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AN INVESTIGATION TO CAUSES AND CONSEQUENCES OF IS OPERATIONAL MISALIGNMENT IN CHINESE SOE GROUP

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Abstract:

IS strategic alignment has consistently been at the forefront of information systems researchers' and practitioners' concerns since the seminal paper by Henderson and Venkatraman in 1993. However, scholars have focused more on strategic level alignment. As one of the important perspectives in IS strategic alignment, IS operational alignment are not paid enough attention in the research. This paper investigates operational alignment issues in a Chinese multinational state-owned company. The base research design for the study uses a rigorous Strauss and Corbin grounded theory approach, that consisted of 41 semi-structured interviews in 7 different company branches located in different provinces of China. Based on this study, the IS operational misalignment situations are identified. Furthermore, the causes and consequences of the misalignment situation are further investigated in this Chinese SOE group.

Keywords:

IS strategic alignment, Chinses SOEs, IS operational skills

1. Introduction

IS strategic alignment has been studied in extensive research over 30 years (Luftman et al., 2015; Gerow et al., 2014). The alignment of business strategy and IT strategy is required for effective and efficient utilization of information technology (Luftman et al., 1993). The fundamental importance of alignment for organizational effectiveness is repeatedly highlighted in the information systems' literature (Tallon & Kraemer, 1998). The strategic alignment model developed by Henderson and Venkatraman (1993), which was first published in the IBM Systems Journal in 1993 is recognized as the seminal model that interprets the concept of business-IT alignment (Coltman et al., 2015). Although there are continuing developments of business-IT alignment concepts in the following studies (Gerow et al., 2014; Baker et al., 2011; Begeron et al., 2004; Sabherwal et al., 2001; Maes et al., 2000), few research has paid attention to

further explorations of operational alignment. This paper aims to investigate operational alignment situations and their causes and consequences in Chinese SOE group. The reason we chose this feature is related to the Chinese SOE context, which will be discussed in the following section.

2. Research context

As a leading economic component in China, Chinese government has given much attention to computerization of state-owned enterprises (SOE). The fact that IS implementation is decided by the national strategy rather than organizational strategy or business requirements indicates the necessity and importance to investigate the IS strategic alignment in Chinese SOE. Moreover, SOEs in China face very special political, economic and cultural environment associated with massive social responsibilities. Firstly, Chinese SOEs are operating in special Socialist Market Economy environment in China. There is no clear theory or ready model to copy in practice about what Socialist Market Economy is exactly meant (Fan, 1998). Secondly, three resources influence the modern Chinese culture, including Confucianism, communism ideology and Western values (Fan, 1998). With a long history, special political stance and recent open environment, Chinese SOEs are facing diversified cultural environment. Thirdly, with a consistent growth of economy at an average annual growth rate nearly 10% in the last three decades, China now is in a fast-developed economy comparing with the western developed countries.

3. Literature review

The concept of IS strategic alignment is presented in a series of strategic alignment model. The most widely-used strategic alignment model was designed by Henderson and Venkatraman in 1993. In their model, operational or internal alignment refers to the link between organisational infrastructure and IT infrastructure and processes (Gerow et al., 2014; Henderson & Venkatraman, 1993). Maes et al. (2000) clarified the operational alignment defined in Henderson and Venkatraman (1993) as structural alignment and operational alignment. The operations level involves specific IS operational skills. Maes (2000) and Henderson and Venkatraman (1993) all considered strategic alignment as a continuous process. Viewing alignment as a process provides a path to study strategic alignment dynamically (Galliers et al. 2004). The following research that has developed the conceptual understanding of IS strategic alignment has a trend to focus on the investigation of dynamic alignment (Vessey and Ward, 2013; Benbya and McKelvey, 2006; Sabherwal et al, 2001). Considering alignment as a dynamic process, this paper explores the operational alignment in a changing environment.

