

# CULTURAL DIMENSIONS AND CRM SYSTEMS: A STRUCTURATIONAL ANALYSIS

## ABSTRACT

Cultural dimensions are often identified as a crucial influence on the success or failure of Information Systems in general and Customer Relationship Management Systems (CRM) in particular. Several researchers have suggested ways in which management can accommodate these dimensions or solve the problems they may pose. Ali & Alshawi (2005) have proposed a cultural concerns framework for the management of CRM systems implementation in the multinational environment. In this paper the authors test that framework by conducting a qualitative comparative case study in a large multinational organization in two countries. The authors have investigated the implementation of CRM systems within the same organization in Egypt and UK. Using observation, document analysis and interviews, qualitative data has been extracted and has been used by the authors to develop a Structural analysis which based on the concepts of Structuration Theory Giddens (1979,1984 ). The authors propose a Structural analysis of their comparative case study to drive from that the cultural dimensions which may have impact on CRM systems implementation and operation in multinational environment.

## KEYWORDS

CRM, Culture, Qualitative, Case Study, Structuration Theory, UK, Egypt

## 1. INTRODUCTION

In a competitive market, companies try to build a relationship with their exiting customers as the cost of attracting new customers is higher than retaining exiting customers. To build a relationship with customer is a socio-technical objective. The most important factor in that objective is to understand, how that customer values, norms, thoughts, perceptions, etc., are alike. Multinational organization is dealing with customers from different cultures. CRM systems in multinational organizations are built to attract new customers, increase customers' value and retain customers, different customers from different cultures.

Hofstede's cultural dimensions are the most cited reference about culture within IS literature McCoy (2003). Ali, and Alshawi (2005) have proposed a comprehensive cultural dimensions framework including Hofstede cultural dimensions', through a normative survey of the culture literature within and outside of IS literature. In this paper the authors test that framework by conducting a comparative qualitative case study in a large multinational organization in two different countries Egypt and UK. The authors use a Structural analysis by Walsham (2002), which is based on concepts of Structuration Theory by Giddens (1979, 1984) to drive the cultural dimensions which may influence the CRM implementation and operation in a multinational environment.

The structure of this paper follows the logical sequence. The paper starts, in section two by proposing the problem background. The authors summarize the pervious literature about culture within IS, then propose the background literature on Structuration theory within IS, then highlight Structuration theory as a different perspectives of looking to social and cultural phenomena in IS discipline. The research problem explicitly deals with social construction and so calls for an interpretative research approach which is proposed in section three. That includes a description of the qualitative comparative case study which the authors have

conducted in a commercial multinational company in Egypt and UK. Structuration Theory (ST) is a well-developed theory of the social, which however, does not explicitly theorize information technology (IT), in section four; the authors propose the Structural analysis of each case study and compare between the different themes of each case study. At last but not least, in section five the authors conclude by summary and future research.

## 2. RESEARCH BACKGROUND

The literature on culture provides a set of general concepts and ideas as a way of looking at the world. However, the typologies of culture have inherent weaknesses e.g. they do not reflect the variety of values and attitude that may exist in a country, nor do they explain how cultures have developed over time. These limitations will need to be borne in mind, as we consider potential culture impact on the use of information systems, particularly customer relationship management systems (Skok and Legge 2001).

Stahl (2003) distinguished between two different proponents. The proponents of particularity of culture on one side believe that different cultures are fundamentally and possibly irreconcilable different, whereas the proponents of universality believe that all cultures share some universal attributes. These two ideal-typical positions appear in reality in different shades of gray. He has concluded that, despite obvious difference in cultures, there are similarities that are based on human nature. There are three identified types of culture that are of relevance (Ali & Alshawi, 2004a). First, is the culture that a society shares (national culture), which is a set of core values, that shapes the behavior of individuals as well as the whole society. Second, is the culture on a smaller level, namely organizational culture (Adler 1997; Bagchi and Cerveny 2003). The third, is the individual level of culture, and was provided by Dorfman and Howell (1988) in their investigating the effects of national culture on individual behavior, e.g. Technology acceptance, which influences the customer behavior even towards opposite direction of the society culture, does.

