

DEVELOPING A STRUCTURATIONAL APPROACH FOR ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT (ECRM)

Ali, Maged, Information Systems Evaluation and Integration Network Group (ISEing)
Department of Information Systems & Computing, Brunel University, UK
cspgmaa@brunel.ac.uk

Alshawi, Sarmad, Information Systems Evaluation and Integration Network Group (ISEing)
Department of Information Systems & Computing, Brunel University, UK
second.author@university.ac.uk

Abstract

The literature on culture provides a set of general concepts and ideas as a way of looking at the world (Hofstede 1980). 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 (Skok and Doringer 2001). These limitations lead our research to investigate the potential impact of cultural differences on eCRM using concepts from Structuration Theory by . In this paper the authors highlight the dimensions of culture and its potential impact on eCRM systems, using a Structuration analysis based on . The authors use the practice lens for studying technology in organizations based on , to develop a framework of studying different agencies and their structures within eCRM systems context. The authors conclude by a framework of Structuration analysis of eCRM systems displaying different agencies and their structures. This framework of analysis will be used to conduct a comparative case study in future research.

Keywords: CRM, eCRM, Structuration Theory, Culture, Cross-Cultural.

1 INTRODUCTION

While it is useful to allow technology to be a meaningful variable in all organizations, and recognizes that there is more to technology than just the hardware, this generic approach to technology creates boundary and measurement ambiguity . It also overlooks valuable information about the mediation of human action by machines. That is, even as we gain in generality, we have lost the ability to ask questions about how artifacts interact with human agents. By aggregating task, technique, knowledge, and tools into a single construct: technology, interaction among these constituting components and with humans is ignored. For example, we cannot examine how different assumptions, knowledge, and techniques can be embedded in different kinds of artifacts or practices, and how these will have differential consequences for human action and cognition. Nor can we examine how the rules and procedures structured into a machine are differentially appropriated, changed, or ignored by the agents executing work (; ; .

Although Customer Relationship Management (CRM) is a recent concept, its tenets have been around for some time. Neighborhood shop owners knew customers by name and built close relationships with them. Over the years, through mass marketing and increased consumerism, customers traded relationships for anonymity, reduced variety and lower prices. Today, through effective use of information and communications technology, such a tradeoff is not necessary. Organizations can offer customers variety, lower prices and personalized service and all at the same time (; .

Over the last decade there has been a dramatic growth in the acquisition of Customer Relationship Management (CRM) Systems. However more recently, there has been an increase in reported CRM failures, suggesting that the implementation issues are not just technical, but encompass wider behavior and cultural factors. As planned when customer relationship management systems have been established as a strategic plan to build a relationship with customer. To build a relationship with customers is a complex socio-technical objective. The most important factor in that objective is to understand, how that customer values, norms, thoughts, perceptions, etc., are alike. You could sell a product or a service to a customer but to build a relationship with him/her is much more complex. Multinational organizations are faced by this problem, i.e. how they build a relationship with different customers in different cultural environments.

CRM requires a customer-centric business philosophy and culture to support effective marketing, sales, and service processes. CRM applications can enable effective Customer Relationship Management, provided that an enterprise has the right leadership, strategy, and culture (Smith, 2002). However, the performance impacts of CRM applications to date have been mixed. Anecdotal evidence suggests that between 30 to 75 percent of CRM initiatives fail because organizations roll them out without assessing their cultural readiness and considering CRM applications to be the end of customer centric approach (Simpson, 2002).

In this paper the authors differentiate between three different levels of culture: individual, organizational, and national cultures, when studying the potential impact of culture on eCRM systems. Also, The authors propose the interaction between these different levels of culture in the context of eCRM systems. In section three, authors present Hofstede's work in culture, the reason of its popularity in IS research, and the criticisms of it. In section four, the authors propose Structuration theory and why it is more appropriate for investigating the potential impact of culture on eCRM systems implementation. In section five, the authors present a framework of Structural analysis to eCRM systems. Section six, presents the research methodology, which will be used in future research. At the end of the paper in section seven, the authors propose the conclusion.

2 CULTURE LEVELS WITHIN ECRM

The literature on culture provides a set of general concepts and ideas as a way of looking at the world. (*Skok and Doringer 2001*) 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, while considering the potential culture impact on the use of information systems, particularly customer relationship management systems.

