THE INFLUENTIAL OF ORGANIZATIONAL LEADERSHIP AND LEARNING ON INFORMATION TECHNOLOGY PERFORMANCE

Ruslan Romli
Universiti Utara Malaysia
Assistant Professor Dr
School of Technology Management & Logistics, Universiti Utara Malaysia
06010 Sintok, Kedah, Malaysia
E-mail: ruslan@uum.edu.my

Norazuwa Mat
Universiti Utara Malaysia
Assistant Professor Dr
School of Business Management, Universiti Utara Malaysia, 06010 Sintok
Kedah, Malaysia
E-mail: norazuwa@uum.edu.my

─Abstract─
This study examined the two factors of organisational capability namely organisational leadership and learning in Malaysian public agencies by using Resourse Based View (RBV). We proposed two models which showed a significant results. However, model of complementary organisational capability is better than individually factor model in gaining higher organisational performance. The structural complementary model exhibits that both organizational capability (ß = 0.63, p<0.001) positively explained organisation performance and a percentage of the variance explains in organisation performance is 40%. Thus, the findings showed that RBV is usefulness for the public sector 's environment .

Key Words: *Resource based-view, leadership, learning, information technology*
JEL Classification: M15

1. INTRODUCTION

Hackler and Saxton (2007) in their article has highlighted "The strategic use of information technology by nonprofit organizations: Increasing capacity and

untapped potential" that determined two key issues in examining public organizations' ability to deploy IT to enhance organizational capacity and sustainable advantages. In particular, they analysed these issues from the RBV perspective for the long term organizational sustainability that examined the antecedents of the successful strategic employment of IT resources.

In short, to sustain competitive advantages, the public organization needs to move beyond a focus of ordinary strategic systems and instead of developing and strengthening IS capability as suggested by Peppard and Ward (2004). Indeed, they saw the need to move "beyond a focus on identifying strategic systems and developing the concept of IS capability, suggesting that it heralds the arrival of a new era", (p. 167).

2.THEORETICAL UNDERLYING AND THE DEVELOPMENT OF MODEL

2.1. Resource Based View (RBV) of organizational leadership and learning

The RBV of IS is widely found and well supported by empirical studies in the business environment as reviewed by Wade & Hulland (2004) in its basis as a general theory in strategic issues. In short, to sustain competitive advantages, the public organization needs to move beyond a focus of ordinary strategic systems and instead of developing and strengthening IS capability as suggested by Peppard and Ward (2004). Indeed, they saw the need to move "beyond a focus on identifying strategic systems and developing the concept of IS capability, suggesting that it heralds the arrival of a new era", (p. 167). Therefore this paper tries to examine the source of competitive advantages by developing and testing an organisational capability comprising organisational leadership and learning.

According to Mahoney (1995), organisational capability includes the skills of top management. Leadership is always regarded as the single most critical factor in the success or failure of top management skills. It has long been established that top management support in any form is likely to enhance IS implementation success (Ramlah et al. 2007).

Basically, organisations themselves cannot learn. Instead, an organisation ultimately learns through their employees. Lately, some studies explain that organisational learning is one process that plays important role in enhancing value of organisational capabilities and competitive advantages. Andreu and Ciborra

(1996) detailed out how organisational learning played a significant role in developing strategic capabilities, which were called core capabilities.

2.2. Model development

With regard to the relative effects of IT on organisational performance, several articles seem to posit that the organisational capability factor has greater influence on the impacts of IT towards performance. In line with the above arguments the following models are proposed:- ***Model 1:*** Individual organisation capabilities positively influence the effects of IT on organisational performance. ***Model 2:*** Complementary organisation capabilities positively influence the effects of IT on organisational performance.

3. RESEARCH METHODOLOGY

3.1. Data gathering and sample

Data was collected by using questionnaires that were self-administered. We used "drop-off" and "pick-up" procedure. The unit of analysis for this study is an agency. There are a total of 717 main agencies in Malaysia. Considering all the scholars' arguments, when these rules are employed, at least target sample size is 100.

