

## EFFECTS OF ORGANIZATIONAL LEARNING CONSTRUCTS ON ORGANIZATIONAL INNOVATIVENESS SUCCES IN THAILAND HIGHER EDUCATION INSTITUTIONS

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**บทคัดย่อ** – การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อทดสอบโมเดลอิทธิพลของการเรียนรู้ขององค์กรในแต่ละองค์ประกอบที่มีต่อความสำเร็จขององค์กรด้านนวัตกรรม ในสถาบันการศึกษาระดับอุดมศึกษาในประเทศไทย จากการทบทวนวรรณกรรมเรื่องการเรียนรู้ขององค์กรได้เสนอองค์ประกอบของการเรียนรู้ขององค์กรเป็น 3 ส่วน คือ การรวบรวมความรู้และการแปลความหมายความรู้ ความทรงจำขององค์กร และการแบ่งปันความรู้ งานนี้เป็นการวิจัยเชิงปริมาณ ใช้ข้อมูลทุติยภูมิ คือ ข้อมูลผลการประกันคุณภาพการศึกษา ของคณะต่างๆ ในสถาบันระดับอุดมศึกษา จำนวน 675 คณะจากฐานข้อมูลของสำนักงานคณะกรรมการการอุดมศึกษา (สกอ.) คือ CHEQA Online วิเคราะห์ข้อมูลด้วยวิธีการวิเคราะห์สมการโครงสร้าง (SEM) ผลการวิจัยพบว่า องค์ประกอบของการเรียนรู้ขององค์กรสองส่วน ได้แก่ ความทรงจำขององค์กร และการแบ่งปันความรู้ขององค์กร มีผลกระทบทางบวกต่อความสำเร็จขององค์กรด้านนวัตกรรม อย่างมีนัยสำคัญทางสถิติ ที่ระดับ 0.01 และ 0.05 ตามลำดับ การศึกษาครั้งนี้พบว่า การรวบรวมความรู้และการแปลความหมายความรู้ไม่มีอิทธิพลต่อความสำเร็จขององค์กรด้านนวัตกรรม

**Abstract**— Research was conducted to test a model of organizational learning constructs effects on organizational innovativeness success within the context of the higher education institution of Thailand. Theories behind organizational learning were reviewed and evaluated to develop three appropriate constructs, which are knowledge acquisition and knowledge interpretation, organizational memory, and knowledge distribution. Study was completed by quantitative method that used of secondary data of 675 higher education faculties' quality assurance result from database called CHEQA Online, published by the Office

of the Higher Education Commission (OHEC). Data were investigated and analyzed by Structural Equation Model (SEM) analysis. Results indicated that there were positive effects of two constructs, organizational memory and knowledge distribution, of organizational learning on organizational innovativeness success were significantly at 0.01 and 0.05 levels, respectively. No effect of knowledge acquisition and knowledge distribution on organizational innovativeness success was found in the study

**Keywords-** Knowledge Acquisition, Knowledge Distribution, Knowledge Interpretation, Organizational Memory, Organizational Innovativeness Success

### I. INTRODUCTION

It is widely accepted that knowledge-based economy is the competitive environment of most organizations, and human resources have to continuously develop their knowledge and skills [1] while human capital becomes a key source of sustainable competitive advantage. Katou [2] pointed that employee skills and motivation finally translated into improved organizational performance. Those decisions were on the base of the principal philosophy of HRM-performance linkage model is that HR practices have the direct impacts on employee skills and motivation. While, Becker [3] studied on human resources investment and

identified that human capital is the investment in education and training to raise productivity and output. Various organizations require both individuals' adaptability, being good team players, and skill improvement for their and readiness to function in a complex global environment. Learning organizations' human resource can help gain skills and knowledge from other members that having past experiences along with present well working practice. Then, these obtained skills and knowledge would be used on working procedure that accomplished effective performance.

