

SITUATED CULTURAL APPROACH VERSUS PREDEFINED CULTURAL ARCHETYPES MODELS

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Abstract

Within the last 20 years, the practical relevance of researching cultural issues, and especially comparing phenomena across cultures, was questioned (Ferraro, 1990). However, the importance of cultural issues is becoming increasingly evident in many applied disciplines; these include the management of information technology (IT) (Davison and Martinsons, 2003). A normative literature review has been carried out in this paper to provide IS researchers with the milestones of studying culture in IS discipline. Although there are many different models of national culture, most IS research has tended to rely almost solely on Hofstede's cultural model (Keil et al., 2000; Straub, 1994; Tan et al., 1995; Watson et al., 1994; Myers and Tan, 2002; Kirkman et al. 2006).). In this paper, the author provides a criticism of predefined cultural archetypes models and highlight the problems of using such approach in studying culture within IS discipline. The author demonstrates a comprehensive framework of situated culture approach to study culture within IS discipline, as alternative approach to avoid the criticism of predefined cultural archetypes models. This is achieved via an articulation of Structuration Theory. The author argues that using a practice lens for studying the use of technology by Orlikowski (2000), contributes to identifying the mediated shared structures between actors through understanding the actions of the actors within IS phenomena. Then, using a Structural analysis approach by Walsham (2002) contributes to identifying the cultural dimensions that are embedded in the identified mediated shared structures.

Keywords: *Culture, IS, Cultural Levels, Cultural Layers, Cultural Dimensions, Cultural Milestones, Predefined Cultural Archetypes, Situated culture, Structuration Theory*

1 INTRODUCTION

Over the past decade there has been increasing interest in the IS research literature in the impact of cultural differences on the development and use of information and communications technologies. Since many companies are now doing business beyond their national boundaries – and these global activities are facilitated and supported to a large extent by current communications and information technologies – it is important to understand the impact of cultural differences on these activities (Ives & Jarvenpaa, 1991; Shore & Venkatachalam, 1994; Tractinsky & Jarvenpaa, 1995, Myers and Tan, 2002).

Cross-Cultural Information Systems management refers to managing the design, development, and implementation of IS and technologies in a cross-cultural environment (Weisinger and Trauth, 2003)

The cultural distinctions at the national or social level may be expected to exert a significant influence on the management of IT and IS (Davison and Martinsons, 2003). This means that national cultural differences might influence IS implementation and use by impacting people who are involved in each of the stages of IS implementation and use (Feng, 2006).

The paper is structured as fellow: in section two, the key concepts of culture and IS has been discussed, then, in section three, taxonomy of all predefined cultural archetypes models has been developed through a normative literature review of culture and IS pervious literature. In section four, the author explains the criticism of using predefined cultural archetypes models to study cultural influence within IS discipline. In section five, the author has displayed the concept of situated cultural as alternative approach for IS researchers based on Structurational analysis to study culture influence within IS discipline. In section six the author demonstrates the capability of situated culture approach to avoid the criticism being tackled towards predefined cultural archetypes models. In section seven, the authors conclude with remarks for IS researchers willing to study the influence of culture on IS phenomena.

2 CULTURE AND IS

A first challenge in conducting research involving culture is arriving at an understanding of what culture is, given the myriad of definitions, conceptualizations, and dimensions used to describe this concept (Straub et al. 2002).

Leung et al. (2005) define culture as values, beliefs, norms, and behavioural patterns of a group – people in a society for national culture, staff of an organization for organizational culture, specific profession for professional culture, etc. Hall, (1976) has asserted that beliefs and values dictate the way people think, behave, solve problems, make decisions, plan and lay out their homes and cities, and even organize their economic, political, and transportation systems.

Definitions of culture vary from the very inclusive as Herskovitz (1955) defines it as the human-made part of the environment; to the highly focused as Shweder and LeVine, (1984, p.110) who define it as ‘culture is a shared meaning system’.

Groeschl and Doherty (2000, p.14) point out that culture is complex and very difficult to define: “Culture consists of several elements of which some are implicit and others are explicit. Most often these elements are explained by terms such as behaviour, values, norms, and basic assumptions”. Some researchers proposed culture as tacit or implicit artefacts such as ideologies, coherent sets of beliefs, basic assumptions, shared sets of core values, important understandings, and the collective will (Jermier et al., 1991; Sackmann, 1992; Groeschl and Doherty , 2000), others suggest that culture includes more explicit observable cultural artefacts such as norms and practices (Jermier et al., 1991; Groeschl and Doherty, 2000; Hofstede 1998), symbols (Burchell et al. 1980), as well as language, ideology, rituals, myths, and ceremony (Pettigrew 1979; Karahanna et al., 2005).

The socio-cultural system and the individual system are two theoretical frameworks likely to be studied when researchers investigate cultural aspects. The former is concerned with the institutions, norms, roles, and values as they exist outside the individual, and the latter is concerned with the subjective culture as reflected by the individual’s perception of the elements of the culture system (Dorfman and Howell, 1988). For example, Mead, (1985) defined culture as “shared patterns of behaviour.” This definition has at least two implications. It implied that culture was a group-level construct, situated between the personality of individuals and the human nature that is

common to all of us. Societies, organizations, and professions are among the “groups” that could be considered to have their own cultures. Also, it implied that the study of culture involved little more than observing and describing behaviour (Davison and Martinsons, 2003).

Also, Hofstede, (1991, p.5) defines national culture as “the collective programming of the mind which distinguishes the members of one group or category of people from another”. He suggests that people share a collective national character that represents their cultural mental programming. This mental programming shapes values, beliefs, assumptions, expectations, perceptions and behaviour (Myers and Tan, 2002). 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.

However, Triandis (1972) defines culture as an individual’s characteristic way of perceiving the man-made part of one’s environment. It involves the perception of rules, norms, roles, and values, which is influenced by various levels of culture such as language, gender, race, religion, place of residence, and occupation, and it influences interpersonal behaviour. This definition has at least two implications. The first is that it assumes that by analysing the behaviour of an individual of a society would not provide a specific identification of the rules, roles, norms and values of that society but rather shows the perception of that individual of the shared cultures he/she belongs to. The second is that behaviour of an individual would be influenced by the shared culture which is influenced by different levels of cultures.

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

2.1 Cultural Levels

Significantly, at different levels of analysis of culture, several cultural dimensions exist. They include values, cognitive structures, and behaviours at the individual level;

structures and rituals at the organizational level; and artefacts and attributes at the national or societal level. For example, the relative preference for making money or having leisure time (assuming that they are mutually exclusive) will vary from person to person. In contrast, work routines will reflect most directly the culture of an organization, while the degree of public compassion for the jobless will vary from society to society (Davison and Martinsons, 2003).

