

The Role of Corporate Entrepreneurship as a mediator between Cultural and Environmental Factors, and Organizational Performance in State Government Higher Education Institutions of Thailand

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This research explores what factors are associated with corporate entrepreneurship, and they are related to the performance of higher education institutions in Thailand. This study has conducted a comprehensive empirical test of the mediating effect of corporate entrepreneurship between four determinant factors and organizational performance. The limitations of this study need to be addressed for further research. This study has used a survey-based methodology and has employed SEM-PLS to achieve the objectives of the current study. At a practical level the research has found that increased risk-taking, innovativeness, and proactive propensities are more likely to improve performance of state government higher education institutions. A range of barriers and constraints to adopting entrepreneurial activities exist in the public sector. However, state government higher education institutions have to pay attention to opportunity-driven strategic orientations, derived from public entrepreneurial activities, rather than a resource driven strategic direction, where public sector entities design their organizational scheme. The results of this study further highlight that, although the model of corporate entrepreneurship in the state government higher education institutions is not a formal blueprint or a comprehensive framework replacing a variety of models of public sector management, corporate entrepreneurship in the public sector

higher education institutions may be an integral component in models of public management.

Key words: *Corporate Entrepreneurship, Government Higher Education Institutions, Thailand.*

Introduction

In Thailand, performance issues, of efficiency and effectiveness of tertiary educational institutions, have existed for five decades (Jermsittiparsert, Sriyakul, Pamornmast, Rodboonsong, Boonprong, Sangperm, Pakvichai, Vipaporn, & Maneechote, 2016). It has been clear that there are four institutional deficiencies in the sub-sectors of higher education in Thailand. There is a lack of coordination, governance powers are vague, a failure to fulfill responsibilities and there is no clarity on the responsible authorities and who should be held accountable. Therefore, effective management and planning is difficult.

There is bureaucratic rigidity over centralization of the authority within and outside the institutions, which results in lower performance by the institutions. The low performance of higher education institutions has necessitated a compliance with the changes in external environments in this globalized world (Jermsittiparsert, Sriyakul, & Rodboonsong, 2013; Durie, & Beshir, 2018; Sinaga, Lis and Razimi, 2019). Educational demands are changing like any other field in this era (Jermsittiparsert & Sommanawat, 2019; Mtar & Ep, 2017). Educational institutions need to be responsive towards stakeholders as there is increased demand from constituencies of higher education institutions. The continuously decreasing performance of educational institutions can be overcome by applying new models of entrepreneurship. In this regard, the current research has focused on the way of improving the performance of higher educational institutions by developing an entrepreneurial mindset in Thailand.

Conditions can be created for the success of CE (corporate entrepreneurship) in higher education institutions by the circumstances which allow CE in the environment of corporate business. Several researchers consider that corporate business grows alongside changes in the environment (Perin, Simões, & Sampaio, 2018). In a similar way, the issues faced by higher education institutes verify that the activities of entrepreneurship are enhanced in a changing and heterogeneous business environment. According to Zahra (1991), when an environment is dynamic and hostile, it intensifies entrepreneurial activities. There is an association between the uncertainty of an environment and successful ventures of entrepreneurship. The best practice of entrepreneurship is in the environment which flourishes rapidly (Nielsen, Peters, & Hisrich, 1985). By considering higher education as a market industry, the problems related to it and the external environment, can be dealt with. There is much exploration about

competition, price, branding, customers, and income of the higher education industry. These factors have been identified based on the Collis function, specifically for higher education institutions to sustain in the market.

There is need for Higher Education Institutions (HEI) in Thailand to provide space for entrepreneurial activities, development of entrepreneurial opportunities and activities for encouraging entrepreneurship. These activities can be aligned through entrepreneurial practices in public HEI's, to encourage more practice, which will improve their performance. A starting point to establish entrepreneurship models for public HEI's in Thailand, that are applicable in public sector management, is provided by the CE model. This is done to improve the quality of research in entrepreneurship.

Literature Review and hypothesis Development

Entrepreneurial Organizations

Kanter (1994) presented the idea to develop entrepreneurship within the organization. According to literature on entrepreneurship, entrepreneurial organizations are based on certain behaviours and attitudes (Egbunike, & Okoye, 2017; Perin et al., 2018). Competencies such as identification of opportunities, flexibility approaches, and ability to encourage and reward for creative behaviour are reflected by entrepreneurial organizations. Similar principles exist for the creation of a new venture by an entrepreneur and running existing enterprises (Drucker, 1985). The entrepreneurial management process is related to every type of organization, irrespective of the nature of business (profitable, non-profitable, or governmental).

Entrepreneurship literature highlights the need for entrepreneurial efforts related to current organizations. It is evident that corporate entrepreneurship, strategic entrepreneurship, innovative management, entrepreneurial strategic posture, corporate venturing, management, orientation, and entrepreneurial strategy making are included in the integration process between entrepreneurship and organizational management. Therefore, there is flexibility and adaptability in the entrepreneurial organization, and these are far away from the mechanistic and bureaucratic organizations (Presutti & Odorici, 2018).