As Thailand joined the Asian Economic Community (AEC) in 2015, its higher education institutions have the duty to educate the people so that they can participate in an integrated regional society and to compete with the other members [4]. In addition, they must aimed to help Thailand become the region's premier education hub. Thailand's higher education institutions are responsible for not only fostering valuable human capital for national development but also conveying knowledge to society in the form of research and professional relationships with the non-educational sectors.

## II. RESEARCH FRAMEWORK

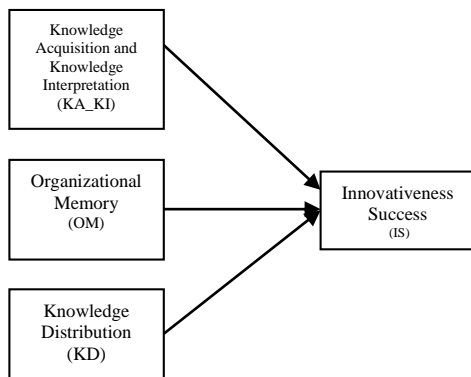


FIGURE I RESEARCH MODEL

## III. REVIEW OF LITERATURE

### Organizational Learning

The higher study interested in organizational learning has been interested, the greater various directions of the definition of term has been improved. Argyris and Schon [5] who were accepted as primary researchers on this topic defined organizational learning as a process of detecting and correcting errors. Organizational learning is mean to accomplished better organizational effective by a dynamic process of creation, acquisition, and integration of knowledge aimed at the development of resources and capabilities[5, 6]. Also, organizational learning is the method and process in which an organization has achieved the ability to transform itself continuously through developments [7]. Likewise, the human resource role on the point of view of Phang, Kan-kanhalli, and Ang [8], organizational learning is the process which the organization's members could create new knowledge or modify existing knowledge. Argote [9] claimed that organizational learning means changes at the level of an organization's knowledge that occur as a function of experience. Whereas, Pérez et al. [6] stated that organizational learning is a process to improve the development of the organization by means of new initiatives

Even though there are many ways of think of organization learning's definitions and concepts, and there is no common agreement of the phenomenon [10], The definition of organizational learning that most researchers proposed the agreement is the result of the organization's members concerning an involvement in distribute experience and knowledge that lastly transforming to the organizational proficiency of adapting and responding to changing environment [8, 11, 12].

### Core Elements of Organizational Learning

Organizational learning was perceived by some researchers as the process that an organization performed to become a learning

organization [5]. The goal of those processes is for organizational members to obtain wisdom from the organization's previous experiences and members' workplace practices. Then they transfer that knowledge to be their working method in order to achieve effective work outcomes [13]. The most important idea of conceptualizations of organizational learning, during the 1980s and 1990s is that organizational learning is the process of developing and sharing new knowledge and understanding through all levels of the organization, which is the essential way for the organization to achieve sustainable competitive advantage, mainly in the knowledge-driven society [14-16].

Huber [7] considers organizational learning from the perspective of four constructs: knowledge acquisition, information distribution, information interpretation and organizational memory. When organization's components obtain knowledge and recognize it as being potentially useful it can express that organizational learning occurred. Another classification of organizational learning processes is that organizational learning can be conceived as having three sub-processes: creating, retaining and transferring knowledge. When organizations learn from experience, new knowledge is created in the organization. The knowledge can be then retained so that it exhibits some persistence over time. Knowledge can also be transferred within and between units. Through knowledge transfer, one unit is affected by the experience of another or learns from the experience of other units [9].

Considering the fact that this study have adopted a point of view on organizational learning that organizational learning was the compound of constructs for processing information. However, there were the references claimed the process of information can be more or less elements depended on the context of the organizations [17, 18]. Three constructs of organizational learning that considered in this study were

Knowledge acquisition and knowledge interpretation (KA\_KI): Any activities conducted by faculty which acquire new knowledge and information [19] through external or internal sources [7, 20]. Including of the ways to identify knowledge meaning [20] through process of developing the shared understanding [21] which will lead to the common operations of organization's framework [22].

Organizational memory (OM): The approaches of how faculty retains what it has learnt as organization knowledge stored for all faculty's members accessing to learn or use in the present and the future [6, 7, 23] as a human capital that are collective of knowledge, skills, and information that necessary for working abilities [24].