National culture (or cross-cultural) research and organizational culture research have emerged as largely separate research streams within IS/IT discipline. While the two streams have experienced little overlap, they both share a focus on defining the values that distinguish one group from another (Leidner and Kayworth, 2006).

Culture has been studied within IS discipline at various levels, including national (macro level, cross-cultural), organizational, group (sub-culture, professional, special interest, social class, etc.) and individual (micro level, subjective culture) (Triandis, 1972; Hofstede, 1984; Dorfman and Howell, 1988; Myers and Tan, 2002; McCoy, 2003; Ali and Alshawi, 2004a).

2.1.1 National (Cross-Cultural) Level

At a macro level of analysis, national culture is defined as the culture that a society shares, which is a set of core values, norms, practices etc., which shapes the behaviour of individuals as well as the whole society (Adler 1997; Bagchi et al., 2003).

Although the national culture construct is inherently complex, it is possible to label many different taxonomies or dimensions of it. A large body of literature on culture has identified and considered these dimensions. Following a review of some of the major concepts, a novel taxonomy of different cited national cultural dimensions is proposed in section three.

2.1.2 Organizational Level

Organizational culture could be defined as the culture that staff of an organization share and are influenced by (Adler 1997; Bagchi et al., 2003). Stahl, (2003) defined corporate culture as commonly shared values, which direct the actions of the employees towards the common purpose of the enterprise. Corporate or organizational culture fulfils the same role in an organization that culture fulfils in society. It defines what is real, what is important, and thus how one should act. This

has led to an extensive use of the term as a vehicle of business ethics (Heeg and Meyer-Dohm 1994, Grabner-Krauter 2001).

The literature on organizational culture implies that staff of an organization may be more or less socialized into the organizational culture and possibly away from the national culture (Killmann et al., 1986; Sathe, 1983; Dorfman and Howell, 1988).

As with national culture taxonomies, the aim of organizational culture has been to enable the differentiation of organizations along the lines of dominant values guiding organizational behaviours (Leidner and Kayworth, 2006). But, it is beyond the scope of this work to identify an exhaustive list of organizational culture theories.

2.1.3 Group (Sub-Culture) Level

Furthermore, since within one nation or within one organization there can be many subcultures (e.g., professional associations, political parties, ethic groups), individuals' work behaviour may also be influenced by the norms and values of these subcultures (Triandis, 1972).

2.1.4 Individual Level (Subjective Culture)

Dorfman and Howell (1988) explored the level of analysis of culture in their investigation into the effects of national culture on individual behaviour, e.g. Technology acceptance. They found that subjective culture of an individual (Karahanna et al., 2005) (which is a mix of different cultures levels that the individual is part of) may influence the individual behaviour, even in the opposite direction of the society culture.

2.1.5 Interaction of Cultural Levels

It is theorized that the relative influence of the different levels of culture on individual behaviour varies depending on the nature of the behaviour under investigation. Thus, for behaviours that include a strong social component or include terminal and moral values, national cultures might have a predominant effect. For behaviours with a strong task component or for those involving competence values or practices, organizational and professional cultures may dominate (Karahanna, et al, 2005).

In an organizational setting, national culture is not the only type of culture that influences managerial and work behaviour. Rather, behaviour is influenced by different levels of culture ranging from the national level, through organizational

levels to the group and other sub-cultures level (Hofstede, 1991; Karahanna, et al, 2005).

Straub et al., (2002) based on Social Identity Theory has proposed that these levels interact. They propose that different layers of culture can influence an individual's behaviour and that each individual is influenced more by certain layers and less by other layers, depending on the situation and their own personal values.

The various levels of culture are laterally related (see Figure 1). The levels of culture are not necessarily hierarchical from the more general (national) to the least general (group) (Karahanna, et al, 2005). For instance, in the case of multinational corporations, organizational culture can span national, professional, and other sub-cultures. Furthermore, groups may include members from several organizations, professions, nations, religions, ethnic backgrounds.

In figure 1, the area labelled individual represents the subjective culture or the individual level of culture where an individual's culture is the product of several levels of culture. Each individual belongs to a specific national culture. Individuals may also have a religious orientation, a professional degree, belong to a specific ethnic, linguistic group, and so on, which is represented by different sub-culture groups. Individuals may work in an organization, which is represented by organizational culture. Some of these cultures may dominate depending on the situation. The cultures that enfold the individual interact and comprise the individual's unique culture, eventually influencing the individual's subsequent actions and behaviour (Karahanna, et al, 2005).

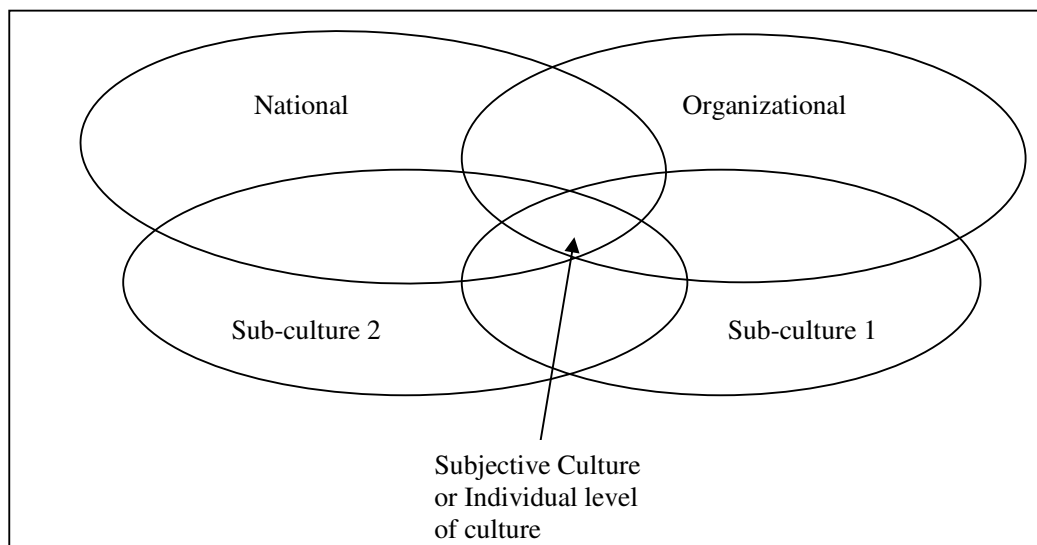


Figure 1: Interrelated levels of culture (Adapted from Karahanna et al., 2005)

2.2 Cultural Elements (Layers)

2.2.1 Values

Values refer to relationships among abstract categories that are characterized by strong affective components and imply a preference for a certain type of action (Karahanna, et al, 2005). Values are acquired through lifestyle altering experience, such as childhood and education. They provide a society with fundamental assumptions about how things are. Once a value is learned, it becomes integrated into an organized system of values where each value has a relative priority. This value system is relatively stable in nature but can change over time reflecting changes in culture (e.g., migration) as well as personal experience. However, values also change quickly through extreme circumstances e.g. war.

