THE IMPACT OF CHINESE NATIONAL CULTURE ON BUSINESS CULTURE AND ICT USE

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SECTION I: INTRODUCTION
Information and Communications Technologies (ICT) were introduced into China a little more than two decades ago. With China's growing economy and participation in global competition, ICT has become an increasingly critical resource. Enormous investments in ICT are being made by Chinese government and companies to boost the productivity of their employees. In many Chinese organizations today, ICT is widespread and has become a transforming agent (Davison, et al., 2008). But while access to ICT has increased, management of IT still remains a relatively new discipline in China, and China is currently experiencing a shortage of experienced and skillful IT managers. IS management in China has traditionally focused on technical and operational issues. Similarly, published research on IS issues in China has focused disproportionally on system-related issues. Even today, empirical studies on culture- and organization-related issues in China are scarce (Ji et al., 2007). Furthermore, lessons learned from Western organizations may not be readily applicable in China. Chinese managers operate in a system that is profoundly influenced by its unique business and national culture. Therefore, the proposed study on the impact of Chinese culture on information systems issues will partially fill the void of current research and provide practical guidelines for improving IS management in a global context.

SECTION II: LITERATURE REVIEW
IT issues a country faces are likely to be influence by its economic structure, national culture, political/legal environment, and technological status. The unique Chinese cultural context suggests that studying IS issues in China requires new perspectives. Using Hofstede's (1983, 2001) four cultural dimensions, prior research has underscored the distinction between the Chinese and western cultures, with the Chinese culture demonstrating a high power distance, low individualism, average masculinity, and low uncertainty avoidance. A fifth dimension, long term orientation (STO/LTO) was later identified by the Chinese Cultural Connection (1987). The STO/LTO dimension reflects the degree to which short-term pain is accepted in return for long-term gain. Societies with a STO will be more likely to seek out immediate gratification than those with a LTO, but they are less likely to plan or invest for the future. The Chinese society was characterized by a fairly long term orientation. Hall (1976) described culture in terms of high and low communication context. High context communication reflects cultures where subtle clues and hidden meanings convey the bulk of the information whereas low context communication reflects cultures where the mass of information is in the explicit code. The Chinese culture is characterized by very high context communication.
While ICTs are designed to be used by business managers to support their decision-making processes primarily, many prior studies found limited ICT use by Chinese managers and suggested that the reasons for that were mainly cultural rather than technological or economic. Martinsons & Westwood's (1997) research on Chinese cultural characteristics was specific to decision-making and ICT use. They found that Chinese managers were characterized by reliance on informal information, centralized decision-making, high context communication, and intuitive decision-making. Consequently, Martinsons and Westwood concluded that western-designed IS which embodied Western business practice might result in a misfit when used in traditional Chinese management systems. Western-inspired and developed IT would require drastic reconfiguration in order to be implemented and adopted successfully in China [20]. By comparing the decision-making styles among managers from Australia, New Zealand, Chinese and Philpine, Saffu et al. (1999) found that the Chinese managers had the most directive decision style with the lowest tolerance of ambiguity and cognitive complexity and a high need for power. It was suggested that the directive tendencies could be attributed to high power distance and high degree of in-group collectivism in the Chinese society. Chinese managers were also found to view problems from a more holistic perspective than their western counterparts by considering situational factors, such as background and relationship of an applicant in a personnel decision (Martinsons and Davison, 2007). Thus, Chinese managers may resist mainstream decision support systems because these systems were better suited to support narrowly defined analytic processes than more holistic decision-making.

SECTION III: THEORETICAL DEVELOPMENT
Prior studies have suggested the influence of national culture on decision-making values and ICT use behaviors via anecdotal and fragmented evidences. They also suggested that IT management lessons gleaned from studies conducted in western context might not be applicable to Chinese organizations. The proposed study intends to further our understanding of the relationships among national culture, decision-making values, and ICT use by focusing on Chinese managers. Therefore, this study is designed based on the following theoretical framework. The

framework suggests that the Chinese national culture values influence values relevant to decision-making, and decision-making values in turn influence ICT use of Chinese managers.

| Chinese National Culture Values | → | Decision-Making Values of Chinese Managers | → | ICT Use of Chinese Managers |
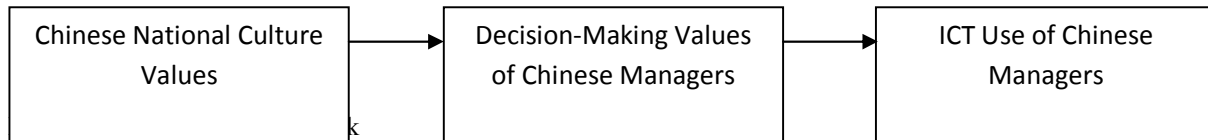
The research objectives of this study are:
- Empirically validating the theoretical framework which proposes that Chinese national culture values influence decision-making values of Chinese managers, which in turn influence the ICT use of Chinese managers;
- Examining the degree of influence for each national culture value and decision-making value on ICT usage by Chinese managers; and
- Providing recommendations for improving ICT usage by Chinese managers.

