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The Determinants toward Fostering Innovation Management Effectiveness in Thai Public Service: Empirical Study of Awarded Organization

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Abstract

The main objectives of this studies are 1) to study and examine the characteristics of awarded organizations in public service innovation, 2) to analyze determinants affecting fostering innovation effectiveness in public service in the awarded organization, and 3) to provide policy recommendations in aspects of determinants fostering public service innovation for enhancing Thai public service innovation performance. The research employed a mixed-method to obtain the quantitative data from 393 employees in three departments - The Department of Fisheries, The Department of Land Transport, and The Department of Medical Science. The quantitative data were analyzed by using descriptive statistics, Pearson correlation coefficient, and Structural Equation Modeling (SEM) while qualitative data were collected from in-depth interviews and analyzed by using content analysis.

The research found that 1) the awarded organizations in public service innovation are the organizations with innovation management systems, employees innovation management potential, and focusing on continuous improvement of public services, 2) the following factors, innovation strategy, organizational culture, organizational structure, human resource management, and organizational system, were found to be correlated in innovation management effectiveness with a statistical significance of .05. However, innovative leadership indirectly affects innovation management effectiveness through innovation strategy and organizational culture with a statistical significance of .05. The qualitative results support the quantitative which show that six factors affected innovation management effectiveness, and 3) The policy recommendation is to promote more cooperation in innovation work between

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the organizations in the public, private, and university sectors. In addition, OPDC should have a system to exchange knowledge management, ideas, and experiences between best practice organizations and other organizations that require successful innovation development. Finally, the government should consider a complex legal amendments process or are still pending approval to be implemented successfully in order to develop innovation.

Keywords: Public Service Innovation, Awarded Organization, Innovation Management Effectiveness, Public Sector, Thailand

Introduction

Innovation in the public sector has been one of the most relevant innovation issues in recent years. Innovation matters for the public sector to continue high welfare services and help the public sector face economic and societal challenges (Borins, 2001). It is particularly relevant in a context where budgetary constraints in many parts of the world reduce the public sector's size and increase efficiency and effectiveness. The citizens' criticism shows that public services do not comply with their needs for various reasons. For instance, the citizens have inconveniences contacting numerous agencies to receive the service; service takes a long time and lacks commitment to service delivery, difficult tracking status, and corruption risk protection (Khampee, 2018). Innovation can be the solution for promoting more efficient public services and increasing the quality of performance concurrently. The innovation concept can apply to public service to improve public service quality and enhance government dealing with social faces (Damanpour & Schneider, 2009). Consequently, public service innovation is one mechanism to push Thailand's 4.0 policy to unlock the country from several challenges. General Prayut Chan-o-cha declared public service development in national strategies on public rebalancing and development as part of Thailand's 20-Year National Strategy (B.E. 2561-2580) (Office of the National Economic and Social Development Council, 2019). This strategy shows that the public sector needs to upgrade public service and facilitation to achieve excellent levels to meet the service recipients' needs. Thus, Thailand set the following goals of Thai public service innovation: upgrade innovation capabilities, increase opportunities for new product development, and create new value in public services (National Innovation Agency, 2017).

The Office of the Public Sector Development Commission (OPDC) is responsible for supporting public sector development. One of the OPDC's missions is to provide "Public Sector Excellence Awards" to public sectors that achieve public administration's success criteria. One

of the award types is the service innovation award given to the public sector that delivers valuable services for citizens by bringing innovation and new initiatives to develop better services, new products and provide convenient service to the citizens (Office of the Public Sector Development Commission, 2019). Many public sectors are applying to compete with this award every year, and some have continuously received awards. It is interesting that how those organizations successfully foster and develop innovation in the organization. In addition, learning from the best practice will inspire other government agencies to improve service quality.