3.2. Development measures

Organisational leadership

It was operationalised as the degree of transformational leadership style of top management. The four components of what Rafferty and Griffin (2004) have identified with five transformational factors as a higher-order factor consist of:

- Articulating a vision - can be defined as serving as a charismatic role model to followers. A visionary leader is an important leadership dimension encompassing the more general construct of charisma.
- Inspirational communication - involves articulation of a clear, appealing, and inspiring vision to arouse employees' emotions and motivation.
- Intellectual stimulation -increasing employees' interest in, awareness of problems and efforts and to be creative by questioning assumptions, reframing problems, and approaching old situations in new ways.
- Supportive leadership – more frequently attending to and supporting individualized attention by showing express concern for employees and taking account of their needs.

- Personal recognition – providing contingent rewards such as praise and acknowledgement of employees' effort in achieving specified goals.

Organisational learning

Organisational learning is to what extent learning processes happen in creating an organisational capability, which in turn leads to better performance (Grant, 1991; Tippin & Sohi, 2003) as perceived by the unit head. The extant literature describes that organisational learning comprises three (3) subsequent processes: information acquisition, information dissemination, and shared interpretation.

- Information acquisition – can be defined as how a systematic organisation actively seeks out and gathers information (Kohli and Jaworki, 1990). An information can be acquired from three distinct sources. First, an organisation can gain information by direct experience such as process improvements. Second, an organisation can pool information through others' experience such as periodically meeting with customers. Third, an organisation can have their owned memory mechanisms such as databases of previous customer behavior.
- Information dissemination - referring to the process and extent of distributing information to those subordinates who required it.
- Shared interpretation – It is defined as the presence of consensus among organisational members with regard to the meaning of information.

Organisational IT performance

The performance is operationalised as to the extent of multidimensional performance measures (Kaplan & Norton 1996; Hoque et al. 2001) that emphasize finance, internal processes, innovation and learning, and customer perspectives of the unit.

- Financial perspective – according to Sethi and King (1994), ICT can reduce costs of development, operating, administration, internal and inter-organizational efficiency, and comparative efficiency.
- Customer perspective – measures customer satisfaction from the customer perspective. Customers are concerned about speed, reliability, empathy, transparency, professionalism and other quality attributes of the delivery system.
- Internal process – examines whether the organisation is efficiently using the resources it has and is accurate in ascertaining competitive performance in the service delivery.

- Learning and growth – measures employees training and development related to both organisation and individual improvement. Such as training and development, employee satisfaction and innovation of processes.

4. FINDINGS

4.1. Descriptive profile of response rate

Using JPA listing and randomly selected from federal agencies, state agencies, local government agencies, statutory agencies and public corporation, composed the final sample. A total of 300 questionnaires were personally distributed to various such agencies, 130 (43.3%) were returned back. 56.7% (170 questionnaires) were not return back. From the returned questionnaires, 12 questionnaires (0.04%) were unusable and only 118 questionnaires (39.3%) were usable sample. Most of unusable questionnaires were not completed. Unsurprisingly in term of response rate was due to the survey conducted in voluntary manner.

4.2. Reliability analysis

The table 1 shows the reliability testing for organisational capability. All are greater than 0.70 excluding shared interpretation construct at 0.67 which slightly below the recommended value. However, it still parsimoniously retain for the next testing in measurement model. It is based on Benamati and Lederer's (2000) argument that value of 0.60 is also acceptable in the most social sciences discipline.

Table 1: Reliability analysis results for organisational leadership and learning

Construct	Number of Item	Cronbach Alpha
Organisational leadership:		
1. Visionary	3	0.77
2. Inspirational communication	3	0.86
3. Intellectual stimulation	3	0.85
4. Supportive	3	0.88
5. Personal recognition	3	0.93
Organisational learning:		
1. Information acquisition	6	0.88
2. Information dissemination	6	0.80
3. Shared interpretation	4	0.67

4.3. Measurement model

In stage, we conducted the CFA to test the measurement model. It was trimmed the proposed model by excluded the un-fitted item from the model for each construct where necessary due to ensure the best model fitted.