4. Methodology

This study investigated the IS operational alignment issues in Chinese SOEs. A

combination of case study and grounded theory strategies is used in the research. Grounded theory aims to investigate the actualities in the real world and build theory from discovering the concepts grounded in the data. The adoption of grounded theory needs context, and case study provides the context for using grounded theory. This research project selected a state-owned enterprise and focused on the headquarters in Beijing that is mainly responsible of management and original seven manufacturing branches since the research institute has no producing function. These seven branches are geographically dispersed in six provinces including Shanxi, Shandong, Henan, Guizhou, Guangxi and Qinghai in China. Data collection adopted semi-structured interviews as the tool. Interviews were conducted in Mandarin Chinese and the duration was from 40 to 60 minutes in general. All interviews were recorded with a digital recorder. The digital recordings were transcribed into Word files and then assigned into Nvivo for data analysis. In this project, a total of 41 interviews were conducted following the theoretical sampling strategy. The data collection was stopped when it was perceived that the theoretical saturation had been achieved.

5. Findings and discussions

This section aims to present and discuss poor IS skill caused strategic misalignment and its causes and consequences, as seen in Figure 1.

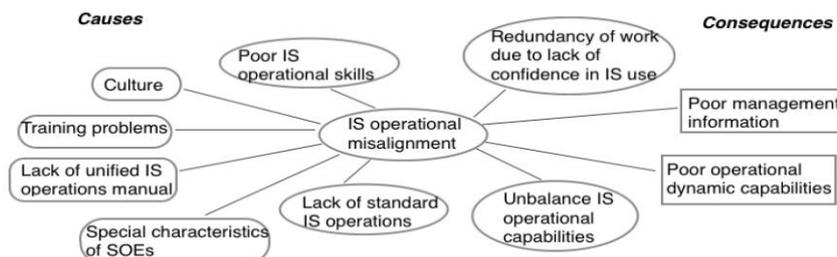


Fig 1. IS operational misalignment and causes and consequences

5.1 Operational misalignment

5.1.1 Poor operational skills

From data collected, some people were just able to use the systems functions to support the work in their own roles, so when they changed their positions, the operation became problematic, as one interviewee stated:

“ERP is a system with very detailed job divisions. It means our staff can work very skilfully in their roles. But if there is a job adjustment, it is very difficult for them to adapt to it.” (N24 Manager, Functional Department)

“Sometimes it’s the problem of method. For instance, when you do some analysis in the systems, there are no obvious advantages to deal with it inside the systems compared with outside the systems. Probably I would deal with it outside the systems.” (N27 Manager Function)

From the quotations above, staff in both operational level and managerial level have the problems of using IS to support their work.

5.1.2 Lack of standard IS operations

It was claimed that lack of standard operation in enterprises brought troubles for the management, as one manager stated:

“In fact all these functions are in the systems. But when making the purchase order, they do not fill in some elements in the contract, which results in a lack of this information getting captured in financial systems when verification is required.” (N14 Manager, Functional Department)

As reflected in the quotation, there is not a clear regulation for staff to make standardized operations. If the information acquired is not unified, the further analysis will be influenced.

5.1.3 Redundancy of work due to lack of confidence in IS use

It is worth noting another operational problem, namely that people are used to traditional working habits; they do not trust the systems' operations.

“Previously we have an account on the table because they needed to export, which meant an Excel table; then generating an account on the system. Afterwards, I would check the account manually to see if they were exactly the same...” (N6 Manager, IT Department)

This indicates that people did not change after IS implementation. They trusted the results of manual work more than the systems. This kind of operational problem increased the time and resources consumed, since it involved repeating work unnecessarily.

5.1.4 Unbalanced IS operational capabilities

In addition, it was found that the operational skills of people in different functional departments were not balanced. Staffs in the financial department were more skilful than those in the manufacturing department.

“I can just say the capabilities are different and there are huge differences. The financial department is very good indeed... But in many production units, the ability to use IS was really poor.” (N5 Manager, IT Department)

The low capabilities of IS operations is one of the barriers to manufacturing IS use and manufacturing IS development.

5.2 Causes of operational misalignment

5.2.1 Special characteristics of Chinese SOEs

The operational problems reflect the low quality of staff in SOE. SOE characteristics decide whether there will be this kind of human resources problem in enterprises. Since SOEs bear social responsibilities staff can't be fired in SOEs.