2.2.2 Practices

Practices are learned later through socialization at the workplace after an individual's values are firmly in place. They provide a society with learned ways of doing things, such as facts about the world, how it works, and cause-effect relationships. Whereas values are fairly hard to change, practices can be altered (Karahanna, et al, 2005).

A key issue that emerges is the relationship between values and practices. Values are affected by practices during the formative years in which values are starting to form. Later on in life, practices do not influence values. Conversely, practices are always evolving. Ideally, practices should reflect values and be in sync with them, but that is not always the case. Karahanna, et al. (2005) suggest that this discontinuity typically occurs when practices dictated by one level of culture (e.g., organizational) are at odds with values comprising another level of culture (e.g., national). Practices are much more related to current environmental conditions.

National cultural differences are composed primarily of differences in values and to a lesser extent, of differences in practices (Hofstede, 1991). Figure 2 (adapted from Karahanna et al., 2005) illustrates the relative importance of values and practices at various levels of culture. Values are more important than practices in the higher level cultures (i.e., national), and practices and norms dominate the lower level of cultures (i.e., group).

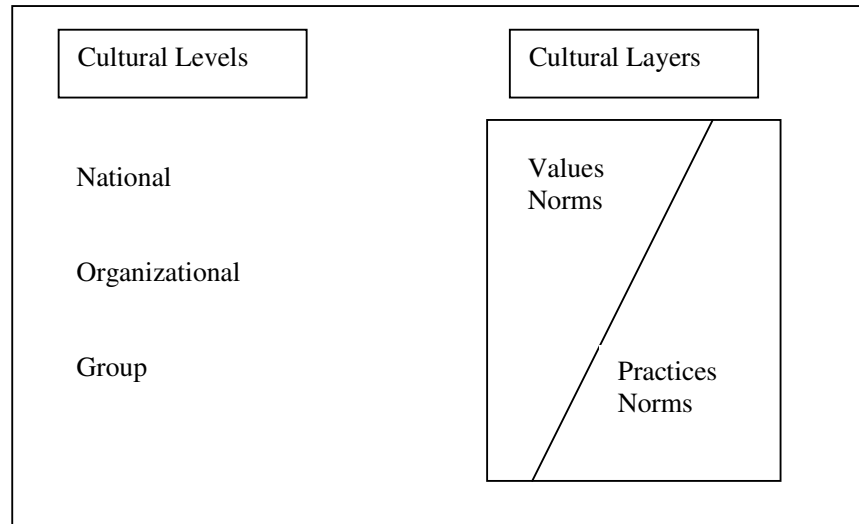


Figure 2: Cultural Levels and Cultural Layers (Adapted Karahanna et al., 2005)

3 PREDEFINED CULTURAL ARCHETYPES MODELS

Schein (1985) argues that values are more easily studied than basic assumptions, which are invisible and preconscious and therefore not easily identified, as well as cultural artefacts (technology, art, visible and audible behaviours) that, while being more visible, are not easily decipherable.

It is not surprising, then, that the vast majority of theories that conceptualize culture do so in terms of reference group value orientations such as value dimensions of national culture (Hofstede, 1980).

Even while the focus has largely been on values, there is a tight linkage between cultural values and the subsequent behaviours and actions of social groups (Posner and Munson 1979). In this sense, values can be seen as a set of social norms that define the rules or context for social interaction through which people act and communicate (DeLong and Fahey 2000; Keesing 1974; Nadler and Tushman 1988). These social norms have an impact on subsequent behaviours of firm members through acting as a means of social control that sets the expectations and boundaries of appropriate behaviours for members (O'Reilly and Chatman 1996). Thus, the study of organizational values may be particularly useful in explaining certain behaviours with respect to how social groups interact with and apply IT in organizational contexts (Leidner, and Kayworth, 2006).

There is general acceptance that the value-based framework for measuring cultures has been helpful in deciphering cultures (Leung et al., 2002; Leung et al., 2005). Although the construct is inherently complex, it is possible to label many different aspects or dimensions of it. A summary of the cultural dimensions which have been cited within the IS discipline has been developed and is presented in Table 1. The researcher develops the summary of cultural dimensions through a normative literature review within 'IS and Culture' research area. This constrain has limited the previous literature to be considered in this thesis. The researcher categorized the different cultural values dimensions when these dimensions have the same meanings.

Culture Dimension	Definition
Uncertainty Avoidance (Hofstede, 1980, 1983, 1991) Free Will vs. Determinism (Kluckhohn and Strodtbeck, 1961) High Trust vs. Low Trust (Fukuyama, 1995)	Degree to which people in a country prefer structured over unstructured situations: from relatively flexible to extremely rigid. Also, this refers to the degree that people in a society bear risk, from risk averse to risk taker. Also, the degree that people in a society trust and feeling comfortable with dealing with the unknown.
Power Distance (Hofstede, 1980, 1983, 1991) Hierarchy vs. Egalitarian (Schwartz, 1994) Authority Ranking Relationships (Fiske, 1992) Equality – Hierarchy (Hampden-Turner and Trompenaars, 1994)	Degree of inequality among people, which the population of a country considers as normal: from relatively equal to extremely unequal.
Masculinity/femininity (Hofstede, 1980, 1983, 1991)	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 (Hofstede, 1980, 1983, 1991) Individualism/Communitarianism (Trompenaars, 1993) Wide sharing vs. Non sharing (Newman et al., 1977) Communal Sharing Relationships (Fiske, 1992) Idiocentric – Allocentric (Triandis, 1995)	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 (Long-term orientation vs. short term orientation) (Hofstede and Bond, 1988; Hofstede, 1994)	Long term orientation cultures value virtues oriented toward future rewards, in particular perseverance and thrift. Short term orientation stands for the fostering of virtues related to the past and present, in particular respect for tradition, preservation of 'face' and fulfilling social obligations.
Universalism-Particularism (Trompenaars, 1993; Hampden-Turner and Trompenaars, 1994)	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 Orientation (Trompenaars, 1993) Analyzing vs. Integrating (Hampden-Turner and Trompenaars, 1994) Objective- Emotional (Newman et al., 1977) Rationalism- Humanism (Lessem and Neubaue, 1994)	Degree to which people in a country compare 'objective' and 'detached' interactions with interactions where emotions are more readily expressed.
Specific vs. Diffuse Orientations (Trompenaars, 1993) Inner-directed vs. outer-directed (Hampden-Turner and Trompenaars, 1994)	Degree to which people in a country have been involved in business relationships with in which private and work encounters are demarcated and 'segregated-out'