The following table lists the sub-constructs to be studied under each construct in the framework. The sub-constructs were identified after an extensive review of culture and IS literature.

Table 1. Research Constructs and Sub-Constructs

Constructs	Chinese National Culture Values	Chinese Decision-Making Values	ICT Use of Chinese Managers
Sub-Constructs	- Power distance - Uncertainty avoidance - Individualism – collectivism - Masculinity – femininity - Short/Long term orientation - High/Low context communication	- Centralized decision-making - Information as a source of individual power - Reliance on instinct and past experience - Lack of trust in coded data - Personal relationship (Guanxi) as source of information - Holistic decision-making approach - Long-term planning	ICT usage

SECTION IV: RESEARCH METHODOLOGY

The primary research methodology for the study is survey. The research model constructs are measured using multi-item scales. The questionnaire items were generated based on an extensive literature review of how previous research had measured the same constructs. The items were modified to fit the context of this study when necessary. The items were written in the form of statements with which the respondent was to agree or disagree on a 5-point Likert scale. Appendix A displays the items included in the final questionnaire. The final questionnaire will be distributed among Chinese business managers who use ICTs in workplace.

This project is currently at the data collection stage, and the final results will be available in time for the conference presentation.

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Appendix A. Impact of Chinese Culture on ICT Use Questionnaire Items

Section I. National Culture Factors

		Strongly Disagree				Strongly Agree
1.	Managers should make most decisions without consulting their employees.	1	2	3	4	5
2.	Managers should NOT ask their employees for advice, because they might appear weak.	1	2	3	4	5
3.	Decision making power should stay with top management in the organization.	1	2	3	4	5
4.	Employees should NOT question their manager's decisions.	1	2	3	4	5
5.	Rules and regulations are important because they inform workers what the organization expects of them.	1	2	3	4	5
6.	Order and structure are very important in a work environment.	1	2	3	4	5
7.	It is better to have a bad situation that you know about than to have an uncertain situation which might or might not be better.	1	2	3	4	5
8.	People should avoid making changes because things could get worse.	1	2	3	4	5
9.	Being accepted as a member of a group is more important than having independence.	1	2	3	4	5
10.	Group success is more important than individual success.	1	2	3	4	5
11.	Being loyal to a group is more important than individual gain.	1	2	3	4	5
12.	It is more important for a manager to encourage loyalty and a sense of duty in employees than it is to encourage individual initiative.	1	2	3	4	5
13.	It is preferable to have a man in high level position rather than a woman.	1	2	3	4	5
14.	It is more important for men to have a professional career than it is for women.	1	2	3	4	5
15.	Solving organizational problems requires the forcible approach which is typical of men.	1	2	3	4	5
16.	Women do not value recognition and promotion in their work as much as men do.	1	2	3	4	5
17.	Communication should always be explicit and direct.	1	2	3	4	5
18.	I prefer verbal and face-to-face communication over formal written communication.	1	2	3	4	5
19.	Knowledge is situational and cannot be easily transferred from one person to another.	1	2	3	4	5
20.	I'd rather have only a few close long-term relationships than many shallow short-term relationships.	1	2	3	4	5
21.	The best way to do new tasks is to rely on what has been done in similar situations in the past.	1	2	3	4	5
22.	I like to hear my elders talk about the "old days."	1	2	3	4	5
23.	It is important to know one's family history.	1	2	3	4	5
24.	The longer a person works at the same place, the more he or she should be paid.	1	2	3	4	5
25.	It is very important to understand what has happened in the past.	1	2	3	4	5
26.	Patience is a virtual.	1	2	3	4	5
27.	I focus only on one task at a time.	1	2	3	4	5
28	I stick to a schedule of activities strictly.	1	2	3	4	5

Section II. Values Regarding Decision-Making and Information Use

Please circle the number that most closely reflects your reaction to the following statements.

