

Effects of Organization Culture, Organizational Learning and IT Strategy on Knowledge Management and Performance

Shu-Hung Hsu, Assistant Professor, Department of Business Administration,
Nanhua University, Taiwan

ABSTRACT

The study analyzed and measured the current business organizations with information technology (IT) strategy, organization cultural and organization learning mediate by knowledge management that will effect on performance. The hypothesis proposed that 1) to describe the relationship among IT strategy, organization cultural, organization learning and knowledge management, the relationship between IT strategy and knowledge management, the relationship between organization cultural and knowledge management, and the relationship between organization learning and knowledge management; 2) to examine the relationship between knowledge management and organizational performance; and 3) to generate implications for the effect of IT strategy, organization cultural, organization learning and knowledge management on performance of business organizations. Research design using descriptive statistics, and multiple regression statistical analysis explained the relationship of variables. The results found that there were the relationships among variables in the study.

Keywords: *IT Strategy, Organizational Culture, Organizational Learning, Knowledge Management, Business Performance*

INTRODUCTION

Firms need to grow IT strategies for its long term competitiveness. Knowledge plays an extremely important role of business world in the twenty first century. Knowledge can be viewed as a great supporter for firm's performance to create a competitive advantage. Therefore, knowledge and IT strategy become powerful weapons of a firm in the marketplace.

A business organization has to include with IT strategy, knowledge, organizational learning, and organizational culture for achieving a true competitive advantage that become necessary and no hesitate to implicate and integrate those. Because of competitive advantage is the basic factor for creating the economic value and advancing performance.

The researcher proposes that is the effects of IT strategy, organizational learning, organizational culture, and knowledge management on performance, but the affectedness is still the questions for the marketplace and the gaps for the current research streams. Few of current researches have presented the affectedness on performance for organizations with using or adopting IT strategy, organizational learning, organizational culture, and knowledge management that would be a worthwhile topic and an important issue for the researcher to investigate and to find out the results.

Purpose

This study aim is to explore that the current business firms with the IT strategy, organizational learning and organizational culture that provide organizational performance, using knowledge management as an intermediate construct.

LITERATURE REVIEW

Organizational Culture

Marguardt (2002) mentioned that “culture is an organization’s values, beliefs, practices, rituals and customs”. Culture is “the emotional environment shared by members of the organization” (Hoag et al., 2002, p 11). Culture is organization members’ values, norms, assumptions and tangible signs of and their behaviors, and leadership (Kefela, 2010).

Robbins and Coulter (2005) described that organizational culture as the shared values, beliefs, or perceptions held by organizational staffs. The culture of organizational is motivating and supporting (Tahir et al., 2011). Organizational culture pertains to the values, beliefs and behavior norms that have lived in an organization for a long period time, and the beliefs and values of the employees will affect their behavior and attitude (Tsai, 2011). Organizational culture could be build by the nature of training, education, knowledge, skills, values, ethics and code (Gieskes, 2002).

An organization with a great culture has similar values and codes of behave for its employees, which should help them accomplish organization goals and missions (Tsai, 2011). Handy (1986) mentioned that a wide range of organizational cultures can be reduced to four forms, including, 1) person culture; 2) power culture; 3) role culture; and 4) task culture.

Organizational Learning

Chang and Lee (2007) pointed learning is the power of business growth. Organizational learning is about firm’s training, increasing skills, work experience, and formal education. Learning organization should encourage all employees to conduct in the learning process through experimentation, dialogue and learning from each other (Hodgkinson, 2000). Organizational learning is frequent used alternate with the term learning organization (Burnes et al., 2003). Learning organizations are a central element of knowledge management (Svetlik & Stavrou-Costea, 2007).

Cook and Yanow (1995) mentioned organizational learning is learning developed form in organizations through key individuals to associate with subsequent organizational changes. Organizational learning is the generation of organizational members’ participation in the interaction and sharing of knowledge and experiences (Curado, 2006).

Organizational learning is the way to grow new and innovative ideas (Curado, 2006). Nonaka and Takeuchi (1995) created a four stage organizational learning spiral model, including, socialization, externalization, internalization, and combination (SECI), as known as SECI model. Senge (1990) developed five main organization learning characteristics that included mental models, share vision, systems thinking, personal mastery, and team learning.

Organizational learning attributes a relationship between business strategy and environmental change (Crossan & Berdrow, 2003). Garvin (1998) indicated that the learning organization presented five main tasks: systematic problem solving, experimentation, learning form past experiences, learning from the others, and transferring knowledge. A learning organization is also good at organizational learning (Tsang, 1997).