Turner and Trompenaars, 1994)	
Achievement vs. Ascription (Trompenaars, 1993) Achieved status vs. Ascribed Status (Hampden-Turner and Trompenaars, 1994) Merit based vs. Relationship based (Newman et al., 1977) Equality Matching Relationships (Fiske, 1992)	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) Improvement vs. maintaining status quo (Newman et al., 1977)	Degree to which people in a country emphasise maintenance of status quo (Conservatism), or emphasis creativity or affective autonomy emphasis the desire for pleasure and an exciting life.
Harmony vs. Mastery (Schwartz, 1994) High context vs. Low context (Hall, 1960, 1976) Hall & Hall, 1990)	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.
Market Pricing Relationships (Fiske, 1992) Accumulation of Wealth vs. 'Just Enough' (Kluckhohn and Strodtbeck, 1961)	Degree to which people in a country think in terms of price and investment.
Monochronic vs. Polychronic (Lewis, 1992) Time as sequence vs. time as synchronization (Hampden-Turner and Trompenaars, 1994)	Attitudes toward use of time in performing tasks either focusing on issues one at a time (monochronic) or performing of activities in parallel (polychronic)
Monomorphic – Polymorphic (Bottger, et al., 1985)	A population in which virtually all individuals have the same genotype at a locus.
Pragmatism – Idealism (Lessem and Neubaum, 1994)	Pragmatism is characterized by the insistence on consequences, utility and practicality as vital components of truth. The pragmatists' world is pluralistic, attentive to context, relativistic about truth and value, devoid of metaphysical concerns except as they have practical consequences

Table 1: A Summary of Cited National Culture Values Dimensions in IS Domain

4 PREDEFINED CULTURAL ARCHETYPES CRITICISM

A summary of different categories of criticisms of predefined cultural models has been developed, these categories have been identified by the researcher based on a normative literature review, and these are discussed in the following sections:

4.1 Different Culture Levels:

Hofstede's cultural model assumes that all the differences between respondents are a result of national cultures differences, which is questionable as it is also a result of national, organizational, and other sub-cultures (McSweeney, 2002). It doesn't show the interaction between different levels of culture, which avoids the need to investigate the influence of different cultural levels on the IS phenomena to be studied (Ali et al., 2006a).

The use of one company in data collection has been the focus of most criticism of Hofstede's country scores, as it neglects the influence of organizational culture (McCoy, 2003).

The nation-state which Hofstede built his model upon is a relatively recent phenomenon - it did not exist for the greater part of human history. Also, the nation-state has continued to change in its form and makeup. Thus, not only have the physical boundaries of many nation-states changed in recent years, but so has the ethnic and racial mix within them. In addition to that, the idea that each nation-state has its own distinct culture is questionable. Many nations are composed of more than one culture and/or many sub-cultures (Huo and Randall, 1991; Peppas, 2001), and the same cultural group may span multiple countries.

4.2 Dynamic nature of culture

Hofstede's cultural model doesn't show how the culture has emerged, which avoids dealing with the dynamic nature of culture, which would give inaccurate results while investigating any potential influence of culture on the implementation and use of IS (McCoy, 2003; Ali et al., 2006b). Culture is seen as something that is interpreted and re-interpreted, and constantly produced and reproduced in social relations (Myers and Tan, 2002).

It might not be appropriate to assume that the cultural scores of Hofstede still hold true over three decades since they are first measured (McCoy, 2003).

4.3 Culture homogeneity

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 (McCoy, 2003; Bottger, et al., 1985). Straub et al. (2002) contend that individuals may or may not identify with the national culture; the researcher should not assume that they necessarily do.

It is assumed that national culture is homogenous; subcultures are often assumed to not exist in the use of Hofstede's taxonomy (Myers and Tan, 2002).

4.4 Level of analysis

Hofstede (2001), in response to many misused applications of his model to study culture, specifies that his cultural model cannot be used to test individual level relationships, and should be used only at the national level, or sub-culture group level (Ford, et al., 2003).

The most common concern regarding Hofstede's dimensions is the level of analysis implied by the dimensions and subsequent uses of the dimensions. The five dimension indexes are national level measures; however, several studies apply this national measure to groups or individuals (Straub, 1994).

Hofstede fails to satisfactorily justify his claim that an average tendency based on questionnaire responses from some employees in a single organization is also the national average tendency. His generalisation to the national from the micro-local is unwarranted (McSweeney, 2002).

Schwartz (1992), points to 'dynamic relations among values' rather than values that are appropriately classifiable into four (later five) 'largely independent' (Hofstede, 1983) dimensions. Dimensions are depicted by Hofstede as bi-polar in the sense that each is composed of contrasting positions, for instance 'individualism' and 'collectivism' are treated as opposite poles of his 'individualism /collectivism' dimension but as Triandis, (1994).states: 'the two can coexist and are simply emphasised more or less ... depending on the situation. All of us carry both individualist and collectivist tendencies ' (in McSweeney, 2002).

It should be noted that all the analyses from Hofstede's work reflect an "ecological" level of analysis- correlations among items in each scale and factor analyses used to define the measures use mean scores from respondents aggregated at the national level before being subjected to analysis. Analysis at the individual level results in an entirely different picture from analysis at the ecological level (Dorfman, and Howell, 1988). The ecological level of analysis severely restricts the meaningfulness and usefulness of the scales for those researchers who operate at the micro level of analysis (Dorfman, and Howell, 1988).

The generalisations about national level culture from an analysis of sub-national populations necessarily relies on the unproven, and improvable, supposition that within each nation there is a uniform national culture and on the widely contested

assertion that micro-local data from a section of IBM employees is representative of that supposed national uniformity (McSweeney, 2002).

