

# Knowledge Sharing Behaviour in the Public Sector: the Business Process Management Perspectives

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## ABSTRACT

*The purpose of this paper is to demonstrate the preliminary analysis on the knowledge sharing behaviour of the public sectors in terms of individual attitudes, organisational environment, reward system and information and communication technology (ICT) within the system. The paper looks into the perspective of business process management which embedded in a knowledge sharing behaviour. This research-in-progress intends to use both quantitative and qualitative methods (triangulation) because we believe that it will be appropriate to answer the research questions better. In the Phase One, consists of the questionnaire that uses to measure perceptions, beliefs, reactions, and attitudes related to knowledge sharing. The unit of analysis using middle to senior management in the public sector as knowledge is said to be captured more systematically at this level. Phase Two will be carried out after analysis of data from the questionnaire survey is completed. The researcher intends to undertake an in-depth exploration of issues arising from Phase One. Hence a semi-structured interview will be carried out with small group of people. Top management officials will be selected from within the same sample for this exercise. The research design in this study hopefully will answer all the research questions significantly. The preliminary findings will provide a basis for proposing a structured framework for further data collection and analysis.*

## Keywords

*Knowledge Management, Process Management, Knowledge Sharing*

## 1.0 INTRODUCTION

### 1.1 Importance of Knowledge Management (KM)

The basis for competition has shifted in recent years towards how well knowledge and other intellectual assets are focused on reducing costs, increasing speed, and meeting customer needs (O'Dell, Wiig, and Odem, 1999). Organizations worldwide thrive on successful management of this knowledge (Skyrme & Amidon, 1997; Davenport & Prusak, 1998), which has a direct relationship to the organization's ability to survive, adapt and compete in a competitive environment (Leonard, 1995). It is thus not surprising that knowledge is considered to be the only meaningful economic resource in any organization (Drucker, 1995; Blumentritt & Johnston, 1999). In order to support successful knowledge management, processes by which organizational knowledge is created or acquired, communicated, applied and utilized must thus be strategically managed.

Previous literature on knowledge management have attempted to explain KM efforts. Nonaka and Takeuchi (1995), for example, classified knowledge into tacit (non-codifiable) and explicit knowledge (codified forms such as books, manual, knowledge databases etc). They argued that tacit knowledge can be converted into explicit knowledge through activities such as socialization, externalisation, internalisation, and combination. Nonaka and Takeuchi called their model the Knowledge Creation Spiral, because the knowledge conversion cycle completes, but at a higher

level and this is said to create new knowledge. The Skandia model (Roos & Roos, 1997; Lank, 1997) treats knowledge as the intellectual capital in an organization which comprises of the human capital (human and customer) and the structural capital (innovation and process). Intellectual capital is considered as a tangible asset. The model also emphasise the measurement elements. Meanwhile, the knowledge value chain (Shin et al., 2001), defines knowledge processes as knowledge creation; storage; distribution and knowledge application underlying an organization's vision and strategy. Demarest's model on knowledge management (1997), emphasised knowledge construction, embodiment, and dissemination through knowledge sharing activities, such as forums and seminars. The frameworks discussed above emphasise on knowledge being located within the human body and the importance of the processes by which knowledge is being utilized within the organization. Knowledge is created and stored in the heads of employees and thus considered tangible assets and must be managed. Knowledge can be converted from the tacit form to a more sharable explicit form. Hence organizations must manage their knowledge assets to be able to utilise them for the organization's competitive advantage.

## **1.2 Importance of Knowledge Sharing**

Knowledge sharing forms the basis of any knowledge management program. Knowledge increases when it is shared (Nonaka & Takeuchi, 1995; Kelleher et al., 2001; Halal, 1997). The ability to share knowledge, ideas, perspectives or solutions among collaborators, represents possibly the greatest strategic advantage any organization can achieve. For non-profit organizations, such as the government, knowledge sharing represents the means for continuous performance improvements, and this is thought to result in increased customer and employee satisfaction (Pan & Scarbrough, 1999).

Knowledge sharing is a human behaviour that is deemed critical to the organization (Ives, Torrey, & Gordon, 2000). Two different aspects determine a human behaviour: the private self and the public self (Carver and Scheier, 1985). The private self is the individual self and the internal processes that make or influence the behaviour.

