

The Corporate Entrepreneurship Factors Influencing Entrepreneurial Culture in the Electricity Generating Authority of Thailand

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Abstract:- The objectives of this research include to investigate Structural Equation Modelling (SEM) and to study the influences of Corporate Entrepreneurship factors (CE) on the Entrepreneurial Culture (EC) in Electricity Generating Authority of Thailand (EGAT). In particular, the paper focuses on the relationship between the CE factors and the EC of EGAT whereby it was carried out through both questionnaire survey from 2,022 employees and management interviews from 12 executives. Thereafter, the SEM framework of investigating CE factors influencing the EC was developed, referring to detailed literature reviews and considering specific environment of EGAT. The applicability and validity of the framework were verified by quantitative research methods. Findings -The paper finds that hypotheses were tested using the SEM and the results reveal that in case of EGAT the CE factors positively and significantly influenced the EC. These findings tend to corroborate our conceptual model and are also in line with the existing literatures. The CE factors were found to significantly affect the EC, indicating the importance of the context and background of the CE factors performing together to affect the EC of EGAT. Originality/value -This paper enhances understanding of the influence of the CE and the EC in the context of EGAT, which is the state enterprises of Thailand.

Keywords:- Corporate Entrepreneurship (CE), Entrepreneurial Culture (EC), Structural Equation Model (SEM), Electricity Generation Authority of Thailand (EGAT)

Date of Submission: 28-09-2020

Date of Acceptance: 10-10-2020

I. INTRODUCTION

In recent times, firms are challenging a large number of risks as well as uncertainties in businesses to ensure their sustainable growth. Thus, these firms spend their extra attention to behaviors as well as opinions of their employees in order that all essential organizational cultures, especially Entrepreneurial Culture, can be fruitfully created. Given this fact, organizational culture becomes one of the crucial factors influencing efficiency and production capacity of each firm as concrete organizational culture can drive operational development into better level and at the end, deliver successful business (Ojo, 2010). As a part of essential ECs, Corporate Entrepreneurship (CE) plays its important role in navigating such corporate to the successful path of business and in the meantime, creating sustainable competitive advantage (Kuratko, Morris and Covin, 2011) (Kuratko et al, 2011). Consequently, CE is a strategy to create business value added from internal resources by focusing on capability development and capacity building of employee in order that new creativity and opportunity of such business can be achieved in a way that the employee perceive as the owner (Hill and Hlavacek, 1972; Peterson and Berger, 1972; Hanan, 1976; as cited in Morris and Kuratko, 2002). Moreover, CE is critical for business survival as it deals with risks and uncertainties to business operation and in the meantime, it drives such business to achieve its various goals including profit and success (Kuratko, 2009). Corporate entrepreneurship has a direct relationship with the effectiveness of business operations (Eser, Demirbag and Yozgat, 2012), which reflects importance of EC to be firmly established in the firm.

Thus, the research was designed to investigate the causal relationship of the corporate entrepreneurship (CE) that influences the entrepreneurial culture in electricity generating authority of Thailand. Plans are established to improve the policy in EGAT to maximize value within the context of the organization's own efficiency and effectiveness. It can also be used as a practical philosophy in state enterprise and can be used by organizations to achieve mission goals and the vision of the organization.

The objective of this research was to investigate the SEM correlation of corporate entrepreneurship influencing the entrepreneurial culture in electricity generating authority of Thailand. and to study the influence of corporate entrepreneurship affecting entrepreneurial culture in electricity generating authority of Thailand.

II. THEORETICAL AND RESEARCH MODEL

A. Entrepreneurial Culture (EC)

Entrepreneurial culture is a concept that has been used to characterize a broader organizational culture that supports or champions entrepreneurship. Organizational culture has long been recognized as a central, underlying system of shared values, assumptions, and behaviours that permeates an entire organization (Schein, 1996). Organizational cultures influence new and existing members, motivates and cautions them, shapes and conforms their thinking and behaviours, creates structure within the organization, and builds routines and traditions that are held with emotion (Sackmann,1992; Schein,1990). As a result, an entrepreneurial culture has been argued to be a powerful force within organizations to enhance the innovative abilities of employees (Hornsby, Kuratko, & Montagno, 1999), fuel a desire for firm survival (Sundaramurthy & Kreiner, 2008), provide permission to fail and try again (Merrifield, 1987), encourage a broad array of new ideas, experimentation, and creativity (Bradley et al., 2011), and develop organizational learning abilities and a focus on markets (Hult, Snow, & Destan, 2003). Entrepreneurial culture characteristics and attributes have also been positively linked to firm performance (Flamholtz, 2001; Flamholtz & Kannan-Narasimhan, 2005). In broader conceptual models, entrepreneurial culture has also been identified as a necessary component of a firm's architecture in order to successfully pursue an entrepreneurial strategy, that is, engaging in opportunity-seeking and advantage-seeking activities (Ireland et al., 2003; Ketchen Jr, Ireland, & Snow, 2007). Contemporary research continues to call for the study of culture in entrepreneurship, particularly in new venture creation and teams (Klotz, Hmieleski, Bradley, & Busenitz, 2014). The description of entrepreneurial culture is shown in Table 1.

