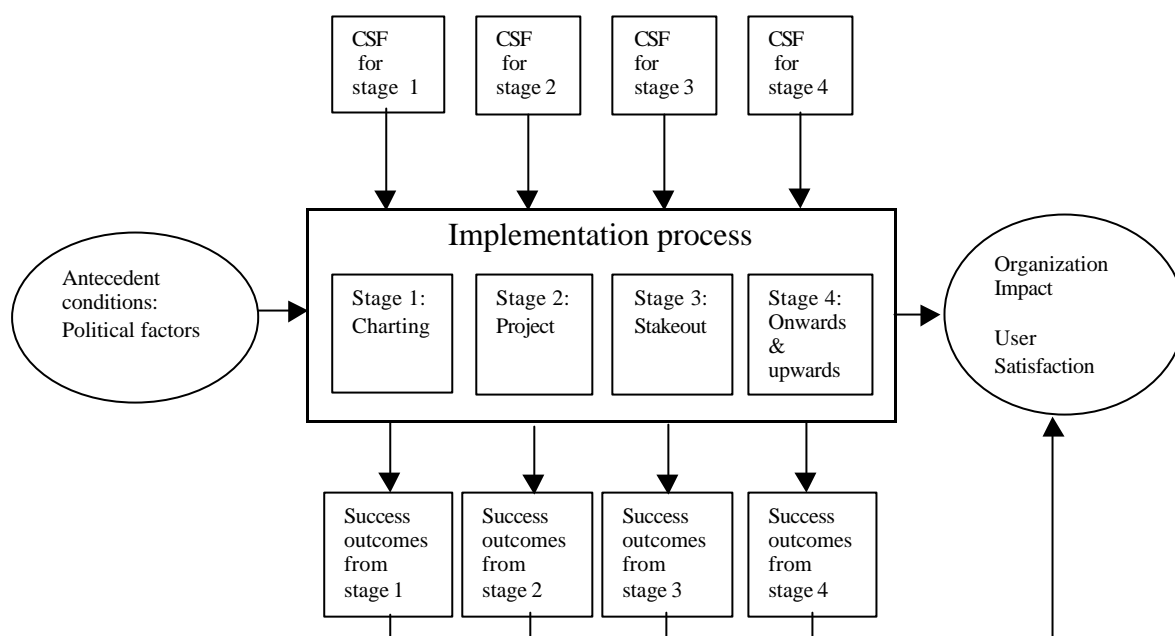

Figure 2. Research Model

3.2 Sample

For the first stage of this research, a case study was conducted involving two applications, financial accounting (FA) and personnel administration (PA), of a Chinese company aiming to change itself by implementing IS**.** This PRC holding company is listed in Hong Kong and was established by one of the two leading hi-tech enterprise in China. The company's business covers four major areas - information securities products and solutions, geographic information systems, e-finance, and enterprise/government information platforms. It has 300 people on staff in Beijing (R&D center), and has offices and development centers in major cities across China and Hong Kong. The 2002 Interim turnover for the period ended 30th June is HK$ 183 million. In the year 2000, it began to implement several information systems to improve its efficiency as a response to the increasingly intense competition and a step toward self-dependence. Different factors have led to the different outcomes for those modules although they were implemented by the same IT department in the same company. Interestingly, one of its applications is considered a "typical success", while another "typical failure" by its users; the setting thus presented itself as a suitable one for our study.

3.3 Data Collection

Data collection started with gathering information regarding the organization and its IS applications, either through informants of the company or official documents such as company annual reports. Subsequently, the case study protocol (Yin 1994) was prepared for the field visit. During a two-week field visit, data collection was mainly done by interviewing, which addressed interviewee's opinions about the pre-defined variables as well

as open-ended questions. Other sources came from archival records, onsite observation and access to the company's intranet. Follow-up telephone interviews were done to gather further and supplementary information. CSFs were identified by intense examination of the implementation process of the two modules at each stage.

3.4 Interview Guide

The interviewees consisted of a key executive responsible for the IS applications, the IT manager, the project leaders, key users and other end-users of each application. The structure of each interview followed the chronological history of the IS applications. Then the interviewees provided an evaluation on the outcomes of the systems in terms of user satisfaction and organizational impact, through their deliberations in answering relevant questions of multiple aspects. In connection with these, the pertinence of the CSFs mentioned earlier in this paper was ascertained; this process also helped discover "new" CSFs.

4. Data Analysis and Findings

4.1 Outcomes of the Two Applications

PA was perceived a failure as measured by "user satisfaction" and "organizational impact". It was intended to provide "a completely Web-based employee self-service solution, by automating administrative processes such as travel booking, expense authorizations and leave application, to create a centralized process management venue for all employees", as outlined by a senior executive. However, almost all interviewees thought that it could provide little useful information and service and almost all functions were seldom in use. Most of the processes of the system could hardly match the business processes, many critical errors had occurred, and some business processes were even blocked by the system. Little willingness was detected to improve the situation.