Frameworks, related to the government and non-profit business sector, have been developed with the emergence of entrepreneurship in literature. The literature incorporates references to the process, strategies, organizations, and individuals, which is similar to the research based on the private sector. In the private sector, there are certain similarities between economic and social entrepreneurs. New ways are sought by social entrepreneurs to service their constituencies and value add to their existing services by taking risks. They consider allocation of resources as stewardship investment, measure their financial and social return

on investment, and focus on their mission. It has been argued that the focus of social entrepreneurship is on the processes rather than outcomes.

Corporate Entrepreneurship and the Higher Education Institutions

A constant threat for the brick universities is the rise of click or click and brick universities, which employ online based innovation (Levine, 2000). To overcome this competition, there is a need for HEI's to implement corporate entrepreneurship. Several researchers have identified the preservation of the threat of external competition through corporate entrepreneurship. The capacity of a firm to comply with external business competition is increased by CE. Moreover, it enables firms to sustain in dynamic environments and rapidly respond to change (Kuratko, Montagno, & Hornsby, 1990). It has been suggested by Clark (1998) that CE gives an advantage to organizations to deal with overloading demand through training, accessibility, creation of new information and ability to respond.

According to Peterson (1981), an organization can develop the capacity to normalize the negativity of environmental disturbances through CE. This will improve their ability to rapidly respond to changes and avail identified opportunities. CE protects the institution from external threats. An effective tool for the management of organizational transformation is the strategic renewal of CE. Through this process, firms are allowed to implement new ideas and retain employees, through entrepreneurial activities within the organization, without changing their strategic mission. Therefore, CE can deal with organizational changes due to the environment. It has been demonstrated by Peterson (1981), that internal venturing acts as a safety protector in dealing with internal pressure and the creation of growth opportunities. This protection prevents bureaucratic frustration, which would normally result in the destruction of innovative organizational employees (Gamba, 2017; Kuratko & Hoskinson, 2018).

Cultural Factor and Organizational Performance

According to Covin and Slevin (1991), culture plays an important role in the creation of a supportive internal environment, which then facilitates entrepreneurship in organizations. Some researchers have indicated entrepreneurship to be supportive in the creation of creativity and innovation (Esia-Donkoh & Baffoe, 2018; Hsiao & Wu, 2019). Culture has been described as the process of information sharing across the organization and the implementation of new ideas with an encouraging openness (Antoncic & Hisrich, 2001; Hsiao & Wu, 2019). With the emergence of innovative ideas, a good culture focuses on the achievement by the innovative individual, irrespective of the organizational level at which the generation of idea occurred (Hsiao & Wu, 2019).

According to several definitions of organizational culture, a culture is portrayed by entrepreneurship as the struggles made by an organization against the norms of other organizations. Dougherty (1990) has stated that entrepreneurial start-up companies view themselves as competing against the corporate environment, along with the breaking of set patterns of communication or procedure. Organizations can provide an alternative for bureaucracy, lack of flexibility, and failure of employee retention, which are considered as norms in larger organizations (Hsiao & Wu, 2019). Organizational cultures have been described by innovative colleges, as well as universities working opposed to the traditional organizational cultures, as the multiversity model (Riesman & Grant, 1978; Saudi, Juniati, Kozicka & Razimi, 2019). Based on the literature findings, the following research hypothesis has been developed.

H1: Cultural factors have a significant impact on organizational performance.

Organizational Performance and Environmental Factors

In this research study, the environment refers to the external surroundings of an organization, such as external stakeholders and customers of the organization. The role of leadership and internal sources for change and innovation have been considered in the study of entrepreneurship. These sources have been identified by researchers as those that bring organizational change. An entrepreneurial posture has been attributed by several researchers (Hsiao & Wu, 2019; Zahra, 1999) to the external environment, which is heterogeneous and exposed to change. Some research studies have regarded that the environment is unsupportive of the mission and goals of the firm. One of the encouraging factors in intense competition is entrepreneurial culture (Covin & Slevin, 1989; Zahra, 1991). The circumstances for CE can be promoted by the environments that are perceived as threats. This can be done by the internal intensification of the entrepreneurial activities and the development of a supportive environment for innovation (Hsiao & Wu, 2019; Zahra, 1999).

According to Antoncic and Hisrich (2001), an environment is described as a dynamic support for entrepreneurship and innovation. When opportunities are present in terms of technology, it is expected that the industry will go down. Moreover, the demand for product is high in this case. There is a need for managers to implement different initiatives and strategies when threats and constant changes are imposed by the external environment on the organization. Opportunities are provided by the dynamic, hostile, and heterogeneous environments to bring innovation in the products and services to then achieve a competitive advantage. Organizations with innovative strategies are able to survive as they comply with the changes in environment. Little research has been done on whether constant adaptability is required because of constant change, or the constant adaptability is just a basic characteristic of institutions with successful distinctiveness.

