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Business Model Canvas Effect Risk Management and Business Performance: SMEs in Rayong, Thailand

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Abstract

This research studied the relationship of business operations based on business elements of Business Model Canvas that influenced the efficiency in risk management and the performance of SMEs in Rayong province. The research is based on a Quantitative research methodology, where data collection has been achieved through self- administered questionnaires. The statistical results found that the Business Model Canvas influenced SMEs performance in Rayong.The empirical data and correlation testing via Structure Equation Modeling in which found thatSMEs businesses in Rayong had well business plan that covered all the nine aspects of Business Model Canvas with the efficient risk management.Both led to the well Balance Scorecard performance including the well business plan that would lead the business to have good risk management efficiency. The risk management efficiency was the partial mediation from the Business Model Canvas to the business performance result.

Keywords: Business Model Canvas, risk management, Balance Scorecard, SMEs, business performance

INTRODUCTION

Small and Medium Enterprises (SMEs) are the crucial mechanism that connected businesses with the economic activities. The major role of SMEs is to be the sources of income and employments for people throughout the country. It has been regarded as the key financial development, generation of employment and competitiveness facilitators for both developing and developed nations (Tuck, 2014; Kaliappen, Nu'Man, &Jermsittiparsert, 2019). In common, both SMEs theory and practice are accepted to be used as an engine in socio-economic problems solving for instance, poverty, unemployment, and alleviation

In the past, SMEs had however faced with the development problems. Many of businesses have less ability to generate sufficient profits and to enter the competition thus, these

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lead them to shut down themselves. SMEs' performance result has become the recent crisis from the lacks of efficiency, strength and in management. Another problem facing by Thai SMEs is the lack of spirit and awareness in entrepreneur toward the major role of SMEs in the national development. This results on none value added into the products or the development of self-potential. Therefore, it requires Thai SMEs to learn on how to develop themselves to be with systematic and efficient administration (The Office of SMEs Promotion, 2018.)

As the entrepreneurs or producers, all would need to create their own business efficiently, this depends on the assisting of management tools that have set for the clear operational direction that would result on to efficiency. Among of the presence tools, it is suggested by Alex Osterwalder the Business Model Canvas or BMC which is a form used in business planning toward the business operation improvement toward the higher growth. Good planning would lead toward the efficient performance (Osterwalder & Pigneur, 2010)

Business Model Canvas (BMC) is suggested to entrepreneurs as a new tool for those who consider to start investing on their business or for the existing progress improvement. It is developed as a tool that prompt to bridge the gap in business models and to assist the entrepreneurs to visualize all business dimensions. It would allow the entrepreneurs to form the better risk assessment on the investment to provide the answers on how business should be conducted in order to generate profits. The business model is the business blueprint that an organization uses to generate value as a means of creating corporate value. As a result, the models taken to develop a better understanding of the risks of business models are in great demand. Appropriate risk framing supports all risk management capabilities by identifying critical, quantitative and summarized risks in total risk management (Philippos Papadopoulos, 2016).

According to the collapsed of the corporate in and early 2000s, it leads to the lessons learned and introducing of risk governance methods regulations that seem to be insufficient for the global financial crisis (GFC) prevention as started in the late 2007. In line with this, it has been highlighted by Dionne (2019) that inefficiency risk management rules and regulations is not the point, but the key is the absence of enforcement and application. The risk management evolution is indirectly roused by its failures (Mikes, 2011). It is held by the theory of risks management that risks mean the effect on the businessobjectives' fromenvironmental uncertainty (Hubbard, 2020). Thus, the critical application by a business is to address, categorize, and evaluate risks, then actively and proactively follow up with the risk mitigation measures implementation in parallel with the measures like opportunity exploitation. Usually, the plans for risk management will be created at the enterprise level including the very least complex activity monitoring indicators such as the balanced scorecard and the guidelines to address and assess on the fundamental strategic, operational, financial, and compliance risks (Falkner &Hiebl, 2015; Bromiley et al, 2015; Morden, 2016; Kerzner & Kerzner, 2017). Unfortunately, SMEs' risk management strategies studied on the consequences are quite rare while in general, the topic is studied in quantitative form; thus, the available literatures are commonly discussed in form of reviews and case studies (Falkner &Hiebl, 2015; Seville &Teyssier, 2017).