Early studies have investigated service innovation in the private sector (Albury, 2005; Arundel et al, 2019; Bloch and Bugge, 2013). The study about service innovation in the public sector has received attention recently and almost focuses on conceptual and normative overviews (Alves, 2013; Chen et al, 2019; Vickers et al, 2017). In managing service innovation, there remains a lack of an adequate study of factors for analyzing innovation in the public sectors (Koch and Hauknes, 2005). Particularly, the study of internal factors of the organization such as leadership, strategy, organizational culture, and organizational structure. Therefore, the public sector needs to navigate through factors that affect innovation management's success by seeking inspiration and learning from best practice organizations in innovation management (Albury, 2005). More extended analysis is still needed to understand public service innovation and its application better.

This study thus shows a comprehensive analysis of the determinants fostering public service innovation in the best practice organization that received the award from OPDC. The quality of public service innovation does not happen overnight. It is vital to have the best practice of public service innovation to apply the method to improve service quality to respond to the shifting of the environment and citizens.

Objectives

1. To study and examine the characteristics of awarded organizations in public service innovation.

2. To analyze determinants affecting fostering innovation effectiveness in public service in the awarded organization.

3. To provide policy recommendations in aspects of determinants fostering public service innovation for enhancing Thai public service innovation performance

Conceptual Framework

Six determinants have been adapted from the concept of McKinsey 7s model and the previous studied of Loewe & Dominiquini, 2006; Potts & Kastelle, 2010; Ravanfar, 2015; Moussa et al, 2018). The determinants including innovative leadership, innovation strategy, organizational culture, organization strategy, human resource management, and organizational system. Nine hypotheses were developed based on the research model and discussed literature review, for instance, Tidd, 2001; Martins & Terblanche, 2003; Albury, 2005; Loewe & Dominiquini, 2006; Jiang et al, 2012; Ravanfar, 2015.

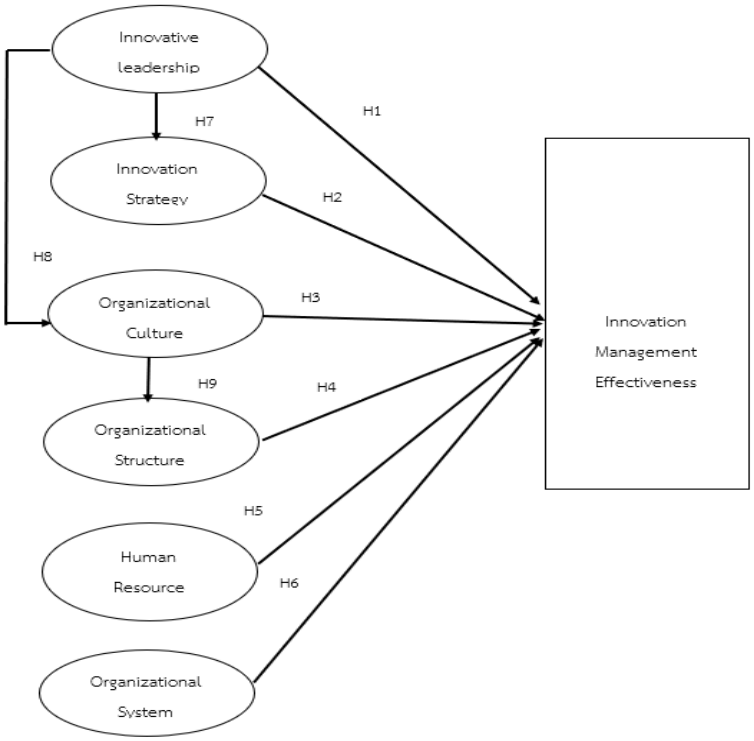

Figure 1 Conceptual Framework

Method

The research employed a mixed-methods approach for data collection and data analysis. The researcher uses a qualitative method to find the result of the characteristics of the awarded organization and the determinants that fostering innovation management effectiveness. Simultaneously, the in-depth interview, revised and suggested by the experts, is the primary qualitative data collection method to exchange comprehensive information

between interviewer and interviewee. The semi-structured interviews were applied to collect data from the purposive selected key informants. The 16 key informants were: Head of Bureau, Division, or Section and working-level officers in the front office. The data from an in-depth interview were analyzed by using content analysis. For the quantitative method, the researcher selects the Department in a public sector which received the Thai Public Sector Excellence Awards (PSEA) for public service awards as follows: 1) Department of Fisheries, Ministry of Agriculture and Cooperatives, 2) Department of Land Transport, Ministry of Transport, 3) Department of medical services, Ministry of Public Health. The sample size was formulated by employing the proportional stratified method as a probability method using Taro Yamane's formula (1967) to give the minimum sample size at a confidence level of 95%. The total population of this study is 23,370. Therefore, the sample size is 393 sets of questionnaires are recommended for this research. The sample size is consistent with structural equation model analysis which requires a minimum of 100 samples (Hair et al, 2010).

