

Adhocracy Culture, Organizational Innovation and Performance: A Study of Thai Small and Medium Enterprises

วัฒนธรรมองค์กรแบบปรับตัว นวัตกรรมองค์กร และผลการดำเนินงาน: การศึกษาในวิสาหกิจขนาดกลางและขนาดย่อมในประเทศไทย

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Abstract

The purpose of this study is to investigate the effect of organizational innovation on organizational performance which includes the roles of adhocracy culture on organizational innovation and performance. Data were collected from in-depth interviews with seven SMEs entrepreneurs who received SMEs National Awards in Thailand. Questionnaires were used to gather data from 201 SMEs entrepreneurs. EFA, CFA, and regression analysis were used to analyze the data and to test the hypotheses. The findings indicate that organizational innovation has a positive effect on organizational performance. In addition, adhocracy culture has no effect on the relationship between organizational innovation and organizational performance. However, adhocracy culture has a direct effect on organizational performance. The findings of this study expand knowledge relating to organizational innovation. The entrepreneurs can utilize the findings to improve suitable organizational innovation so as to reach the expected organizational performance set.

Keywords: 1. Organizational innovation 2. Small and Medium Enterprises 3. Thailand

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1. Introduction

Economic environment changes dramatically and business success at the present time is a result from an emphasis on the use of intangible assets in business operation to avoid competition in terms of price which causes differences in business operation and maintain competitive ability. One of the strategies used is organizational innovation (Wong, 2013) which is considered as an innovation to apply concepts, behaviors, systems, policies, programs, materials, and operation process, products or services so as to create new things in an organization (Mothe & Thi, 2010). In the past, studies on innovation focused solely on technological innovation (Soltani & Hosseini, 2012). At present, several researchers began to pay more attention to the investigation on innovation that has no relation to technology (Camison & Villar-Lopez, 2011) since it is quite difficult for an organization to compete with their competitors solely with technological innovation because innovation can be easily imitated (Baba, 2012). Therefore, more attention has been paid to the investigation on organizational innovation as a new way for business operation, patterns for work, and establishment of relationship outside the organization because it serves as an important factor in organizational development, a driving variable for other innovations which will eventually lead to a sustainable competition for an organization (Soltani & Hosseini, 2012; Wong, 2013).

Based on a review of literature on previous studies on organizational innovation, it is found that a number of studies on organizational innovation are quite limited (Camison & Villar-lopez, 2011; Camison & Villar-lopez, 2014). Additionally, it is also found that the instruments used in organizational innovation vary and they do not cover every dimension of organizational innovation (Armbruster, Bikfalvi, Kinkel & Lay, 2008) which might be caused by the limited number of more studies on number and characteristics of organizational innovation. The researcher believe that if more researchers pay more attention to the investigation on organizational innovation in various contexts, it will lead to more exclusive conclusions as well as better understandings about organizational innovation. Moreover, there has been a paucity of an investigation on outcomes caused by organizational innovation (Damanpour & Aravind, 2011; Bas, Mothe & Thi, 2015) with particular reference to organizational performance (Laforet, 2010). Additionally, there has been a paucity of an investigation on adhocracy culture which is considered as an important factor that leads to business success (Valencia et al., 2010; Prajogo & McDermott, 2011). Therefore, this present study aims to investigate organizational innovation as an expansion of knowledge of previous studies which includes a search for components of organizational innovation in every dimension, an analysis literature review, an in-depth interview with SMEs entrepreneurs with

outstanding organizational innovation who received SMEs National Awards in Thailand, and a test of the effects of organizational innovation on organizational performance which includes the roles of adhocracy culture on the relationship between organizational innovation and organizational performance as an expansion of knowledge from previous studies which will eventually lead to the usefulness in terms of academic research, SMEs entrepreneurs with the organizational development, the adaptability of organizational culture, a sustainable competition, and business success set.