4.5 Comprehensiveness of cultural dimensions:

Hofstede suggests that a major step in his research was the inclusion of a fifth dimension called Long- versus Short-Term Orientation, based on Bond and colleagues' work with Chinese culture (Bond and Chi, 1997; Chinese Culture Connection, 1987). The IBM survey did not include any items related to this dimension, because presumably IBM had no interest in it. Therefore, using the IBM data as the basis for discovery, Hofstede's work did not include this dimension. Such an incremental approach of adding to the list of dimensions is due to the limitations of the original design and begs the question: what other dimensions are missing because IBM was not interested in them? (Javidan et al., 2006).

5 SITUATED CULTURE APPROACH

The situating culture approach holds that cultural understanding is locally situated, predominantly behavioural and embedded in everyday and evolving practices, jointly negotiated by actors within specific contexts and constituting situated learning (Weisinger and Salipante, 2000).

Weisinger and Trauth (2003) considered IT management from a situated culture perspective. Their study suggests that cultural understanding is locally situated, grounded in behaviour, and firmly fixed in the socially negotiated-work practices of everyday life. The framework was applied to an analysis of the interplay between national cultures of the donor and recipient countries, the IT industry culture, and the organizational culture of one firm.

Context, according to Giddens (1984), is the structure or environment within which social interactions occur. These social interactions can also be examined at multiple levels of analysis. Contextual IS research at the social level of analysis is less prevalent; as Walsham (2000) points out in his discussion of an agenda for global IS research. This research typically consists of country-level studies that examine the influence of a particular national context on IT development, diffusion and use (Weisinger and Salipante, 2002). While context is concerned with the structure or environment within which the social interactions occur, culture is concerned with the meanings that are ascribed to that context (Weisinger and Salipante, 2002).

Hofstede (1980) is representative of the view that national culture is assumed to be a relatively stable entity that is based upon shared assumptions. The alternative view is that culture is fragmented, variable historically situated (Brightman, 1995). Using the language of Structuration Theory (Giddens, 1984), the social structures within which social interactions occur can be seen as being modified by those interactions. According to this view, culture does not refer to stable, generalized dimensions assumed to be held in common by members of a particular group. Rather, it is fluid, contextually dependent, and created by actors within a group who may hold conflicting assumptions and worldviews. In other words “culture is what culture does” (Weisinger and Salipante, 2002).

The two themes of context and culture come together in the concept of “cultural knowing.” Relying upon a view of culture as practice or action, Weisinger and Salipante (2000) define cultural knowing as a social process that stems from situated invention and mutual learning based in everyday action/practice. This perspective leads to a view of lived culture as a socially negotiated, dynamic, practical and locally situated process. From this theoretical viewpoint, social interactions occur through structure, and at the same time create it. Taking Giddens’ (1984) perspective, culture is a socially enacted dynamic process. Cultural knowing, therefore, refers to the knowledgeability (Giddens, 1984) of how to interact effectively cross-culturally in a given context (Weisinger and Salipante, 2002).

Taking the situated view of context and culture has several implications for cross-cultural IS research (Ali et al., 2008). First, it implies that research frameworks and findings would allow for the movement over time, or the reshaping of culture as it is commonly viewed. Second, it implies that research would take into account contextual factors that influence local cultures. Finally, it implies that researchers would more deeply explore behaviour and practice as signals for the very local cultures being studied (Weisinger and Salipante, 2002).

In the next section, the paper explores concepts of Structuration Theory (Giddens, 1979; 1984) as a deeper analytical perspective with which to study cultural differences within IS (Walsham, 2002). A justification for using Structuration Theory follows with a discussion around how Structuration Theory can be articulated so as to study cultural influence on the phenomena.

6 STRUCTURATIONAL ANALYSIS OF SITUATED CULTURE

Culture, as discussed in section 2, can be conceptualized as shared symbols, norms, and values in a social collective such as a country (Walsham, 2002). In Giddens's (1984) terms, systems of meaning, forms of power relations, and norms of behaviour have a more widespread currency than merely within the mind of one person. Giddens (1984, pp. 25) defines these as structural properties, namely "structured features of social systems stretching across time and space". In other words, national cultures are composed of many different people, each with a complex structure in their mind, none of which can be thought of as fully shared (Walsham, 2002).

Walsham's argument (2001) shows a specific focus on the role of ICTs, concluding that global diversity needs to be a key focus when implementing and using such technologies. If this argument is broadly correct, then working with ICTs in and across different cultures should prove to be problematic, in that there will be different views of the relevance, applicability, and value of particular modes of working and use of ICTs which may produce conflict (Walsham, 2002).

Walsham, (2002, pp.361) argued that "the crucial point here is that structure, defined in this way, is seen as rules of behavior and the ability to deploy resources, which exist in the human mind itself, rather than as outside constraints". Orlikowski (2000, pp.404) stated that, while she was looking at the use of technology within organizations, that "people enact structures which shape their engagement and situated use of that technology".

The author, in the next sections has presented the two main components of the Structuration Theory based analysis model which is proposed as an alternative to study culture within IS discipline. First, a discussion is presented on the ideas behind the practice lens for studying the use of technology, as proposed by Orlikowski (2000). Secondly, a discussion is presented on the Structuration analysis approach as detailed by Walsham (2002). The author argues that using a practice lens contributes to identifying the mediated shared structures between actors through understanding the actions of the actors within the phenomena. Then, using a Structuration analysis approach contributes to identifying the cultural dimensions that are embedded in the identified mediated shared structures.

6.1 Practice Lens for Studying Use of Technology

Orlikowski (2000) has proposed an extension to the structurational perspective on technology that develops a practice lens to examine how people, as they interact with a technology in their ongoing practices, enact structures which shape their emergent and situated use of that technology. Viewing the use of technology as a process of enactment enables a deeper understanding of the constitutive role of social practices in the ongoing use and change of technologies in the workplace.

A practice lens more easily accommodates people's situated use of dynamic technologies because it makes no assumptions about stability, predictability, or relative completeness of the technologies. Instead, the focus is on what structures emerge as people interact recurrently with the technology (Orlikowski, 2000).

Enactment of structures allows the framing of what users do with technologies, not as appropriation, but as enactment. Thus, rather than starting with the technology and examining how actors appropriate its embedded structures, this view starts with human action and examines how it enacts emergent structures through recurrent interaction with the technology at hand (Orlikowski, 2000).