Table 1 Description of elements of entrepreneurial culture

| No. | Element of EC | Description | Source |
|-----|----------------------------------|---|--|
| 1 | Organizational Enthusiasm | It is a pattern of values, assumptions, and practices demonstrating an excitement and passion for the organization, its goals and purposes. | Shepherd, Patzelt, & Haynie, 2010, Chen, Yao, & Kotha, 2009: 201, Hatch & Schultz,2001.asin Stewart's 1989. |
| 2 | Stakeholder Alignment | It is defined as a pattern of values, assumptions, and practices demonstrating the importance of building and maintaining mutually beneficial relationships with key stakeholders, such as customers, suppliers, partners, and investors. | Jones et al., 2007, Zott and Huy (2007), Chen et al. (2009, Chatterji (2009), Ozcan and Eisenhardt (2009) |
| 3 | Cohesiveness | It is thus defined as a pattern of values, assumptions, and practices demonstrating organizational members' bond and commitment to each other and the organization, irrespective of circumstance. | Ketchen et al., 2007; Salama, 2011 (Carter, Gartner, & Reynolds, 1996 (Haugh & McKee, 2004, Dyer et al., 2008, Mintzberg (1979) and Stewart (1989), (Van Epps, 2008) |
| 4 | Learning and Development Support | It is a pattern of values, assumptions, and practices demonstrating individual and group self-improvement, learning, and professional development. | Monsen & Boss, 2009; Shepherd et al., 2010, Dyer et al.'s (2008, Kotter (2001), (Hmieleski & Baron, 2008)., Dutta & Crossan, 2005). |
| 5 | Opportunity Driven Change | It is thus defined as a pattern of values, assumptions, and practices demonstrating a willingness to change in order to identify/develop opportunities and execute on them | Ireland et al. (2003), Van Praag, 1999 Schein(1988) Stevenson & Jarrillo-Mossi, 1983 (Jassawalla & Sashittal, 2002 |

B. Corporate Entrepreneurship factors (CE)

Corporate Entrepreneur (CE) has been defined in a variety of ways, such as Intrapreneuring, Intrapreneurship, Internal Entrepreneurship, Corporate Venturing, Corporate entrepreneurial, Internal Entrepreneurship and Corporate Entrepreneurship (Ozdemirci, 2011). Organization Level Entrepreneurship, emphasizing on capacity and capability building for internal staffs to create and explore new business opportunity as their owned business would definitely generate competitive advantages of such firm in long-term (Belinda, Martie-Louise, and Kate, 2007), continuing business growth. As a result, entrepreneurship benefits the firm through increasing profit, enlarging assets, and generating more prosperity economically while at the end enhancing sustainable competitiveness of such firm (Kuratko et al., 2011).

Based on the above-mentioned reasons, Corporate Entrepreneurship (CE) becomes corporate strategy to generate business values using internal assets. It is also widely accepted that CE can help the firm enhance operating outcomes, particularly from a financial perspective that the return grows in a multiple level once CE has been applied for a couple of years (Zahra and Covin, 1995).

From literature reviews, it is found that a large number of researchers propose a variety of dimensions as well as indicators for CE. To our best knowledge upon literatures reviewed, this research classifies 2 groups of CE indicators upon number of CE included.

In the first group of literatures reviewed in this study, it is believed that 3 indicators are required to measure CE. They include Innovativeness, Risk-Taking, and Proactiveness (Miller, 1983; Ginsberg, 1985; Covin and Slevin, 1986; 1989; Morris and Paul, 1987; Schafer, 1990; Covin and Slevin, 1991; Naman and Slevin, 1993; Luo and Zhou, 2005). However, some other researchers (Zahra, 1993; 1995; Zhang, Wan and Jia, 2008) considered those 3 indicators shall be Innovativeness, New Business Venturing, and Self-Renewal as more appropriate.

In the second group, CE indicators are further developed and added to become 4 essentials inclusive, namely New Business Venturing, Innovativeness, Self-Renewal, and Proactiveness (Miller and Friesen, 1982; Covin and Miles, 1999; Antoncic and Hisrich, 2001; 2004; Yang, Li-Hua, Zhang and Wang, 2007; Wang and Zhang; 2009; Ozdemirci, 2011; Rojas, Morales and Sanchez, 2011). Corresponding to these indicators, certain researchers propose that CE indicators shall alternatively include Innovativeness, Proactiveness, Risk-Taking, and Competitive Aggressiveness.