2. Literature Review

2.1 Theories Related to the Research

2.1.1 Resource based view (RBV)

Resource based view (RBV) is a theory used to explain the effects of organizational innovation on organizational performance. RBV is considered as a concept which is used to explain and clarify a better understanding about resources so as to create a potential in competition and to increase organizational performance together with the effects of organizational innovation and organizational performance. This also includes the roles of organizational culture on organizational innovation and organizational performance. An organization with resources and special potential can increase sustainable competition and excellent performance to an organization (Barney, 1991; Camison & Villar-Lopez, 2014) by using resources which helps create sustainable competition that leads to promising organizational performance including 1) valuable resource which helps reduce cost that leads to the development of operation process of an organization together with the creation of products and services to satisfy customers' needs, 2) rare resource which leads to the potential to create sustainable competition which means the competitors may find it difficult to look for resources, 3) imperfectly imitable resource involving innovations used in an which is considered as a resource that is difficult to imitate since it serves as an important key to create sustainable competition and promising performance, 4) non-substitutability resource involving an organization with rare resource and the competitors may find it difficult to look for such resource to identify strategies, plans, and operation process better than the competitors (Barney, 1991; Irwin et al., 1998). Therefore, organizational innovation and organizational culture are considered as particular but difficult to imitate which eventually leads to an increase of organizational performance.

2.2 Prior Research and Development of Research Hypotheses

2.2.1 Organizational Innovation

Organizational innovation refers to a new type of operation involving organizational management, organizational structural changes, and human resource management which is considered as a new type of operation that adds values to an organization. It is considered as a valuable resource which is hard to find and difficult to imitate (Armbruster et al., 2008; Birkinshaw et al., 2008; Camison & Villar-Lopez, 2011; Baba, 2012). It creates potential of sustainable competition and eventually leads to an increase of performance. Organizational innovation also brings about smoothness and effectiveness of performance. For example, organizational innovation makes human resource management more systematic. In other words, organizational innovation leads to effective recruitment, reduces resignation rate of employees, decreases recruitment cost, and improves employees' skills as well as services in order that they can produce more products and increase performance. This serves as a fundamental factor that brings about other organizational innovations and enhances an organization's awareness pertaining to customers and new markets which lead to the improvement of marketing position of an organization (Santos-Vijande & Alvarez-Gonzalez, 2007; Camison & Villar-Lopez, 2014; Hogan & Coote, 2014). All of these factors lead to an increase of performance.

2.2.2 Adhocracy Culture

Organizational culture is considered as a kind of resource of an organization which is difficult to imitate. It creates sustainable competition and serves as an important key to an increase of performance (Zheng et al., 2010). Adhocracy culture is considered as an organizational culture that emphasizes external factors by looking for opportunities outside an organization and finding creative solutions to the problems taking place in an organization. Adhocracy culture supports employees in various ways by coming up with new ways of operation which eventually leads to organizational innovation. Additionally, adhocracy culture emphasizes flexibility and freedom of decision making which serves as an important factor in utilizing effective organizational innovation. An organization with flexibility and freedom is able to apply the concept to fit changes in an organization and protect itself from disturbance. It also leads to a response to the changes, creates opportunities, and uses such opportunities to create competition better than their competitors (Valencia et al., 2010). Therefore, adhocracy culture with an emphasis on innovation leads to effective application, increased performance, and continuous development of organizational innovation (Chang & Lee, 2008; Uzkurt et al., 2013).

2.2.3 Organizational Performance

Organizational performance can be measured subjectively and objectively. However, balanced scorecard as a kind of subjective measurement is widely used in research and measurement of organizational performance through 4 perspectives: finance, customer, internal business process, and learning and growth (Kaplan & Norton, 1996; Elbanna, Eid & Kamel, 2015; Valmohammadi & Ahmadi, 2015) using subjective measurement which is as accurate as objective measurement (Kaplan & Norton, 1996; Montes et al., 2005; Lin & Chen, 2007; Elbanna et al., 2015)

