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## Dynamic Knowledge Management Capabilities: An Approach to High-Performance Organization

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#### **Abstract**

The purpose of this research was to study the effect of dynamic knowledge management capability on high-performance organizations and organizational performance. The data collection was carried out using questionnaires from 4-5-star hotels in Thailand, for a total of 148 hotels. The data analysis was performed using descriptive statistics followed by Pearson's correlation analysis, confirmatory factor analysis, and structural equation modeling. The research results revealed that dynamic knowledge management capability had a positive direct effect on high-performing organizations and a positive indirect effect on organizational performance. Therefore, executives should emphasize the building of dynamic knowledge management capabilities to improve the performance of high-performance organizations, which will lead to performance strength beyond rivals.

Keywords: Dynamic Knowledge Management Capability; High Performance Organization; Organizational Performance.

## 1. Introduction

In a knowledge-based economy, such knowledge becomes the optimal production factor, replacing capital, land, and labor [1]. This is because knowledge can acquire a return on investment and economic growth in the long term. In addition, knowledge is a crucial driver that generates innovations and discoveries. For these reasons, many organizations accept that knowledge is a precious resource and a valuable property for an organization. Business organizations in the tourism industry, like hotel businesses, for instance, have to rely on employees for service provisions. Thus, the knowledge, skills, and experience of workers, which are called human capital, are considered essential components of a business drive [2]. Runyan et al. [3] said any organization that can utilize human capital as an intellectual resource will gain sustainable competitive advantages for that organization. However, the turnover of high-quality employees in these businesses has become a crucial problem. Some employees resign from their work; they also take their knowledge and skills, regarded as precious resources, out of that organization [4].

According to a survey from KPMG Company, almost half of European companies significantly suffer from losing employees' potential. The report indicated that those corporations faced problems with relationships with clients or suppliers. Moreover, they encountered an income loss from a single worker's leaving [5]. Therefore, it is necessary for

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a business to provide a systematic knowledge process for the creation, transfer, and application of knowledge to be effectively beneficial for the organization [5, 6]. Such knowledge is regarded as tacit knowledge or explicit knowledge to improve performance and create value for companies sustainably.

Although knowledge management is a major factor that helps an organization achieve higher performance, respond to clients' needs effectively [7], enhance achievement at a universal level, and achieve long-term competitive advantages [8], in the current digital era in which technologies increasingly occupy a crucial role in humans, relying on traditional knowledge management of tacit and explicit knowledge performed by humans for collecting and rearranging, storing, and publicizing such knowledge might not be able to make the organization successful. Therefore, traditional knowledge management has to change to become dynamic knowledge management instead. It is time for novel knowledge with an automatic system or ICT system to cooperate with humans [9]. Gannon et al. [10] said that an organization's competitive advantages in a digital period depend on the capability of intellectual capital building, which consists of structural capital, human capital, and relational capital. Furthermore, they revealed that the knowledge management process causes an organization's potential to change from intellectual resources to intellectual capital. Such an organization has to be capable of dynamic knowledge management, which is the competence of the organization to acquire, store, utilize, and renew intellectual capital to build sustainable competitive advantages.

Therefore, to further understand this concept, the researcher is interested in studying the effect of dynamic knowledge management capability on organizational performance. This study focuses on hotel businesses in popular tourist attractions in Thailand. The results can provide some guidelines for hotel business management to achieve success at an international level and achieve sustainable competitive advantages in the long term.

## 2. Theoretical Background

## 2.1. Dynamic Knowledge Management Capability

Knowledge is considered a crucial factor for developing human resources effectively and reaching self-development and organizational development to achieve growth. Currently, this is regarded as a knowledge-based society in which numerous technologies and pieces of information originate. If an organization cannot transfer such items into knowledge, it will lack crucial information for a decision. A lack of knowledge is due to ineffective and incomplete information collection, including taking excess time. Therefore, knowledge management plays a crucial role in solving these problems.