According to Clark (1998), successful HEI's respond to external demands through a focused vision and flexibility. Higher performance in the traditional start-up environment is because of the pressure from internal players. The harsh traditional start-up environment emphasizes the importance of managers achieving internal goals. Organizational leaders are encouraged to work towards achieving success rapidly rather than fulfilling the individual goals based on traditional corporate performance. The role of environmental uncertainty has been described by Burgelman (1983) as an activator for organizational change. With the constant change in environment, the present strategic context cannot explain the organizational context or identify the strategic behaviour for working on organizational strategies. The organizational strategy of renewal is defined through autonomous strategic behaviour i.e. entrepreneurship and innovation as incremental changes does not work. A significant role is played by the external environment in the creation of internal entrepreneurship in the organization. It is the responsibility of organizational leadership to influence the circumstances for entrepreneurship in the organization. In the literature, it has been revealed that organizational performance is positively influenced by environmental factors.

H2: Environmental factors have a significant impact on organizational performance.

Corporate Entrepreneurship and Organizational Performance

There is not much clarity about the tangible benefits related to CE. It has been claimed by Zahra (1991) that there is no evidence which confirms the influence of corporate entrepreneurship on organizational performance. According to Nielsen et al. (1985), the overall performance of an organization is contributed to by corporate entrepreneurship and this can be similar in the case of HEI's. The development of creativity and other such activities can improve the performance of HEI's. The criticisms made are mostly cultural in nature, and claim that there is incompatibility in the business based approach for higher educational institutions because of legal restrictions and stakeholder challenges. For these reasons, the management of universities do not have much authority and some of the pressures are from academic senates, unions, and legislative structures of states. The higher education external environment should be supported in terms of competition, hostility, and creativity along with other conditions for the success of ventures. The main hurdles in the success of new ventures are insufficiency of corporate support and unrealistic expectations.

Researchers have identified that entry timing, market for ventures and approaches are the hurdles for success (Kuratko et al., 1990). Moreover, researchers have highlighted the need for suitable accountability and flexibility within the organization for developing corporate entrepreneurship. This can result in greater creativity and innovation. Leaders can make mistakes in the internal environment without any negative consequences. However, there is a

need for close supervision and greater accountability of the leadership to improve organizational success. Researchers have focussed on the fact that the organization must have individual leadership. The leadership must possess certain qualities, including: risk taking, self-motivation, creativity, and financial understanding, etc. The leadership should also have the support of generalists and specialists (Hussain et al., 2018).

Disagreement exists in literature regarding the type of organizational structure (i.e. open or structured; large or small), which works best for the success of corporate entrepreneurship. Researchers have demonstrated the significance of management support in the success of ventures. Success is based on recruitment of the right individuals as leaders, such as those who have leadership qualities and the ability to make decisions. Lack of these factors results in the failure of corporate ventures. It is assumed that leaders have the ability to support the structure of the organization and behave entrepreneurially. Alternatively, it has been suggested by the researchers that an organization with a loose organizational structure, higher communication at every level, autonomy, and informal networks, will result in a generation of innovative ideas and the of development entrepreneurial cultures within the organization. An organization must develop an entrepreneurial environment, which will convey that rewards are offered for innovative approaches. A middle of the road stance has been taken that supports the natural idea of creation at every organizational level. However, there is a need for a higher level of formal structure at the implementation phase. The following hypothesis has been formulated based on the above literature.

H3: Corporate entrepreneurship has a significant impact on organizational performance.

Corporate Entrepreneurship as a mediator

It has been suggested by the research that corporate entrepreneurship acts as a mediator in the government higher education institutions in Thailand. There is no empirical evidence in literature regarding the role of corporate entrepreneurship between the set variables. The mediating impact can exist, but it can be in one of three different forms (Ettien, 2018; Wang, Xu, Gu, Zhu, & Liang, 2019). A single dominant mediator exists in the first alternative form. The association between the dependent and independent variable is zero in this case, however, the mediator influences the relationship of the variables. A potent mediator is the second alternative form. There exists a relationship among the variables and it is supported more by the mediator, therefore, several mediating factors can be involved in the association. When a new mediator is introduced, the path from the independent variable to the outcome variables should be reduced in case of a potent variable. When the path is not reduced, the mediator cannot be regard as potent. Non-potent mediators are the third alternative form. It has been indicted by previous researches that there is a significant influence of public and private entrepreneurship on organizational performance.

There is full support for the influence of corporate entrepreneurship and entrepreneurial orientation on different performance measures. A positive influence is created by corporate entrepreneurship on firm performance. More specifically, financial performance, organizational growth, and profitability of the firm is improved by CE (Zahra, 1991; Zahra & Covin, 1995). This influence is vigorous, and is irrespective of the geographic region and size of the firm. Moreover, the development of new products is influenced by CE. According to the author, there is a positive association between the amount of inventions and innovative behaviour based on CE. It has been suggested by Hornsby, that a generation of new ideas will increase alongside the increase of entrepreneurial efforts at different levels of management. A firm is able to achieve product differentiation through the development of new products and ideas. These are perceived by Covin and Miles (1999) as important aspects for achieving and sustaining competitive advantages.

Several expected outcomes for the firm can be promoted by corporate entrepreneurship. The level of job satisfaction, affective environment, and reduced intention for turnover, can be positively affected with the help of CE (Rutherford & Holt, 2007; Feleke, 2018). Human capital plays a significant role in entrepreneurial firms achieving a competitive advantage. Employee satisfaction and organizational commitment play a significant role in sustaining a competitive advantage.

H4: Corporate entrepreneurship mediates the relationship between cultural factors and organizational performance.