2.2.4 Development of Research Hypotheses

Based on a review of literature, it is found that the relationship among organizational innovation, organizational performance and adhocracy culture still needs empirical explanations (Laforet, 2013; Camison & Villar-Lopez, 2014) to validate the findings of such relationships in various contexts since organizational innovation is an important key which eventually leads to sustainable competition and difficulties to imitate (Armbruster et al., 2008; Camison & Villar-Lopez, 2011; Baba, 2012). It also functions as an important factor that brings about the application of various innovations within an organization since organizational innovation is a fundamental factor that stimulates the emergence of innovation, and opens up new ideas which paves the way to other innovations in an organization (Santos-Vijande & Alvarez-Gonzalez, 2007; Wong, 2013). Moreover, organizational innovation brings about changes and improvement to an organization which leads to effective operation, effective administration, and effective measurement (Camison & Villar-Lopez, 2014). Organizational innovation reduces loss due to production process together with stimulation of employees to generate effective production. It also emphasizes the design of products that maximally satisfy customers' needs (Zheng et al., 2010; Valmohammadi & Roshanzamir, 2015). Based on the reasons mentioned above, it can be concluded that organizational innovation contributes to an increase of organizational performance.

Adhocracy culture emphasizes external factors of an organization that has flexibility and freedom for decision making. It is full of power and creativity which stresses organizational growth, a search for opportunities outside an organization, and utilization and application of innovation and modern technology in an organization. It responds to environments that rapidly change and accepts risks caused by the utilization and application of innovations within an organization (Prajogo & McDermott, 2011; Giritli et al., 2013; Wiewiora et al., 2013). Adhocracy culture is considered as an appropriate approach that leads to an application of innovation in increasing maximal effectiveness to an organization since it

functions as a factor that brings about emergence of innovations in an organization (Valencia et al., 2010) by emphasizing external factors which contribute to the adoption of new concepts, perceptions of opportunities and a follow up on technological advancement and other innovations with an emphasis on flexibility which leads to changes taking place within an organization and the application of innovation (Buschgens, Bausch & Balkin, 2013). Moreover, an organization with flexibility, creativity, and acceptance of risks has freedom to generate and open up for new ideas which contribute to an acceptance of new ideas from employees within an organization. This also emphasizes external factors of an organization which fosters the creation of innovations responding to customers' needs together with the utilization of innovation that helps improve promising performance and sustainable (Chang & Lee, 2008; Laforet, 2010; Prajogo & McDermott, 2011). The relationships among these three factors are as shown in figure 1 and the hypothesis is as follows:

Hypothesis 1: Organizational innovation has a positive effect on organizational performance.

Hypothesis 2: The relationship between organizational innovation and organizational performance will be positively moderated by adhocracy culture.

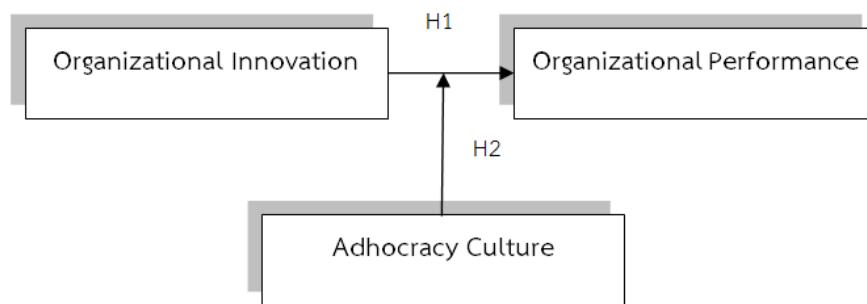


Figure 1: Conceptual Model

3. Research Methodology

3.1 Sample and Questionnaire Development

This study began with qualitative research to investigate characteristics and components of organizational innovation. After the analysis, the study generated emerging themes as the conclusion. Next, a survey was used to find out opinions of SMEs entrepreneurs and the themes were used to develop a questionnaire.