However, Gannon et al. [10] identified that in the current time when technologies have a further important role to humans, the highest significance does not depend on knowledge management but on intellectual capital. Any organization that can create or possess such capital will become great. Therefore, organizations' competitive advantages rely on the building capability of intellectual capital, which consists of structural capital, human capital, and relational capital. They indicated that in the knowledge management process that causes an organization to change from potential intellectual resources to intellectual capital, the organization has to achieve dynamic knowledge management capability, which is the organization's ability to acquire, store, utilize, and renew intellectual capital to create sustainable competitive advantages. Piorkowski et al. [9] revealed that the essential factors to achieve dynamic knowledge management capability include technology and a knowledge management culture, which are generated by motives that make personnel at every level view the knowledge management process as a part of performance and daily life. Thus, an organization with dynamic knowledge management capability will have employees who are motivated to develop new products or create intellectual properties to increase profits for the organization.

Villar et al. [8] and Jutidharabongse et al. [11] determined two main components to create the knowledge management capability: (1) external knowledge integration capability, which is the capability of the organization's personnel to view the value of the organization's external information and knowledge base and to be able to absorb that knowledge to apply within the organization to reach commercial benefits, and (2) internal knowledge development capability, which is the capability to share and exchange knowledge with others in the organization to bring lessons or various faults from the past to improve and develop the work and create new abilities within the organization.

According to the concepts of Gannon et al. [10], Piorkowski et al. [9], and Villar et al. [8], it can be concluded that dynamic knowledge management capability involves the creation of employees' motivation so that employees in such organizations will achieve both external knowledge and internal knowledge integration. It will help organizations develop new products and services or generate intellectual capital. Teece [12] said that intellectual capital is capable of achieving a competitive advantage. The study of the relationship between knowledge management and high-performance organizations by Bagorogoza and de Waal [13] and Honyenuga et al. [14] revealed that being a high-performance organization is a middle variable between knowledge management and organizational performance. Therefore, the following hypotheses are proposed:

**H1:** There is a positive relationship between dynamic knowledge management capability and high-performance organizations.

*H2:* There is a positive relationship between dynamic knowledge management capability and organizational performance.

## 2.2. High Performance Organization

One of the vital goals of organizations' executives in public and private sectors is to develop their organizations to become high-performance organization (HPOs) because HPOs will be the crucial base and guideline for achieving financial success, even though it is not relevant to be more financially successful than other organizations within the same industry in the long term [15]. De Waal proposed five crucial factors to acknowledge the specific characteristics of being an HPO, or excellent organization that stands out from other organizations as follows:

- Management Quality: In an HPO, executives are usually trusted by their employees. They emphasize employees' loyalty. They behave well; act respectfully, honestly, and decisively; focus on action, train and facilitate employees to get better results, encourage their employees to be responsible for outcomes, and are strict with low performing employees (nonperformer).
- Openness and Action Orientation: In an HPO, executives usually join the discussion with their employees for knowledge and learning exchange to obtain new ideas for improving performance. Furthermore, they participate in the performance process and crucial business decisions with their employees. In addition, they support employees in trying and accepting their inevitable errors as an opportunity to learn.
- Long-term Orientation: An HPO focuses more on sustainability in the long term than on short-term profits. Executives will construct and conserve great and long relationships with all organization stakeholders: shareholders, employees, suppliers, customers, and overall societies. An HPO will encourage its employees to become leaders and create a workplace to let them feel safe.
- Continuous Improvement and Renewal: An HPO uses specific and unique strategies to make a difference toward
  other organizations. It reduces complications but consistently improves and organizes a novel process for reaching
  the capability to effectively and efficiently respond to various situations. The organization measures and reports
  all results considered significant. Moreover, it measures, monitors, and follows the progress to achieve its goals.
  HPOs will improve and present new products and services for entering the market continuously. The organization
  emphasizes core competencies and outsources noncore competencies.
- Employee Quality: An HPO employs varied and flexible employees. Therefore, such an organization is able to deal with its problems quickly. Moreover, it utilizes existing opportunities in the market. HPOs create inspiration for employees to achieve specific results. At the same time, it has to be responsible for its performance.