Knowledge distribution (KD): The actions and mechanisms which the faculty disseminates knowledge from different sources lead to more expanding based organizational learning. Knowledge transferred is not only for new information but also for new understanding of how to work [7, 22].

### **Relationship between organizational learning and organizational innovativeness success**

There were very few studies that emphasized on the relationship between each process construct of organizational learning and innovation success [21, 25, 26]. Two constructs of organizational learning that were knowledge acquisition and knowledge utilization have significant and positive impacts on performance improvement [26]. When investigated of effects of organizational learning innovation performance, it was found that all four stages of organizational learning (information acquisition, information distribution, information interpretation, and organization memory) were significant effects on both individual- and organization-level innovation performance. Furthermore, the study revealed that organizational learning contributed effects to the

individual-level more than the organizational-level innovation performance [21]. In addition, Jiménez-Jiménez and Cegarra-Navarro [25] found that all stages of organizational learning, knowledge acquisition, knowledge distribution, knowledge interpretation, and organization memory, had positive effects on both firm performance and innovation.

Therefore, the hypotheses should be conducted as follows:

H1: There is a positive effect of knowledge acquisition and knowledge interpretation (KA\_KI) on innovativeness success (IS);

H2: There is a positive effect of organizational memory (OM) on innovativeness success (IS);

H3: There is a positive effect of knowledge distribution (KD) on innovativeness success (IS);

#### IV. RESEARCH METHODOLOGY

##### Population and Sampling

The population of the study was taken from the faculties within the Thailand's higher education institutions. The universities have been classified into five categories of all 675 faculties. First were private universities and institutions that come under the supervision of the Ministry of Education (MoE) 32.44%. Second were the Rajabhat Universities with 25.33%. Third were the public universities and institutions that are also under the supervision of the MoE 24.59%. Fourth were those autonomous universities 8.89%. The fifth were the Rajamangala Universities of Technology 8.74%.

##### Research Instrumentation

This study used the quantitative method where data were gathered from the OHEC database on the standard of two institutions, the OHEC and the ONES, both of which are

responsible for the internal and external academic quality assurance control.

Data for all variables of this study were secondary data gathered via CHE QA Online system. All variables were collected from an academic quality assurance control standard scale. Therefore, the data were secondary data assessed by coding method to be the proxies for each study variable. Research exogenous and endogenous variables were totally measured by the higher education quality assurance codes.

The data used for measuring the relationships among variables had been derived in terms of indicator scores from the academic quality assurance criteria. All academic assurance criteria were collected as presence or absence of each activities or thing that indicated for each criterion. This study compiled each indicator of the faculty quality assurance (QA) which was defined as 1 and 0 for presence and absence of data collection in each indicator, respectively.

To provide study appropriate to higher education institution context, research's proxies were determined on compared of academic assurance criteria with former organizational learning research questionnaires [19, 22, 27, 28]. Then, use the item summation of the academic quality assurance scores to be the measurement of each observed variable. After that the content validity was assessed by five experts who are proficient in both organizational learning and academic assurance indicators. The results of IOC score were between 0.60 - 1.00 which were accepted in term of content validity.

As a final point, Structural Equation Modeling (SEM) was used to specifying the set of the effects of research exogenous variables on endogenous variable in the model with a structural model.

V.CONCLUSION

Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted to validate all the variables employed in this research. The EFA test was used for validating distinctiveness of the newly developed measures. The CFA test was used for variables already validated in the literature. The results of all the CFAs indicated that the data fit the models well.