The qualitative instruments included an interviews and the researcher. The researcher collected data using in-depth interview with open-ended questions, semi-structured interviews which were classified into categories: experience, opinion, feeling, knowledge about characteristics of innovation, emergence of innovation, application, the relationship between internal and external organization, values, norms of actual practice, and background do the key informants. The in-depth interviews were used with 7 SMEs entrepreneurs who received SMEs National Awards in Thailand for B.C. 2555-2558. They were regarded as the SMEs entrepreneurs and the leaders with outstanding innovations from various industries. The interviews were recorded, transcribed, and then establish reliability with all of the informants. It is important to note that the researcher transcribed the recordings by himself so as to find important themes which were then used to develop a questionnaire.

Using factor analysis, the questionnaires were used with the sample of 201 entrepreneurs who owned SMEs and it was in the range of acceptable (Tabachnick & Fidell, 2013; Mundfrom, Shaw & Ke, 2005). The questionnaire was tested content validity by 2 experts in the field of business administration. Moreover, confirmatory factor analysis was used to construct validity and reliability with Cronbach's alpha coefficient in the range of 0.897-0.981 which was considered appropriate and the internal validity of the questions was greater than 0.70. In addition, non-response bias was not found ($t=1.591$, $p\text{-value}=0.115$). Regression analysis was used to test the following equations:

$$\text{Equation 1: } OP = \alpha_{01} + \beta_1 OI + \beta_2 FSIZE + \beta_3 FAGE + \varepsilon$$

$$\text{Equation 2: } OP = \alpha_{02} + \beta_4 OI + \beta_5 AC + \beta_6 (OI*AC) + \beta_7 FSIZE + \beta_8 FAGE + \varepsilon$$

3.2 Measurement of variables

Adhocracy culture (AC) refers to system of values and beliefs of organizational members who take it as a specification of behaviors which emphasizes welcoming opinions from the outside and accepting risks for creating new thing, and flexibility of changes taking place inside and outside an organization. This study used adhocracy culture based on the application of the measurements by Valencia et al. (2010) and Valmohammadi & Roshanzamir (2015) with 5 point Likert ranging scale. For example, an organization must be a place full of creativity, employees who are willing to meet risks, and leaders who emphasize utilization of innovation and acceptance of risks.

Organizational innovation (OI) refers to a new type of operation which involves organizational management, changes of organizational structure together with human resource management as a new dimension added to an organization as well as values with 44 questions

with 5 point Likert ranging scale. For example, an organization needs to improve or adjust services requested by customers. In addition, reducing the work process needs to be done and more instructional technology should be invested together with the specification of responsibilities and flexibility of a flat organization so as to generate quick correspondence among staff. In addition, social media and IT should be implemented so as to assist administration within an organization and markets.

Organizational performance (OP) is a consequence of organizational performance in 4 aspects including finance, customer, process, and learning and growth with 9 questions following 5 point Likert ranging scale and the adaptation of the measurement by Montes et al. (2005); Mazzanti et al. (2006); Lin & Chen (2007); Carmen & Jose (2008); Jimenez-Jimenez & Sanz-Valle (2011) and Elbanna et al. (2015).

This study includes control variables as firm size determined by a number of employees and firm age determined by duration of organizational operation. Based on a review of literature, it is found that firm size has an effect on organizational performance. In addition, a big organization with various resources for investment on innovation and effective operation has a positive effect on organizational performance (Lin & Chen, 2007; Jimenez-Jimenez & Sanz-Valle, 2011). In addition, firm age has an effect on organizational performance (Jimenez-Jimenez & Sanz-Valle, 2011, Camison & Villar-Lopez, 2014).

4. Results and Discussion

Data from the interviews of 7 entrepreneurs who received SMEs awards in Thailand informs new types of organizational administration which are classified into 4 aspects including human resource management, organizational structure, visions and organizational leadership, and internal organizational management. For example, new types of organizational management include allowing employees to have freedom in giving creative opinions for the improvement of operation together with the development of an organization for creating independence and power of decision making for employees' involvement in operation, generation of ideas for planning and finding solutions to future problems of an organization. In this study, the researcher used them to formulate questions for the measurement of organizational innovation of SMEs in Thailand.