### **1.2.1 Individual Attitudes**

Individuals carry with them learned behaviours accumulated from years of experience that either promote or inhibit effective knowledge sharing. Bock and Kim (2002) argued that a person may be encouraged to share if he or she feels that by sharing will bring about an increase in association with other members of the organization. Similarly, knowledge sharing may also happen if the individual believes that the act of sharing would contribute substantially

towards the performance of the organization. Another factor which will impact knowledge sharing was found to be rewards and incentives. However Bock and Kim did not find this factor to be significantly related to knowledge sharing attitude. The level of IT usage was expected to have a significant effect on knowledge sharing, as was supported by literature (Davenport, 1997), but surprisingly did not (Bock & Kim, 2002).

### **1.2.2 Organizational Environment**

Intention to share knowledge is also affected by the surrounding environment and thus influence or create pressure to share knowledge. In Bock and Kim's (2000) model, four constructs were put forth; autonomy, affiliation, innovativeness, and fairness. Taylor (2002), in a survey on health partnerships in the United Kingdom, found six constructs which he argued to significantly bring about effective knowledge sharing in an organization. They are innovative culture, information quality, vision, perceived fairness, feeling of autonomy, and learning culture. This research will look into these factors among others to determine the organizational antecedents that influences employee behaviour towards knowledge sharing.

### **1.2.3 Knowledge Type**

People within organizations share knowledge whether technological (codifiable) or experiential (non-codifiable) for perpetual innovations and continual performance improvement (Government of Malaysia, 2001). Knowledge can be tacit or explicit (Nonaka & Takeuchi, 1995). Tacit knowledge is the ingrained knowledge situated in the deep recesses of the human mind and is non-codifiable while explicit knowledge is knowledge that has been codified into forms such as books, manuals, knowledge databases etc. Knowledge changes from tacit to explicit and vice versa through the knowledge creation spiral. Polanyi (1966) on the other hand, defined another category of knowledge, implicit knowledge which is 'knowledge which is able to be expressed in verbal, symbolic or written form, but not expressed yet'. According to Polanyi, tacit knowledge cannot be shared, but implicit and explicit can. This research will look into the implicit and explicit knowledge and how such knowledge affect the knowledge sharing behaviour in organizations .

## **1.3 KM in Public Sector organizations**

Literature has shown that most research and practical application studies have been done in large private sector organizations, with relatively little information about knowledge management in the public sector (McAdam & Reid, 2000). It is not surprising, however, as public services tend to be traditionally slower compared to the private sector and are just beginning to recognize the importance of knowledge management (Taylor, 2002). KM has been pervasive

in the private sector because, unlike the public service, the private sector, is continually looking for ways to increase their profit margins and sustain their growth and competitive advantage within their own markets. Knowledge management in the public services can be said to be at its infancy stage and therefore warrant this research.

#### 1.4 Business Process Management perspectives on Knowledge Management

Davenport and Short (1990) defined business processes as "...a set of logically related tasks form to achieve a defined business outcome... A set of processes forms a business system – the way in which a business unit, or a collection of units, carries out its business..." Hammer and Champy (1993) defined it as "a set of activities that, taken together, produces a result of value to a customer". In addition, a definition given by Malhotra (1998) is that business process is "...identified in terms of beginning and end points, interfaces, and organization units involved, particularly the customer unit". Since the processes normally occur across or between organisational subunits, they should be managed well. Therefore, business process management concerns about how processes are managed in the organisation. It also dictate the flow of information through an organisation and calls for an understanding of how information is transferred to knowledge and shared along the way through the organization (Maull et al, 2003). Therefore, the management of business processes especially on the coordination mechanism considered as a knowledge context.

### 2.0 RESEARCH OBJECTIVES

The objectives of this paper are as follows:

- a) To examine the level of knowledge sharing behaviour in terms of individual attitudes of public sector employees.
- b) To identify the level of knowledge sharing behaviour in terms organizational environment of employees within the organization;
- c) To examine the level of knowledge sharing behaviour in terms reward systems in the organization; and
- d) To explore the relationship between knowledge sharing behaviour and knowledge sharing.