Culture is frequently named as a determinant of usability of computers. (Stahl, 2003). That means that the culture from which a developer, programmer, or user stems makes a difference regarding whether he/she is willing or able to use a certain technology.

Stahl, (2003) has proposed the question of "Up to what point do different cultures diverge and what, if anything, do they have in common?" This question is of interest to CRM systems implementations because an answer would inform us of what analysts and designers of CRM systems can take for granted independent of their target culture and what parts of the systems would have to be customized or even re conceptualized.

There are three identified dimensions of culture that are of relevance. First, is the culture that a society share (national culture), which is a set of core values, that shapes the behavior of individuals as well as the whole society, and involves all the customers of the eCRM. Second, is the culture on a smaller level, namely organizational culture which senior managers, marketing managers, developers of eCRM sales representatives are part of (Adler 1997; Bagchi and Cerveny 2003). The third dimension 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 model.

A few empirical studies have investigated the relationship between national culture and IT adoption, have found that the technology adoption model (TAM) could not predict technology use across all cultures (McCoy 2003).

Culture in the sense of a meaning-constituting horizon of the collective life-world determines the perception and use of IT. This is also true for the organization level of culture where culture can influence whether employees are able and willing to use certain technologies. It is also true on a social level where currently based perceptions have some bearing on the use of IT. A national culture that emphasizes sharing and the collective, for example, will lead to different uses of IT than one that emphasizes the individual and competition (Raboy 1997; Riis 1997)

As Straub et al. (1997) mention, there is a need to exploit the power of IT to communicate among geographically dispersed nations. Managers need to learn about cross-cultural adoption and use of IT in order to be able to adopt IT successfully. Robey and Rodriguez-Diaz (1989) mention that culture may impede IT implementation efforts because the differences in the way it are interpreted and given meaning. Watson et al., (1994) while studying the cross-cultural adoption of GSS systems observed that culture would shape the adoption of technology. Harvey (1994) and Krumholtz et al., (2000) mention in their cross-national studies of IT implementations that national culture impacts information system design in myriads of way.

3 HOFSTEDE'S CULTURE DIMENSIONS

According to Hofstede, (1980) culture is equivalent to the collective mental programming of a group, tribe, minority, or a nation. It is the aggregate of individual personality traits. Hofstede developed an empirically based typology of cultural attributes by analyzing data obtained from surveys conducted among individuals in 53 nations in 1968 and 1972. Since all 116000 respondents were employees of the same firm, IBM, Hofstede was able to hold constant the influence of corporate culture. Based on the data obtained, he classified countries along four dimensions: power distance, uncertainty, individualism/collectivism, and masculine/feminine. Hofstede rated each of the 53 countries in his study by their cultural dimensions. Hofstede, (2001) specifies that the original instrument cannot be used to test individual level relationships, and should be used only at the national level.

Hofstede's dimensions of culture are often chosen because they are the most widely cited and used. Given the number of years that have elapsed since Hofstede's work, it might not be appropriate to assume that the cultural scores of Hofstede still hold after over three decades. Further, it might not be appropriate to assume that the culture score of the entire country under investigation is the same as the score of the people within their sample; individuals might have drastically different cultural outlooks, even within the same country. The use of one company in data collection has been the focus of most criticism of Hofstede's country scores (McCoy, 2003).

It is important to look at national culture from a trait-based approach because people from the same country can (and do) score differently on Hofstede (1980) dimensions. In other words, because people from the same country can score differently on the cultural dimensions of Hofstede's work (1980), it is important to look at the effects of their scores and not only the country of origin (McCoy, 2003).

The problem with Hofstede's measures is that you cannot distinguish between people in the sample, but you can only aggregate to the group. This also makes it difficult to test cultural dimensions within individual level adoption models, like the TAM model. Because some dimensions can influence the relationships in different ways, researchers need to use individual level measures of culture. The constructs of Hofstede (2001) are measured at the national level, which cannot be used in individual models of behavior or technology acceptance (McCoy, 2003)..

As globalization of business and systems continues, there is a need for additional study on the cross-cultural adoption and use of IT. Further, it is important to consider cultural dimensions specifically when testing IS research models. This involves making theoretical connections between the IS

research model and national culture and testing those relationships with appropriate measures of culture (McCoy, 2003).