In this research, 5 indicators have been referred to identify CE. These include Innovativeness, Risk Management, New Business Venturing, Proactive Management, and Reorganization. It is also found that these 5 indicators are in line with CE model studied by Antoncic and Hisrich (2000) and based on such literature, the conceptual idea of each indicator can be described as follows.

(1) New Business Venturing is important to clearly indicate entrepreneurship as it presents value addition of new business creation using existing products or services of the firm to compete in new different markets. This can be measured in various dimensions including revenue growth of the new business, number of new businesses created, increasing market share driven by new business, expansion of new business in existing industry, creation of new product line, and differentiation of products or services in existing market, and etc. (Zahra, 1995; Ozdemirci, 2011; (Yang, Li-Hua, Zhang and Wang, Y, 2007)

(2) Innovativeness covers Productive Innovation, Process Innovation, and Service Innovation. Recently, innovativeness becomes one of the important indicators (Antoncic and Hisrich, 2000) whereby it can be measured through increasing number of products, number of times to co-develop new products with third party, number of times to train staff for innovation creation, corporate expenses for research and development, procurement of innovative machines, and etc. (ก้องเกียรติ บูรณศิริ, 2553)

(3) Reorganization defines as reorganization of the firm, change in business strategy, or entire operating model and large number of indicators reflecting reorganization have been proposed. These include restructuring the firm, creating innovative units, changing competitive strategy, unlocking freedom for innovations of business unit within the form, developing internal process to track innovation, and etc (Ozdemirci, 2011; Mokaya, 2012; Yang et al., 2007).

(4) Proactive Management is essential characteristic that the firm shall imprint into all employees in order that under unexpected situations, they become capable of tackling with obstacles to mitigate risks or damages as well as challenging new opportunities to obtain new benefits. Indicators for measuring Proactive Management include strong decision, leadership compared with competitors, readiness to beat competitors, and etc (Mokaya, 2012).

(5) Risk Management is a strategic behaviour that under the environment of uncertainties, management can make decision in time to survive from strong competition in the market. It can be measured through a variety of aspects, namely market environment, operating model, finance, legal, and etc (Zhan, 2006).

There are several literatures which divided the elements of corporate entrepreneurship factors. These examples are shown in Table 2.

Table 2 Literatures of the classification of corporate entrepreneurship factors

| No. | Authors | Classification of corporate entrepreneurship factors |
|-----|----------------------|--|
| 1 | Innovativeness | (Ozdemirci, 2011; Mokaya, 2012; Antoncic and Hisrich, 2000; 2001; Luo and Zhou, 2005; Zahra, 1993; 1995; Lumpkin and Dess, 2001; Yang et al., 2007; Guth and Ginsberg, 1990; Narayanan et al., 2009; Wang and Zhang, 2009; 2553; Simsek et al., 2009; Rojas et al., 2011; Cemal Zehir, Busra Muceldili and Songul Zehir, 2012; Saly, 2001; Zhang et al., 2008) |
| 2 | Proactive Management | (Zahra and Covin, 1997; Ozdemirci, 2011; Mokaya, 2012; Antoncic and Hisrich, 2000; 2001; 2003; Luo and Liu, 2005; Lumpkin and Dess, 2001; Yang et al., 2007; Wang and Zhang, 2009; Rojas et al, 2011; Cemal Zehir et al., 2012; Saly, 2001) |
| 3 | Risk Management | (Zahra and Covin, 1997; Mokaya, 2012; Antoncic and Hisrich, 2000; 2003; Luo and Zhou, 2005; Lumpkin and Dess, 2001; Hornsby, Naffziger, Kuratko and Montagno, 1993; Longnecker and Moore, 1991; Rodermund and Silbereisen, 1999; Cemal Zehir et al., 2012; Saly, 2001) |
| 4 | New Business | (Ozdemirci, 2011; Antoncic and Hisrich, 2000; 2001; 2003; Mokaya, 2012; Zahra, 1993; 1995; Yang et |

| | | |
|---|----------------|--|
| | Venturing | al., 2007; Guth and Ginsberg, 1990; Narayanan, Yang and Zahra, 2009; Wang and Zhang, 2009; Simsek et al., 2009; Rojas, Morales and Sanchez, 2011; Saly, 2001; Zhang, Wan and Jia, 2008) |
| 5 | Reorganization | (Ozdemirci, 2011; Mokaya, 2012; Antoncic and Hisrich, 2000; 2001; 2003; Zahra, 1993; 1995; Yang et al., 2007; Wang and Zhang, 2009; Simsek et al., 2009; Rojas et al., 2011; Saly, 2001; Zhang et al., 2008) |