### 2.1 Culture Dimensions

Hofstede's dimensions of culture are often chosen in cultural IS research McCoy (2003), because they are the most widely cited and used. Given the critiques of Hofstede cultural dimensions as the only way of looking to culture with IS discipline (McCoy, 2003; Ali and Alshawi 2004a, 2005). The authors argue that studying the potential impact of culture on the CRM systems implementation and operation require more deep analysis of culture than Hofstede's cultural dimensions. The authors, in this paper, use concepts of Structural theory by Giddens (1979, 1984) to explore the impact of culture dimensions proposed by Ali and Alshawi (2005) on the CRM implementation and operation within multinational environment. Walsham (2002) stated that Structural analysis could be used to analyze differences in cultural sub-groups and even individuals.

Ali & Alshawi (2005) have proposed many cultural dimensions in a framework for the management of CRM implementation and operation in the multinational environment. A summary of these cultural dimensions and its definitions have been proposed in Table 1.

*Table 1: A Framework of Culture Dimensions (Ali, & Alshawi 2005)*

Culture Dimension	Definition
Uncertainty avoidance (UA) (Hofstede, 1980, 1983, 1994a; Trompenaars, 1993)	Degree to which people in a country prefer structured over unstructured situations: from relatively flexible to extremely rigid.
Power Distance (PD) (Hofstede, 1980, 1983, 1994a)	Degree of inequality among people, which the population of a country considers as normal: from relatively equal to extremely unequal.
Masculinity/femininity (MF) (Hofstede, 1980, 1983, 1994a)	Degree to which "masculine" values like assertiveness, performance, success and competition prevail over "feminine" values like the quality of life, maintaining warm personal relationships, service, caring, and solidarity: from tender to tough.
Individualism/collectivism (IC) (Hofstede, 1980, 1983, 1994a)	Degree to which people in a country have learned to act as individuals rather than as members of cohesive groups: from collectivist to individualist.

Confucian Dynamism (Hofstede, 1994b)	Degree to which people in a country promote collective welfare and harmony, resulting in psychological collectivism.
Universalism-Particularism (Trompenaars, 1993)	Degree to which people in a country compare generalist rules about what is right with more situation-specific relationship obligations and unique circumstances
Neutral vs. Emotional Relationship Orientations (Trompenaars, 1993)	Degree to which people in a country compare 'objective' and 'detached' interactions with interactions where emotions is more readily expressed.
Specific vs. Diffuse Orientations (Trompenaars, 1993)	Degree to which people in a country have been involved in a business relationships with in which private and work encounters are demarcated and 'segregated-out'
Achievement vs. Ascription (Trompenaars, 1993)	Degree to which people in a country compare cultural groups which make their judgments of others on actual individual accomplishments (achievement oriented societies) with those where a person is ascribed status on grounds of birth, group membership or similar criteria.
Conservatism vs. Affective/intellectual autonomy (Schwartz, 1994)	Degree to which people in a country emphasis maintenance of status quo (Conservatism), or emphasis creativity or affective autonomy emphasis the desire for pleasure and an exiting life.
Hierarchy vs. Egalitarian (Schwartz, 1994)	Degree to which people in a country believe in freedom and equality and a concern for others (Egalitarian), vs. emphasis the legitimacy of fixed roles and resources (Hierarchy)
Harmony vs. Mastery (Schwartz, 1994)	Degree to which people in a country concerned with overcoming obstacles in the social environment (Mastery) vs. concern beliefs about unity with nature and fitting harmoniously into the environment.
Communal Sharing Relationships (Fiske, 1992)	Degree to which people in a country see the members of a particular group as equivalent and undifferentiated. Group members favour their own group, and can be highly hostile to those outside that group (this concept is so close to Hofstede's notion of Collectivism).
Authority Ranking Relationships (Fiske, 1992)	Degree to which people in a country involve a linear ordering of relations, with people high in rank having not only prestige, privileges and decision-making rights, but also possibly some responsibility for those lower down the hierarchy (this concept has an overlap with Hofstede's notion of power distance).
Equality Matching Relationships (Fiske, 1992)	Degree to which people in a country stress equality in social relations. People here are aware of where imbalances occur and, operating under the norm of reciprocity.
Market Pricing Relationships (Fiske, 1992)	Degree to which people in a country think in terms of prices and investment.

## 2.2 Culture, Structuration Theory and IS

The theoretical basis for this paper draws on Structuration theory by Giddens (1979,1984). Walsham (2002) stated that this theory has been highly influential in sociology and the social sciences generally. In addition, the theory has received considerable attention in the IS field (for a comprehensive review, see Jones 1998). The focus for this paper however, will be on how Structuration theory can offer a new way of looking at cross-cultural research and information systems. A summary of key points as Walsham (2002) proposed it, is provided in Table 2.