Previously, numerous studies compared the organizational performances of overall organizations, both production and service sectors to see how their HPO scores compare. According to studies relevant to production organizations, such as the study of Godfrey [16] about Tanzania manufacturing firms, the study of de Waal and Escalante [17] about Peruvian mining companies, and the study of Osano and de Waal [18] about cement corporates in Kenya and Tanzania, or studies associated with service organizations, for example, the study of Yusuph [19] about banks in Tanzania, the study of Pett et al. [20] about the hotel industry in France, and the study of Habyarimana and de Waal [21] about banks in Rawanda, no matter the organizational production or service sector, the organizations with higher HPO scores would have higher organizational performance than the organizations with lower HPO scores. Therefore, the hypothesis can be as follows:

*H3:* There is a positive relationship between HPOs and organizational performance.

## 3. Methodology

## 3.1. Population and Sampling

The population used for this study was 4-5-star hotels located in tourist attractions that were popular among foreigners to visit, which included the first five provinces of Thailand: Bangkok, Phuket, Chonburi, Krabi, and Surat thani. There was a total of 885 hotels, with 500 samples selected by stratified random sampling. The researcher started the study by dividing the population into six groups, concordant with location. Next, the researcher used the random sampling technique to select the samples of each subgroup of the population to be in line with the population proportion of each group.

## 3.2. Data Collection

The researcher used questionnaires as an instrument for data collection. The questionnaire was divided into four parts: Part 1, closed-ended questions gathering general information about the respondents and the business; Parts 2-4, a five-point Likert scale on the opinions of executives related to dynamic knowledge management capability, HPOs, and organizational performance. The questionnaire was investigated for its content validity by experts and tested before use.

Then, the reliability of the questionnaire was determined by using Cronbach's alpha coefficient. The questionnaire had high reliability as a whole (0.978). Nunnally and Bernstein [22] and Cortina [23] indicated that a questionnaire should have a reliability of more than 0.7. After that, the researcher delivered 500 questionnaires to the executives of sample hotels by mail and followed such questionnaires every week for a total of 5 months. A total of 148 questionnaires were sent back to the researcher. Figure 1 presents the research methodology in a flowchart.

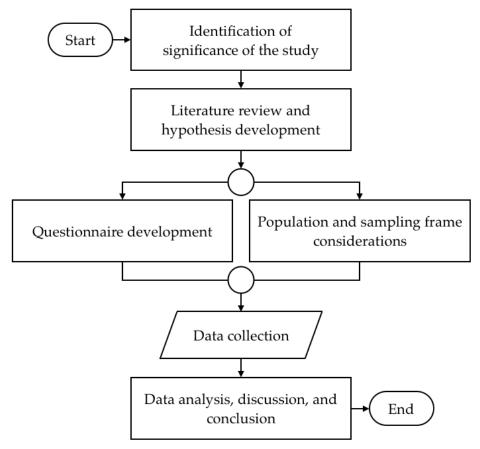


Figure 1. Flowchart of research methodology

From the 148 questionnaires, most of the respondents were female (74.3%), ages between 31-40 years old (36.5%), educational level was a bachelor's degree (75.7%), position was head of department and assistant head of department (41.9%), and work experience in the current hotel organization was less than 5 years (36.5%). The highest percentage of hotels were located in Bangkok (34.5%), with the type being independent hotels (62.2%), which had operated for more than 15 years (41.2%), the hotel standard was 4-star level (52.7%), the number of employees was more than 200 persons (39.2%), and the major customer groups were European and American (56.1%).

## 3.3. Data Collection

Data analysis in this research involved the following: (1) Basic data analysis using descriptive statistics to describe the sample characteristics and variable characteristics used for the research. The instrument was the SPSS statistical package. The statistics used included frequency, percentage, maximum, minimum, mean, standard deviation, skewness, and kurtosis. (2) Factor analysis applying the confirmatory factor analysis (CFA) to examine the completeness of the measurement model and study the concordance of the structural equation model with the empirical data. (3) Pearson's correlation was used to analyze the relationships between components using SPSS software. (4) Analysis of the hypothesized model applying the structural equation modeling (SEM) to test the concordance of the linear structural relationship model developed with empirical data derived from the questionnaires using LISREL10.10 software.