C. Research Framework

Corporate entrepreneurship factors and entrepreneurial culture

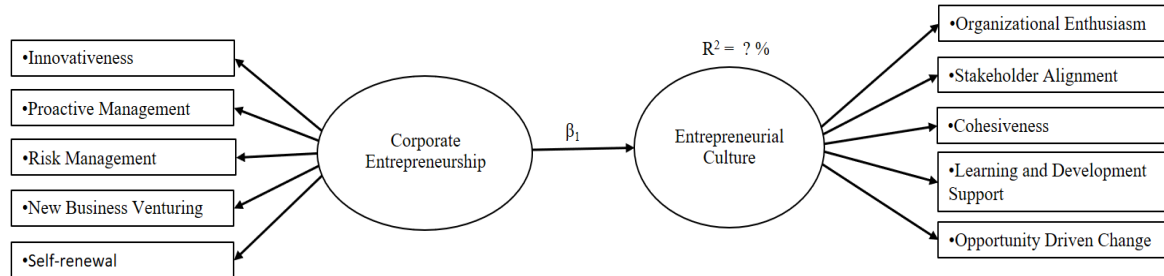


Fig.1: Conceptual framework of research

Conceptual framework in this study is shown in Fig 1 as follows. The figure expresses the relationship between corporate entrepreneurship factors, entrepreneurial culture. This model was shaped from three comprehensive variables, including corporate entrepreneurship factors. The corporate entrepreneurship factors is represented by many observed variables consisting of innovativeness, proactive management, risk management, new business venturing and self-renewal. The entrepreneurial culture are shown as a variable which consist of organizational enthusiasm, stakeholder alignment, cohesiveness, learning and development support, opportunity driven change are shown as a dependent variable. The hypotheses of this study are developed as corporate entrepreneurship factors which had directly effect on entrepreneurial culture (β_1).

III. RESEARCH METHODOLOGY

This research tries to employ a quantitative survey in order to fulfill research hypothesis for entrepreneurial culture in EGAT context. However, this paper only focused on the theoretical aspect of the research topic. This article uses the model of Structural Equation Modeling (SEM). This model focused on the particular relationship between the corporate entrepreneurship, entrepreneurial culture in EGAT context.

D. Population and sample group

This research covered the population and sample as follows: The population of this study consisted of 18,000 employees approximately in electricity generation authority of Thailand (EGAT) in the year 2020. The sample of this study consisted of 2,500 employees in EGAT. It applied the Table of Krejcie and Morgan (1970) by using stratified random sampling from 79 department on 8 business unit: Administration; Strategy; Accounting; Generation; Fuel; Transmission system; Power business; Power plant construction.

E. Research Instrument

The instrument of this study was a questionnaire consisting of 3 main parts as follows: Part 1- the checklist of general information personal questions; Part 2 - the rating scales of implementation the corporate entrepreneurship in EGAT context. It contained 20 questions with 5 rating scales and its reliability was 0.9668; Part 3 - the rating scales of perception entrepreneurial culture in EGAT context, which are organizational enthusiasm, stakeholder alignment, cohesiveness, learning and development support, opportunity driven change. There are 30 questions with 5 levels rating scale of entrepreneurial culture which had reliability of 0.9764.

F. Data Collection and Analysis

The researcher submitted 2,500 questionnaires, by sending express mail (EMS) to the sampling group. The period of the study was in April-May 2020. There were 2,022 questionnaires (80.88%) returned to the researcher. The researcher proceeded as follows: 1) Analyzed general information by using frequency and percentages; 2) Analyzed with mean and standard deviation (S.D.) tools in the level of implementation the corporate entrepreneurship, level of entrepreneurial culture in EGAT context. Then, the researcher presented the findings in tables with explanations in interpretation of the mean value; 3) Analyzed the correlation coefficients, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA); 4) Analyzed the structural equation model of the relationship between corporate entrepreneurship, entrepreneurial culture in EGAT context used through SPSS, AMOS.

IV. RESULTS AND DISCUSSION

The analysis reveals that measurement model and structural equation modelling (SEM) as follows:

G. Analysis of Measurement Model

1. Researchers used an exploratory factor analysis (EFA) Purposely: 1) whether questionnaire developed by the same element or not; and 2) to cut questions that have no relationship to each other within the group. Criteria were used to cut the variable factor (factor loadings) of less than 0.50 from the elements. (Hair et al., 2006)
 2. Research was conducted through confirmatory factor analysis. (CFA) purposely 1) to determine whether the observed variables is a good representation of the latent variables or not; and 2) to determine the construct validity and construct reliability, (ρ_c) of structural relationships between latent and observed variables. However, researcher was conducted confirmatory factor analysis with samples.
- Results of the study, shown in Table 4 and Table 5, found that all the observed variables have construct validity (standardized loading estimate (λ) should be greater than 0.50, (Hair, Black, Babin, Anderson, & Tatham, 2006) and construct validity is considered worthy ($\rho_c \geq .70$) (Hair et al, 2006).