Despite the economy driving factor role, Thai SMEs seem to be relatively underdeveloped if compared to the western countries. Due to the lack of risk management and standardization, the success of Thai SMEs business normally affected by the uncertainty events (Chittithaworn et al, 2011; Pandya, 2012; RegnierP., & Wild, P., 2017). Though the intervention

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of development that aimed to educate the management and business owners with the ways to leverage the advantages from the techniques of risk management, their business performance would be significantly improved (Aziz et al, 2018; Falkner &Hiebl, 2015).

Rayong is a main industrial province of the country with great economic condition and high income per person. The Office of SMEs Promotion has presented with higher number of SMEs in Rayong that increased in the 5 years period from 2015 until 2019 or, 9.69% higher. On the contrary, there are more shutting down SMEs each year. In 2019, a total of 22,733 SMEs were shut down which was about 34.02 %. higher than 2015.

As mentioned above, if the situation has been unchanged, SMEs management could have the main problem that leads to lower efficiency in SMEs performance.Including the advantages of BMC that can help guide the business operation to be successfulrequires the researcher to study the management process based on the BMC theory and risk management that would reflect the performance of Small and Medium Enterprises (SMEs) in Rayong and being the guidance information toward successful Rayong SMEs businesses processing.

It is considered by the researcher that according to the BMC theory, this can be applied as the operational guideline for SMEs producers and entrepreneurs and producers in Rayong for the greater efficiency andproduct development

LITERATURE REVIEWS AND CONCEPTUAL FRAMEWORK

Business Model Canvas or BMC

The researcher considered that from the theory of Business Model Canvas, it can be applied as the guideline for the operation by the producers and entrepreneurs of SMEs in Rayong toward better efficiency and it may result on the products development as well.The researcher was then interested to study and research on this topic to be the beneficial database for the business and being the root for Thailand. In Thailand context, the Business Model Canvas will consist of nine principles as follows:

1. Customer Segments are the heart of all types of business models; without consumer (who bring about the profits); the company will be unable to survive in the long run.

2.Value Propositions are the reason why customers choose one company instead of another.

3.Channels refer to the communication channel, the channel for products and services distribution and sale channel that are composed into the part to coordinate with customers. Channel is the touch points with customer and it has the main role toward customer experiences.

4. Customer Relationship is what the company should define on the form of relationship to build with the customers clearly in each group with the form of relationship in the business model because it will highly impact on the overall experiences gained by the customers.

5.Revenue Streams is where the company shall ask itself if each group of customers is willing to pay for and on what values. If there is the answer for this question, it would help the company capability to generate the revenue flow from each group of customers while the income flow from each group could have different pricing mechanisms.

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6. Key Resources are required in all business models as it would help the company to form and suggest value into the market, preserving the good ties with customer groups and generating incomes.

7. Key Activities are the highest importance that the company must do in order to run successful business. Main activity is like the key resources that can help the company to form and suggest value into the market, preserving the good ties with customer groups and generating incomes.

8. Key Partners is making friends of company for the top benefits from the business model, risk reduction and possess on any resources.

9. Cost Structure is the composition that refers to the main costs in the processing of the business model to build and submit the values, maintain good relationship with customers and generating incomes. All have costs; these costs can be easily calculated after setting the key resources, main activities and main alliances.

Risk Management

Enterprise risk management or ERM is a management framework for an efficiently management to cope with the uncertain events and to boost more potential in organization values and opportunity generating. In general organization, uncertainty can make the organization unable to complete its planned mission. Therefore, shared value is the major goal in place and being accepted among all members and management in the organization. All staff would be raised with values and philosophy to hold on and practice while management decision would create, give and remain with values in all activities from the daily organizational operation as determined. Any decision taken to account the chances and risks where management is required to consider on information technology in connection with their external and internal environment. Thus, the risk can be separated by Stock Exchange of Thailand (2014) into four following types.