*Table 2. Structuration Theory, Culture, and ICTs: Some Key Concepts (Giddens, 1979, 1984; Walsham, 2002)*

Structure	Structure as memory traces in the human mind Action draws on rules of behavior and ability to deploy resources and, in so doing, produces and reproduces structure Three dimensions of action/structure: systems of meaning, forms of power relations, sets of norms IS embody systems of meaning, provide resources, and encapsulate norms, and are thus deeply involved in the modalities linking action and structure
Culture	Conceptualized as shared symbols, norms, and values in a social collectivity such as a country Meaning systems, power relations, behavioral norms not merely in the mind of one person, but often display enough to speak of them being shared But need to recognize intra-cultural variety

Cross-cultural contradiction and conflict	Conflict is actual struggle between actors and groups Contradiction is potential basis for conflict arising from divisions of interest, e.g. divergent forms of life Conflicts may occur in cross-cultural working if differences affect actors negatively and they are able to act
Reflexivity and change	Reproduction through processes of reutilization But human beings reflexively monitor actions and consequences, creating a basis for social change

## 1. RESEARCH APPROACH

### 3.1 Research Problem

The authors try to validate the cultural dimension framework by Ali & Alshawi (2005) in the context of CRM systems implementation within a large multinational private organization.

### 3.2 Research Methodology

The case study is one of several ways of doing social science research. A case study has a distinct advantage this is when “a ‘how’ or ‘why’ question is being asked about a contemporary set of events over which the investigator has little or no control” (Yin, 1994). In this research the aim is to explore the potential cultural issues that may influence CRM implementation and operation in the multinational organization environment. In this research the authors studying social and cultural phenomena of CRM implementation, so the qualitative case study is more appropriate for this kind of research. For more details of culture issues related to CRM systems refer to Ali & Alshawi (2004a). The authors use an interpretive approach to look at culture phenomena by Structuralist perspective according to Walsham, (2002). For more details about using Structuralist Analysis for studying the potential impact of culture on CRM refer to Ali & Alshawi (2004b).

The aim for our research is to make sense of the whole, and of the dynamic relationship between the organization, the CRM users, customers and other actors. From an understanding of this, Structuralist analysis can be used as a lens to show where problems reside, how potential solutions can be identified and how wider institutional issues relate to actors and vice-versa. For case studies, five components of a research design are especially important (Yin, 1994):

#### Research Questions:

The case study strategy as a research method is most likely to be appropriate for “how” and “why” questions. The research questions here are “what are the cultural differences which may influence the CRM implementation strategies in multinational organizations? How? and Why?”

#### Research Propositions

Instead of putting research propositions here the research has a research purpose, as the research approach takes interpretive perspective. The research purpose is “exploring the relationships between different cultural levels and how that may influence CRM systems implementation strategy in multinational organizations”. For more details of the proposed integrated framework for CRM implementation in multinational environment refer to Ali and Alshawi (2004c).

#### Research Unit of Analysis

The third component is related to the fundamental problem of defining the “case”. In this research unit of analysis is the CRM implementation process in a multinational organization branch.

#### The logic linking the data to the propositions

Linking data to propositions can be done any number of ways. One promising approach for case studies is the idea of “pattern-matching” described by Donald Campbell (1975), whereby several pieces of information from the same case may be related to some theoretical proposition.

### The criteria for interpreting the findings

The authors have used the different finding patterns from each case study to develop an interpretation which has droved to the results.

### The Case Study Protocol

A case study protocol is more than an instrument. The protocol contains the instrument but also contains the procedures and general rules that should be followed in using the instrument. Having a case study protocol is desirable under all circumstances, but it is essential in multiple-case design (Yin, 1994). In table 3 the authors summarize their case study protocol.