H5: Corporate entrepreneurship mediates the relationship between environmental factors and organizational performance.

Methodology

This study adopts the Structural Equation Modelling (SEM) for analysis due to several reasons. SEM is considered to have an equal ability with multiple and linear regression analyses, assuming that variables are evaluated with no errors. Even though SEM involves multiple regression and factor analyses, it is a more effective way of estimating instruments for separate multiple regression equations which are evaluated concurrently. SEM is one of the most appropriate methodologies as it provides more robust solutions for research problems which simply van not be attained from multiple regression.

According to Hair, Hult, Ringle, and Sarstedt (2016) PLS approach is useful especially when the sole purpose of using structural modelling is to obtain explanation and prediction about the constructs. For the current study, a PLS-SEM technique is employed, as it is assumed to be more flexible, demand less in terms of sample size, and have an ability to handle multiple

structural modelling. Moreover, the model is constituted of reflective and formative constructs. This study aims to reflect a prediction between the constructs. Hair et al. (2016) also supported the reasoning for employing Partial Least Square method. A SEM-PLS approach in social sciences is considered as a powerful and commonly used tool since it can test a number of relationships at one time (Hair et al., 2016; Ezati, Madanda, & Ahikire, 2018). Although, previously many researchers have emphasized the use of AMOS, a covariance-based approach. However, PLS-SEM is a good alternative to the AMOS approach, as it has unique methodological features.

For sample collection, a cluster sampling technique was employed. The five-technique approach that was presented by Gay and Diehl (1992), was used to calculate the sample size for the present study. The first step is to estimate the total population, followed by the estimation of population sample size, using the table presented by Krejcie and Morgan (1970). The population size turned out to be 31,000. 520 respondents were selected to receive questionnaires. Three hundred thirteen nine questionnaires were received; the response rate was 69% and hence was accepted for further evaluation as the response rate is above the threshold of 45-50%. The respondents' average age was 47, and around 63% of them were working in operation departments for the last 15 plus years. The average working experience was 11 years. The majority of respondents was held degrees. Male respondents totalled 233 and the females totalled 64.

Results

SEM has two steps, the inner model assessment, and the outer model assessment. The former is known as the measurement model and the latter is known as the structural model. Structural model measures are assessed by using criteria such as reliability, validity and variance. These items are dynamic in nature so a strong correlation is expected to exist between the variables and they are combined to form a construct. To measure, or for the confirmation of the validation of the measurement of model, the study employed confirmatory factor analysis. During estimation of the measurement model, all elements are separately analysed using reflective, formative, and structural modelling.