4 STRUCTURATION THEORY, CULTURE AND IS

The bulk of IS research in multiple countries can be labeled “comparative” research. These studies have compared systems used in different countries to discover similarities and differences. The few that did introduce culture at more than a cursory level used Hofstede’s country scores (1980) to explain the differences. Hofstede’s dimensions of culture are often chosen because they are the most widely cited and used. (McCoy, 2003)

Given the number of years that have elapsed since Hofstede’s work, it might not be appropriate to assume that the cultural scores of Hofstede still hold after over three decades. Further, it might not be appropriate to assume that the culture score of the entire country under investigation is the same as the score of the people within their sample; individuals might have drastically different cultural outlooks, even within the same country. The use of one company in data collection has been the focus of most criticism of Hofstede’s country scores. (McCoy, 2003)

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 working and information systems. A summary of key points as Walsham proposed it, is provided in Table 1.

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 system ness 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

Table 1: Structuration Theory, Culture, and ICTs: Some Key Concepts (Walsham, 2002)

In order to assess the contribution the Structural analysis could contribute to the cross-cultural working and information systems, it is necessary to examine the exiting literature related to this latter domain. A good starting point is the widely cited work of Hofstede (1980, 1991). Myers and Tan (2002) noted as proposed in Walsham (2002), that much of the literature concerned with cultural and cross-cultural issues in the IS field has relied on Hofstede’s work. In Table 2, there is a summary of the key points, summarizing limitations of Hofstede-type studies and related contributions from a Structural analysis (Walsham, 2002). The authors argue that within eCRM context, there are

different agencies and these agencies have different structures. Structural analysis provides a way of looking at different groups, sub groups and even individual culture. Though, conflict and contradiction could be analysed. Also, Structuration theory deals with change so in eCRM context we could monitor the dynamic nature of it using a Structural analysis.

The authors argue that studying the potential impacts of culture on the eCRM systems implementation process requires differentiation between the three levels of culture. The authors highlight the inappropriateness of using Hofstede work as the only way of investigating the culture impact on IS. The authors will use concepts of Structuration theory by Giddens (1979, 1984) to explore the impact of culture on the eCRM implementation process.

Topic	Hofstede-Type Studies	Structural Analysis
Cross-cultural contradiction and conflict	Describe aggregate differences between cultures But provide no link to conflict	Detailed way of relating contradiction and conflict
Cultural heterogeneity	No description of heterogeneity	Can be used to analyze differences in cultural sub-groups and even individuals
Detailed work patterns	Aggregate cultural variables do not easily effect on work patterns	Meaning systems, power relations, norms, already targeted at the detailed work level
The dynamic nature of culture	Normally treated as static	Can analyze reflexivity and change

Table 2. Cross-Cultural Working and IS: Contribution of Different Theories (Walsham, 2002)

5 ECRM STRUCTURAL ANALYSIS

At this juncture, it would be useful to clearly differentiate the term eCRM, which some may confuse with CRM. eCRM involves taking advantage of the revolutionary impact of the Internet to expand the traditional CRM techniques by integrating technologies of new electronic channels such as Web, wireless, and voice technologies and combining it with e-business applications into the overall enterprise CRM strategy (Pan & Lee 2002).

In eCRM systems the agencies are much more diverse than in any other Information System, ranging from senior managers to marketing managers, from field sales engineers to temporary customers workers (internal in the organization) and to customers (external of the organization), the main aim of the eCRM.

To develop a structural analysis of the eCRM systems implementation process, the authors argue that the analysis should include all agencies of the eCRM system to be integrated. Firstly, the integrated framework for eCRM implementation by Fjermestad and Romano (2003) gives a perspective of agencies and their structures inside the organization. These agencies are eCRM managers, sales and marketing managers, sales representatives, eCRM developers, eCRM users and technology and processes, which is more related to building customer-centric organizational culture. Secondly, theory of preferred technology by Muthitachoen, et al. (2003) gives perspective of agencies and their structure outside the organization. These agencies are customers and society, which are related to the individuals' level of culture and national culture.

Fjermestad et al. (2003) have developed an integrative framework for analyzing eCRM case studies. They have concluded from secondary analysis of 13 case studies that many have limited success implantations and can be attributed to usability and resistance factors. The framework assumes that the key success factors in eCRM implementation are usability and resistance.