## 4. Results

## 4.1. The Descriptive Analysis of Construct Variables

The objective of this analysis was to observe the characteristics of variable fragmentation on various factors used in this study, consisting of dynamic knowledge management capability, HPOs, and organizational performance. The statistics proposed included minimum score, maximum score, mean, standard deviation, skewness, and kurtosis. The details appear in Table 1 as follows.

Table 1. Basic statistics of the variables on the factors of dynamic knowledge management capability, HPO, and organizational performance

Construct and observable variables		Max	Mean	S.D.	Skew	Kurt
Dynamic Knowledge Management Capability (DKMC)		5.00	4.00	0.65	-0.77	0.83
External Knowledge Integration Capability )EXTC)	2.00	5.00	4.01	0.64	-0.66	0.31
Internal Knowledge Development Capability (INTC)		5.00	3.98	0.71	-0.84	1.21
High-performance Organization (HPO)	2.20	5.00	4.17	0.61	-0.45	-0.33
Management Quality (MAN)	2.00	5.00	4.25	0.67	-0.71	0.01
Openness and Action Orientation (OPE)	2.00	5.00	4.14	0.65	-0.66	0.15
Long-term Orientation (LON)	2.75	5.00	4.29	0.61	-0.58	-0.42
Continuous Improvement and Renewal (CON)	1.60	5.00	4.07	0.74	-0.49	-0.18
Employee Quality (EMP)	2.00	5.00	4.11	0.70	-0.31	-0.65
Organizational Performance (PER)	1.83	5.00	3.87	0.63	-0.18	0.07
Financial Performance) FIN)	1.33	5.00	3.75	0.71	-0.21	0.24
Non-Financial Performance (NON)	2.00	5.00	3.99	0.64	-0.13	-0.34

Table 1 shows the analysis results of dynamic knowledge management capability, HPO, and organizational performance at a high level (means 4.00, 4.17, and 3.87, respectively). When considering skewness, there was a negatively skewed distribution (skewness < 0); therefore, most of the hotels had a level of dynamic knowledge management capability, HPO, and organizational performance higher than the mean of the samples [24]. When considering the kurtosis, it was less than 3. Thus, the data distribution was flatter than the normal curve, which exhibits a high data distribution [25]. The data distribution reveals that most of the observable variables were distributed nearly with the normal distribution, and considering from the skewness and kurtosis between -2 and 2, it was acceptable that the data collection had the normal distribution [26].

#### 4.2. Assessment of the Measurement Model

Confirmatory factor analysis (CFA) investigates the reliability and validity of the measurement model. Reliability can be assessed from Cronbach's alpha ( $\alpha$ ) and composite reliability (CR), while validity was evaluated by the factor loading and average variance extracted (AVE). The details are shown in Table 2 as follows.

Table 2. Reliability and validity of measurement model

Construct and observable variables	Factor loading	t-value	α	CR	AVE
Dynamic Knowledge Management Capability (DKMC)			0.93	0.91	0.84
External Knowledge Integration Capability) EXTC)	0.93	14.40**			
Internal Knowledge Development Capability (INTC)	0.91	13.81**			
High-performance Organization (HPO)			0.97	0.93	0.74
Management Quality (MAN)	0.80	11.66**			
Openness and Action Orientation (OPE)	0.86	13.11**			
Long-term Orientation (LON)	0.86	13.18**			
Continuous Improvement and Renewal (CON)	0.93	14.23**			
Employee Quality (EMP)	0.90	14.09**			
Organizational Performance (PER)			0.94	0.86	0.76
Financial Performance) FIN)	0.78	10.66**			
Non-Financial Performance (NON)	0.96	14.41**			

<sup>\*\*</sup> Significant at the 0.01 level.