Table 4 Results of the CFA entrepreneurial culture model in EGAT context.

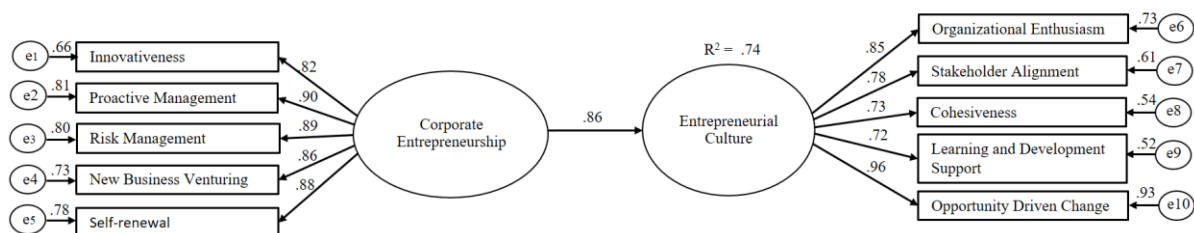
| Entrepreneurial Culture | λ | S.E. | C.R.(t-Value) | ρ_c | R ² |
|---|-----------|------|---------------|----------|----------------|
| Organizational enthusiasm | 0.873*** | | *** | .725 | 0.762 |
| Cohesiveness | 0.834*** | .021 | 45.870*** | | 0.695 |
| Opportunity driven change | 0.850*** | .025 | 19.706*** | | 0.723 |
| Learning and development support | 0.806*** | .020 | 44.259*** | | 0.649 |
| Stakeholder alignment | 0.776*** | .023 | 41.771*** | | 0.603 |
| $\chi^2 = 4.890, \chi^2/df = 1.630, df = 3, P = .580, GFI = .9996, CFI = 1.000, RMSEA = .018,$ RMR = .002, AGFI = .995 (Remark: *** p < .001.) | | | | | |

Table 5 Results of the CFA corporate entrepreneurship factors model.

| Corporate Entrepreneurship Factors | λ | S.E. | C.R.(t-Value) | ρ_c | R ² |
|--|-----------|------|---------------|----------|----------------|
| Innovativeness | .832*** | | *** | .759 | .692 |
| Proactive management | .915*** | .023 | 52.536*** | | .837 |
| Risk management | .885*** | .022 | 49.569*** | | .782 |
| New business venturing | .856*** | .028 | 44.743*** | | .733 |
| Self-renewal | .867*** | .026 | 47.506*** | | .752 |
| $\chi^2 = 1.066, \chi^2/df = 0.833, df = 2, P = .587, GFI = 1.000, CFI = 1.000, RMSEA = .000,$ RMR = .001, AGFI = .998 (Remark: *** p < .001) | | | | | |

H. Structural Equation Modeling : SEM

After the validity and reliability of the observed variables in each component and the later stages, the research was conducted path analysis using AMOS. The relationship between corporate entrepreneurship factors, entrepreneurial culture and EGAT performance are exhibited in Figure 2 as below.



Chi-square=27.461, Chi-square/df=2.112, df=13, P=0.11
GFI=.997, CFI=.999, RMSEA=.023, RMR=.004, AGFI=.989

Fig 2: Results of structural equation modeling analysis of the relationship between variables. (n = 2,022)

Table 6 Summary relationship of latent variables and summary of hypothesis testing

| Relationship | β -value | S.E | C.R. (t-Value) | p-Value | Influence | Result |
|-------------------------------|----------------|-------|----------------|---------|---------------|-------------------------|
| CE factors → Entre culture | 0.858 | 0.018 | 40.231 | p<.001 | Direct Effect | Supported (significant) |
| R^2 (Entre culture = 0.735) | | | | | | |

From Fig 2, the statistics show that $\chi^2 = 27.461$, $df = 13$, $\chi^2/df = 2.112$, $RMSEA = .023$, $CFI = .999$, and $GFI = .997$. It is therefore concluded that the SEM of the relationship between corporate entrepreneurship factors, entrepreneurial culture is consistent with the empirical data. The statistics that passing the required minimum Chi-square (χ^2) no significant, $\chi^2/df < 2.00$ (Byrne, 1989, p.55), $GFI > .90$ (Hair et al., 2006, p.751), $CFI > .92$ (Hair et al., 2006, p.753) and $RMSEA > .07$ (Hair et al., 2006, p.753). Therefore, the researcher concludes that the SEM of the relationship between corporate entrepreneurship factors, entrepreneurial culture is consistent with the empirical data. In addition, Table 6 shows that the relationship between latent variables positively correlated with the entrepreneurial culture. The results of SEM can be prepared as follows.
Equation 1 Entrepreneurial Culture = 0.858(CE factors), (0.018), 40.231***, $R^2 = 0.735$ (***) $p < .001$