The questionnaire measure by a six-point Likert scale (1= strongly disagree, 6= strongly agree). The researcher uses a six-point Likert scale to cut the opportunity to answer without considering the measurement items because the respondents cannot choose the moderate value as the middle point in this kind of rating scale (Chomeya, 2010). SPSS was used to analyzed descriptive statistics and correlation analysis. Moreover, the researcher conducted a path analysis using the AMOS program.

The reliability applies to the quantitative method to produce consistency in measuring instruments (Huck, 2012). It showed that data is consistent or stable, as indicated by the researcher's ability to replicate the findings. Cronbach's coefficient was used to assess the reliability of the questionnaires to measure internal consistency. According to the reliability test result, the pre-test and post-test had Cronbach's Alpha ranging between 0.813-0.885. The instrument used as a measurement had a high percentage of representation; the level of Cronbach's Alpha estimate of 0.70 or higher shows good reliability (Hair et al, 2010). Moreover, in this research, item-objective congruence (IOC) indexes are applied to evaluate content validity at the item development stage. The index of item-objective congruence (IOC) was used to select the questions with an IOC of 0.5 and above to confirm the questionnaire's validity. On the other hand, the questions with an IOC of less than 0.5 were rejected or modified.

Research findings

1. The qualitative findings

1.1 The characteristic of the awarded organization

The research result shows that the awarded organization creates an innovation management process which will sustain the high-performance organization. The awarded organization manages innovation by improving and developing work systems and creating appropriate innovation using the knowledge of employees combined with the acquisition of knowledge outside the organization to develop into innovation. The awarded organization has the system to support employee's potential in innovation management in terms of having the knowledge, skills, and the ability to innovate and develop innovations that can increase employee potential and innovation processes. The organization also partnered with other agencies, such as a private organization, to promote a continuous exchange of knowledge and experience in developing innovation. The success of managing service innovation allows people for more comprehensive service, equitable, efficient, faster, then improves public organizations' image to become an organization with a modern image and have a high-performance organization.

1.2 The determinants fostering public service innovation

Innovative leadership is the critical factor that will contribute to creating an innovative organization. The leader presents the ability to be forward-looking, focus on the future, adapt to change, and visionary approach, which is a critical factor in promoting innovation guidelines for implementing innovation. **Innovation strategy** is passed on to different departments, enabling everyone to perceive, understand and work in the same direction. Furthermore, the organization has a system for monitoring and evaluating innovation performance according to the strategic plan to ensure that the implementation that follows the organization's strategy meets the organization's objective. **Organizational culture** is transmitted through vision, mission, values, and strategic plan. Thus, employees perceive innovation as a shared value, and then they will have work behaviors consistent with innovative approaches. **Organizational structure** shows that the awarded organizations have a similar organizational structure; they do not have a flat organization. Notwithstanding, the organization using a decentralized structure to facilitates innovative work by establishing a special unit or cross-functional team with knowledge and expertise in various fields to co-create innovation. **Human resource management practices** are relevant to managing people who participate in innovation

management regarding recruitment and selection, job design, training and development, performance appraisals, and reward and recognition to enhance the employees' performance and motivate employees' creativity and behavior to develop innovation. **Organizational system** is one of the most critical factors in developing innovation. The organization that prepares the system for support innovation can improve efficiency, productivity, and decision-making. The awarded organization has a communication system conducive to innovation, especially the organization's communication system with various channels such as journals, web-board, website, forum, and social media platform to share knowledge and innovation development experience. Regarding resource management, the public sector's resources support will have to plan by writing a project proposal for funding and the committee's consideration. Thus, the contribution of resources, whether money and equipment, is already on the approved plan. In terms of knowledge management, the result shows that organizations focus on knowledge management to share knowledge and experience both success and failure in innovation development. The organization supporting knowledge management by developing channels within the organizations to share their knowledge with others can facilitate collaboration in the innovation process.

