CULTURAL LEARNING IN THE HOSPITAL SECTOR: AN INVESTIGATION OF THE BRIEFING PROCESS IN STRATEGIC FACILITIES MANAGEMENT

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Facilities Management is an emerging field of study that is characterised by calls for a stronger strategic role. This new positioning of the Facilities Management profession requires an ability to learn about a customer's business at a cultural level. To this end, this paper uses Nonaka's theory of Knowledge Creation to explore cultural learning during the briefing process of a hospital project. Using this model, the briefing process is portrayed as cyclical one where actors converge upon shared meaning. This is in contrast to traditional linear models of the briefing process. The paper concludes with a methodology to explore cultural learning in the health sector based on Laukkanen's Comparative Causal Mapping.

Keywords: Hospital Briefing; Cultural Learning; Facilities Management; Hospital; Knowledge Creation

INTRODUCTION

Facilities Management plays an increasingly prominent role in the construction process, largely because of the emergence of Public Private Partnership and Private Finance Initiative procurement systems. These shift many life-cycle risks from the public to the private sector and have created the impetus to move Facility Managers into a more proactive strategic role.

Managing strategically is a complex task which involves aligning the use of an organisation's non-core assets with core organisational objectives (Atkin and Brooks, 2000; McGregor and Then, 1999; Alexander, 1996; Tay and Ooi, 2001). This requires an understanding of an organisation's operating environment and an ability to respond to shifts in it (Alexander, 1996; McGregor and Then, 1999). It also requires an intimate understanding of an organisation's culture, priorities and objectives (Nutt, 2000; Atkin and Brooks, 2000; Alexander, 1996; Amaratunga and Baldry, 2002; Payne, 2000; Smith, 2003). *Learning* therefore lies at the heart of the strategic management process (Viljoen and Dann, 2000).

During a project, the early strategic briefing process provides the best opportunity to learn about an organisation's environment and culture (Kelly et al 1992). For this reason, the aims of this paper are to:

- To investigate the types of knowledge learnt during strategic briefing
- To investigate the extent to which culture is learnt in the strategic briefing
- To investigate the process by which culture is learnt in strategic briefing

- To investigate the factors that impede the process of cultural learning in strategic briefing
- To develop a model which depicts the process of cultural learning in strategic briefing

ORGANISATIONAL CULTURE AS KNOWLEDGE

Organisational culture broadly refers to a collective way in which organisational members behave, or perceive, process, and structure information or problems (Hofstede, 1994). It refers to the shared mindset, shared meanings, or shared cognition (Hall, 1997; Daft and Weick, 1984) among those people. Culture provides the basis for members to make sense of social and organisational information and is best seen as a form of organisational knowledge (Sackmann, 1992; Finney and Mitroff, 1986). Sackmann (1992) has studied this "cultural knowledge" and has differentiated it into four categories based on its role in processing organisational information. These categories are:

1. *Dictionary knowledge* - which refers to the labels used to describe or name things or events. Pawlowsky (2001) refers to this knowledge as the answer to the "what" questions in an organisation.

2. *Directory knowledge* - which refers to the explanations about an event structure. Pawlowsky (2001) refers to this knowledge as the answer to the "how" questions in an organisation.

3. *Recipe knowledge* - which refers to the "lessons" in the form of prescription or repair of problems. Pawlowsky (2001) refers to this knowledge as the answer to the "what-should-be" questions in an organisation

4. *Axiomatic knowledge* - which refers to the reasons for the causation of events. Pawlowsky (2001) refers to this knowledge as the answer to the "why-things-are-done-the-way-they-are " questions in an organisation.

Sackmann (1992) argued that these four types of cultural knowledge do not exist in isolation but form an integrative and interconnected gestalt that manifests itself as a a cognitive map in individuals and cognitive culture map in groups. It is however, important to note that cultural knowledge cannot easily be isolated, as it lies embedded within the thoughts and actions of the organisational members. Indeed, it may not be obvious to either themselves or observers (Finney and Mitroff, 1986). This knowledge resides in the mind of organisational members, and is in a form of "tacit" knowledge (Nonaka, 1998). Tacit knowledge, unlike explicit knowledge, cannot be put on paper or formulated in sentences. It is often very difficult to describe to others. While tacit knowledge may seem somewhat mysterious, it is argued to be the source for knowledge (Nonaka, 1998). It is the type of knowledge that Facility Managers need in order to enhance their strategic competence.

CULTURAL LEARNING

For Facilities Managers to understand and elicit cultural knowledge, they need to go through a process of "cultural learning". Learning generally refers to as the process of improving actions by gaining knowledge (Fiol and Lyles, 1985). Cultural learning, therefore, refers to the process in which the tacit cultural knowledge is obtained. The implications of this definition are twofold – firstly, it focuses on cultural knowledge as

the product of learning, and secondly, it emphasises learning as a process rather than an event.