From equation 1 found that corporate entrepreneurship factors have a positive impact on entrepreneurial culture with statistical significance at $p = 0.001$. The variability of entrepreneurial culture can be explained by 73.5 percent, and showed the analysis of the influence of corporate entrepreneurship factors on the entrepreneurial culture in EGAT context. Researchers found that corporate entrepreneurship factors have direct positive influence on the entrepreneurial culture of the statistical significance level at .001 ($\beta = .858$, $p < .001$). Subsequently, the research hypotheses, corporate entrepreneurship factors have a positive direct effect on the entrepreneurial culture shown in Table 6. This means that EGAT must use the driving factors of entrepreneurship, to push for a culture of entrepreneurship within the organization with factors consisting of innovativeness, proactive management, risk management, new business venturing and self-renewal.

I. CFA models of corporate entrepreneurship factors.

The results of the confirmatory factor analysis provide statistics standardized loading estimate (λ). Which is weight of influence of latent variables observed report as variables that reflect the corporate entrepreneurship factors of the most: 1) innovativeness 2) proactive management 3) risk management 4) new business venturing 5) self-renewal, respectively. The results are consistent with the proposal of Mokaya (2012) Proposed elements of corporate entrepreneurship factors: 1) innovativeness 2) proactive management 3) risk management 4) new business venturing 5) self-renewal, respectively and Wang and Zhang (2009), Saly (2001), Ozdemirci (2011), Rojas et al. (2011), Proposed that corporate entrepreneurship factors composed of five factors: 1) innovativeness 2) proactiveness 3) risk-taking 4) self-Renewal 5) new business venturing.

J. CFA models of entrepreneurial culture.

The results of the confirmatory factor analysis provide statistics standardized loading estimate (λ). Found that variables reflect the entrepreneurial culture include 1) organizational enthusiasm 2) cohesiveness 3) opportunity driven change 4) learning and development support 5) stakeholder alignment. The result concept of such thing is confirmed. [(Sackmann,1992; Schein (1990), Hornsby, Kuratko,&Montagno (1999), Sundaramurthy & Kreiner (2008), Merrifield, (1987), Bradley et al.,(2011), (Hult, Snow, & Destan, 2003). (Flamholtz, 2001; Flamholtz & Kannan-Narasimhan, 2005), (Ireland et al., 2003; Ketchen Jr, Ireland, & Snow, 2007). (Klotz, Hmieleski, Bradley, & Busenitz, 2014), Shepherd, Patzelt, & Haynie, 2010, Chen, Yao, & Kotha, 2009: 201, Hatch & Schultz,2001.asin Stewart's 1989. Jones et al., 2007, Zott and Huy (2007), Chen et al. (2009, Chatterji (2009), Ozcan and Eisenhardt (2009) Ketchen et al., 2007; Salama, 2011 (Carter, Gartner, & Reynolds, 1996 (Haugh & McKee, 2004, Dyer et al., 2008, Mintzberg (1979) and Stewart (1989), (Van Epps, 2008) Monsen & Boss, 2009; Shepherd et al., 2010, Dyer et al.'s (2008, Kotter (2001), (Hmieleski & Baron, 2008)., Dutta & Crossan, 2005). Ireland et al. (2003), Van Praag, 1999 Schein(1988) Stevenson & Jarrillo-Mossi, 1983 (Jassawalla & Sashittal, (2002))] that focus on entrepreneurial culture. Furthermore, this study found that in the measurement model of entrepreneurial culture. Observed variables five construct of entrepreneurial culture analysis in the Standardized Loading Estimate (λ), which reflects the construct validity (Construct Validity) and structural reliability (Construct Reliability, ρ_c) is determined by the standard. This means that the five construct of entrepreneurial culture are suitable for measuring models of entrepreneurial culture.

K. SEM relationship between corporate entrepreneurship factors and entrepreneurial culture

The results indicate that entrepreneurial culture is reflected by corporate entrepreneurship factors, as can be seen from the direct effect of corporate entrepreneurship factors ($\beta = .857$) respectively.

corporate entrepreneurship is essential to the survival of any business because it is a merchant relationship and the uncertainty in business and lead the organization to achieve its goals of growth and long-term survival. corporate entrepreneurship therefore influences entrepreneurial culture.

