

IT Competencies in Learning Organization and Individual Job Performance

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Abstract - Information technology (IT) competencies is defined as knowledge and skills to effectively make use of information collection and utilization required for performing and supporting the business processes. In today's knowledge economy, IT competencies are a critical factor in driving innovation in organizations. This paper explores how IT competencies play a major role in cultivating learning organization and increasing individual job performance. This paper also discussed the conceptual framework of IT Competencies in Learning Organization and Individual Job Performance. Based on the framework, the identified independent variables are reducing time wastage, optimizing information management, reduce external dependencies, lowering cost of ownership and simplify process. The dependent variable is individual job performance which is adopted from the previous literature. The study is significant to researchers and managers to identify the key IT competencies in learning organization and improving individual job performance.

I. INTRODUCTION

Information Technology (IT) competencies has long been described as the enabler for learning organization to occur and increase individual job performance. Innovation is the key for continuous learning development. To produce innovation consistently, competencies in IT is part of the core skills among individual in an organization to increase job performance. More attention has been given in recent years towards IT competencies contribution in enhancing competitive advantage of an organization. While some claim that investment in IT enhance organization profitability, others disagree. Findings from few studies suggest that the relationship between IT and organization performance are inconsistent with the claim [18]. Senge, author of the fifth discipline defines a learning organization as a place where people strive to widen their capability to create the desired outcome, nurturing new way of thinking, promoting mutual aspiration, and continuous learning are practiced together [17].

However, it must be noted that employees with the ability to learn are more valuable rather than those who possess the skills because these are the

employees that will embrace learning organization culture. This is in line with Senge definitions that "organizations learn only through individuals who learn [17]. Individual learning does not guarantee organizational learning, but without it no organizational learning occurs." Individual who possess IT competencies creates a unique value of to the organization in terms of problem solving and promoting learning organization. The purpose of this paper is to explore the role of IT competencies in learning organization and its relations with individual job performance by reviewing the literature that leads to proposing a framework on the relations between them.

II. LITERATURE REVIEW

A. IT Competencies in Learning Organization

Employees who possess IT competencies are considered as knowledge workers and are in demand in any organization. Davenport sees knowledge workers as people with high level of knowledge [2]. It is highly crucial for any organization to acquire knowledge workers especially those with IT competencies to enhance innovation in learning organization. Drucker describes learning organization as every organization is in competition for its intellectual capital [3]. He even mentions that those who possess knowledge are different from others: on the other side they become the backbone of the company's intellectual capital and contribute to the company's sustainability. Organization that pays attention in developing IT competency, and utilizing it to the advantage of the company, are in a better position to improve their competitiveness.

IT competency is a major component in knowledge discovery. The ability to abstract information is a necessary competency in the concept of knowledge society, characterized by the mass diffusion of information, managing and accessing it effectively. However, abstracting requires a degree of learning process [15]. It is highly important to manage information effectively within the organization as it

provides the foundation for improving competitive advantage [18].

Organization competencies and organizational learning have a positive relationship. An organization's competitive advantage can be increased as a result of competencies that are established from a learning culture [11]. The basis to improve organization's competencies is by improving the people's competencies in the organization. Megginson and Pedler identified condition such as IT, where organizational learning is widely practiced, but also extends to suppliers, customers, or competitors, and create a conducive environment which supports learning and self-development for all members of the organization [9]. Innovation in organization is largely influenced by making process simpler and, organizes it for quick and easy retrieval. IT competencies are critical to support innovation through problem solving and creative thinking approach.

However, organization should be aware of the IT myth trap by hoping IT can fix all problems in the organization. IT is only an enabler not the solution, the implementation is still lies with the people in the organization. Companies that continue to spend significant amounts of money on their structure capital are routinely astonished when asked regarding the return on their IT investments [1]. For this research, focus is given on the IT competencies as the core competencies to create growth or new business to generate competitive advantage to the company or development of new technologies. There are a total of five IT competencies that affect individual job performance which are reducing time wastage, optimizing information management, reducing external dependencies, lowering the cost of ownership and simplifying process.

B. Reducing Time Wastage

Collective approach learning can be achieved through conducive environments and robust network and spark knowledge creation and transfer resulting to encouraging innovation and network robustness. Virtual organization is an innovative solution for Small and Medium Enterprises (SMEs) to increase their competitiveness [14]. By embarking on virtual organization concept, organization is able to reduce time wastage through collective approach. To deliver within the required time is a critical aspect in any organization. A learning organization is able to learn and deliver quickly yet with quality within the required time.

Virtual team is defined as distributed work teams whose members are geographically located and work

load is distributed using electronic information and communication technologies [7]. As such, the team has no issue to work away from the office and remains connected to each other by technological means without boundary. Decision making can be made faster and the organization keep transforming itself to manage the knowledge in a learning organization environment.

C. Optimizing Information Management

Data is now an essential trading goods in the 21st century. Processed data such as information is valuable to any organization to increase their competitive intelligence. Optimizing information management in an organization is the key IT competency towards leveraging and utilizing knowledge. Better optimization of information management can increase productivity, closer to customers, products to be more innovative, competitive business, and attract and retain top talent. The underlying processes that enable employees to access more comprehensive, accurate and timely information are what a learning organization is all about. However, the first step to be taken is to identify the information flow in the organization which how it contributes to the business objectives. Continuous assessment must be practiced to ensure that the solutions remain relevant in the organization and remove steps that re no longer required and identify information gaps. An external auditor to examine the information flow in the organization is a good idea to look at things from macro perspective and bring a different approach to solve the arising issues. Organization may invest in cloud solutions or develop e-solutions to optimize information management in the organization.