2. The quantitative findings

The basic information of the target sample is the employees working at The Department of fisheries, The Department of land transports, and The Department of medical services are presented in this section. 350 answered questionnaires were returned out of the 393 survey packs distributed to the respondents, representing a response rate of 89.05%. Most of the respondents were Female (n=190, 54.29%) and had obtained bachelor's degree (n= 242, 69.14). The majority of the respondents worked in the Department of medical services (n= 135, 38.57%). Most of them had work positions in officer 255 (72.86%), and most of the participants had worked at their current organization for 1-5 years (n=167, 47.71%). According to the study of the determinants toward fostering innovation management effectiveness in Thai public service, the results show that;

Table 1 The Summary of all Constructs in Descriptive Statistics

Constructs	Number of respondents	Mean	S.D.
Innovative leadership (24 Items)	350	4.66	.772
Organizational culture (10 Items)	350	4.72	.791
Innovation strategy (10 Items)	350	4.70	.888
Human resource management practice (18 Items)	350	4.62	.854
Organizational system (19 Items)	350	4.66	.770
- Communication management	350	4.72	.750
- Resource management	350	4.44	.781
- Knowledge management	350	4.71	.772
Organizational structure (10 Items)	350	4.89	.864
Innovation management effectiveness (7 Items)	350	5.06	.815

According to **Table 1**, the constructs in descriptive statistics from 350 respondents from the three departments are given from the highest to lowest: Innovation management effectiveness (5.06), Organizational structure (4.89), Organizational culture (4.72), Innovation strategy (4.70), Innovative leadership (4.66), Organizational system (4.66), and Human resource management practice (4.62) respectively.

Table 2 Path analysis result

Paths	B	β	SE	t	p	R^2
H1: Innovative Leadership (IL)→ Innovation Management Effectiveness (IM)	0.31	.350	0.22	1.58	.114	.609
H2: Innovation Strategy (IS)→ Innovation Management Effectiveness (IM)	0.21	.231	0.07	3.51*	<.001	
H3: Organizational Culture (OC)→ Innovation Management Effectiveness (IM)	0.23	.254	0.06	3.72*	<.001	
H4: Organizational Structure (OS) → Innovation Management Effectiveness (IM)	0.25	.278	0.06	4.06*	<.001	
H5: Human Resource Management (HR) → Innovation Management Effectiveness (IM)	0.18	.225	0.06	2.89*	.017	

Paths	B	β	SE	t	p	R^2
H6: Organization System (OS)⟶ Innovation Management Effectiveness (IM)	0.15	.202	0.07	2.58*	<.001	
H7: Innovative Leadership (IL) ⟶ Innovation Strategy (IS)	0.83	.560	0.05	11.24*	<.001	.514
H8: Innovative Leadership (IL) ⟶ Organizational Culture (OC)	0.92	.714	0.04	19.36*	<.001	.510
H9: Organizational Culture (OC) ⟶ Organizational Structure (OS)	0.56	.477	0.05	10.02*	<.001	.427

*p < .05

The research findings show that hypothesis 1 is not supported in that innovative leadership positively affects innovation management effectiveness at a statistically significant level.05 (β=.350, p=.114). However, the other hypotheses set accepted (H2-H9). It shows that the determinants that have positively affect innovation management effectiveness with a significance level of 0.05 are innovation strategy (β=.231, p=<.001), organizational culture (β=.254, p=.114), Organizational structure (β=.278, p=<.001), Human resource management (β=.225, p=0.17), Organizational system (β=.202, p=<.001). Furthermore, innovative leadership positively affects innovation strategy (β=.560, p<.001) and organizational culture (β=.714, p<.001) with a significance level of 0.05.