Corresponds to Ojo, 2010, that a strong and efficient culture is the key to developing better performance. And is the driving force that contributes to the success of the business. Therefore, corporate culture is one of the

key factors influencing a company's efficiency and productivity. A strong and efficient culture is the key to developing better performance. And is the driving force that contributes to the success of the business.

Corporate Entrepreneurship (CE) plays a role in the survival of a business organization by leading organizations to achieve their goals of success and build sustainable competitiveness.

According to Kuratko, Morris and Covin, 2011 is a strategy that is used to create value for businesses through the use of internal resources. It focuses on developing the capabilities and abilities of internal personnel to be able to think and seek new business opportunities. As if being a direct operator. (Hill and Hlavacek, 1972; Peterson and Berger, 1972; Hanan, 1976; as cited in Morris and Kuratko, 2002)

In addition, researcher has noted that the value of β reflects that, corporate entrepreneurship factors influencing entrepreneurial culture in EGAT is significantly (for $\beta = .857$)

V. CONCLUSIONS

Electricity Generating Authority of Thailand (EGAT) is one of the leading state-owned enterprises of Thailand that is promoting corporate culture continuously for years. This research found that Entrepreneurial Culture (EC) is highly essential for EGAT to achieve its sustainable growth and the analysis of this research reveals that 5 factors of entrepreneurship are influencing EC of EGAT. These factors are innovativeness, proactive management, risk management, new business venturing and self-renewal. Therefore, EGAT shall promote these 5 factors in order to enhance EC within the firm.

Further studies should be conducted on business environment factors, including external environmental factors and internal environmental factors. This is due to the literature reviews as it is found that the business environment factor influences the organizational operators and organizational operational effectiveness. Thus, additional study will help organization improve their effectiveness in line with the organizational context. In the meantime, it is suggested that further studies should include competencies and engagement of employee affecting the entrepreneurial culture or the comparative study by industrial groups.

ACKNOWLEDGMENT

This research was supported by talent development program of human resources management and development division in Electricity Generating Authority of Thailand (EGAT).

REFERENCES

- [1]. Antoncic, B. & Hisrich, R. D. (2000). Intrapreneurship Modeling in Transition Economics: A Comparison of Slovenia and the United States. *Journal of Developmental Entrepreneurship*, 5(January),21-40.
- [2]. Antoncic, B. & Hisrich, R. D. (2001). Intrapreneurship: Construct Refinement and Cross Cultural Validation. *Journal of Business Venturing*, 16(September), 495-527.
- [3]. Antoncic, B. & Hisrich, R. D. (2003). Corporate Entrepreneurship Contingencies and Organizational Wealth Creation. *Journal of Management Development*, 23(November), 518-550.
- [4]. Belinda, L., Martie-Louise, V. & Kate, K. (2007). Measuring the Benefits of Entrepreneurship at Different Level of Analysis. *Journal of Management & Organization*, 13(April), 312330.
- [5]. Carrier, C. (1994). Intrapreneurship in Large Firms and SMEs: A Comparative Study. *International Small Business Journal*, 12(November), 54-61.
- [6]. Cemal Zehir, Busra Muceldili & Songul Zehir. (2012). The Impact of Corporate Entrepreneurship on Organizational Citizenship Behavior and Organizational Commitment: Evidence from Turkey SMEs. *Procedia - Social and Behavioral Sciences*, 58(October), 924-933.
- [7]. Covin, J. G. & Slevin, D. P. (1991). A Conceptual Model of Entrepreneurship as Firm behavior. *Entrepreneurship Theory and Practice*, 24(November), 47-63.
- [8]. Eser, G., Demirbag, O. & Yozgat, U. (2012). The Impact of Corporate Entrepreneurship on Organizational Citizenship Behavior and Organizational Commitment: Evidence from Turkey SMEs. *Procedia - Social and Behavioral Sciences*, 58(October), 924-933.
- [9]. Guth, W. & Ginberg, A. (1990). Guest Editor's Introduction: Corporate Entrepreneurship. *Strategies Management Journal*, 11, 5-16.
- [10]. Hornsby, J. S., Naffziger, D. W., Kuratko, D. F. & Montagno, R.V. (1993). An interactive model of the corporate entrepreneurship process. *Entrepreneurship Theory and Practice*, 17(2), 29-37.
- [11]. Kuratko, D. F. (2009). The Entrepreneurial Imperative of the 21st Century. *Business Horizons*, 52 (June), 421-428.
- [12]. Kuratko, D. F., Morris, M. H. & Covin J. G. (2011). *Corporate Innovation and Entrepreneurship*. South-Western: Cengage Learning.
- [13]. Longnecker, J. G. & Moore, C. W. (1991). *Small business management: An entrepreneurial emphasis*. South-Western: College Division.
- [14]. Lumpkin, G. T. & Dess, G. G. (2001). Linking to Dimensions of Entrepreneurial Orientation to Firm Performance: The Moderating role of Environment and Industry Life Cycle. *Journal of Business Venturing*, 16(September), 429-451.
- [15]. Luo, X. & Zhou, L. (2005). Entrepreneurial firms in the context of China's transition Economy. *Journal of Business Research*, 58(March), 277-284.