In contrast, FA was perceived a great success by almost all the interviewees, although there was no strong evidence of its contribution to organizational profit. The perceived success was mainly attributed to the fact that it had made the accounting process simplified and efficient, and was providing consistent and needed information. It should be noted that the application had not yet realized the stated goal to "optimize the planning and performance management cycle, improve financial planning and forecasting, or streamline the finance supply chain"; a senior executive contemplated that these aims could only be realized in the long term due to the complex internal and external organizational environments.

4.2 Identification of CSFs

A database was set up, consisting of all information gathered. Based on that, the analysis began with identifying the CSFs responsible for IS success. In each stage, factors, whose absence was associated with the failure of PA and availability with the success of FA, were considered as the CSFs. These factors were further validated using multiple data sources in the database, which included annual reports, system documentations, and meeting minutes. Findings on the CSFs for four stages in the proposed model are summarized in Table 2[1]. Items with asterisks represent new CSFs or modification of the initial CSFs arising from this study and merit further discussion.

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[1] Due to space constraints, detailed analysis for each stage has not been included, but is available upon request from the authors.

4.2.1 Individual Factors

All individual factors, including <u>end-user involvement, training and motivation, management support and advocacy</u>, were found to have played important roles in the respective stages. The comparison between the two applications indicated that to smoothen IS implementation, in the charting stage, managers should call on the participation of key users and allocate sufficient funds for the project; in the project stage, key users, including the internal IT staff, could not accomplish the project without enough budget; in the shakeout stage, end-user training and policy support were necessary besides sufficient funds, and the managers should personally use the applications. In the onwards and upwards stage, the manager should keep on supporting the project, in terms of taking feedback from key-users seriously, and maintaining and upgrading the system accordingly. This sentiment was reflected by several key IT support staff and captured in the following quote: "*…with no attention from higher managers, we could do nothing but see the system become waned in the fast changing internal and external environments…*".

CSF		Charting	Project	Shakeout	Onwards and Upwards
Individual Factors	End-user involvement	Key-user involvement*	Key-user involvement*		Key-user involvement*
	End-user training and motivation			End-user training*	
	Management support	Budgetary support	Budgetary support	• Policy support* • Budgetary support	Budgetary support
	Management advocacy	Management advocacy		Management usage*	Consistency of management advocacy*
Technological Factors	Organizational fit	Organizational fit			
	External expertise	Vendor advocacy*	Vendor support		Vendor support
	User support (from IT department)			User Support	User support
Task-related factors	Clear goals	Documentation of goals in detail*			
	Business strategy	IS planning addressing profit			
	Change management			Adjustment of business process to IS process	
	Project management		▪ Delegation of authority in the cross-functional steering team* ▪ Good business process understanding ▪ System documentation in detail* ▪ Integrated database*		
Structural factors	Specialization				
	Centralization	Internal communication*		Internal communication*	

	Formalization	Clarity of work procedure*			
Additional factors	Government policy	Government policy*			
	IT infrastructure			IT infrastructure*	

Table 2. CSFs for four stages

CSFs which are different from the existing literature also emerged. In developing the project, end-user participation was not considered causally related to the success of IS application. Rather, participation of key users (mostly the department leaders) was critical to the success of IS implementation; this is in consonance with the view of the IT manager: *"...we only need the department leaders to lay out their work procedure..."*.

The top management should not only provide sufficient budget across all the stages and emphasize the benefits of IS systems, but also make related policies with which not only end-users, but more importantly senior managers, should strictly comply. The reason is that a failed IS was usually associated with non-utilization by senior managers who refused to comply with the IS requirements, as one user of PA recalled: *"we have tried to submit the holiday application to our boss online, but got no response until we make a call or go to his office. ...this happened again and again and so we just gave up using the system at last..."*.

Also, consistency of manager support, especially at the onwards and upwards stage, was found necessary, and the lack of it had led the PA application into the condition of near disuse; as stated by one interviewee: *"it has almost ceased to be used due to the frequent system errors or even breakdowns, but no manager is likely to say: 'let's do something'"*.

4.2.2 Technological Factors

Organizational fit proved to be a critical issue due to the varied conditions in Chinese companies, as commented by the PA manager: *"…our operation model is very unique…without seriously studying the system before the system be adopted, we would run into something troublesome …"*.

In the category of external expert, vendor was taken as an important factor for IS success. Particularly, the advocacy of the vendor appeared crucial for the senior managers in deciding which IS they should adopt; as a senior manager put it: *"…we have to confess that before the system was implemented, all we knew about the system was based on what the vendor told us..."*. In contrast, little faith was put on consultant effectiveness, as highlighted in the following quote: *"We once considered getting help from them* [the consultants] *but they are said to know little about our business as well as the technology; and also, there are many failure stories of them…now we still couldn't see the necessity to turn to them for help…"*

User support by IT department did not play an important role until the project had been implemented, from which point they would begin troubleshooting for the applications. They were also necessary for maintaining or even upgrading the system, either on their own or with vendor support.