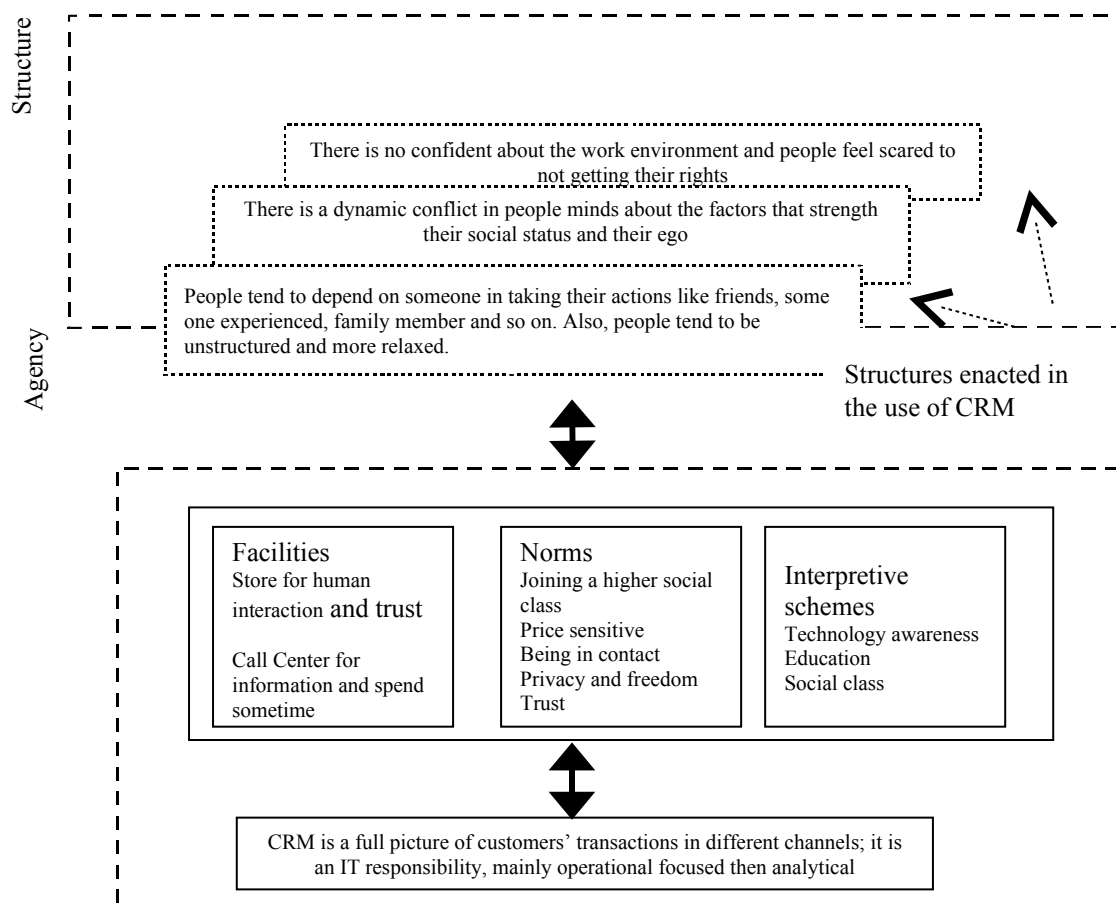
Table3. Case study protocol (Yin, 1994)

Case Study Overview	Aim	Investigating the potential impact of national culture on CRM implementation and operation in multinational Organization environment.
	Objectives	Identify the differences in the implementation and operation process of CRM in the branches of the same multinational organization in different countries.  Identify the differences that are existed because of differences of the national culture.  Identify the national culture factors that may influence the CRM systems implementation and operation.
	Issues	Differentiate between different level of culture (Mintzberg, H. 1979; Dorfman, W. P. and J. P. Howell 1988; Raboy, M. 1997; Hofstede, G. 1980, 1991, 2001; McCoy, S. 2003; Bagchi, K. and R. Cervený 2003).  Using a Structural approach to study cultural aspect, instead of Hofstede cultural dimensions (Giddens 1979, 1984; Jones, M. R. 1998; Orlikowski, W. 1991, 2000; Walsham, G. 2002).
Field Procedures	Case study sites	Three different branches of the same multinational organization but in three different countries, Egypt, UK, and Italy
	Sources of Information	Observation (Staff, work environment, customers, people in each country Yin, 1994, Orlikowski, 2000).  Semi- Structured Interviews (organization staff, and customers Yin, 1994, Orlikowski, 2000).  Documents and CRM systems applications analysis (Yin, 1994, Orlikowski, 2000, Ryals, L., Knox, S., and Maklan, S. 2000; Wilson, H., Daniel E., McDonald M., Ward, J., and Sutherland F. 2001).