THE PRODUCT OF CULTURAL LEARNING

The product of cultural learning is a broader knowledge base (Bood, 1998), a more varied interpretations of information among members (Huber, 1991), and a diverse set of assumptions and beliefs (Fiol, 1994) that are agreed by members of the organisation. In other words, the change resulting from learning need not be visibly behavioural, but the focus of change is the cognitions (or understanding) of the organisational members, where they develop a *uniform* understanding of the various interpretations – or a *shared* cognition. This concept of cultural learning is similar to Argyris and Schon's "double-loop" learning which results in new cognitive frameworks which change what organisational actors believe (ie. norms, assumptions, rules) – rather than what they do (Argyris and Schon, 1996; Fiol and Lyles, 1985).

THE PROCESS OF CULTURAL LEARNING

Cultural learning is a process in which information is being processed and turned into cultural knowledge. This type of learning is intentional and that it requires a deliberate strategy (Baumard, 1999; Dutrenit, 2000). However, since organisations are not merely machines for information processing, the process of turning information into knowledge is not straightforward. For example, knowledge-creation theory indicates that knowledge can be present in both explicit and tacit form (Von Krogh et al, 2000). It also assumes that knowledge creation depends on the situation and people involved rather than on absolute truth or hard facts (Von Krogh et al, 2000). It argues that effective knowledge creation depends on the social context, which is the shared situation that fosters interpersonal relationships.

CONCEPTUAL FRAMEWORK

Nonaka's knowledge creation model is a valuable vehicle to investigate the process of cultural learning by facility managers during the briefing process. Nonaka et al (2001) argues that knowledge is created through a continuous and dynamic interaction between tacit and explicit knowledge. This is particularly relevant to the briefing process because it is here that the tacit cultural knowledge about client's organisation should be converted to explicit knowledge, enabling it to be shared among briefing process participants.

Nonaka's model of knowledge creation consists of four processes: *socialisation, externalisation, combination* and *internalisation*. The model is also known as the SECI model. The first stage of SECI model is the socialisation process where tacit knowledge is brought together through shared experiences. Secondly, externalisation is the process of articulating tacit knowledge, where tacit is turned into explicit knowledge. This is the stage where members create new explicit concepts from tacit knowledge to be shared to others. In the briefing context, this is when briefing participants interpret the tacit cultural knowledge, *articulate* it, and make it explicit. This process occurs as the facility managers externalise cultural knowledge by developing a facility brief. Thirdly, combination refers to the process of connecting discrete elements of explicit knowledge into a set of explicit knowledge that is more complex – by adding, combining, categorising a number of explicit knowledge. It can also include the 'break-down' of concepts into simpler ones. The last stage of the SECI

is the internalisation process where explicit knowledge is made tacit by embodying it into larger tacit knowledge bases, or to the existing mental models. These four processes form a dynamic spiral of knowledge creation in which the next spiral is set off by sharing the embodied tacit knowledge with others through the next socialisation process. Figure 1 depicts a synthesis of SECI model of knowledge creation and the Facilities Management briefing process.
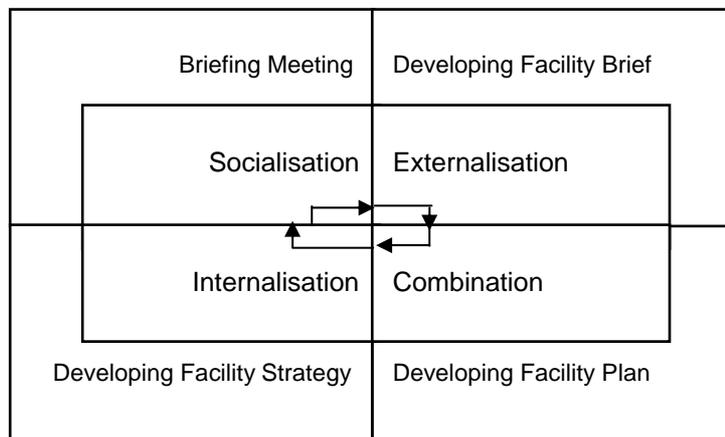

Figure 1: Model of Briefing as a Process of Knowledge Creation

Within the context of briefing, the socialisation process represents the process where briefing participants first meet and *accumulate* cultural knowledge, which is often through a formal briefing meeting. The briefing participants then interpret the accumulated tacit cultural knowledge, *articulate* it, and make it explicit through the second process of externalisation. This process occurs as the facility managers externalise cultural knowledge by developing a facility brief. The third stage is the combination process, where the briefing participants *connect* cultural knowledge with other explicit knowledge and/or more technical knowledge. The explicated cultural knowledge is now combined with other technical knowledge in the form of facility plans. In the last process of internalisation, briefing participants *integrate* the explicated cultural knowledge into their knowledge base by making it tacit, by embodying the knowledge as part of the organisational knowledge base. This is particularly relevant to the process of developing a facility strategy as a facility solution for the clients. These briefing stages reflect a cyclical process in which the next cycle of briefing sets off by sharing the suggested facility solution in the following formal meeting.