Together, the notions of emergent structure and enactment afford a practice-based extension to existing structurational models of technology. This practice lens posits humans as constituting structures in their recurrent use of technology. Through their regularized engagement with a particular technology in particular ways in particular conditions, users repeatedly enact a set of rules and resources which structures their ongoing interactions with the technology. Users' interaction with a technology is thus recursive in their recurrent practices, users shape the technology structure that shapes their use. These enacted structures of technology use, which Orlikowski called technologies-in-practice are the sets of rules and resources that are (re)constituted in people's recurrent engagement with the technologies at hand (Orlikowski, 2000).

Giddens (1979; 1984) proposed the notion of structure as the set of enacted rules and resources that mediate social action through three dimensions or modalities: facilities, norms, and interpretive schemes. In social life, actors do not enact structures in a vacuum. In their recurrent social practice, they draw on their (tacit and explicit) knowledge of their prior action and the situation at hand, the facilities available to them, and the norms that inform their ongoing practices, and in this way, apply such knowledge, facilities, and habits of the mind and body to 'structure' their current

action (see Figure 3). In doing so, they recursively instantiate and thus reconstitute the rules and resources that structure their action.

Giddens, (1979) stated that in any structural analysis, one must foreground some structures and background others. So, some other structures enacted in the same time will not be as central in the study.

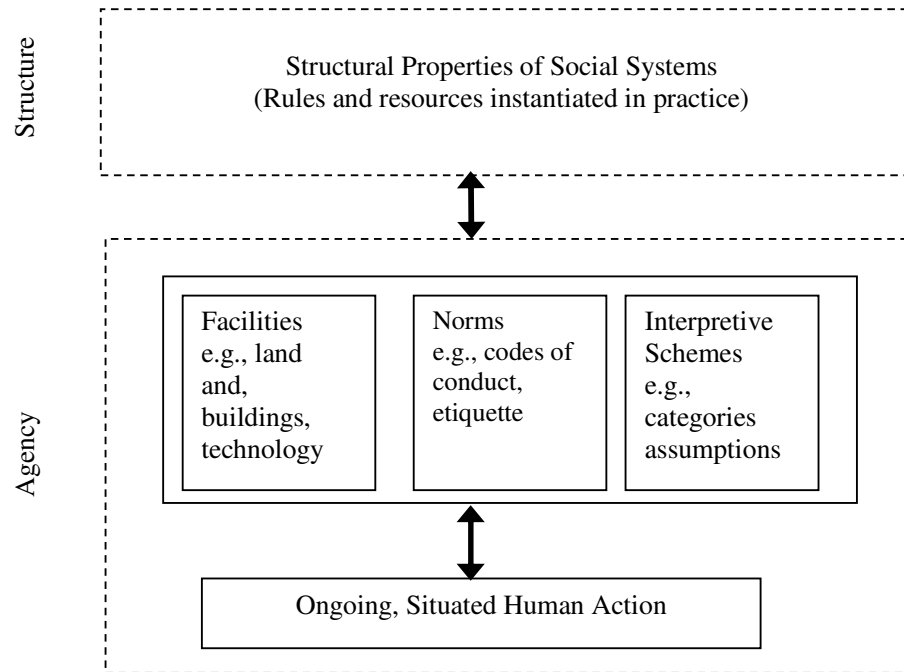


Figure 3: *Practice Lens of Structures in Practice (Orlikowski, 2000)*

The practice lens focuses on human agency and the open-ended set of emergent structures that may be enacted through recurrent use of technology. Such a practice lens recognizes that emergence and impermanence are inherent in social structures. Users have the option, at any moment to ‘choose to do otherwise’ (Giddens, 1993) with the technology at hand. In such possibilities to do otherwise lies the potential for innovation, learning, and change (Orlikowski, 2000).

6.2 Structural Analysis Approach

A summary of key points of using a Structural analysis to study cultural influence on IS phenomena, as presented by Walsham (2002), is provided in Table 2.

Structure	<p>Structure as memory traces in the human mind</p> <p>Action draws on rules of behaviour and ability to deploy resources and, in so doing, produces and reproduces structure</p> <p>Three dimensions of action/structure: systems of meaning, forms of power relations, sets of norms</p>
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Culture	Conceptualized as shared symbols, norms, and values in a social collective such as a country Meaning systems, power relations, behavioural norms not merely in the mind of one person, but often display enough systematic 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 2: Structuration analysis to study Cultural influence on IS phenomena (Adapted from *Walsham, 2002*)

Walsham (2002, pp.359) proposes the Structurational analysis approach and argues that “it can be used to analyze cross-cultural conflict and contradiction, cultural heterogeneity, detailed work patterns, and the dynamic nature of culture”.

Firstly, a Structurational analysis offers a way of addressing the question of both structural contradiction and conflict. It has been argued that conflicts may occur in cross-cultural working if differences in structures in the mind are perceived to affect actors negatively, and they are able to do otherwise (Walsham, 2002).

Secondly, a Structurational analysis opens up the possibility of examining the heterogeneous systems of meaning, power relations, and norms of different social groupings within the same national culture (Walsham, 2002).

Thirdly, a Structurational analysis offers a valuable theoretical underpinning for cross-cultural studies which aims to discover differences in work-related level rather than macro-level cultural values, which otherwise tend to be somewhat anecdotal in nature. Such an analysis focuses on meaning, power, and norms within particular work groups and how these affect particular work patterns and behaviour (Walsham, 2002).

Fourthly, Structuration Theory, in addition to analyzing structural reproduction, emphasizes reflexivity on the part of human actors and thus changes in structure in the mind (Walsham, 2002).

Structuration Theory could be used to analyze any case study involving cross-cultural working and IS. Viewed from a more critical perspective, however, any theory illuminates some elements of particular case situations and is relatively silent on others. Structuration Theory is no exception and, as noted by Giddens (1984) himself, the use of Structuration Theory does not preclude the use of other theories in tandem (Walsham, 2002).

7 CONCLUSION AND RECOMMENDATIONS

Myers, and Tan (2002) have proposed that IS researchers interested in conducting research on culture and global information systems should adopt a more dynamic view of culture – one that sees culture as contested, temporal and emergent. They proposed a research agenda for global information systems that takes seriously the idea that culture is complex and multidimensional and can be studied at many

different levels. It can be studied at the international (e.g. West vs. East), national, regional, business, and organisational levels of analysis (Fan, 2000), and these levels are often interconnected and intertwined. Redding (1994) says that the comparative management literature as a whole suffers from an excess of simple empirical reportage, and is theoretically weak at the middle and higher levels.

Tayeb (1994), says that the enthusiasm for, and interest in, cross-cultural research has not generally been matched by careful attention to the design and methodologies required to conduct such research. Myers and Tan, (2002) recommend that the IS researchers conduct more in-depth case studies and ethnographies of the relationship between IT and culture in many different parts of the world.