Case study questions	Categories of Information	CRM definition, strategies, objectives, technology architecture, components, implementation, operation, problems, integration, touch points, segmentation technique, and customer behavior (Jarvenpaa, S. L., N. Tractinsky, et al. 1999; Ryals, L., Knox, S., and Maklan, S. 2000; Peppard, J. 2000; Wilson, H., Daniel E., McDonald M., Ward, J., and Sutherland F. 2001; Pan, S. L. & Lee, J. N. 2002; Sathish, S., S. L. Pan, et al. 2002; Smith, 2002; Fjermestad, J. and J. Nicholas C. Romano 2003).  Different staff actions within different departments, norms, conflict, technology awareness, customer focused attitude, communication channels, within the organization in each country (Mintzberg, H. 1979; Skok, W. & Doringer 2001).  Customer personnel information, needs, behavior, attitude, perceptions expectations, preferences, social class, norms, values, family links, technology awareness, communication channels (Dorfman, W. P. and J. P. Howell 1988; Muthitacharoen, A. and P. C. Palvia 2003; Skok, W. & Doringer 2001 ; McCoy, S. 2003).
	Potential source of Information	CRM managers and staff Sales managers and sales representatives Marketing managers and staff Customer operations and services managers and staff Customers
Guide for case study report	Outline	Logical structure
	Format for the narrative	Clearly communicates major findings and lessons learned
	Bibliographical	Clear representation of sources for materials, both literature and empirical

## 2. STRUCTURAL ANALYSIS

The authors in the figure 1, and figure 2 display their primarily structural analysis of the shared structure between people living in each case study in Egypt and UK. The authors provide a Structural analysis of the CRM implementation and operation in the multinational organization in Egypt in figure 1, and then they provide their Structural analysis of the same organization but in UK in figure 2.



*Figure 1. Structural analysis of the CRM implementation and operation in the multinational organization in Egypt (Orlikowski, W. 2000)*