Table 3 Indirect Effects of Variables in the Path Analysis Model

Paths	B	β	SE	t	p	R^2	Results
IL ⟶ IS ⟶ IM	0.17	.211	0.04	2.31*	.021	.409	Indirect Impact
IL ⟶ OC ⟶ IM	0.12	.144	0.05	1.56*	<.001		Indirect Impact
OC ⟶ OT ⟶ IM	0.17	.197	0.03	3.82*	<.001		Indirect Impact
IL ⟶ OC ⟶ OT ⟶ IM	0.16	.186	0.02	3.66*	<.001		Indirect Impact

*p < .05

The results indicate that innovative leadership indirectly affected innovation management effectiveness at a significance level of 0.05 with an indirect effect through innovation strategy (β=.211, p=.021), organizational culture (β=.144, p<.001), organizational

culture and organizational structure (β=.186, p<.001). Furthermore, organizational culture had an indirect effect on innovation management effectiveness, with a significance level of 0.05 with an indirect effect through organizational structure (β=.197, p<.001).

Discussion

1. The characteristic of the awarded organization

Organizational innovation management, including improving products, services, adjusting work processes, must spread throughout the organization from the management level to the operational level in order for innovation to become part of the work routine. Thus, the organization will consist of innovative, visionary leadership that plays a crucial role in leading the organization by providing a clear approach to innovation through organizational strategies. It is consistent with previous research, showing that the innovation organization should have an innovative leader to generate creative ideas and approaches for finding the solutions, leading the innovation team, and facilitating the essential resources (Abdulridha Jabbar & Hussein, 2017). The awarded organization also emphasizes long-term human skills development and training strategies, and the organization develops and instills the learning habits of employees in the organization. This is in line with Dundon (2002) also stated that innovative thinking is a skill that can be taught, practiced, and improved; if team members have the skills, they will have the confidence to find, develop new ideas at total capacity (Dundon, 2002). National Innovation Agency (NIA, 2017) suggested that employees must be the center of innovation development in promoting innovation; thus, employees must be encouraged to have strong innovative skills and be encouraged to use their skills (National Innovation Agency, 2017). In addition, the awarded organization adopts new ideas from systematically thought and needs analysis of the service users to create creative services in developing new products and services. The organization integrates organizational management capabilities, including creating interactions with people in creating service values to increase convenience and speed of access in public service. It is consistent with Yodyingyong (2009), to be an innovative organization, the organization must modify its characteristics or organizational behavior to develop good quality products and services (Yodyingyong, 2009). Lawson and Samson (2002) also stated that an organization with high-performing innovation management could continuously maintain competence and bring new quality products or services to the people more frequently (Lawson & Samson, 2002).

2. The determinants fostering public service innovation

Innovative leadership

Employees perceived innovative leadership had consistent with a high level of innovation management effectiveness (mean=4.66). The path analysis results demonstrated that innovative leadership has no direct effect on innovation management effectiveness (β=.350, p=.114). However, innovative leadership indirectly affects innovation management effectiveness, affecting innovation strategy (β=.211, p=.021). It presents that the leader fosters innovation through organizational strategy. The leader creates a strategy that is like a roadmap of the organization that leads to success. This is in line with previous research, which suggested that the innovation strategy determines the leader's potential to manage innovation and show the future strategies and energizing employees to achieve the goal (Bouhali et al, 2015)

In addition, innovative leadership indirectly affects innovation management effectiveness through organizational culture (β=.144, p<.001). In accordance with the qualitative results, it demonstrates that the leader focuses on creating a culture to promote organizational innovation. The leader has influenced the organizational culture by inspiring employees with a shared vision and mission to engage the team members and encourage them to bring their skills and ability to achieve the innovation goal. This is in line with previous research which indicated that the innovation organization needs a leader who can change the culture and develop an innovation culture by empowering employees to initiate and shared ideas to commit to achieving goals (Elenkov & Manev, 2005). Maher (2014) also stated that a leader has a vital role in strengthening innovation culture, and the leader will take part in every step in supporting innovation culture (Maher, 2014).