4.2.3 Task-related Factors

In this category, clear goals, business strategy, change management and project management played critical roles in the respective stages as shown in table 2. However, some of them, including documentation of goals in detail, delegation of authority in the cross-functional steering team, system documentation and integrated database, are the CSFs that have not been well addressed in the literature, but found pertinent in our study. Some comments from interviewees include:

Regarding <u>documentation of goals in detail</u>: "…*Clear goals are necessary, but not enough unless they are well documented and guide people through the entire process of the IS implementation; or else, we tend to be confused about where we are and where we should go; you see, things, the staff, the organization strategy, are changing so fast...*"

<u>Delegation of authority in the cross-functional steering team</u> was deemed to be of crucial importance. The project manager told the researcher that "*...for the IS project to be successfully implemented, we need senior managers to fully support us ...to make the final decision for us...*"; also, a key user said: "*...I have to say that we are very busy with our work, so we don't take the project seriously unless the higher authorities are personally there...*" .

<u>System documentation</u> in the project stage was identified to be pertinent to the China context. Its absence was lamented by the IT department manager: "*...Chinese software engineers do not take the documentation seriously, and they just go on and on with programming with no relevant documentation or user manual; so whenever we are asked to maintain or upgrade, we do not have much clue about the system. This factor has contributed a lot toward the abolition of the PA...*".

The <u>integrated database</u> was recognized of its importance. It was in the process of being constructed; however the construction was characterized by difficulties as well as a pace so slow that it could not support the system well. The IT manager recounted: "*...the system was built from scratch, and one third of our effort was devoted to building up the integrated database....*"
Triangulation of data sources validated these comments; there was evidence that the outcomes of the implementation were strongly influenced by the factors mentioned.

4.2.4 Structural Factors

No evidence supported the importance of specialization in differentiating between the successful and failed IS applications. According to the human resource manager: "*...the project is mainly decided by the managers and carried out by technicians and key users; it is not the business of specialists across the company to be involved in such decisions...*"
<u>Internal communications</u> were deemed an important factor. The lack of such across departments for the "charting" and "onwards and upwards" stages had resulted in impressions of end-users such as: "…*We are reluctant to tell other departments what information we need from them; also, no one from higher up has asked the different departments to share necessary information for the implementation of the applications.... so, even with the system, we still couldn't get more information* [than without the system] *that we need of other departments... we are still separated from each other....*". That was traceable to the minimal effort in coordinating decision-making activities across departments.
<u>Clarity of work procedure</u>, a form of formalization, was identified in retrospect to be critical for a smooth and effective IS implementation process. As highlighted by a project team member: "*...No one could tell clearly the work flow of the PA system and we have to imagine something which often tended to be unrealistic; but for the FA, things are far better...*".

4.2.5 Additional Factors

Significant concerns over <u>government policy</u> and <u>IT infrastructure</u> surfaced during the interviews; the following is a characteristic comment: "*Things are not totally under control. For example, we adopted the FA module produced by a local vendor, and it is satisfactory;*

the main reason is that this vendor is supported by the government, so the output reports could exactly satisfy the government... The government has also gone further to implement more favorable policies for the nation-wide use of this product...The function of PA is limited by the insufficient public IT infrastructures, for example, it is still not possible for our employees to access our intranet anytime, anywhere..."

4.2.6 Political Factors

These were found to intervene with other factors along the way of IS implementation, especially in the "charting" and "onwards and upwards" stages. Due to the understandable hesitation of the interviewees in talking about this topic, this study could but give a glimpse of the situation. The failure of the PA application was attributed greatly to the "misfit" of the system. As mentioned by a key user: "…*This IS application is badly matched with our procedures…..*" This sentiment was also expressed by a member of the implementation committee. They were reluctant to elaborate on the misfit but hinted that the interests of the executives counted a lot. Also, the implementation of PA was perceived to be a means of "restricting power" of the senior managers who came from the institution where the company originated from and who once dominated in decision making; great obstacles were inevitably posed on the way of PA implementation process, and made the failure of the module unavoidable.