PROPOSITIONS

In the socialisation stage of the SECI process, the sharing of tacit cultural knowledge can be effectively achieved through close working relationships and through extensive conversations among briefing participants (Von Krogh et al, 2000). However, Kelly et al (1992) noted the lack of provision for sufficient briefing time as the client is often anxious to proceed as quickly as possible. As a result, decisions are often made without proper consultation, resulting in an inappropriate identification of client's needs. This is particularly relevant in hospitals because of deeply imbedded stereotype roles and relationships which impede the idea of working collectively (Mintzberg, 1997) and allow physicians to dominate the process of decision making.

Externalisation refers to the process where tacit knowledge is converted into an explicit form by interpretation. In a cultural context these interpretations need to be agreed by all briefing participants despite being varied. However, it is likely that different occupational cultures will result in different interpretations of client needs (Loosemore and Tan 2000). Furthermore, Kelly et al (1992) noted that external consultants involved in the briefing process often face problems in interpreting clients' needs. It is likely that this would be especially problematic if those consultants have never worked with the client before because they would not understand their business environment, business objectives and internal culture (Kipping and Armbruster, 2002). As a result, the explicit cultural knowledge may be inappropriately combined, in the penultimate stage of the SECI process, with other explicit expert knowledge. The ultimate result is that the project team fail to internalise the client's needs (the final stage of the SECI process) and produce an inappropriate solution to the client's needs.

For the above reasons, it is proposed that that:

- In the socialisation process, the focus of interaction is not on the cultural knowledge.

- In the externalisation process, Facility Managers do not articulate cultural knowledge.

- In the combination process, Facility Managers do not integrate cultural knowledge with other explicit knowledge.

- In the internalisation process, there is a minimal cultural knowledge to internalize.

RESEARCH METHOD

At a fundamental level, there are three issues to be resolved in order to determine the best research method for the issues of cultural learning:

- The method must be able to deal with the tacitness of cultural knowledge

- The method must be capable of tracing, over time, the changes between each stage of the SECI process (refer to Figure 2 *Analysis 1*).

- The method must provide a basis for comparison of knowledge creation processes between hospital stakeholders and facility managers at a group level (refer to Figure 2 *Analysis 2*).
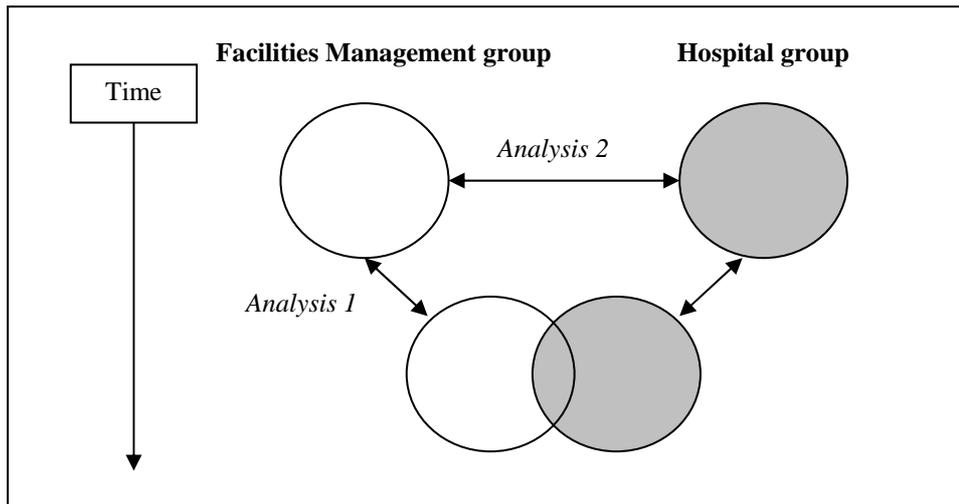
Figure 2: Framework for data analysis

Collecting data about tacit cultural knowledge presents a major challenge because tacit knowledge is not readily observable, and it resides in people's mind. While there are some debates about the best method to collect this tacit knowledge, we employ the cognitive methodology of cause mapping because this enables representation of changes in an individual's cognitive structures, which mirror underlying learning processes. More specifically, this method is useful to operationalise Nonaka's SECI model in two ways, namely; the *externalisation* stage (the process of converting tacit cultural knowledge to explicit forms) and *combination* stage (the integration of cultural knowledge with other explicit knowledge). This is discussed further below.