- [16]. Mokaya, S. O. (2012). Corporate Entrepreneurship and Organizational Performance: Theoretical Perspectives, Approaches and Outcomes. *International Journal of Art and Commerce*, 1 (September), 133-143.
- [17]. Morris, M. H. & Kuratko, D. F. (2002). *Corporate Entrepreneurship*. Orlando, Florida: Harcourt College Publishers.
- [18]. Narayanan, V., Yang, Y. & Zahra, S. A. (2009). Corporate venturing and value creation: a review and proposed framework. *Research Policy*, 38, 58-76.
- [19]. Ozdemirci, A. (2011). Corporate Entrepreneurship and Strategy Process- A Performance Based Research on Istanbul Market. *Procedia - Social and Behavioral Sciences*, 24, 611– 626.
- [20]. Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Rodermund, E. & Silbereisen, F. W. (1999). *Successful Entrepreneurs-What Makes the Difference?* (online) Retrieved August 1, 2013 from http://www2.unijena.de/svw/devpsy/projects/entre_e.html
- [21]. Rojas, R. M., Morales, V. J. & Sanchez, E. G. (2011). The Influence on Corporate Entrepreneurship of Technological Variables. *Industrial Management & Data Systems*, 111(7), 984-1005.
- [22]. Saly, A. W. (2001). *Corporate Entrepreneurship: Antecedents and Consequences of Entrepreneurship in Large Firms* Amsterdam. Rotterdam: Erasmus University.
- [23]. Schmelter, R., Mauer, R., Borsch, C. & Brettel M. (2010). Boosting Corporate Entrepreneurship Through HRM Practices: Evidence from German SMEs. *Human Resource Management*, 49(July), 715-741.
- [24]. Sigala, M. (2008). A supply chain management approach for investigating the role of tour operators on sustainable tourism: the case of TUI. *Journal of Cleaner Production*, 16(June), 1589-1599.
- [25]. Simsek, Z., Lubatkin, M. H., Veiga, J. F. & Dino R. N. (2009). The Role of an Entrepreneurially Alert Information System in Promoting Corporate Entrepreneurship. *Journal of Business Research*, 62(August), 810-817.
- [26]. Wang, Y. & Zhang, X. (2009). Operationalization of Corporate Entrepreneurship and Its Performance Implications in China An Empirical Study. *Journal of Chinese Entrepreneurship*, 1(1), 8 -20.
- [27]. Yang, Z.; Li-Hua, R; Zhang, X. and Wang, Y. (2007). Corporate Entrepreneurship and Market Performance: An Empirical Study in China. *Journal of Technology Management*. 2 (June): 154-162.
- [28]. Zahra, S. A. (1993). Environment, Corporate Entrepreneurship, and Financial Performance: A Taxonomic Approach. *Journal of Business Venturing*, 8(July), 319-340. Zahra, S. A. (1995). Corporate Entrepreneurship and Financial Performance - The Case of Management Leveraged Buyouts. *Journal of Business Venturing*, 10(July), 225-247.
- [29]. Zahra, S. A. & Covin, J. G. (1995). Contextual Influences on the Corporate Entrepreneurship Performance Relationship - A Longitudinal Analysis. *Journal of Business Venturing*, 10 (January), 43-58.
- [30]. Zahra, S. A. & Covin, J. G. (1997). Contextual Influences on the Corporate Entrepreneurship – Performance Relationship- A Longitudinal Analysis. *Journal of Business Venturing*, 10 (January), 43-58. Zhan, J. (2006). *Development of Theory on Entrepreneurial Orientation: Empirical Evidence from Hebei, China and Flanders, Belgium*. Doctor in Applied Economic Sciences. Ghent University, Ghent, Ghent University.
- [31]. Zhang, Z., Wan, D. & Jia, M. (2008). Do High-Performance Human Resource Practices Help Corporate Entrepreneurship? The Mediating Role of Organizational Citizenship Behavior. *The Journal of High Technology Management Research*, 19(2), 128-138.

Rachapruek Suchai, et. al. "The Corporate Entrepreneurship Factors Influencing Entrepreneurial Culture in the Electricity Generating Authority of Thailand." *International Journal of Engineering Research And Development*, vol. 16(9), 2020, pp 44-51.