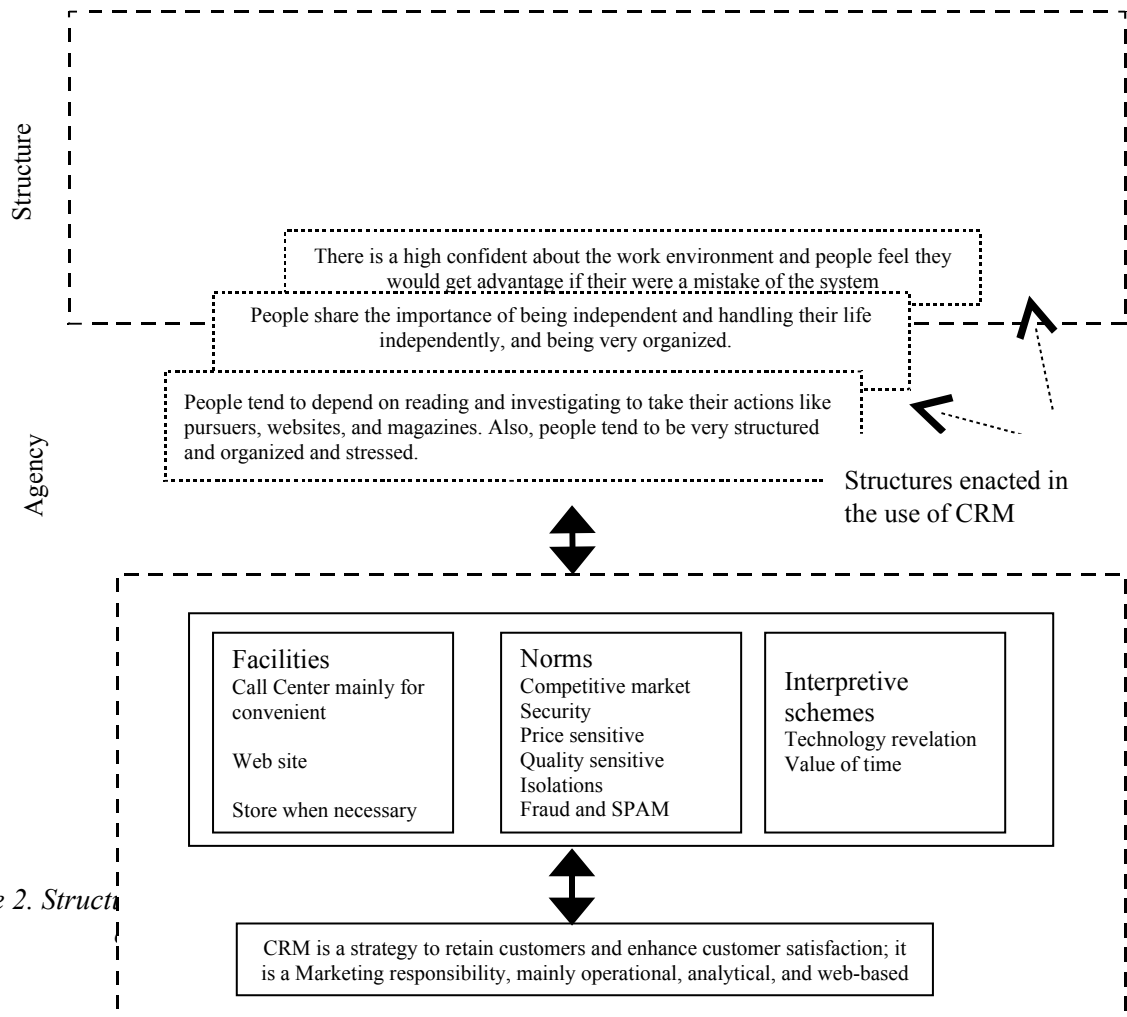


Figure 2. Structu

### 3. SUMMARY AND FUTURE RESEARCH

Cultural factors are often identified as a crucial influence on the success or failure of Information Systems in general and Electronic Customer Relationship Management Systems (CRM) in particular. The authors identified different cultural levels and different cultural dimensions. The authors argue that Hofstede's cultural dimensions which is the most cited study used in IS discipline is not appropriate for studying the potential cultural impact on CRM implementation. The authors propose Structuration Theory as another perspective to study culture issues in IS discipline. The primarily structural analysis of the comparative case study shows that, there are cultural dimensions which play a role in each society and CRM implementation and operation in multinational environment. In future research, the authors are going to use various qualitative research data analysis mainly soft systems methodology to coding their data, and develop the different themes of each case study, which would provide a framework of cultural dimensions that may have influence on the CRM implementation and operation in multinational environment.

### REFERENCES

Adler, N. (1997). International dimensions of Organizational Behavior. ITP.