Muthitacharoen, et al. (2003) have developed an integration of preferential decision knowledge to the Technology Acceptance Model. They argue that such integration would allow explaining alternative behaviors of using Internet or conventional stores to make a purchase.

For investigating the potential impact of culture on eCRM systems implementation, the authors combined these two frameworks, so cultural conflict and contradiction between different agencies of eCRM systems could be explored. The authors argue that by combining these two models the authors could reach a framework for eCRM implementation that involves all agencies of eCRM systems.

In this paper the authors argue that the Fjermestad, et al. framework assumes that there is no cultural conflict between people who use eCRM inside the organization and people who use eCRM outside the organization. This could be true in case of the eCRM systems working locally. In other words the people inside the organization (eCRM managers, developers, sales representatives, etc.) and people outside the organization (online customers) are sharing the same culture. This could be the case for small and medium size organizations but in case of the multinational organizations, which deal with different culture contexts this is not true. Multinational organizations, in the process of eCRM implementation, have two options. First, it assumes that there are no cultural differences between different nations and it develops its eCRM systems the same in each nation. Secondly it assumes that there are cultural difference between individuals, groups, organizations, societies, and nations, in this case there is cultural resistance, which would minimize usability of eCRM systems.

In this paper the authors argue that, the implementation framework has missed two important issues. Firstly, the framework is oriented to people resistances from inside the organization, ignoring customer resistance that could not be avoided by just training and educating the users as shown in the framework. Secondly, the framework assumes that there are no cultural conflicts between organizational culture (eCRM users inside the organization) and national culture (eCRM users outside the organization: customers).

Gorry and Scott Morton (1971) suggested that frameworks for viewing management information systems are essential if an organization is to plan effectively and make sensible allocations of resources to information systems tasks.

The authors propose a framework of analysis based on the practice lens for studying technology in organization by Orlikowski (2000). That develops a practice lens to examine how agencies of eCRM , as they interact with a technology in their ongoing practices, enact structures which shape their emergent and situated use of that technology Figure 1.

The framework of analysis rather than looking at eCRM systems and examining how actors appropriate its embodied structure, it starts with human action and examines how it enacts emergent structures through recurrent interaction with eCRM systems. By focus attention on how structures are constituted and reconstituted in recurrent social practices acknowledges that while eCRM users can and do use eCRM systems as they were designed, they also can circumvent inscribed ways of using eCRM systems- either ignoring certain properties, working around them, or inventing new ones that may go beyond designers' expectations and inscriptions (Orlikowski, 2000).

The authors argue that developing a framework taking cultural conflict and contradiction into account will help managers of eCRM to understand the reasons that eCRM is not working as effectively in the home country of the organization as in overseas countries.

6 RESEARCH METHODOLOGY

This paper is a conceptual paper, that the proposed framework of analysis has been developed according to theoretical analysis and literature review. In future research the authors are intend to validate the framework using a case study research design. The authors will use qualitative approaches to accomplish this research. The authors will use a comparative case study as a qualitative research methodology in order to deeply analyze why and how culture affects eCRM implementation process.

The researcher will conduct multiple case studies in different countries. These cases will be in the same organization but in different countries, so processes and technology are same but people, relationships and business culture are different.

Multiple case analysis approach was considered to be appropriate for the research (Yin, 1989). A set of selection criteria will be developed which will ensure the cases selected were homogeneous in nature to facilitate cross-case analysis and to enhance external validity. The criteria for selection of cases are as follows:

- The implementation of eCRM system project should be complete.
- The initial assessment of outcomes related to eCRM system project should be clear.
- The eCRM system project should have major organizational implications and breakthrough performance expectations associated with it.
- eCRM different cases must be in the same organization.
- eCRM different cases must be developed by the same technologies.

Yin (1989) recommends selecting sites that will allow measurement of a phenomenon. The selection of sites across the ranges of success and failures allows us to measure the role of any construct and its relationship to CRM system effectiveness.