Figure 1. Measurement Model

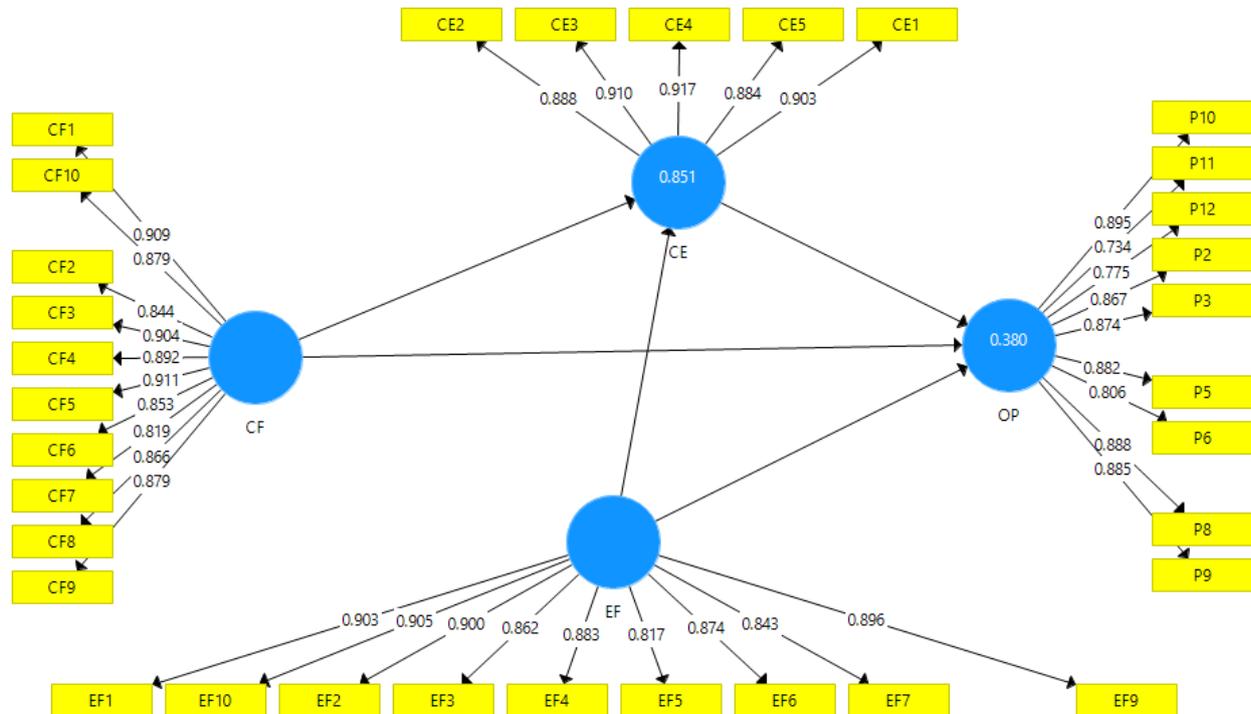


Table 1: Outer loadings

	CE	CF	EF	OP
CE2	0.888			
CE3	0.910			
CE4	0.917			
CE5	0.884			
CF1		0.909		
CF10		0.879		
CF2		0.844		
CF3		0.904		
CF4		0.892		
CF5		0.911		
CF6		0.853		
CF7		0.819		
CF8		0.866		
CF9		0.879		
EF1			0.903	
EF10			0.905	

EF2			0.900	
EF3			0.862	
EF4			0.883	
EF5			0.817	
EF6			0.874	
EF7			0.843	
EF9			0.896	
P10				0.895
P11				0.734
P12				0.775
P2				0.867
P3				0.874
P5				0.882
P6				0.806
P8				0.888
P9				0.885
CE1	0.903			

To determine the validity, we have used the Fornell and Larcker (1981) criterion of discriminant validity, which is a powerful measure and has been widely used by the researchers. Discriminant validity measures the association between reflective variables and their constructs. Generally, this operationalizes the variables that are involved in the model. Thus, the current study incorporated this as a threshold for assessing discriminant validity.

Table 2: Reliability

	Cronbach's Alpha	rho_A	CR	(AVE)
CE	0.942	0.943	0.955	0.811
CF	0.966	0.967	0.971	0.767
EF	0.962	0.964	0.967	0.768
OP	0.950	0.955	0.958	0.717

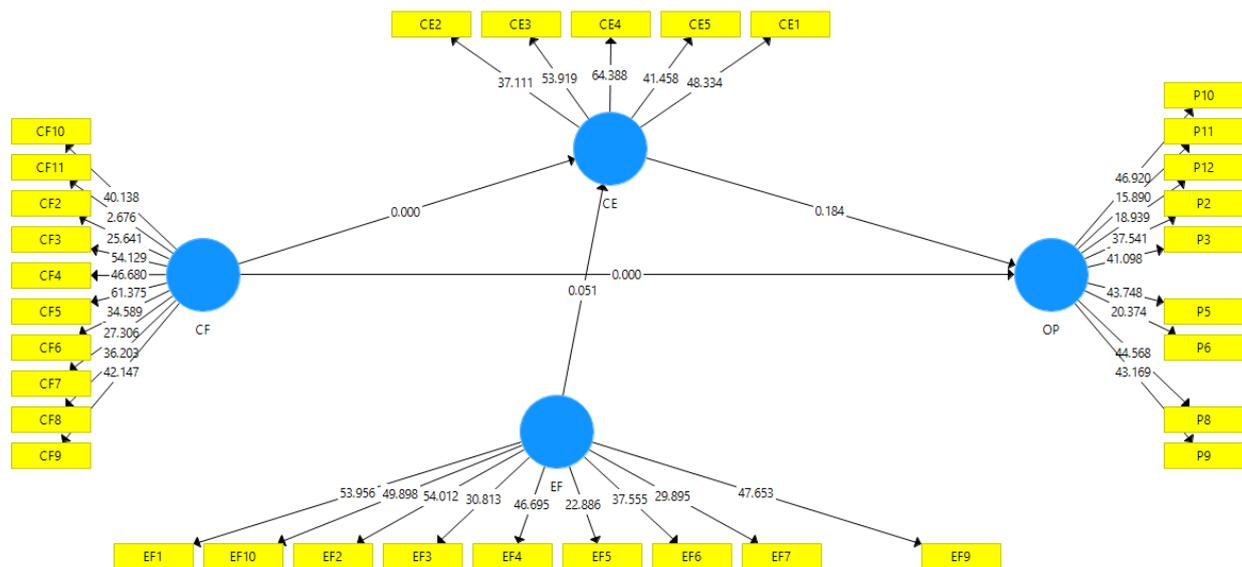
The value for the reliability index is expected to be 0.70 or above. In this study, the value for outer-loadings and cross-loadings turned out to be the same. Since cross loadings analyse the presence of correlation among the constructs, the current study has examined the discriminant validity between the variables and constructs, as shown in Table 3.

Table 3: Discriminant Validity

	CE	CF	EF	OP
CE	0.901			
CF	0.921	0.876		
EF	0.794	0.712	0.876	
OP	0.716	0.783	0.744	0.847

After the assessment of measurement model, which includes the assessment of reliability and validity, the study examined the structural model by accessing the structural paths between independent, dependent and moderating variables. The unique nature of SEM-PLS is that unlike other techniques, the SEM-PLS method observes the simultaneous examination of all the constructed variables. Therefore, in the case of a structural model it analyses the direct and indirect effects of variables. The structural model is also shown below.

Figure 2. Structural Model



SEM is employed on samples of 297 observations. The significance level for the p-value is less than 0.05. P-values for all other hypotheses are less than 0.05, indicating the acceptance of the hypotheses.