Table I Model Fit Testing

Model fit criteria	Value	Acceptable level value
Chi-Square	65.373	-
Degree of freedom (DF)	26	-
Chi-Square / Degree of freedom (CMIN/DF)	2.514	Less than 3
GFI	0.980	>= 0.90
AGFI	0.959	>= 0.80
CFI	0.973	> 0.90
RMSEA	0.045	< 0.05
Hoelter	471	> 200

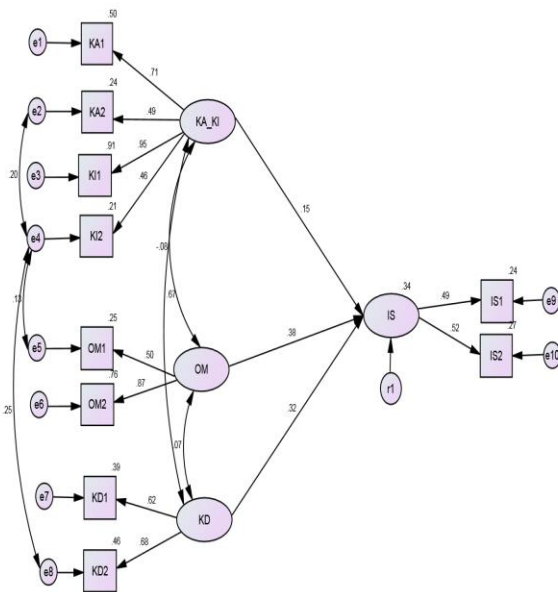


Figure II Structural Equation Model

Results of research hypothesis were

H1: The effect of knowledge acquisition and knowledge interpretation on innovativeness success was not significant.

H2: There was a positive effect of organizational memory on innovativeness success. The SEM reflected the direct effect of OM on IS. SEM was analyzed by investigating the direct effects between the latent variables whereas the statistical significance of the parameter estimates for the path between the latent variables was examined.

H3: There was a positive effect of knowledge distribution on innovativeness success. The SEM reflected the direct effect of KD on IS. SEM was analyzed by investigating the direct effects between the latent variables whereas the statistical significance of the parameter estimates for the path between the latent variables was examined.

VI.DISCUSSION

Existing literature has consistently showed that all stages of organizational learning (knowledge acquisition, knowledge distribution, knowledge interpretation, and organization

memory) have positive effects on firm innovation [25]. The research findings indicated that there was a positive effect of organizational memory (OM) on innovativeness success (IS). According to Yu-Lin and Ellinger [21] all four stages of organizational learning (information acquisition, information distribution, information interpretation, and organization memory) were significant to innovation performance, this study found a positive effect of knowledge distribution (KD) on innovativeness success (IS). But the result was contrast with Thuy and William [26] which revealed that their study were not found the effect of knowledge distribution on performance improvement. The research also discovered that the effect of knowledge acquisition and knowledge interpretation on innovativeness success is not significant. While, Thuy and William [26] established that there was positive effects of knowledge acquisition and knowledge utilization on performance improvement, and Jiménez-Jiménez and Cegarra-Navarro [25] concluded that knowledge acquisition, knowledge distribution, knowledge interpretation, and organization memory had positive effects on both firm performance and innovation. Knowledge acquisition and knowledge interpretation were process of acquiring new knowledge and information through external or internal sources. Including of the ways to identify knowledge meaning through process of developing the shared understanding. Since, knowledge and the way to use it that was interesting for one member maybe not interesting to other members. It depended on each person's specialize. Then, some of organizational knowledge that collected and interpreted in a common way was not appropriate for develop the new knowledge for all member's innovativeness result. The other new knowledge that we learned from this study was that we can separate of the constructs of organizational learning to investigated the more emphasize of the effect of each elements to innovativeness success.

## VII. RECOMMENDATION AND DIRECTIONS FOR FUTURE RESEARCH

From the management point of view the results in this study suggest meaningful implication. The activities that all faculties have to do for quality assurance criteria were useful not even for quality assurance score but also for organizational learning improvement that would finally effect to organizational innovativeness success. In addition the greater difference of faculty's member expertise, the more range of knowledge that faculty must reach, collect and find the ways to identify knowledge meaning. The future research further continues to explore other method such as, in depth interview or focused group to get more necessary information to add up more detail for the research. Furthermore, the study and the other additional future researches may continue to explore questionnaire to collect primary data to compare with result of secondary data.

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