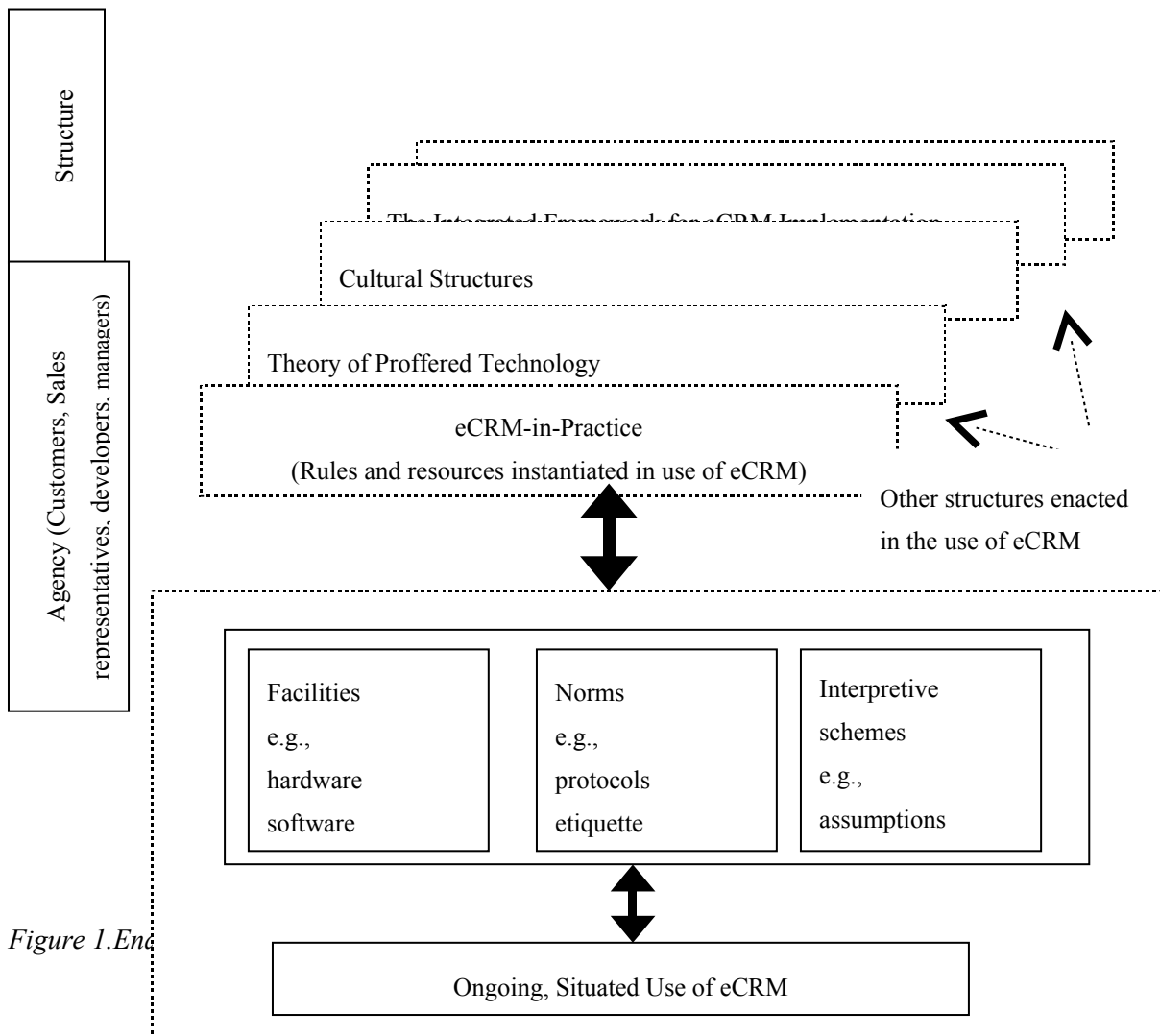


Figure 1. Enacted

7 CONCLUSION AND SUMMERY

In this paper the authors differentiate between three different levels of culture: individual, organizational, and national cultures, and highlight the interaction between these different levels of culture in the context of eCRM systems. The authors propose a justification of the reasons for using structurational analysis to investigate the potential impact of culture and cross-cultural on eCRM systems implementation. The paper, also, presents a framework of analysis, which proposes a new way of studying structures of agencies within eCRM systems. This framework will be explored in future research case studies and will be modified according to the results. Multiple case studies will be conducted to explore the detailed framework in different cultural contexts. Different data collection techniques e.g. interviews, observations, will be done for data collection. Data analysis will be done and according to the results the framework will be revised.

References

- Yin, R. K., 1989. 'The Utilization of Research: Lessons from Multi-Disciplined Field', Washington, DC: COSMOS Corporation.