The results of the questionnaire suggest that most of the samples who are SMEs entrepreneurs are male which is counted 62.7 per cent of the whole samples. They are over 50 years old age which is counted 37.8 per cent and married counted 70.6 per cent. Their educational level is bachelor degree or equal counted 44.8 with work experience over 15

years counted 62.7 per cent. Their average monthly income is 50,000 – 100,000 baht which is counted 33.3 per cent whereas most of the SMEs are business oriented counted 39.8 per cent. Finally, an average number of employees are 30 with 23 years of duration of business.

The results of exploratory factor analysis to find out organizational innovation (44 items, N=201) include 8 factors: external organizational development, human resource management, organizational management, competitive advantage, employee retention, organizational structure, vision and leadership, and internal organizational development with Eigen value greater than 1.00. With these eight components, they can explain variance of all variables which is counted 49.10 per cent. In addition, Kaiser-Mayer-Olkin is 0.94 which is at good level and Bartlett's test of sphericity is statistically significant at 0.01 whereas factor loading is between 0.342 – 0.912. When analyzing confirmatory factor analyzing as shown in Table 1, it is found that correspondence integrity and discriminant validity with average variance extracted is greater than 0.5 and composite reliability is greater than 0.9

Table 1: Correspondence Integrity and Discriminant Validity

Statistics	Organizational Innovation		Organizational Performance		Adhocracy Culture	
	criterion	result	criterion	result	criterion	result
1. Chi-square (χ^2)	Significant > 0.92	0.931	Not sig. \geq 0.97	0.991	Not sig. \geq 0.97	Not sig. 0.994
2. CFI	> 0.92	0.921	\geq 0.97	0.983	\geq 0.97	0.987
3. TLI	< 0.08	0.046	< 0.08	0.051	< 0.08	0.059
4. RMSEA	< 0.09	0.06	-	0.029	-	0.014
5. SRMR						
6. AVE		0.51 – 0.75		0.51		0.62
7. CR		0.98 – 0.99		0.95		0.96

Table 2: Descriptive Statistics and Correlation Coefficient of Organizational Innovation, Adhocracy Culture, and Organizational Performance

Variable	OI	AC	OP
Organizational Innovation (OI)	1.000		
Adhocracy Culture (AC)	0.786**	1.000	
Organizational Performance (OP)	0.744**	0.749**	1.000
MEAN	3.677	3.542	3.425
S.D.	0.606	0.762	0.668

Notes: ** Statistically significant at 0.01

Table 2 shows descriptive statistics of variables and correlation coefficient of organizational innovation, adhocracy culture, and organizational performance.

To test the hypotheses using regression analysis, it is found that there is a relationship between organizational innovation and organizational performance as shown in Table 3. It is also found that organizational innovation has a positive effect on organizational performance with statistical significance ($\beta_1 = 0.806$, $p < 0.01$). Therefore, hypothesis 1 is supported. The finding in line with previous studies on organizational innovation and organizational performance indicates that organizational innovation has a positive effect on organizational performance since an organizational innovation is fundamental for organizational operation. It brings about development, improvement, and changes of effective operation which enhances an organization to generate creative thinking and open up for new ideas so as to create various innovations within an organization. It also enhances an organization to improve products and services to maximally satisfy customers' needs (Camison & Villar-Lopez, 2014; Santos-Vijande & Alvarez-Gonzalez, 2007; Wong, 2013) which contributes a positive effect on organizational performance. Additionally, an organization with the application of IT and media brings about organization performance superior than competitors since it helps reduce operation cost and improve effectiveness of operation together with assisting an organization in understanding customers' needs and corresponding to customers' needs with timeliness and effectiveness. Opinions and suggestions are also used to improve organizational operation (Ong & Chen, 2013; Alarcon, Rialp & Rialp, 2015; Parveen, Jaafar & Ainin, 2016).