Gieskes et al. (2002) described that the barriers of learning with three categories, including, 1) interrupted learning processes; 2) psychological and cultural blockages to learning; and 3) obstacles related to organizational structure and leadership. Huber (1991) pointed out that organizational learning encompasses four steps: 1) knowledge acquisition; 2) information distribution; 3) information interpretation; and 4) organizational memory.

Information Technology Strategy

Information technology (IT) is regarded with technology to manage information. Information technology as firm strategy can be creating its competitive advantage. Firms use IT as firm's strategy that can be benefit for costs reducing and value creating (Tanriverdi, 2001). Tanriverdi (2001) pointed that there is more value creating than cost reducing of the IT role in the firm.

The rapid growth in the use of technology and Internet contributed to better global knowledge (Fard et al., 2009). Rogers (1962) introduced Diffusing of Innovation Theory that is broadly used for diffusion of information technology. According to Rogers (1962), the *innovation-decision process* included five stages: 1) knowledge of an innovation, 2) persuasion to adopt, 3) making a decision to adopt or reject, 4) implementation, and 5) confirmation of decision to adopt. Innovation is an individual or other unit of adoption a new idea, practice, or object (Rogers, 2003).

Resource Based Value (RBV) theory by Barney (1991) is IT-based resources that can increase firms competitive advantage (Melville, Kraemer & Gurbaxzni, 2004). IT RBV included firm's assets, capabilities, organizational processes, firm attributes, information, and knowledge that was the main driver of firm performance (Barney, 1991; Ravichandran & Lertwongsatien, 2005).

Knowledge Management

Knowledge is power (Barclay, 2000). Using knowledge can improve business processes and decisions making that are the keys for organizational innovation and survival (Laudon & Laudon, 2006). Therefore, firms need to manage the flow of knowledge as their source of power.

Knowledge management (KM) is doing what is required to obtain the most out of knowledge resources (Becerra-Fernandez, Gonzalez & Sabherwal, 2004). KM supports the creation, transfer, distribution and application of knowledge in organizations, and combines with a set of knowledge management processes including acquiring, storing, disseminating and applying (Laudon & Laudon, 2006). Organizations with great management of knowledge sources can improve efficiency and competitiveness (Halawi, McCarthy & Aronson, 2006). Knowledge management is an important element to create firm value.

The resource-based view (RBV) of firm has assisted organizations to identify their bundled resources and capabilities (Barney, 1991; Zhuang, 2000). Knowledge is an organization based sources that become competitively necessity (Gold, Malhotra & Segars, 2001). Organizations with knowledge-based sources can create the most valuable performance (Gold et al., 2001).

Gold et al. (2001) mentioned knowledge management consisting with acquisition, protection, conversion, and application capability. Knowledge creates the innovation economy, which is the knowledge economy for today's business. Knowledge economy means "the principle component of value creation, productivity and economic growth is knowledge" (Houghton & Sheehan, 2000, p. 2).

Organizational Performance

Organizational performance is a business processes outcome within an organization and symbol company success (Zhang & McCullough, 2005). Organizational performance is with two vital components which are non-financial performance and financial performance. Non-financial performance is based on organizational effectiveness includes variables, such as improved production, the ability to innovate, customer loyalty, customer benefit, new product or service introduction, customer satisfaction, and market share. Financial performance essentially is related to profitability estimate, including return on investment, net profits, return on sales, profit margin, return on equity, and return on assets.

Organizational Culture, Organizational Learning, IT strategy, Knowledge Management, and Organizational Performance

Organizational culture has regarded the useable perspective, supplying impressive evidence of the role of organizational culture in enhancing performance (Tsai, 2011). Fard et al. (2009) study the relationship between organizational cultures and learning organization. The findings suggest that learning organizations improve organizational learning culture, team working, learning and creativity, system thinking, and participation level in their organizations. The result showed that there is a significant correlation between organizational cultures and learning organizations (Fard et al., 2009).

An important reason to achieve high organizational performance is organizational learning (Khandekar & Sharma, 2006). Khandekar and Sharma (2006) mentioned organizational learning is important criteria to determine organizations growth and success. Their study interviewed 100 senior managers from Indian global firms. The evidence showed the role of organizational learning is the important role to determine the performance of the organization.