1. Strategic Risk is the risk from the strategic planning, operation and to properly adopt the place for practicing. Strategic risk has influenced on the fundamental business areas since the setting of goal until strategies implementation in order to fulfill the business goals, for instance on the competitive risks, economic, legal, changes, and politics (Marcelino-Sádaba et al, 2014; Brustbauer, 2016). When SMEs apply their plans and approaches of strategic risk management; they have found economically thrived in the larger proportion than their counterparts with no similar measures on engagement (Watkins, 2012; Verbano&Venturini, 2013). Especially, it is true that the tool is owned by SMEs for the enabling of operational streamlining like ERP programs for instance (Aloini, Dulmin&Mininno, 2007).

2. Operational Risk is the risk related to procedure in the operation or the internal organization activities including risk from information technology management and any required knowledge information for organization achievement. It seems that operational risks are more subtle and can spread throughout all daily activity areas of the firm thus, it is uneasy to address since the more complexity and wider mitigation strategies are required (Scandizzo, 2005). When the streamlined operational processes are implementing, the IT tools will be adopted (e.g. ERP) then, the purchasing policies will be defined. More SMEs have found to reach more beneficial outcomes rather than its native counterparts (Cornalba&Giudici, 2004; Yang et al, 2017).

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Usually, this impact has been studied in the financial institutions (Zaman & Ali, 2017; Yang et al, 2017), however, there is no evidence found in SME sector (Falkner &Hiebl, 2015).

3. Financial Risk is the risk association to financial management. Financial risks seem to be the huge problematic in the start-ups and small companies that normally face with the difficulties in their cash flows securing for their appropriate needs and sometimes such difficulties could result on their bankruptcy even in the solid companies (Khurana, Martin & Pereira, 2006; Brown & Petersen, 2009). Financial risk addressing financial can be done through the use of strategies like the shortening of payment terms that would greatly help improving the outcomes. In more than 70% of cases, it has found that the beneficial outcomes were equivalent to bankruptcy avoidance (Mello & Parsons, 1992; Leland & Toft, 1996; Bolton, 2003).

4. Compliance Risk refers to the risk related to the compliance to rules and regulations in such governance units. Compliance would help the companies face with lower risk per se, however, it can lead them to the point with undesirable relation with the state institutions, but it is the mandatory risk management component for the corporations (Lam, 2014; Hopkin, 2018). While in typical SMEs try to comply to the environmental, health, and consumer laws, but the dedicated personnel is rare since the cost considerations may hinder their efforts to do so and this leads to the loss of privileges and costly fines (Watkins, 2012; Falkner &Hiebl, 2015).

Balanced Scorecard

Currently, business with diverse forms can measure their competitiveness ability through its financial performance however, this may not present its actual competitive ability. The modern methods like Balanced Scorecard (BSC) is the tool that can help management accessinto the organization results and assist them in the Strategic Implementation beginning from the organization strategy, vision, and mission which is the key successful factors setting process. Another modern method is Key Performance Indicators: KPI which is the indicator of an objective in which the operation will be measured in the crucial part of the strategy (Kaplanand Norton, 2006;Oliveira et al.,2021). The measurement by Balanced Scorecard (BSC) is different from other methods because it does not only aim to measure the competitive ability of the business at present, but it alsolinks with those indicators in the business strategic management of the business as well. In general, the business organization take into account mission and vision to set for the business strategy that would sometimes not truly apply with the organization. Then, BSC is an assisting tool for the vision and mission transformation to match with the integral operational set and the operational performance as Kaplan and Norton in 1992 have suggested on BSC concept for the first time as the strategic operational management system. While the approach by balanced scorecard has not resulted on risks mitigation but, it is an essential risk assessment component to evaluate the business unit and the organization performance as a whole (Gibbons & Kaplan, 2015; Cooper, Ezzamel& Qu, 2017). The innovation and financial performance level of the firm has been found to reach the peak and optimum values(Malagueño, Lopez-Valeiras& Gomez-Conde, 2018), if there is the accurate tool for the firm to use in their performance measurement (Zheng et al, 2016). This usually be true among the SMEs case as it possibly result from the lack of means for performance measurement in general (Saunila, 2016).