Innovation strategy

Innovation strategy positively affects innovation management with a significance level of 0.05 (β=.231, p<.001), and employees perceived innovation strategy had consistent with a high level of innovation management effectiveness (mean=4.70). The strategy enables employees to understand the organization's overall needs and current innovation management capabilities, enabling employees to operate and use resources effectively to manage innovation. In addition, the quantitative results are in line with the qualitative results, showing that innovation strategy is a critical factor in promoting innovation. According to Zheng Zhou (2006), who stated that the innovation strategy increases the organization's performance because it is suitable for uncertain development and rapid technological (Zheng Zhou, 2006). Jimenez & Sanz

Valle (2011) suggested that when the organization uses the right innovation strategy, it can help sustain organizational performance, reduce production costs, and increase people's satisfaction in receiving services (Jimenez & Sanz Valle, 2011).

Organizational culture

Employees perceived organizational culture had consistent with a high level of innovation management effectiveness with a mean of 4.72. The path analysis result shows that organizational culture positively affects innovation management effectiveness with a significance level of 0.05 (β=.254, p<.001). The results indicated that organizational culture is essential for promoting innovation in the organization because it is how employees perceive, think, and behave. The qualitative results also present that the shared value encourages employees to focus on innovation, so it is vital to find the shared values that will create innovation and establish it into the organizational culture. This is consistent with Lowe and Dominiquini (2006), who explored that organizational culture and value have an essential role in implement innovation effectiveness (Loewe & Dominiquini, 2006). Dvir et al. (2004) also indicated that shared value is the strong culture that connects employees through a common goal and motivates them to be passionate to be successful (Dvir et al, 2004). In addition, organizational culture also positively affects the organizational structure with a significance level of 0.05 (β=.477, p<.001). Organizational culture impacts the organizational structure both through its design and its implementation. The culture creates a frame of reference in which the organization management's considerations and reasoning circulate in decision-making concerning the organizational structure. This is in line with Ostroff, Kinicki and Muhammad (2013), which pointed out that organizational culture impacts an organizational design by forming the top management's interpretative schemes, selecting the organizational structure model (Ostroff et al, 2013). A culture that supports innovation is values like freedom, work teams, and flexibility. It will promote innovation, whereas specialization, control, formalization, rigidity, standardization, and centralization will inhibit innovation (Arad et al, 1997; Martins and Terblanche, 2003).

Organizational Structure

Organizational structure positively affects innovation management effectiveness with a significance level of 0.05 (β=.278, p<.001). Employees perceived organizational structure had consistent with a high level of innovation management effectiveness with a mean of 4.89. The result shows that the awarded organization does not have a flat organization. However, it uses a decentralized system with the innovation development team to support flexibility and agile

innovation projects. It is consistent with Tidd (2001), who stated that organizational structure that fits the organization's innovation does not have the exact model; it depends on the organization's innovation approach because its different structures are suitable for its innovative approaches Tidd (2001). The decentralized system shows that the flexible organizational structure provides informal coordination and encourages creativity and knowledge sharing (Burn and Stalker, 1994; Dekoulou and Trivellas, 2017). It shows the distribution power that comes from trust between the leader and the employees. Furthermore, the qualitative result is in line with the quantitative results which demonstrate that cross-functional teams are conducive to innovation development because they can contribute their knowledge and experience to complete tasks and accomplish goals. Teamwork is also considered a structure that encourages lateral communications and shares ideas and discussion by linkage across teams to be implemented in a cross-functional team and integrate team in fostering innovation development (Damanpour and Schneider, 2009; Mohrman et al, 2003).

Human resource management practice

The human resource management practice has positively affected innovation management effectiveness with a significance level of 0.05 (β=.225, p=.017). Employees perceived human resource management had consistent with a high level of innovation management effectiveness with a mean of 4.62. The obtained research results, both qualitative and quantitative, also present those human resources management practices play a crucial role in creating innovation because human resource management is relevant to managing people who participated in innovation management. In every organization, apply human resource management practice in preparing, promoting, and developing the human resource to develop organizational innovation. This is in line with the concept of human resource management practice from Boxall and Purcell (2011), which shows that people are the heart of creativity and innovation in developing ideas and putting them into practice to succeed in organizational development (Boxall and Purcell, 2011). Datta, Guthrie, and Wright (2005) also stated that human resource management practice has significant implications with innovation development in changing the work form and linking with the organization performance (Datta, Guthrie, and Wright, 2005).