D. Reducing External Dependencies

External dependency is defined as reliance on outside entities who, directly and proportionately, limit a firm's freedom of choice in operations and strategy. The firm's limited control over the required resources is the reason for external dependency, such as parts, products or services, land, labor, capital, and information [8]. IT sector is a fast evolving industry. Today's technologies might be outdated in a few years which is the reason of rising trend of IT outsourcing.

However, outsourcing IT activities in an organization should only be limited to supporting activities such as hardware and software maintenance. Core activities such as internal software development and IT security should not be outsourced and developed internally. Important specific knowledge must be retained in the firm and strive to avoid becoming

dependent to the external IT provider thus limiting the organization capability to continuously learn to transform its knowledge base and improving its intellectual capital for competitive advantage [13].

E. Lowering Cost of Ownership

In the current service industry scenario, lowering cost of ownership is essential for any business to achieve resource optimization, reducing cost of operation and improving profit margin as well as improving sustainability. One approach is to lower cost of ownership by embarking on IT optimization. However, it must be noted initial investment is required and it will gradually reduce as time goes by and will achieve Return on Investment (ROI) after reaching matured phase. Additional investment can be funded from the ROI.

Focusing on service delivery will increase service efficiency, eliminate bureaucracy and enhancing learning process in the organization. As a result, the organization is better managed in terms of risk management and reduces total cost of ownership. This can be achieved through optimizing process flows in the organization and having check and balance system through quality assurance process. An integrated Knowledge Management framework comprising of processes, culture, strategy, management, technology and corporate politics should be developed to allow circulation of knowledge in the organization.

F. Simplify Process

One of the most common problem in an organization is processes redundancies. To solve the issue, most organization will adopt streamlining approach by identifying repeated process and eliminate it to reduce operational cost. Another approach to simplify process in an organization is by making processed information available on real time basis for quicker decision making.

To achieve real time information sharing, cutting edge technology should be adopted such as Internet of Things (IoT) which is about entities acting as providers to consumers of data related to the physical world. Data and information are given more priority rather than point-to-point communication [10].

It is easier to keep track of daily operation, current status, inventory management and assets location through IoT. Competitive advantage is achieved through process optimization which includes increasing accuracy and information timeliness of the business provides. Deeper understanding at the micro operational level will leads towards process

optimization [5]. Real time information will be useful for data mining purpose to improve competitive intelligence. Simplifying process in handling customers' request is always a priority in any organization, hence by adopting IoT, the system will be able to provide real time feedback to the customers.

G. Individual Job Performance

Individual learning is related to personal mastery development which will benefit either the individual or the organization. Personal mastery is the ability to improve individual skill. It focuses on the individual learning aspect in the learning organization. It enables us to master our personal vision to what we want to achieve, concentrating our efforts on improving our individual skills [4]. In today's era, individual skill, encouraging organizational learning and nurturing innovation are the catalyst for the organization to improve organizational performance [12].

Redding describes continuous transformation of the organization is achieved through individual learning, widen the organization core competencies, and preparing members for the future [16]. An investment in individual learning is an investment for building tacit knowledge in the organization. Job satisfaction and performance can be improved through organization climate and working environment [6]. Thus, investment in cultivating a conducive working environment is beneficial to any organization. Visweswaram, and Ones defines job performance as work behaviors which are relevant to organizational goals; within the individual's control; and measurable, servable and scorable [19]. For this study, the author would like to improve the definition of job performance as produced work that is quantifiable, achievable and focus more on the outcome rather than quantity. Individual job performance is directly related with organization that provides continuous learning environment to improve the individual skill, competencies and experience.

III. CONCEPTUAL FRAMEWORK

The proposed conceptual framework in Figure 1 indicates the dependent and independent variables in the study. A dependent variable is what is measured in the study and what is affected during the study. Dependent variable depends on the independent variable. In the study, dependent variable is identified as individual job performance. Meanwhile, independent variable is a variable that changed in the study. A result of change in the independent variable may change the dependent variable. In the study, independent variable is identified as reducing time

wastage, optimizing information management, reducing external dependencies, lowering cost of ownership and simplify process.

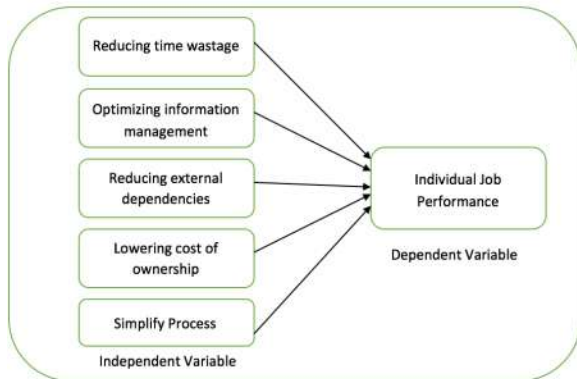


Figure 1. Conceptual Framework of IT Competencies in Learning Organization and Individual Job Performance

IV. CONCLUSION

The proposed IT competencies in learning organizations have a positive relationship with individual job performance. Although the competencies may seem complicated, the organization will benefit from deploying effective management method, nurturing learning organization, optimizing processes, continuously transforming itself and finally improving individual job performance and satisfaction. Individual job performance is an important indicator of task accomplishment and translated towards organizational achievement. Individual job performance will continue to improve as long as the employee keeps learning in the organization. Failure to keep on learning will result towards the employee looking for opportunities to learn elsewhere. Two keys factors to improve individual job performance are clear communication and consistent feedback. The proposed IT competencies aim to address those factors. However, when implementing the concept, the current state and readiness of the organization must be taken into account. This is in accordance with Ortenblad (2004) who states that many authors agree that learning organization cannot be specifically described, it is unique for every organization, and every organization should develop their own unique approach of learning organization [20].

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