“The fatal problem of SOE is employees are the owners of the enterprises. You can't fire them. No matter whether they work well or badly, they are just switched to another post or have their salaries reduced.” (N5 Manager, IT Department)

Under this situation, there is a lack of necessary staff changes in enterprises and the qualities of employees are problematic. When enterprises can't change their staff, employees in SOEs have lower motivation to learn.

“In addition, it depends on the enthusiasm of staff, and management ideas. They are used to higher levels of work, and lack motivation to find out the problems themselves.” (N14 Manager Function)

As traditional management ideas are common in SOEs, people work according to the requirements given from higher-level managers. There is a lack of self-motivation to make improvements.

5.2.2 Training problems

A number of interviewees considered that training was insufficient in the enterprises, including managers and operational people.

“I think we should reinforce [training]. It is because including the SAP, there are some functions I do not really grasp. (N26 Operational staff, Functional Department)

In particular, it is argued that, since there are frequent reforms in enterprises in the current situation, new staff and key user training should receive more attention.

“Maybe there was a lot of training when they first implemented it. But when there are many staff changes, the business may become problematic.” (N15 Operational staff, Functional Department)

As reflected in the quotations, since there was no consequent training for the users in enterprises, when the key users' positions changed, IS use became problematic.

5.2.3 Lack of unified IS operational manual

A lack of unified IS operations manual in enterprises is the reason for the low capabilities of IS operations.

“Now actually what I just talked about is I want to make an operations manual from our financial systems in our branch... tell you what you must obey when you operate.” (N14 Manager Functional Department)

As reflected in the quotations, lack of such manuals is a barrier for staff to improve their operational skills.

5.2.4 Culture

Chinese way of thinking and culture influence their ways of doing things, which results in the situation that managers are reluctant to change management style.

“Where is the most difficult part of IS development, the barrier of IS development. It is actually people's thinking. People always think of shortcuts, think about simplifying... . Our product is from SAP, German.....Everyone considers it's very difficult to use, very rigid. They all prefer Oracle from USA. You can have customization in Oracle. Americans are better than Germans, they are more flexible. But Chinese people are too flexible, excessively flexible (N31 Manager IT).”

“Flexible” is the Chinese ways of doing things. A lot of factors influence the activities and decision-making of managers, such as “shortcuts” or “personal contact”. Managers are used to deal with things flexibly since they need to consider different factors under various situations. IS processes are strict and stable therefore they are resistant to using them.

5.3 Consequences of poor IS operational skills

5.3.1 Poor management information

As discussed in the previous section, there was a lack of standardized operations therefore some information was entered in the systems while some was not, which created problems in relation to further information produced and resulted in useful information being missed.

“As long as you input all the information, it will be created automatically in the systems. But because it refers to many departments, if there was one department that was not doing this, I couldn’t get this information in the systems.” (N14 Manager Function)

There was no regulation to standardize the information input in the systems. For some types of information, when not all the departments uploaded their data, it wasn’t further created in the systems.

5.3.2 Low organizational dynamic capabilities

There has been frequent staff mobility with organizational reforms. Low operational capabilities of staff bring some troubles when there are a lot of position changes.

“Currently there are many staff changes... For IS implementation, the easier the operations are, the better the enterprise is. The more complicated the operations are, the more likely it is for something to go wrong.” (N15 Operational staff, Functional department)

It is perceived that the low capabilities of operational staff increased the risks in IS use and may have brought troubles to operational reforms, which further influence the organisational dynamic capabilities.

6. Conclusions

Rather than considering learning, adaptive and innovative abilities created by alignment, the findings represent basic IS operational capabilities of staff caused IS strategic alignment influencing the strategic level management and organization’s capability to adapt to the environment. The research findings have important implication for the practice of IS operational and strategic alignment improvement in case Chinese SOE company. The causes and situations identified have given some clues. For examples, staff training needs to be paid more attentions in the organization, especially for the new staff, staff in the new position and key users. The special training form managers could be considered. However, the change of thinking and idea of managers may be a long-term project. In the future work, the influencing

factors identified in this research can be further verified and studied in terms of their importance.

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