Organisational management leadership comprises five observed variables. The goodness of fit indexes (RMSEA = 0.000, TLI = 1.015, CFI = 1.000, SRMR = 0.011) for this model indicate that the model is a good fit and indicate supported for convergent validity. All factor loadings (personal = 0.55, supportive = 0.75, intellectual = 0.55, communication = 0.88 and vision = 0.66) show higher than cut-off value 0.40 as recommended by Lewis and Byrd (2003).

Meanwhile, the organisational learning model consists of three observed variables. All factor loadings (shared = 0.56, dissemination = 0.86 and acquisition = 0.73) of observed variables exceed 0.40 (Lewis and Byrd, 2003). Thus, the model supports for convergent validity. The goodness of fit indexes (RMSEA = 0.000, TLI = 1.000, CFI = 1.000, SRMR = 0.000) shows that the model is a good fit.

4.4. Structural model

The structural model of Model 1 is significant with poor range of goodness of fit indexes ($\chi 2$ = 171.631, p<0.001, RMSEA = 0.136, TLI = 0.745, CFI = 0.792, SRMR = 0.099) with 24% variation of organisational performance but the model is significantly explained by both organisational capability; organisational leadership (β = 0.22, $p<0.05$) and learning (β = 0.44, $p<0.001$).

The structural model of Model 2 shows a significant result with exhibited a good model of fit indexes ($\chi 2$ = 86.850, p<0.01, RMSEA = 0.074, TLI = 0.925, CFI = 0.940, SRMR = 0.031). The path coefficients in the tested model exhibits organisation capability (β = 0.63, p<0.001) positively explained organisation performance and a percentage of the variance explains in organisation performance with 40%.

In conclusion, the formative second order factor of complementary organisational factor (Model 2) is expectedly explained IT effects of organisational performance better than individual organisational capability (Model 1). The above findings also indicate that organisational learning explain much more than organisational leadership in Malaysian public agency IT effects of organisational performance.

5 DISCUSSION AND CONCLUSION

Interestingly, the study's findings empirically support complementary organisational capability that able turn in higher organisational performance. This empirical findings clearly argued by the RBV scholars (Cater & Cater, 2009; Cater & Pucko, 2006; Zehir et al., 2006; Fazli et al., 2003). These findings are consistent the past study (Barney, 1991; Grant, 1991; Moingeon et al. 1998; Amit & Shoemaker, 1993; Mahoney, 1995) arguments that organisational capability is the main source of organisational performance which such capability can avoid duplication efforts and much more complicated its resources.

The above findings also indicate that the organisational learning is the best predictor than organisational learning. Therefore, there is evidence to suggest that the organisational learning has more influence IT affects of organisation performance in Malaysia context. This finding is also supported by Dickson's (1996) finding that organisational learning is valuable over other resources because it enables an organization to sustain competitive advantages by continual improvement of activities. And another possible justification is Malaysian government committed to become an informative and knowledgeable nation which helps Malaysian public organisation manager to refine the strategic role of organisation learning in public transformation. This scenario is vastly accelerated by the new IT landscape infrastructure since Multimedia Super Corridor (MSC) launched in 1997. The MSC is initiated effort to leapfrog Malaysia into knowledge based economy by driven a knowledge society. In addition, the Malaysian public organisation has to follow the ICT blueprint encompassing the ICT strategic role in Malaysian public sector transformation. This finding reveals the Malaysian public organisation aware that proper exploitation of knowledge can become strategic advantages.

Mainly, the empirical study findings could be concluded its usefulness of RBV in public sector environment as well. A debate in literature is whether of RBV in-relevance as theoretical framework in public management is denied. Given the objective of determining the main prescription of the RBV and adapting new environment than usual, which so as to generalise results, the conceptualisation and operationalisation of resources this context can be generic. That is, these resources can be viewed as a common representation of organisational level factors rather than specific, which idiosyncratic resource to any given organisation.