Organizational learning is related to organizational knowledge (Cook & Yanow, 1995). Tahir et al. (2011) conducted a study to explore the effect of organizational learning on the employee performance. The finding showed a significant relationship between organizational learning and employee performance. Learning leads organizational performance. Beliveau, Bernstein and Hsieh (2011) indicated that knowledge can sustain company's competitive position and organizational performance. Information technology is important to support firms' communication, collaboration, and enable for knowledge researching and collaborative learning (Ngoc, 2005). Tanriverdi (2001) analysis provides information on a firm's IT knowledge contributes to the value creation process to transfer of related knowledge resources through firm's business units, which in turn advances firm's knowledge management capability and performance.

METHODOLOGY

Theoretical Framework

The conceptual framework in this study is based on the review of literature that explores the relationships among organizational culture, organizational learning, IT strategy and knowledge management and organizational performance.

This framework proposed that the interaction of IT strategy and organizational cultural, organizational learning and knowledge management had a positive effect on organizational performance. This theoretical framework is comprised of six components: 1) IT strategy (Tanriverdi, 2001), 2) organizational cultural (Hellrigle & Slocum, 1994), 3) organizational learning (Senge, 1990), 4) knowledge management (Gold et al., 2001), and 5) organizational performance (Coltman et al., 2007). IT strategy focused on three types of IT strategy, namely, 1) IT human resource, 2) IT relationship, and 3) IT infrastructure (Tanriverdi, 2001). Organizational cultural focused on four primary kinds of organizational cultural, namely, 1) involvement, 2) consistency, 3) adaptability, and 4) mission (Zheng, 2005). Organizational learning focused on five types of leaning, namely, 1) personal mastery, 2) mental models, 3) shared vision, 4) systemic thinking, and 5) team learning (Senge, 1990). Knowledge management focused on four types of capabilities, namely, 1) acquisition, 2) conversion, 3) application, and 4) protection (Gold et al., 2001). Organizational performance focused on 1) financial, 2) strategic, and 3) venture (Zhang & McCullough, 2005), as shown in Figure 1.

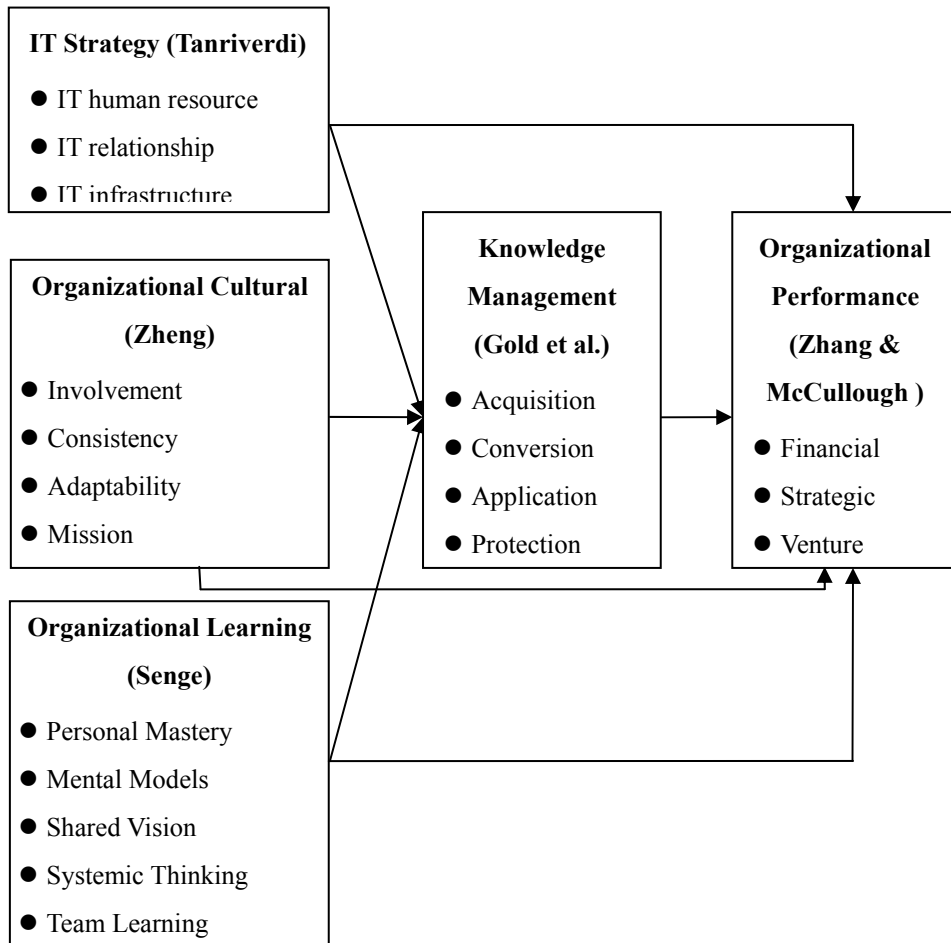


Figure 1: Theoretical Framework.