Table 2 indicates that most of the observed variables described a high latent variable considering the factor loading was mostly higher than 0.50 [27]. Furthermore, the measurement model of dynamic knowledge management capability, HPO, and organizational performance had high construct validity considering the convergent validity, which had a high value, assessed by a construct reliability (CR) greater than 0.70 [27], between 0.86 and 0.93. Additionally, the AVE was more than 0.50 [28], and the value was between 0.74 and 0.84.

Furthermore, when considering discriminant validity, the observable variables and the latent variables could be discriminated by the indicators of each latent variable. They can discriminate directly from their own latent variables, not the indicators joining with other latent variables, considered by each latent variable: the latent variables of dynamic knowledge management capability, HPO, and organizational performance. Their values equalled 0.917, 0.862, and 0.870, respectively. These values were greater than the relationship value between the latent variables (from 0.604 to 0.772). This identifies that every measurement model had discriminant validity. The details are exhibited in Table 3 as follows.

**Table 3. Discriminant Validity Analysis** 

Constructs	DKMC	HPO	PER
Dynamic Knowledge Management Capability (DKMC)	(0.917)		_
High-performance Organization (HPO)	0.772**	(0.862)	
Organizational Performance (PER)	0.604**	0.727**	(0.870)

<sup>\*\*</sup> Significant at the 0.01 level.

## 4.3. Hypothesis Testing

Regarding this presentation, we exhibited the hypothesis testing result using path analysis, a statistical technique used for studying the independent variable impact, or predictor variable impact, affecting the dependent variable, both a direct effect and an indirect effect using the LISREL 10.10 program.

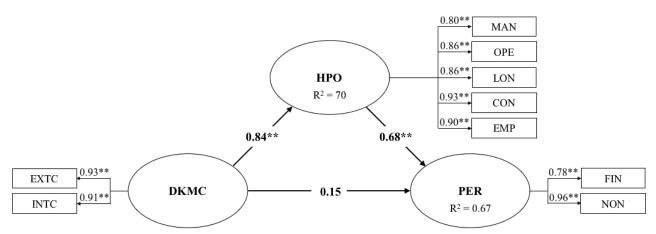
The analysis results revealed that the structural equation model of the dynamic knowledge management capability, HPO, and organizational performance developed by the researcher was concordant with the empirical data. The goodness of fit indices that passed all standardized criteria were  $\chi^2/df < 3.00$ , CFI, GFI > 0.90, RMSEA < 0.08, and SRMR < 0.10 [28]. In addition, the data analysis results expressed the causal effect between dynamic knowledge management capability, HPO, and organizational performance. The details are exhibited in Table 4.

Table 4. Direct and indirect effects of the structural model

D 1 4 W 1.11	<b>D</b> 2	Effects		Independent Variables			
Dependent Variables				$\mathbb{R}^2$	DKMC	HPO	
НРО			Direct effect		0.84**	-	
		0.70	Indirect effect		-	-	
			Total effect		0.84**	-	
PER			Direct effect		0.15	0.68**	
		0.67	Indirect effect		0.58**	-	
			Total effect		0.73**	0.68**	
$\chi^2$	P-value	$\chi^2/df$	CFI	GFI	RMSEA	SRMR	
27.95	0.0628	1.55	0.992	0.961	0.061	0.023	

<sup>\*\*</sup> Significant at the 0.01 level.

Table 4 indicates the analysis result of the variable effect and finds that dynamic knowledge management capability has a positive relationship with HPO at the 0.01 level, having a direct relationship and a positive total effect coefficient equal to 0.84. Therefore, the research result supports H1. In addition, it reveals that dynamic knowledge management capability had a positive relationship with organizational performance with a statistical significance of 0.01, by having an indirect relationship and having a positive total effect coefficient equal to 0.73. Therefore, it supports H2. Moreover, HPO had a positive relationship with the organizational performance measurement with a statistical significance level of 0.01, having a direct relationship and a positive total effect coefficient equal to 0.68. This finding supports H3, the path of the variable effect of the created model. The details are exhibited in Figure 2.