Culture is much more dynamic than has been assumed in much of the comparative management and IS research literature. Myers and Tan, (2002) suggest a research agenda that adopts a more dynamic view of the relationship between culture and global information systems – one that does not simply take culture as given and one which uses appropriate research methodologies to develop thick descriptions of the culture and its impact on IT development, implementation, management and use.

In this paper the author has provided a cultural analytical framework for researchers who aim to study the influence of culture on different phenomena within IS discipline. The author argues that using Structuration Theory would provide in depth analysis of the cultural aspects and assure that researchers do not assume cultural differences or predefined cultural arch-types before investigation take place on the phenomena being studied.

References

- Ali, M. and Alshawi, S. 2004. 'Developing A Structural Approach to Electronic Customer Relationship Management (ECRM)', *Proceeding of EMCIS 2004*, Tunis, Tunisia [CD Proceedings].
- Ali, M. and Brooks, L. 2008 'Culture and IS: National Cultural Dimensions Within IS Discipline', UKAIS08, Bournemouth University, Bournemouth, UK
- Ali, Maged, Brooks, Laurence, and AlShawi, Sarmad 2008, 'Culture and IS: A Criticism of Predefined Cultural Archetypes Studies', AMCIS08, Toronto, Canada
- Beres, O. P., and Portwood, J. D. 1979. 'Explaining cultural differences in the perceived role of work: An international cross-cultural study', In G. W. England, A. R. Negandhi, and B. Wilpert (eds.), *Organizational Functioning In A Cross-Cultural Perspective*, Kent, Ohio: Kent State University.
- Brightman, R. 1995. 'Forget Culture: Replacement, Transcendence, Relexification', *Cultural Anthropology*, 10(4): 509-546.
- Burchell, S., Clubb, C., Hopwood, A. G., Hughes, J., and Nahapiet, J. 1980. 'The Roles of Accounting in Organizations and Society', *Accounting, Organizations, and Society*, 5(1): 5-27.
- Chinese Culture Connection 1987. 'Chinese values and the search for culture-free dimensions of culture', *Journal of Cross-Cultural Psychology*, 18(2): 143-164.
- Davison, R. and Martinsons, M. 2003. 'Guest Editorial, Cultural Issues and IT Management: Past and Present', *IEEE Transactions On Engineering Management*, 50(1): 3-7.
- Delong, D. W., and Fahey, L. 2000. 'Diagnosing Cultural Barriers to Knowledge Management', *Academy of Management Executive*, 14(4): 113-127.
- Dion, K. K. 1985. 'Socialization in Adulthood'. In G. Lindzey and E. Aronson (Eds.), *The Handbook of Social Psychology*, Vol. 2 (3rd edition): 123-147.
- 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.

- Fan, Y. 2000. 'A classification of Chinese culture', *Cross Cultural Management - An International Journal*, 7(2): 3-10.
- Feng, X. 2006. 'A framework for Cultural Influenced Information Systems Management', *The Electronic Journal of Information Systems in Developing Countries*, 23(2): 1-14.
- Ferraro, G. P., 1990. *The Cultural Dimensions of International Business*, Englewood Cliffs, NJ: Prentice-Hall.
- Giddens, A. 1979. *Central Problems in Social Theory*, Macmillan, Basingstock, UK.
- Giddens, A. 1984. *The Constitution of Society*, Polity, Cambridge, UK.
- Giddens, A. 1993.
- Groeschl, S. & Doherty, L. 2000. 'Conceptualizing culture', *Cross Cultural Management - An International Journal*, 7(4): 12-17.
- Herskovitz, M.J. 1955. *Cultural Anthropology*, Knopf: New York.
- Hofstede, G. 1980. *Culture's Consequences: International Differences in Work-Related Values*, Beverly Hills, California: SAGE Publications.
- Hofstede, G. 1984. 'Culture Consequences', Newbury Park, CA: Sage.
- Hofstede, G. 1991. *Cultures and Organizations: Software of the Mind*, McGraw-Hill, New York.
- Hofstede, G. 1998. 'Identifying Organizational Subcultures: An Empirical Approach', *Journal of Management Studies*, 35(1): 1-12.
- Hofstede, G. 2000. *Personal Communication*.
- Ives, B. and Jarvenpaa, S. L. 1991. 'Applications of global information technology: key issues for management', *MIS Quarterly*, 15(1): 33-49.
- Jackson, 1995
- Jermier, J. M. Slocum, J. W. Fry, L. W. and Gaines, J. 1991. 'Organizational Subcultures in a Soft Bureaucracy: Resistance Behind the Myth and Façade of an Official Culture', *Organization Science*, 2(2): 170-194.
- Jones, M. 1999. 'Structuration Theory, in: Currie, W.L. & Galliers, R.D. *Rethinking Management Information Systems*. Oxford: Oxford University Press: 103-135.
- Jones, M. and Nandhakumar, J. 1993. 'Structured development? A structural analysis of the development of an executive information system', in: Avison, D.E., Kendall, J.E. and DeGross, J.I. (Eds.) *Human, Organizational and Social Dimensions of Information System Development*. Amsterdam: North- Holland,
- Jones, M. and Karsten, H. 2003. *Review: Structuration Theory and Information Systems Research*, Research Papers in Management Studies, Judge Institute of Management, University of Cambridge.
- Karahanna, E., Evaristo, J., and Srite, M. 2005. 'Levels of Culture and Individual Behaviour: An Integrative Perspective', *Journal of Global Information Management*, 13(2): 1-20.
- Keesing, R. M. 1974. 'Theories of Culture', *Annual Review of Anthropology*, 3, 73-97.
- Keil, M. Tan, B. C. Y. Wei, K. K. Saarinen, T. Tuunainen, V. and Wassenaar, A. 2000. 'A cross-cultural study on escalation of commitment behaviour in software projects', *MIS Quarterly*, 24(2): 299-325.
- Kirkman, B. L. Lowe, K. B. and Gibson, C. B. 2006. 'A quarter century of Culture's Consequences: a review of empirical research incorporating Hofstede's cultural values framework', *Journal of International Business Studies*, 37, 285-320.
- Leidner, D. and Kayworth, T. 2006. 'Review: A Review Of Culture In Information Systems Research: Toward A Theory Of Information Technology Culture Conflict', *MIS Quarterly*, 30(2): 357-399.
- Leung, K. Bond, M.H. Reimel de Carrasquel, S. Munoz, C. Hernandez, M. Murakami, F. Yamaguchi, S. Bierbrauer, G. and Singelis, T.M. 2002. 'Social axioms: the search for universal dimensions of general beliefs about how the world functions', *Journal of Cross-Cultural Psychology*, 33(3):286-302.
- Leung, K. Bhagat, R.S. Buchan, N.R. Erez, M. and Gibson, C.B. 2005. 'Culture and international business: recent advances and their implications for future research', *Journal of International Business Studies*, 36(4): 357-378.
- Myers, M. D. and Avison, D. E. 2002. *Qualitative Research In Information Systems: A*