		Strongly Disagree	Strongly Agree

1.	Business decisions should be made centrally at the top of the group.	1	2	3	4	5
2.	Key business information should only be shared within the in-group of the organization.	1	2	3	4	5
3.	Employees should only be given the information they need to perform their jobs.	1	2	3	4	5
4.	I make business decisions based more on my intuition and experience than on formal data analysis.	1	2	3	4	5
5.	Hard numbers are the best source for making decisions.	1	2	3	4	5
6.	I feel more comfortable making decisions based on numerical data than qualitative information.	1	2	3	4	5
7.	I consider the business information I have a personal asset instead of a company resource.	1	2	3	4	5
8.	I consider the business information I have a symbol of power and status.	1	2	3	4	5
9.	The ability to provide or withhold information is a source of power and control.	1	2	3	4	5
10.	I do what I have to do to get good information to assist my decision making.	1	2	3	4	5
11.	I do what is necessary to make a well-informed decision.	1	2	3	4	5
12.	Empirical data are well worth the high cost of obtaining them.	1	2	3	4	5
13.	I put a very high value on the availability of data and information.	1	2	3	4	5
14.	I do NOT usually share business information with other managers.	1	2	3	4	5
15.	I will only share business information with those who I have a personal relationship.	1	2	3	4	5
16.	It is important to make sure that everyone in the group agrees with the decision.	1	2	3	4	5
17.	I tend to do what I think is best even though others may disagree.	1	2	3	4	5
18.	Making risky decisions alone does not bother me.	1	2	3	4	5
19.	I prefer incremental changes over time over sudden and radical changes.	1	2	3	4	5
20.	When facing adverse environment, I try to adapt to the environment instead of changing it.	1	2	3	4	5
21.	A solution to a given problem will greatly depend on its specific and holistic context.	1	2	3	4	5
22.	When making decisions, I tend to focus on a very small number of top alternatives instead of on all possible alternatives.	1	2	3	4	5
23.	Experience acquired over a long period of time is critical to decision making.	1	2	3	4	5
24.	I prefer business communication that is done verbally and/or face-to-face.	1	2	3	4	5
25.	I rely more on informal and verbal communication than formal written or online reports for decision making.	1	2	3	4	5
26.	Encoded business data or message (e.g. spreadsheets and graphs) tend to lose a lot of meaning and its context.	1	2	3	4	5
27.	Personal relationships are the preferred sources of business information.	1	2	3	4	5
28.	More new business opportunities are generated by personal referrals than marketing analysis.	1	2	3	4	5
29.	I plan my decisions in advance rather than approach them when things happen.	1	2	3	4	5
30.	Thorough planning in advance of future decisions improves those decisions.	1	2	3	4	5
31.	Market information is basically useful to verify only what one already knows.	1	2	3	4	5
32.	Data and information can cause me to change decisions originally based on instinct only.	1	2	3	4	5
33.	Business rules should remain flexible and situation-based.	1	2	3	4	5
34.	I prefer summarized data over detailed data for decision making.	1	2	3	4	5

35.	Decision making speed is important to me.	1	2	3	4	5
36.	I prefer simple, clear-cut solutions to problems.	1	2	3	4	5
37.	I prefer clearly defined rules or procedures for decision making.	1	2	3	4	5
38.	In general, I trust what the data tells me.	1	2	3	4	5

Section III. ICT Usage

1.	I use productivity IT tools (for example: Microsoft Word, Excel and Powerpoint) at work: 1. Very infrequently 2. Infrequently 3. Sometimes 4. Frequently 5. Very frequently
2.	I use productivity IT tools (for example: Microsoft Word, Excel and Powerpoint) at work: 1. Far less than my co-workers. 2. Less than my co-workers. 3. As much as my co-workers. 4. More than my co-workers. 5. Far more than my co-workers.
3.	I use communications IT tools (for example: Email and chat) at work: 1. Very infrequently 2. Infrequently 3. Sometimes 4. Frequently 5. Very frequently
4.	I use communications IT tools (for example: Email and chat) at work: 1. Far less than my co-workers. 2. Less than my co-workers. 3. As much as my co-workers. 4. More than my co-workers. 5. Far more than my co-workers.
5.	I use decision support IT tools (for example: business intelligence and statistical tools) at work: 1. Very infrequently 2. Infrequently 3. Sometimes 4. Frequently 5. Very frequently
6.	I use decision support IT tools (for example: business intelligence and statistical tools) at work: 1. Far less than my co-workers. 2. Less than my co-workers. 3. As much as my co-workers. 4. More than my co-workers. 5. Far more than my co-workers.

Section IV. Tell us about yourself.

Your Gender: Male ____   Female ____

Your Age: < 25   25 – 30   31 – 35   36 – 40   41 – 45   > 45

How many years of work experience do you have?   _____ years

I work for a (choose one) _____ Chinese domestic company _____ Foreign company in China.