Table 4: Direct Results

	(O)	(M)	(STDEV)	T Statistics	P Values
CE -> OP	0.204	0.212	0.149	1.372	0.230
CF -> CE	0.865	0.859	0.046	3.715	0.000
CF -> OP	0.396	0.394	0.131	3.036	0.002
EF -> CE	0.078	0.084	0.049	3.598	0.000
EF -> OP	0.262	0.267	0.139	3.882	0.000

For the purpose of investigating the indirect impact of variables or mediation, moderation level is estimated. In addition, to specify the significance of relationships, bootstrap analysis was conducted. Table 4 shows the existence of a moderating impact of corporate entrepreneurship. Mediation results indicate significant t and p values for both hypotheses. The values for the t-test are 1.96, while p values came out to be less than 0.05, resulting in the acceptance of H₆ and H₇ hypotheses.

Table 5: Indirect results

	(O)	(M)	(STDEV)	T Statistics	P Values
CF -> CE -> OP	0.177	0.182	0.129	3.367	0.000
EF -> CE -> OP	0.016	0.018	0.018	3.906	0.000

In structural modelling, the coefficient of determination or R² explains the predictive power of endogenous variables. A value for R² lies between 0-1, a value closer to 1 indicates greater predictive accuracy and vice versa. The value of 0.75 indicates substantial predictive power, 0.50 indicates moderate predictive power, while 0.25 indicates weak predictive power. The value for R² came out to be 0.851 and 0.380 which shows that ethic and culture explains 85.1% and 38.0% variations in organizational performance.

Table 6: R-Square

	R Square
CE	0.851
OP	0.380

Conclusion and Discussion

The findings of the study are in line with Covin and Slevin (1991). They identified that entrepreneurialism is framed within three types of organizational behaviours: risk taking, innovation, and competition. In addition to the specific kinds of actions that organizations can take, Covin and Slevin (1991) describe how organizational entrepreneurship occurs within a specific organizational context, which can be internal, external, and strategic. The author

supports Covin and Slevin's (1991) concept of entrepreneurship, but extends it through a framework designed around specific organizational actions that promote both innovation and entrepreneurship within the organization. This framework aligns along an axis of organizational strategy, culture, and structure. To begin, he cites his own collaborative research to make the correlation explicit between organizational values and norms that support innovation and organizational strategies, as well as structures and environments that support entrepreneurship.

Rather than advancing Covin and Slevin (1991) project, Russell's contribution to the identification of entrepreneurship and innovation nexus is to make the link much more explicit though the former research shows the correlation between the two. More importantly, the scholar takes the project in a slightly different direction by turning from a discussion of the context and characteristics of an entrepreneurial organization toward a discussion of the specific actions that will likely promote entrepreneurship within that given organization. The discourse is about the new institution's formative identity within a set of parameters. Whereas the identity of HEIs may be territory that is equal to other institutions in combativeness, the core of that identity, that this is an entrepreneurial higher education institution, rises above these disputes, hence a culture of entrepreneurship exists.

Accordingly, an integrated framework of organizational entrepreneurship accounts for the role of both the internal and external environment by juxtaposing Covin and Slevin's (1991) concept of an organization's internal entrepreneurial posture and Russell's description of an organization's "hostile" and "dynamic" external environment. When these two perspectives are side by side, one can see that, Covin and Slevin's (1991) approach to organizational entrepreneurship can be read through the lenses of environment, strategy, culture, and structure. Through these lenses, entrepreneurship can be expressed in those elements of the organization where Covin and Slevin's (1991) descriptive approach meets Russell's prescriptive approach to organization building. Accordingly, one can construct an integrated approach to strategy in both authors' support for organizational characteristics such as a focus on growth and competitive tactics, as well as organizational behaviours that support the creation of corporate entrepreneurship.

The accountability in higher education is in responding to external factors, stakeholders or client expectations. Universities, as pillars of the higher education system, must be insulated from all extraneous influences, so that they can govern and manage their academic, administrative and financial functions. Particularly, universities must have autonomy to develop their academic programs, recruit, assess and develop their faculty; and select, train and educate their students. The present organizational structure, including senates and syndicates, has too many weaknesses, the principal one of which is an inadequate separation of governance from the functions and responsibilities of management. To ensure



accountability for institutional performance, each university must have an independent governing or policy making body that may be called a 'Governing Board' (GB), to be appointed by the Chancellor from a panel of nominees nominated by a committee of the Board, and an independent system of management that it is accountable to. The Chief Executive officer of the University (Vice Chancellor) must be identified through a formal and open search process and appointed by the Chancellor from a selection of candidates recommended by the Governing Board.

Higher education during the past two decades has found itself in increasing competition with other state commitments such as health care, K-12 education, corrections, and welfare (Zumeta, 2000). Higher education, unlike the state's other commitments, has an alternative source of funds through student tuition and fees and other revenue sources. However, as higher education has increased tuition and fees faster than the rates of price inflation and middle- and working-class income gains, policymakers and consumers have asserted the need for greater efficiency. In addition, due to the collapse of the U.S. economy in 2009, from FY08-FY10 state fiscal support for higher education decreased 6.9% across the 50 states. Forecasts suggest state revenues may not recover to pre-recession levels until at least 2013 (American Association of State Colleges and Universities, 2010). Merging the two conditions, society needs more from higher education at a time when there are fewer resources available to support such an increase. The scholars summarize well the imbalance in what the public needs from higher education and what is currently being produced: The imbalance between production and need is quantitative (not enough students are going to and getting through college), qualitative (too many students who do graduate have weak literacy, qualitative reasoning, and quantitative skills), occupational (the needs for skilled manpower are particularly acute in the science, engineering, and math disciplines and in several professional areas such as nursing and teaching), and socioeconomic (too few of the nation's Latino and African American students make it to or through college).