- Reader. London, SAGE.
- McCoy, S. 2003. 'Integrating National Cultural Into Individual IS Adoption Research: The Need for Individual Level Measures', *Proceedings of the Ninth Americas Conference on Information Systems (AMCIS) 2003*, Tampa, Florida, USA (CD Proceedings).
- Mead, 1985
- Nadler, D. and Tushman, M. 1988. *Strategic Organization Design*, Scott Foresman and Company, Glenview, IL.
- Nunnally, J. C. 1978. *Psychometric Theory* (2nd ed.), St. Louis: McGraw-Hill, Inc.
- O'Reilly, C. A. and Chatman, J. A. 1996. 'Culture as Social Control: Corporations, Cults, and Commitment', *Research in Organizational Behaviour*, 18, 157-200.
- Orlikowski, W. J. 1992. 'The Duality of Technology: Rethinking the Concept of Technology in Organizations', *Organization Science*, 3(3): 398-429.
- Orlikowski, W. J. 1993. 'CASE tools as organizational change: Investigating incremental and radical changes in systems development', *MIS Quarterly*, 17(3) 309-340.
- Orlikowski, W. 2000. 'Using Technology and Constituting Structure: A Practice Lens for Studying Technology in Organizations', *Organization Science*, INFORMS, 11(4): 404-428.
- 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.J. and Robey, D. 1991. 'IT and the Structuring of Organizations', *Information Systems Research*, 2(2): 143-169.
- Pettigrew, A. M. 1979. 'On Studying Organizational Cultures', *Administrative Science Quarterly*, 24(4): 570-581
- Posner, B. Z., and Munson, J. M. 1979. 'The Importance of Values in Understanding Organizational Behaviour', *Human Resource Management*, 18(3): 9-14.
- 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.
- Redding, S. G. 1994. 'Comparative management theory: Jungle, Zoo or Fossil Bed?', *Organization Studies*, 15(3): 323-359.
- Riis, M. A. 1997. 'The Information Welfare Society: An Assessment of Danish Governmental Initiatives Preparing for the Information Age', *National Information Infrastructure Initiatives Vision and Policy Design*, Cambridge, Massachusetts, and London England, MIT Press: 424-456.
- Sackmann, S. A. 1992. 'Culture and Sub-Cultures: An Analysis of Organizational Knowledge', *Administrative Science Quarterly*, 37(1): 140-161.
- Schein, E. H. 1985. *'Organizational Culture and Leadership'*, Jossey-Bass, San Francisco, CA.
- Schwab, D. P. 1980. 'Construct validity in organizational behaviour', In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behaviour*, JAI Press: 2, 3-43.
- Shore, B., and Venkatachalam, A. R. 1994. 'Prototyping: A metaphor for cross-cultural transfer and implementation of IS applications', *Information & Management*, 27, 175-184.
- Shweder, R.A and Levine, R.A. 1984. *Culture Theory: Essays on Mind, Self and Emotion*, Cambridge University Press: New York.
- Smith et al. 2002
- Stahl, B. C. 2003. 'Cultural Universality Versus Particularity In CMC', *Proceedings of the Ninth Americas Conference on Information Systems (AMCIS) 2003*, USA (CD Proceeding).
- Straub, D. 1994. 'The Effect of Culture on IT Diffusion: E-Mail and Fax in Japan and the U.S', *Information Systems Research*, 5(1): 23-47.
- Straub, D. Loch, K. Evaristo, R. Karahanna, E. and Srite, M. 2002. 'Toward a Theory-Based Measurement of Culture', *Journal of Global Information Management*, 10(1): 13-23.
- Tan, B. C. Y. Watson, R. T. and Wei, K. K. 1995. 'National culture and group support systems: Filtering communication to dampen power differentials', *European Journal of*

- Information Systems*, 4, 82-92.
- Tayeb, M. 1994. 'Organizations and national culture: Methodology considered', *Organization Studies*, 15(3): 429-446.
- Tractinsky, N. and Jarvenpaa, S. L. 1995. 'Information systems design decisions in a global versus domestic context', *MIS Quarterly*, 16(4): 507-534.
- Triandis, H. C. 1980. 'Introduction to Handbook of cross-cultural psychology', In H. C. Triandis & W. W. Lambert (Eds.), *Handbook of Cross-Cultural Psychology: Perspectives*, 1, 1-14, Boston: Allyn & Bacon.
- Triandis, H. C., 1972. *The Analysis Of Subjective Culture*, New York: John Wiley & Sons.
- Walsham, G. 1993. *Interpreting Information Systems In Organizations*, Wiley & Sons, Chichester.
- Walsham, G. 1995. 'Interpretive case studies in IS research: nature and method', *European Journal of Information Systems*, 4(2), 74-81.
- Walsham, G. 2001. *Making a World of Difference: IT in a Global Context*, Wiley, Chichester, UK.
- Walsham, G. 2002. 'Cross-Cultural Software Production and Use: A Structural Analysis', *MIS Quarterly*, 26(4): 359-380.
- Walsham, G. 2006. 'Doing Interpretive Research', *European Journal of Information Systems*, 15, 320-330.
- Walsham, G. and Han, C.K. 1991. 'Structuration Theory and Information Systems Research', *Journal of Applied Systems Analysis*, 17, 77-85
- Watson, R. T. Ho, T. H. and Raman, K. S. 1994. 'Culture: A fourth dimension of group support systems', *Communications of the ACM*, 37(10):44-55.
- Weisinger, J. Y. Salipante, P. F. 2000. 'Cultural Knowing as Practicing: Extending Our Conceptions of Culture', *Journal Of Management Inquiry*, 9(4): 376-390.
- Weisinger, J. and Trauth, E. 2002. 'Situating Culture in the Global Information Sector', *Information Technology & People*, 15(4): 306-320.
- Weisinger, J. and Trauth, E. 2003. 'The Importance of Situating Culture in Cross-Cultural IT Management', *IEEE Transactions on Engineering Management*, 50(1): 26-30.