- Ali, M. and Alshawi, S. (2004a) A Cultural Approach to Study Customer Relationship Management (CRM) Systems, CISTM 2004, Alexandria, Egypt
- Ali, M. and Alshawi, S. (2004b) Developing A Structural Approach to Electronic Customer Relationship Management (ECRM), EMCIS 2004, Tunis, Tunisia
- Ali, M. and Alshawi, S. (2004c) Potential Impact of Cultural Differences on Customer Relationship Management (CRM) Systems, AMCIS 2004, New York, USA
- Ali, M. And Alshawi, S. (2005), CULTURAL UNIVERSALITY VERSUS PARTICULARITY WITHIN ECRM SYSTEMS: A SPECIAL CASE OF INFORMATION SYSTEMS, EMCIS 2005, Cairo, Egypt.
- Bagchi, K. and R. Cervený (2003). The Influence of National Culture in Information Technology Product Adoption. Ninth Americas Conference on Information Systems, USA.
- Campbell, D. T. (1975). Degrees of freedom and the case study. *Comparative Political Studies*, 8, 178-193.
- Dorfman, W. P. and J. P. Howell (1988). Dimensions of National Culture and Effective Leadership Patterns: Hofstede Revisited. *Advances in International Comparative Management*, 3, 127-150.
- Fiske, A. P. (1992). 'The four elementary forms of sociality: Framework for a unified theory of social relations', in R., Goodwin (eds) *Personal Relationships Across Cultures* (pp. 22-36) Routledge, London.
- Fjermestad, J. and J. Nicholas C. Romano 2003. 'Electronic customer relationship management Revisiting the general principles of usability and resistance- an integrative implementation framework'. *Business Process Management Journal* 9(5): 572-591.
- Giddens, A. *Central Problems in Social Theory*, Macmillan, Basingstock, UK, 1979.
- Giddens, A. *The Constitution of Society, Polity*, Cambridge, UK, 1984.
- Hofstede, G. (1980). "Culture's Consequences: International Differences in Work-Related Values." Beverly Hills, California: SAGE Publications.
- Hofstede, G. (1983). 'Dimensions of national cultures in fifty cultures and three regions' in R., Goodwin (eds) *Personal Relationships Across Cultures* (pp. 22-36) Routledge, London.
- Hofstede, G. 1991. 'Cultures and Organizations: Software of the Mind', McGraw-Hill, New York.
- Hofstede, G. (1994a) 'Individualism and collectivism: theory, method and applications', in R., Goodwin (eds) *Personal Relationships Across Cultures* (pp. 22-36) Routledge, London.
- Hofstede, G. (1994b) 'Cultures and Organizations: Software of the Mind', in R., Goodwin (eds) *Personal Relationships Across Cultures* (pp. 22-36) Routledge, London.
- Hofstede, G. (2001). "Culture's Consequences." Thousand Oaks: Sage Publications Second edition.
- Jarvenpaa, S. L., N. Tractinsky, et al. (1999). Consumer Trust in an Internet Store: A Cross-Cultural Validation. *Journal of Computer-Mediated Communication*, 5,2, P. Part 1.
- Jones, M. R. 1998. *Structuration Theory. Re-Thinking Management Information Systems*. W. J. Currie and R. Galliers. Oxford, Oxford University Press: 103-135.
- McCoy, S. (2003). Integrating National Cultural Into Individual IS Adoption Research: The Need for Individual Level Measures. Ninth Americas Conference on Information Systems, USA.
- Muthitacharoen, A. and P. C. Palvia 2003. 'Explaining Alternative Behaviours of Online Consumers: An Integration of The Technology acceptance Model to Preferential Decision'. Ninth Americas Conference on Information systems, USA.
- Mintzberg, H. 1979. *The Structuring of Organizations*. NJ, Prentice Hall.
- Orlikowski, W. J. and Baroudi, J. J. (1991). Studying information technology in organizations: Research approaches and assumptions. *Information Systems Research*, 2(1), 1-28.
- Orlikowski, W. 2000. 'Using Technology and Constituting Structure: A Practice Lens for Studying Technology in Organizations'. *Organization Science, INFORMS*, 11(4): 404-428.
- Pan, S. L. & Lee, J. N. 2002, 'Achieving A Unified View of The Customer Through The Strategic Use of e-CRM', Forthcoming in *Communications of The ACM*.
- Peppard, J. 2000. 'Customer Relationship Management (CRM) In Financial Services'. *European Management Journal* 18(3): 312-327.
- Raboy, M. (1997). *Cultural Sovereignty, Public Participation, and Democratization of the Public Sphere: the Canadian Debate on the New Information Infrastructure*. National Information Infrastructure Initiatives Vision and Policy Design. Cambridge, Massachusetts and London, England, MIT Press: 190-216.
- Ryals, L., Knox, S., and Maklan, S. (2000). *Customer Relationship Management: The business case for CRM, Management Research Practice*, Prentice Hall.
- Sathish, S., S. L. Pan, et al. 2002. 'Customer Relationship Management (CRM) Network: A New Approach to studying CRM'. Eighth Americas Conference on Information Systems, USA.

- Schwartz, S. (1994). 'Beyond Individualism-Collectivism: New Cultural dimensions of values', in R., Goodwin (eds) *Personal Relationships Across Cultures* (pp. 22-36) Routledge, London.
- Skok, W. and M. Legge (2001). Evaluating Enterprise Resource Planning (EPR) Systems using an Interpretive Approach. *SIGCOPR2001*, San Diego, USA.
- Smith, T. 2002. 'Customer Relationship Management:: A Literature Review'. P. S. E. Inc. United Kingdom.
- Stahl, B. C. (2003). Cultural Universality Versus Particularity In CMC. *Proceedings of the Ninth Americas Conference on Information Systems*, USA.
- Trompenaars, F. (1993). 'Riding the waves of culture: Understanding culture diversity in business', in R., Goodwin (eds) *Personal Relationships Across Cultures* (pp. 22-36) Routledge, London.
- Walsham, G. (2002). Cross-Cultural Software Production And Use: A Structural Analysis. *MIS Quarterly*, 26(4), 359-380.
- Wilson, H., Daniel E., McDonald M., Ward, J., and Sutherland F. (2001). Profiting from eCRM: Making the new marketing work. *Management research in practice*, Prentice Hall.
- Yin, R. K. *Case Study Research, Design and Methods*, 2nd ed., Sage Publications, Newbury Park, CA, 1994.