Chi-Square=27.95, df=18, P-value=0.06284, CFI= 0.992, GFI=0.961, RMSEA=0.061, SRMR=0.023

Figure 2. The structural equation model

<sup>\*\*</sup>significant at the 0.01 level

## **5.** Conclusions

According to the study, dynamic knowledge management capability has a positive relationship with HPO and organizational performance. Dynamic knowledge management capability directly affects HPOs and indirectly affects the organizational performance. Knowledge helps develop human capital to reach high competency, which will lead organizations to step forward to become HPOs. A dynamic knowledge management capability is an organizational capability to integrate external knowledge and develop internal knowledge [11]. In addition, an organization will generate intellectual capital and be capable of applying it toward organizational prosperity [10]. In addition, it builds competitive advantages [12], which affect such organizations' drive to become HPOs, and finally, it helps create organizational performance. This result is concordant with the research results of Bagorogoza and de Waal [13], who studied financial institutions in Uganda, including the research results of Honyenuga et al. [14], about the insurance industry. Both contributions found that HPO is the mediator between knowledge management and organizational performance. This indicates that knowledge management directly affects an HPO and indirectly affects organizational performance because knowledge management helps develop the organization to become an HPO, which will consequently increase organizational performance.

In addition, the research identifies that being an HPO has a positive relationship with organizational performance because an HPO has a clear plan to support numerous conditions. Furthermore, the analysis of situations affected the performance from every side and view, which made the tasks achieve the objectives effectively, be punctual, and generally reach the quality of acceptable excellent contributions [29]. These characteristics affect the HPO concordant with excellence beyond rivals and reaching a high level of masterpieces beyond rivals. Similarly, the research by Osano and de Waal [18], which compared cement companies in Kenya and Tanzania, revealed that a company with a higher HPO score had higher organizational performance than a company with a lower HPO score. De Waal [30] brought the conceptual framework of an HPO to apply to the Swagelok 7 companies located in America and Canada. The research results revealed that applying the HPO framework caused better growth in some places and in others that used it to address non-facilitative economic conditions. However, every location agreed that the HPO framework is a tool that positively affects the development of the organization and its personnel. It states that being an HPO will enhance the performance improvement of both the financial and nonfinancial performance of the organization.

## 5.1. Implications

This research can be a guideline for the executives of hotel businesses that have to realize the significance of dynamic knowledge management capability for improving an HPO. It will lead to a strength of performance beyond that of rivals. Dynamic knowledge management capability involves the external and internal knowledge integration capability to respond to changing customers' needs in time by relying on the technologies and personnel in the organization to drive improvement. Knowledge management will help develop human capital to reach high competency until it generates intellectual capital and can apply it toward organizational prosperity and competitive advantages, which will affect the organization's ability to drive itself to become an HPO. Furthermore, it enhances the organization's ability to have better contributions in terms of financial and non-financial capability. Therefore, executives have to be confident that they have supported all the facilities, such as an atmosphere for technology and learning exchange. Moreover, executives have to promote motivation to personnel of every level to view the knowledge management process as being a part of operformance and daily life until it becomes a culture.

## 5.2. Limitations and Future Research Directions

The study is about the hotel industry during short periods. The research results do not express the long-term effects of creating a dynamic knowledge management capability on the organization's development and organizational performance. Therefore, to perceive these areas, further research should apply the conceptual framework of dynamic knowledge management capability to various organizations. Furthermore, it should follow the results regularly to see how the organization continues to develop and change.

## 6. Declarations

## 6.1. Author Contributions

Conceptualization, K.P. and S.A.; methodology, K.D. and A.C.; software, K.P. and Y.H.; validation, A.C., K.J. and Y.H.; formal analysis, K.P. and K.J.; investigation, S.A.; resources, S.A.; writing—original draft preparation, K.P. and K.J.; writing—review and editing, K.D., K.J., and Y.H.; visualization, K.J.; supervision, S.A.; project administration, S.A. All authors have read and agreed to the published version of the manuscript.

## **6.2. Data Availability Statement**

The data presented in this study are available in the article.

#### 6.3. Funding

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#### 6.4. Informed Consent Statement

Not Applicable.

## 6.5. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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