Organizational system

The organizational system positively affects innovation management effectiveness with a significance level of 0.05 (β=.202, p<.001). Employees perceived organizational system had

consistent with a high level of innovation management effectiveness with a mean of 4.66. Communication influences members to achieve shared values and goals. Therefore, effective communication acts as an essential factor that leads to success in innovation management effectiveness. This is consistent with Snyder and Duarte (2003), which showed that an effective innovation organization must focus on communication so that people in the organization committed to cultivating innovation, which is an initial plan that will lead to the goal of successful innovation management (Snyder and Duarte, 2003). In the same wat, the obtained qualitative research results indicate that innovative organizations should use various formal and informal communication channels to support effective innovation. This is in line with Tidd (2001), who indicated that innovative organizations should use various communication channels to gather different ideas (Tidd, 2001). Besides, resource availability is one of the essential factors in an innovation organization. The obtained research results, both qualitative and quantitative results present those sufficient resources such as man, money, materials impact the employees' perceptions of innovation support. Combining skills and unique resources can maintain and increase differentiation and lead to success in innovation management. It is consistent with previous studies, showing that organizations supporting sufficient resources in the R&D and innovation processes lead to more success in innovation projects (Kostopoulos, 2002; Hewitt-Dundas, 2006). Moreover, effective resource management in providing sufficient resources helps increase innovation initiatives and improves the probability of stimulating innovation (Lawson & Samson, 2002). The awarded organization also focuses on knowledge management in supporting employees in acquiring and sharing information inside and outside the organization. The quantitative result is consistent with the qualitative results which demonstrate that the organization has several tools which designed for sharing and exchanging knowledge such as documents, forums, coaching, social network platform, and website, to provide employees with access to the exchange of knowledge through various channels. Thus, employees' creativity has been enhanced due to sharing their experiences and accumulated knowledge with each other. It is consistent with previous research in knowledge management, which shows that knowledge management has positively impacted innovation in the public organization in creating new ideas, products, services, and helps the organization identify the coming-up trends, decrease the uncertainty, and acquire new skills that benefit from developing innovation (Nguyen and Gregar, 2018; Nowacki and Bachnik, 2016).

It can be seen that the qualitative results support the quantitative results which state the six factors affected innovation management effectiveness in the awarded organization. It demonstrates that all factors encourage continuous improvement and development of service innovation in the organization.

Recommendation

Policy recommendation

1. The public sector should promote more cooperation in innovation work between government agencies, private sectors, and universities to exchange knowledge and experience in research and development to improve the organization's potential in innovation management.

2. Office of the Public Sector Development Commission (OPDC) should have a system to exchange knowledge through knowledge management between best practices organizations and other organizations that need successful innovation development to convey innovation management methods and inspire the other organization in organizational innovation development. Furthermore, OPDC should have a mentoring organization system for consulting on innovation management between the awarded organizations and organizations that begin developing organizational innovation by considering pairing the organizations with similar contexts.

3. Some innovations are associated with the law; however, the legislative changes to conform to the innovation that has been created took a long time to consider and do not guarantee the law will be solved. It is making the innovations obsolete and sometimes impossible to use. Thus, the government should consider and improve a complex legal amendments process or still pending approval to be implemented successfully, to develop innovation.

Recommendation for future research

1. Study a broad range of award-winning public sectors such as state enterprises, public organizations, and provincial governments to gain more in-depth information because this research is limited to the Department level and finds the additional factor affecting innovation management effectiveness.

2. Study and research should be carried out in order to develop a model for organizational innovation management in the public sector to guide executives and related

departments in developing organizational innovation and to develop it into a high-performance organization.

3. The factors that contribute to the success of organizational innovation management from the perspective of the public, that is the stakeholders, should be studied in order to comprehensive information for in-depth analysis of expectation, satisfaction, and recommendation.

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