This imbalance between production and need, mixed with expectations of greater efficiency and performance, has resulted in increasing demands for higher education accountability. In response, new accountability initiatives have emerged, layered upon previously established accountability programs. With institutions responding to numerous accountability programs, the present challenge is not the absence of accountability or the quantity of accountability. The National Commission on Accountability in Higher Education (2005a) contends, "The problem is a failure to develop and implement accountability approaches that help improve performance in a complex, decentralized system of higher education" (p. 11). Burke (2005) draws a similar conclusion and suggests "the key is to clarify the reaches and limits of accountability and to develop effective and integrated systems of accountability" (p. 24).

The field of corporate entrepreneurship in public sector higher education does not clearly identify the nature of public sector entrepreneurship, because the theory is underdeveloped,



and data is difficult to obtain. In response, this research attempts to develop a theoretical research framework for corporate entrepreneurship in the state government higher education institutions in Thailand at an organizational level.

This study asserts that corporate entrepreneurship in public sector organizations is not a completely new form of entrepreneurship. Rather, corporate entrepreneurship in the public sector works with similar principles as private sector entrepreneurship does. Although, public organizations are different from private entities, public organizations do not require an entirely different theoretical approach in order to incorporate entrepreneurial practices. The definitions and underlying dimensions of corporate entrepreneurship in the public sector are fundamentally similar to those in the private sector. This research frames the nature of corporate entrepreneurship in the public sector higher education institutions in three dimensions: risk taking, innovativeness, and pro-activeness. However, by reason of fundamental differences in organizational realities between public and private sector the key component for supporting entrepreneurial activities and opportunities in the public sector higher education institutions are unique. In addition, each determinant's impacts on corporate entrepreneurship and its effects on organizational performance are different in the state government higher education institutions in Thailand. The theoretical framework of corporate entrepreneurship in the state government sheds light on unexplained phenomenon of entrepreneurial opportunities and activities in the public sector in order to promote their contribution to public sector higher education institutions' ultimate goal of performance.

REFERENCES

- Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of business venturing*, 16(5), 495-527.
- Burgelman, R. A. (1983). Corporate entrepreneurship and strategic management: Insights from a process study. *Management science*, 29(12), 1349-1364.
- Burke, P. (2005). *History and social theory: Polity*.
- Clark, B. R. (1998). *Creating Entrepreneurial Universities: Organizational Pathways of Transformation. Issues in Higher Education: ERIC*.
- Covin, J. G., & Miles, M. P. (1999). Corporate entrepreneurship and the pursuit of competitive advantage. *Entrepreneurship Theory and practice*, 23(3), 47-63.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic management journal*, 10(1), 75-87.
- Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and practice*, 16(1), 7-26.
- Dougherty, D. (1990). Understanding new markets for new products. *Strategic management journal*, 59-78.
- Durie, A. D., & Beshir, E. S. (2018). The Effect of Proactive Market Orientation on Company Performance: The Case of Medium and Large Manufacturing Companies in Ethiopia. *International Journal of Management and Sustainability*, 7(2), 93-100.
- Drucker, P. F. (1985). Entrepreneurial strategies. *California Management Review*, 27(2).
- Egbunike, P., & Okoye, O. (2017). Tax Implication of International Accounting Standards (IAS 12) Adoption: Evidence from Deposit Money Banks (DMBS) in Nigeria. *International Journal of Social and Administrative Sciences*, 2(2), 52-62.
- Esia-Donkoh, K., & Baffoe, S. (2018). Instructional Supervisory Practices of Headteachers and Teacher Motivation in Public Basic Schools in Anomabo Education Circuit. *Journal of Education and e-Learning Research*, 5(1), 43-50.
- Ettien, A. (2018). A Study of Proctors' Involvement in National Examination Cheating: The Case of " Collège Privé MBF d'Abobo" Exam Center. *Journal of Education and e-Learning Research*, 5(1), 22-27.
- Ezati, B. A., Madanda, A., & Ahikire, J. (2018). Improving Learning in Rural Lower Primary School through Provision of Informal ECD: Lessons from an NGO Model in Uganda. *Journal of Education and e-Learning Research*, 5(1), 51-59.