BIBLIOGRAPHY

Amit and Schoemaker (1993), "Strategic Assets and Organizational Rent.", *Strategic Management Journal,* Vol. 14, No. 1, pp. 33-46.

Andreu and Ciborra (1996), "Organizational Learning and Core Capabilities Development: The Role of IT', *Journal of Strategic Information Systems*, Vol. 5, pp. 111-127.

Barney (1991), "Firm Resources and Sustained Competitive Advantage", *Journal of Management,* Vol. 17, No. 1, 99-120.

Benamati and Lederer (2000), "Rapid Change: Nine Information Technology Management Challenges", *INFOR*, Vol. 38. No. 4, pp. 336-358.

Cater and Cater (2009), "Intangible Resources as Antecedents of a Company's Competitive Advantage and Performance", *Journal for East European Management Studies*, Vol. 14, No. 2, pp. 186-209.

Cater and Pucko (2006), "Model of Competition Between Firms", *Journal for East European Management Studies*, Vol. 11, No. 2, pp. 140-172.

Dickson (1996), "The Statistics and Dynamics of Competition: A Comment on Hunt and Morgan's Comparative Advantages Theory", *Journal of Marketing*, Vol. 60, No. 4, pp. 102-106.

Fazli, Mokhtar, Ashari and Nooreha (2003), "Integrating Resource **B**ased View and Stakeholder Theory in Developing the Malaysian Excellence Model: Conceptual Framework", *Singapore Management Review*, Vol. 25, No. 2, pp. 91-109.

Grant (1991), "The Resource-based Theory of Competitive Advantage: Implications for Strategy Formulation", *California Management Review,* Vol. 33, No. 1, pp. 114-135.

Hoque, Mia and Alam (2001), "Market Competition: Computer-aided Manufacturing and Use of Multiple Performance Measures: An Empirical Study", *British Accounting Review*, Vol. 33, pp. 23-45.

Kaplan and Norton (1996), "Using the Balanced Scorecard as a Strategic Management System", *Harvard Business Review*, Vol. 74, No. 1, pp. 75-85.

Kohli and Jaworski (1990), "Market Orientation: The Construct, Research Propositions, and Managerial Implications", *Journal of Marketing,* Vol. 54 (April), pp. 1-18.

Mahoney (1995), "The Management of Resources and the Resource of Management", *Journal of Business Research*, Vol. 33, pp. 91-101.

Moingeon, Ramanantsoa, Metais and Orton (1998), "Another Look at Strategy-Structure Relationship: The Resource-based View", *European Management Journal*, Vol. 16, No. 3, pp. 297-305.

Peppard and Ward (2004), "Beyond Strategic Information Systems: Towards an IS Capability", *Journal of Strategic Information System*, Vol. 13, pp. 167-194.

Rafferty and Griffin (2004), "Dimension of Transformational Leadership: Conceptual and Empirical Extensions", *The Leadership Quarterly*, Vol. 15, pp. 329-354.

Ramlah, Nor Shariza, Norshidah and Rahman (2007), "The Influence of Organizational Factors on Information Systems Success in E-government Agencies in Malaysia", *The Electronic Journal of Information Systems in Developing Countries*, Vol. 29, No.1, pp. 1-17.

Sethi and King (1994), "Development of Measures to Assess the Extend to which an Information Technology Application Provides Competitive Advantage", *Management Science,* Vol. 40, No. 12, pp. 1601-1627.

Wade and Hulland (2004), "Review: The Resource-based View and Information Systems Research: Review, Extension and Suggestions for Future Research", *MIS Quarterly*, Vol 28, No. 1, pp. 107-142.

Zehir, Acar and Tanriverdi (2006), "Identifying Organizational Capabilities as Predictors of Growth and Business Performance", *The Business Review*, *Cambridge,* Vol. 5, No. 2, pp. 109- 116.