Sampling Plan

The researcher used the life insurance companies of Taiwan as the sample for this study. The survey respondents were selected the top executives of life insurance companies of Taiwan.

Instrumentation

A self-report survey was used to collect data for variables of organizational learning, organizational culture, IT strategy, human resource, knowledge management, and organizational performance. The survey with six parts, items of each part were adapted from presently existing instruments. Part 1 of the survey was IT strategy, which developed by Tanriverdi (2001), focused on three types of IT strategy, namely, IT human resource, business integration, and IT infrastructure. Part 2 measured assessing organizational learning, were adopted from Senge (1990), based on four components, including, personal mastery, mental models, shared vision, systemic thinking, and team learning. Part 3 items measured assessing of organizational culture adopted from the study of Hellrigle and Slocum (1994), focused on four primary kinds of organizational cultural, namely, bureaucratic culture, competitive culture, participative culture, and learning culture. Part 4, the measurement of capability of knowledge management focuses on Gold et al. (2001), knowledge management capability that involves four capabilities: acquisition, protection, conversion, application. Part 5, organizational performance was based on three components (Zhang & McCullough, 2005), including, financial, strategic, and venture. The results of these three components on performance revealed the success of a firm.

Data Analysis

Quantitative research method was conducted to answer the research questions in this study. Data analysis employed the SPSS statistical software. The researcher used descriptive statistics, and multiple regressions as the methods of data analysis.

RESULTS

There were 110 with valid data was collected. SPSS was utilized to analyze the 110 valid datasets. The Cronbach's alphas of this study were 0.85. For the 110 datasets, the mean of variables are 3.37 to 3.62. The regression was conducted to test information technology strategy, organization cultural, organization learning and knowledge management for its effects on business performance.

In Table 1, the regression analysis indicated the information technology strategy, organization cultural and organization learning had significant differential effects on knowledge management. This table showed IT strategy, organization cultural and organization learning supported at the 0.05 significance level. Therefore, IT strategy, organization cultural, organization learning was a key factor in determining the effect on knowledge management.

Table 1: Information Technology Strategy, Organization Cultural, Organization Learning and Knowledge Management

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.587	.167		3.524	.001
Information Technology Strategy	.844	.048	.862	17.641	.000
(Constant)	.515	.201		2.557	.012
Organization Cultural	.838	.056	.821	14.918	.000
(Constant)	1.836	.332		5.537	.000
Organization Learning	.452	.090	.435	5.016	.000

In Table 2, the regression analysis indicated IT strategy, organization cultural, organization learning, knowledge management had significant differential effects on business performance. This table showed IT strategy, organization cultural, organization learning, and knowledge management supported at the 0.05 significance level. Therefore, information technology strategy, organization cultural, organization learning, and knowledge management was key factors in determining the effect on business performance.

Table 2: Information Technology Strategy, Organization Cultural, Organization Learning, Knowledge Management and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.576	.397		1.452	.149
IT Strategy	.818	.114	.569	7.182	.000
(Constant)	.891	.457		1.949	.054
Organization Cultural	.703	.127	.469	5.515	.000
(Constant)	1.392	.505		2.758	.007
Organization Learning	.546	.137	.358	3.982	.000
(Constant)	.695	.425		1.637	.105
Knowledge Management	.771	.120	.525	6.409	.000

The regression was conducted to test each variables effect on organizational performance. Knowledge management was as the mediator between IT strategy and performance, organization cultural and performance, and organization learning and performance. As shown in Table 3, knowledge management supported at the 0.05 significance level. Therefore, knowledge management was key mediator in determining the effect on business performance.

Table 3: Knowledge Management and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.186	.473		.394	.695
Knowledge Management	.917	.134	.625	6.827	.000

DISCUSSION

This study was to examine factors effect on business performance including IT strategy, organizational cultural, organizational learning and knowledge management. The finding suggested that IT strategy and performance, organization cultural and knowledge management were the important factors enhancing firms' performance. Therefore, there were a relationship between IT strategy and knowledge management, organization cultural and knowledge management, organizational learning and knowledge management, knowledge management and performance, IT strategy and performance, organization cultural and performance, and organizational learning and performance. The study provides firms to find out what are the essential elements to enhance their value and performance.

Limitations and Future Research

The study's respondents only narrowed to examine on life insurance companies of Taiwan that may cause bias of the study. Future research will include in different field of industries and countries' business organizational.

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