5. Discussion

5.1 Evaluation of the Proposed Model

The proposed research model has provided a preliminary approach to understanding and predicting IS implementation success in Chinese companies. The multiple-stage conceptualization of the implementation process has proven useful in guiding interviewees to recall the entire implementation process and thus bring up the critical factors in each stage. Findings with such a model could be helpful in guiding the practitioners, including managers who are planning to implement IS, and IS vendors who are promoting their products in China. The inclusion of politics into the model and its contribution to the understanding of the findings are in line with the literature (e.g. Markus 1983). Also, it provides a viable approach to understand the unique phenomenon in China, which has been well known for its bureaucracy, complexity, and power conflicts. However, facing tough international competition, especially after China's entry into the WTO, Chinese companies are trying to change themselves. In this process, conflicts can arise in many forms and facets, such as between the old and new values and practices, and among different stakeholders. IS implementation simply cannot afford to ignore the political factors.

5.2 Understanding the Critical Success Factors in the Chinese Economic and Cultural Context

The critical success factors identified in the case study provide an initial understanding of IS implementation in China. Most of them match the items proposed at the beginning of this paper, suggesting that the mechanism of IS implementation in Chinese companies resembles that in western countries to a considerable extent. In this light, Chinese firms could reflect on the experiences of western countries to enhance their business performance. Notwithstanding the above, the uniqueness of context in China calls for a good understanding of the CSFs specific to the Chinese business environment, in terms of inducing greater success in

implementing IS. The following deliberates on those CSFs specific to China's economic condition and the state of the MIS professionals' culture, as shaped by national, organizational, and IS cultures (Raman & Watson 1994).

5.2.1 Internal Communication

Although the Chinese reform aims to transform the traditional mechanic organization into modern "organic" organization, the company is still deeply rooted in the older culture. Decision is made by top management which often neglects the role of end users (Shanks et al. 2000), and any objections may lead to power conflicts. On top of that, being conservative has long been regarded a virtue in the bigger part of China's history; the consequence of this on today's social norms cannot be underestimated. In the business arena, what this philosophy may translate into is a group of employees who seldom speak their real opinions. This inherent nature calls for explicit and extra efforts to create and foster an open-minded internal communication structure in Chinese companies.

5.2.2 Integrated Database

Data resource management in Chinese companies has been characterized as narrowly focused and replicated in files with incompatible formats (Dologite 1998). This is not dissociated from employees' tendency to identify with departments rather than the whole company, which could be attributed to Chinese characteristics of individualism; more aptly put, it is a form of individualistic collectivism. Whereas it is beyond the scope of this paper to provide more detailed conceptualization than what is already available in the literature concerning individualism and collectivism, it suffices to note that our finding and explanation differ from the work of Shank et al. (2000) work, which regarded Chinese as collectivistic in explaining the differences in critical success factors between China and Australia. Further studies in this area are called for.

5.2.3 System Documentation and Documentation of Clear Goals

Although the importance of these factors could seemingly be traced to the economic conditions in China (that is, one could argue that the Chinese are relatively inexperienced in integrated systems development), economy alone could not explain why these desired features are extremely difficult to attain as learned from this study and from literature (Dologite et al. 1998). The basic philosophy and culture of the Chinese may give a hint. Based on Taoism, a religion of long history in China, the Chinese tend to treat all things as a whole body and are reluctant to perceive them as individual parts. Also Chinese nature of long-term orientation (Hofstede & Bond 1988) and "high context culture"[1] make the managers hesitant to do things while following a clear and strict schedule. Accordingly they tend to want to see the project design and the related technical issues as a single entity and store this entity in their mind, rather than explicitly write these out and make a clear plan. Such seemingly irreconcilable differences between the modern world and cultural habits can probably be addressed with policy changes and enforcements. Detailed documentation and more integrated databases, once arrived at, are likely to have a positive effect on IS implementation processes and outcomes.

5.2.4 Vendor Support and Advocacy vs. Consultant Effectiveness

Although the literature has given strong support for the importance of consultant effectiveness (Thong et al. 1996), there is no clear evidence of its importance in our research

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[1] A high context culture is one in which most of the information is already in the persons involved and very little is in the explicit, coded parts [Raman and Watson, 1994].

setting. We suggest that most well-fledged consulting companies have originated from developed countries, especially USA, and they are still in the process of gaining familiarity with the Chinese context, resulting in somewhat inappropriate solutions for the Chinese businesses; this in turn could have less than desirable impact on the standing of these consulting companies in China. The local businesses would rather turn to the vendors, especially the local vendors, for technological support as well as recommendations of products. This could also be understood from the high uncertainty avoidance of the Chinese (Hofstede 1980).

6. Concluding Remarks

This paper puts forth a research model to explore critical success factors for IS implementation in China. Generated based on existing literature and Chinese conditions, the model appears to be an effective tool to probe critical issues in the variegated and evolving market of China. This study shows a vivid picture of how IS interact with the Chinese economic and cultural context. The critical success factors identified in the IS implementation process offer interested practitioners a better understanding and facilitate them in adjusting their business strategies accordingly. As a first attempt to investigate the CSFs in depth in China, this study represents a sound starting point from which future research can be conducted to further investigate the related phenomenon.

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