- Feleke, A. T. (2018). The Dilemma of Determining Urban Administrative Boundary for Land Administration: The Case of Shire Inda Silase. *International Journal of Social Sciences Perspectives*, 2(2), 126-160.
- Fornell, C., & Larcker, D. F. (1981). *Structural equation models with unobservable variables and measurement error: Algebra and statistics*: SAGE Publications Sage CA: Los Angeles, CA.
- Gay, L., & Diehl, P. (1992). *Research methods for business and management*: Macmillan Coll Div.
- Gamba, F. J. (2017). Social capital in selected business associations of food processing SMEs in Tanzania and Rwanda: A synthetic-based approach. *International Journal of Asian Social Science*, 7(1), 63-84.
- Hair, Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.
- Hsiao, Y.-C., & Wu, M.-H. (2019). How organizational structure and strategic alignment influence new product success. *Management Decision*.
- Hussain, H.I., Hadi, A.R.A., Mohamed-Isa, A., Salem, M.A., Kamarudin, F. & Jabarullah, N.H. (2018). Adjustment to Target Debt Maturity and Equity Mispricing: Evidence from Asia Pacific, *Polish Journal of Management Studies*, 17 (2), 87 – 100.
- Jermisittiparsert, K., Sriyakul, T., Pamornmast, C., Rodboonsong, S., Boonprong, W., Sangperm, N., Pakvichai, V., Vipaporn, T., & Maneechote, K. (2016). A Comparative Study of the Administration of Primary Education between the Provincial Administration Organisation and the Office of the Basic Education Commission in Thailand. *The Social Sciences* 11(21), 5104-5110.
- Jermisittiparsert, K, Sriyakul, T., & Rodoonsong, S. (2013). Power(lessness) of the State in the Globalization Era: Empirical Proposals on Determination of Domestic Paddy Price in Thailand. *Asian Social Science* 9(17), 218-225.
- Kanter, R. M. (1994). Change in the global economy: An interview with Rosabeth Moss Kanter. *European Management Journal*, 12(1), 1-9.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Kuratko, D. F., & Hoskinson, S. (2018). Introduction: The Challenges of Corporate Entrepreneurship in the Disruptive Age *The Challenges of Corporate Entrepreneurship in the Disruptive Age* (pp. 1-9): Emerald Publishing Limited.

- Kuratko, D. F., Montagno, R. V., & Hornsby, J. S. (1990). Developing an intrapreneurial assessment instrument for an effective corporate entrepreneurial environment. *Strategic management journal*, 49-58.
- Levine, B. A. (2000). *Numbers 21-36: a new translation with introduction and commentary: Anchor Bible*.
- Masters, R. D. (1983). The biological nature of the state. *World Politics*, 35(2), 161-193.
- Mtar, K., & Ep, S. B. (2017). A Comparative Study of FDI Attractiveness in 3 Arab Spring Countries: Tunisia, Morocco and Egypt. *Asian Journal of Economic Modelling*, 5(4), 364-379.
- Nielsen, R. P., Peters, M. P., & Hisrich, R. D. (1985). Intrapreneurship strategy for internal markets—corporate, non-profit and government institution cases. *Strategic management journal*, 6(2), 181-189.
- Perin, M. G., Simões, C., & Sampaio, C. H. (2018). *Insights into the Relationship between Entrepreneurial Orientation and Performance: Evidence from Brazil: An Abstract*. Paper presented at the Academy of Marketing Science World Marketing Congress.
- Peterson, J. L. (1981). Petri net theory and the modeling of systems.
- Presutti, M., & Odorici, V. (2018). Linking entrepreneurial and market orientation to the SME's performance growth: the moderating role of entrepreneurial experience and networks. *International Entrepreneurship and Management Journal*, 1-24.
- Riesman, D., & Grant, G. (1978). *The perpetual dream: Reform and experiment in the American college*: Chicago: University of Chicago Press.
- Rutherford, M. W., & Holt, D. T. (2007). Corporate entrepreneurship: An empirical look at the innovativeness dimension and its antecedents. *Journal of Organizational Change Management*, 20(3), 429-446.
- Saudi M.H.M., Juniati S., Kozicka K. & Razimi M.S.A. (2019) Influence of Lean Practices on Supply Chain Performance, *Polish Journal of Management Studies*, 19 (1), 353-363.
- Sinaga O., Lis M., & Razimi M.S.A. (2019) Education and Core Skills in the Performance with Mediating Role of Employee Innovation, *Polish Journal of Management Studies*, 19 (2), 363-373.
- Wahid, S. D. M., Hussain, W. M. H. W., & Hanifah, A. (2018). The Growing Trend of Social Entrepreneurship among Malaysian Undergraduate Students. *INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES*, 8(9).



- Wang, L., Xu, B., Gu, Y., Zhu, J., & Liang, Y. (2019). The mediating and moderating effects of resilience on the relationship between perceived stress and depression in heroin addicts. *Journal of community psychology*, 47(3), 495-503.
- Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of business venturing*, 6(4), 259-285.
- Zahra, S. A. (1999). The changing rules of global competitiveness in the 21st century. *Academy of Management Perspectives*, 13(1), 36-42.
- Zahra, S. A., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of business venturing*, 10(1), 43-58.
- Zumeta, W. (2000). Public university accountability to the state in the late twentieth century: Time for a rethinking. *Democracy and the academy*, 93-122.
- Jemsittiparsert, K. & Sommanawat, K. (2019). TQM, Human Oriented Elements and Organizational Performance: A Business Excellence Model for Higher Education Institutes of Thailand. *International Journal of Innovation, Creativity and Change*, 5(2), 514-532.