### 3.0 RESEARCH METHODOLOGY

Triangulation is an approach in which multiple observations, theoretical perspectives, sources of data and methodologies are combined (Bryman, 1996). These multiple methods offered by triangulation are said to enhance the interpretability of the data obtained (Jick, 1979). Moreover, triangulation can provide a means of validating sources of information against each other, and thus reveal insights that may not be

evident from one data source (Easterby-Smith, 1993). This research will use the triangulation method because the researcher believes that a mix of both quantitative and qualitative methods will be help to answer the research questions better. It will also be able to offset the weaknesses of one method against the strengths of the other, as different styles of research is said to complement each other (Miles and Huberman, 1994; Sieber, 1973; Silverman, 1985). This research will use both quantitative and qualitative methodologies.

Specifically, quantitative methods allow measurement of perceptions, reactions, and attitudes of a large sample through the use of a set of questions. This facilitates comparison and statistical aggregation of data (Sekaran, 2000). According to Glaser and Strauss (1968), a quantitative methodology involves developing systematic procedures to test, prove and verify hypotheses. It uses predetermined response categories by means of standardised data collection instruments in order to enable statistical techniques to be used to assist in the interpretation of the data. Meanwhile, May (1997) emphasised that a good survey research is one that follows a common process in the testing and development of a theory whereby a hypothesis will be formed that might aim to show causal relationship between variables.

By contrast, qualitative research is more concerned with understanding how things happen, and how they are related, rather than measuring the relationships between these variables (Gordon and Longmaid, 1988). The purpose of qualitative data is to provide meaningful insights and perspectives through the eyes of the actors being investigated (Bryman, 1996). According to Sekaran (2000) qualitative method produces detail information about a small number of cases, thereby increasing the depth of understanding of the issue being studied, but reduces generalisability.

The survey is carried out on a sample chosen through a sampling procedure so that the results obtained will allow the production of statistics that are representative to the whole study population. The unit of analysis was middle to senior management in the public sector as knowledge is said to be captured more systematically at this level (McAdam and Reid, 2000).

### 4.0 PRELIMINARY FINDINGS

The first phase of the data collection focuses only on the descriptive analysis before we proceed to a more advance analysis to answer all the research questions. Table 1 shows the results on these, with a maximum possible a mean score of 5.00, which used a Likert scale ranging from 1 to 5 (from '1=strongly agree' to '5=strongly disagree').

Table 1: Mean scores for knowledge sharing behaviour

Knowledge Sharing	Mean	Std. Deviation
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Behaviour		
Individual Attitude	2.15	0.4529
Organisational Environment	2.76	0.3483
Reward Systems	2.62	0.3355
ICT	2.53	0.6826

The respondents rated the most favourable score for the Individual Attitude dimension, with a mean score of 2.15, followed by ICT (2.53). After that, the dimension of Reward Systems showed a mean score of 2.62, whereas Organisational Environment was 2.76.

The relationship between the Knowledge Sharing Behaviour dimensions and the Knowledge Sharing as shown in Table 2. The results suggest that the relationship between Individual Attitude and Knowledge Sharing (Correlation= 0.547,  $p=0.000$ ), Organisational Environment (Correlation= 0.547,  $p=0.000$ ), Reward Systems (Correlation= 0.547,  $p=0.000$ ), ICT (Correlation= 0.547,  $p=0.000$ ) are statistically significant.

Table 2: Correlations between knowledge sharing behaviour and knowledge sharing

Dimensions of Knowledge Sharing Behaviour	Knowledge Sharing	
	Pearson Correlation	Sig. (1-tailed)
Individual Attitudes	0.547	0.000
Organisational Environment	0.193	0.000
Reward Systems	0.313	0.000
ICT	0.507	0.000

## 5.0 DISCUSSIONS AND CONCLUSIONS

Results from this preliminary analysis suggest that all the dimensions contributed to the knowledge sharing environment in the public services in Malaysia, and not surprisingly that individual attitude contributes much on this. This is in line with the framework proposed by Bock and Kim (2002) on knowledge sharing behaviour, a person's behaviour is determined by his or her intention to engage in knowledge sharing. Intention is further determined by a person's attitude and the organizational pressure. However, the questions of 'how' and 'why' hopefully will be answered further and in-depth, in the second phase of this research.

For organizations to stay ahead of their competition, they must be able to exploit the internal knowledge that resides within the human memory of their skilled employees. To convert individual knowledge into organizational knowledge, individuals must consciously undertake the task of sharing. Knowledge sharing is not a natural behaviour and must be cultivated. Organizations then must provide the means for such a behaviour to be instilled within its employees in the organization.

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