A cause map consists of causal links between concepts which individuals use to understand organisational situations (Weick and Bougon, 1986). Concepts represent the results of people externalising their tacit knowledge about a situation and the causal links refer to people's beliefs about the connections / relationships of that particular situation. While causal mapping has been used extensively, it has not been widely used in a comparative context. That is, it has not been widely used to compare one person's cognitive map with another's to identify any congruence or divergence over time, which reflect some degree of learning. However, a method of Comparative Cause Mapping has been developed by Laukkanen (1996) to compare and contrast causal maps. Comparative Causal Mapping produces text-oriented description of the thinking patterns for different respondents and also provides a clear guide for data collection and analysis which includes:

- A schedule for data collection - This consists of methods to elicit key concepts through interviewing several respondents.

- A systematic analysis of the data - It incorporates method for distilling interview data through an interpretive standardisation of individual natural discourses

- Analytical software CMAP2 - It refers to a database system to distil standard concepts and causal links, which are necessary for the construction of cause maps

DATA COLLECTION

Using a longitudinal approach, the Comparative Causal Mapping method focuses on collecting natural verbal data that emerge from unstructured and semi-structured interviews. In Laukkanen's study, three interviews were conducted over a period of time, each of which lasted for 3 hours. The length of time spent in this set of interviews is, as Laukkanen indicates, focused on attempts to elicit the general concepts of respondents. This is, however, found to be unnecessary in the Facilities Management briefing process, as the formal briefing meeting provides the context in which there are self-emerging concepts. These concepts represent the key topics that are important to the participants, and are therefore discussed in the meeting. Consequently, it is not necessary to prove their relevance and centrality to all participants in the briefing. The self-emerging concepts thus form a set of predetermined concepts upon which the following method for data collection is developed.

The implications of adapting Laukkanen's model are that the use of a set of predetermined concepts poses a methodological problem of reducing the richness or accuracy of the respondents' beliefs. This, however, is not a problem because it is not intended to be exhaustive in eliciting the information about the concepts and their causal relations. Rather, it focuses on identifying relevant concepts and their causal links to locate any occurrence of cultural learning.

The technique has been adapted to fit the briefing context. In particular, there was a significant reduction of interview period to forty five minutes. Within a hospital context, forty five minutes is considered as a realistic aim to interview stakeholders in planning decisions. In particular, those whose nature of work deals with cases of emergencies are unable to provide long periods of time for interviews. Secondly, because concepts are predetermined, the interviews are semi-structured, with questions that are designed to elicit answers around those concepts.

In order to maximise the data collection, a triangulation approach is also used which includes observation and archival data. During observations, the researcher looks for relevant concepts and causal expressions during briefing meetings and records those meetings. From archives, the researcher also focuses on finding similar data. While this method has been argued to be an ineffective data collection method in qualitative research, archival data is appropriate in the hospital context; being large organisations, issues are often formally managed through formal written documents rather than oral and memory-based communication.

ANALYSIS

Coding represents a large portion of data analysis. Recorded data from interviews and meetings are transcribed to produce text-based data, which are then coded and incorporated into maps. Similarly the coding of data also applies to archived documents. The process of coding involves standardisation of data inputs, where similar concepts and causal relations are being combined to represent one data. While Laukkanen argues that the reduction of large data is useful for solving the issue of manageability of large data, Jenkins (1998) has argued that that data reduction is post hoc, which ultimately questions the reliability of standardisation process (as is the case with content analysis). To minimise the problem, this research allows for respondents validation of final maps.

CMAP2 SOFTWARE

Laukkanen (1996) suggests the use of CMAP2, a computer application designed specifically for comparative cause mapping processing tasks. CMAP2 is a text- and database-oriented program which is designed to handle causal units or concepts where one thing is a "cause" and the other an "effect". It helps to examine what is shared or not-shared in the ideas of respondents. It also examines what has (or has not) changed in the thinking of a person or a group over a period of time. Finally, it enables the locating of thoughts that are more or less similar or dissimilar among respondents. More importantly, this database method has proved useful for quick information retrieval and effective data organisation.

CONCLUSION

This paper has explored the process of cultural learning within the hospital sector. The objective was to report research which is developing a model that portrays briefing as a cultural learning process. The basis of this model is Nonaka's SECI model. In particular, the model allows this research to investigate whether tacit cultural knowledge is learnt during strategic briefing meetings. It also enables the research to identify the factors that influence the learning process in strategic Facilities Management briefing, which is substantiated through interviews and document archives. Furthermore, Comparative Causal Mapping method will inform of the extent to which cultural knowledge is learnt by comparing the maps between respondent groups. The achievement of the research objectives will help Facility Managers to better understand their customer's organisational culture and thereby make the strategic briefing process more effective. As a result, facility managers can be more sensitive and thus receptive to cultural issues.

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