Table 3: Results of Regression Analysis of Organizational Innovation and Organizational Performance

Variable	Organizational Operation (OP)
Organizational innovation (OI)	0.806** (0.053)
Firm size (FSIZE)	0.001 (0.000)
Firm age (FAGE)	0.000 (0.000)

Notes: Adjusted $R^2 = 0.553$, F = 83.317, p-value = 0.000

^aBeta coefficients with standard errors in parenthesis

In Table 4, when adhocracy culture is treated as a moderator; it has no effect on the relationship between organizational innovation and organizational performance. Therefore, hypothesis 2 is rejected. The finding partly corresponds with the data from the interview and directions of descriptive analysis. This indicates that the sample pays less attention to establishment of KPI suitable for a job, researching products, enhancement of life-long learning together with counseling outside an organization so as to specify planning and development of an organization. All these aspects support stronger organizational performance. Furthermore, patterns of organizational administration with an emphasis on specific innovation vary and it is not at high level. Therefore, with the enhancement of adhocracy culture in this study there is no increase in terms of performance. Table 4 is found that organizational innovation has a positive effect on organizational performance with statistical significance ($\beta_{14} = 0.450$, $p < 0.01$). Finally, adhocracy culture has a positive effect on organizational performance with statistic significance ($\beta_{15} = 0.381$, $p < 0.01$) which corresponds to the findings by Prajogo & McDermott (2011) and Uzkurt et al. (2013). Their findings suggest that an organization with culture that opens up for new ideas and creativity strives for opportunities for innovation which includes leaders with motivation and employee support which will eventually brings about innovation pertaining to products corresponding to customers' needs together with emergence of innovation aimed at improving effective internal organization which has a positive effect on organizational performance.

Table 4: Multiple Regression Analysis of Adhocracy Culture on the Relationship between Organizational Innovation and Organizational Performance

Variable	Organizational Operation (OP)	VIF
Organizational Innovation (OI)	0.450** (0.078)	2.641
Adhocracy Culture (AC)	0.381** (0.062)	2.653
OI*AC	0.034 (0.022)	1.065
Firm size	0.001 (0.000)	1.048
Firm age	0.001 (0.003)	1.016

Notes: Adjusted $R^2 = 0.623$, $F = 67.021$, p-value = 0.000

^aBeta coefficients with standard errors in parenthesis

5. Conclusion

The findings indicate that organizational innovation can be classified into 8 components: external organizational development, human resource management, organizational management, competitive advantage, employees retention, organizational structure, visions and leadership, internal organizational development with positive effect of organizational innovation on organizational performance.

However, it is found that although adhocracy culture has no effect on the relationship between organizational innovation and organizational performance, it has a positive effect on organizational performance.

This study sheds light on the concept of organizational innovation through SMEs contexts in Thailand. The entrepreneurs can utilize the findings of this study to suitably improve their organizational innovation so as to identify policies and planning for the application of such innovation at work. This also leads to sustainable competition and effective performance set by emphasizing the utilization of organizational innovation. For example, the entrepreneurs can adjust their organization to make it flat so that the administrators will become close to their employees which leads to an exchange of ideas and asking for advice directly from their administrators. The entrepreneurs can also adjust sections

at work to reduce complexity of operation with an emphasis on creating promising work atmosphere within an organization since this elevates an increase of values and organizational culture with the utilization of IT to enhance administration in an organization. Moreover, the findings suggest that an organization needs life-long learning and enthusiasm to adapt its business operation following rapidly changing industry. This eventually leads to the improvement of an organization.

5.1 Implication and Future research.

This study contributes to the expansion of knowledge pertaining to organizational innovation. The findings also fill the gap of previous research by emphasizing the usefulness of organizational innovation and the comprehensive components of organizational innovation which need further investigations of researches in the field.

Future studies, researchers should use organizational innovation measurement to study between organizational innovation and other variables such as satisfaction performance perspective, human relations performance perspective to expand knowledge about organizational innovation more comprehensive. Moreover, researchers can study relationship between organizational innovation components and other variables that concern with management field.

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