According to the literature review, the advantage of BMC model, risk management. Thus, the following four hypotheses are studied.

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H1: Business operations based on business elements of BMCdirectly influences risk management.

H2: Risk management directly influencesbusiness performance.

H3:Business operations based on business elements of BMC directly influences business performance.

H4:Risk managementmediates the relationship of Business operations based on business elements of BMC and business performance.

CONCEPTUAL FRAMEWORK

The conceptual framework (Figure 1) shows the factors and expected effect of the study. Business operations based on business elements of BMC are expected to be influencedthe risk management and business performance. The influence of risk management on business management are expect.Risk management as a mediating variable between the Business Model Canvas and business performance.

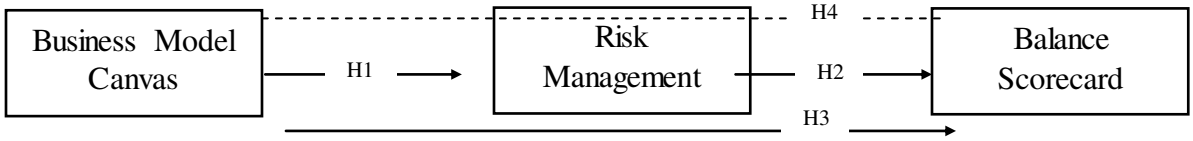

Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study has targeted on SMEs registered companies in Rayong 2019 as the population (n = 12,362).Thus, there were 385 samples to study.Since the total populationis assumed to be at 95% with normally distributed confidence interval and 5% error margin, where it also adopts Yamane formula (Israel, 1992; Raosoft, 2015;)

Research tool was the Questionnaire created with the required goals and conceptual framework. The research questionnaire development was studied to set for the research framework and a literature review was conducted on books, documents, articles and relevant researches including the interview with people with strong experiences on SMEs society; thus, to be the guideline to form the items in the questionnaire.

The study employed a structural equation modelling (SEM) approach. SEM was selected as an approach because of its superior flexibility and capabilities, particularly for modelling indirect relationships (Byrne, 2016). Confirmatory factor analysis (CFA) and path analysis were used as the main analytical tools. CFA was used to extract and examine the measurement model and identify the latent variables, while path analysis was used to examine the strength and direction of relationships within the model (Byrne, 2016; Kline, 2011). Direct relationships were evaluated using the regression coefficients, with a significance of $p < .05$ used to accept a significant regression relationship. The mediating effect of risk management was measured using the ratio of indirect effects to total effects (IE/TE ratio) (Hayes 2017). Mediation effects sizes were evaluated using standard levels of 0.1 (small), 0.3 (medium) and 0.5 (large) (Cohen

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1988).The hypothesized relationships in the theoretical framework were state as the following equations.

$$Risk\ Management = \alpha_1 + \beta_{1(BMC)} + \varepsilon_1 \ (1)$$

$$BSC = \alpha_2 + \beta_{2(BMC)} + \beta_{4(Risk)} + \varepsilon_2 \ (2)$$

THE RESULT

The results of general data analysis concerning the Business operations based on business elements of BMC found that SMEs in Rayong have nineprinciples:Customer Segments,Value Propositions,Channels, Customer Relationship,Revenue Streams,Key Resources, Key Activities, Key Partners andCost Structure.The average value is between 3.29- 3.81 and standard deviation is between 0.674 - 0.994, which is considered by SMEs to have an overall high level of management based on Business Model Canvas (Table1). SMEs in Rayong have the efficiency of accounting risk management, consisting of 4 areas: Strategic Risk,Financial Risk, Operational Risk and Compliance Risk. The average value was between 3.77 and 3.86, and the average standard deviation ranged from 0.617-0.662. The SME business had anoverall high level of risk management (Table 2).

The results of business performanceby using Balanced Scorecardperformance, which consists of four areas:Financial Perspective, Customer Perspective, Internal Business Process and Learning and Growth. The average is between 3.77to 3.86and the average standard deviation ranged from 0.832to 0.875.The SME business had anoverall high level of Balance Scorecard (Table 3).

Table 1 Descriptive statistic ofBusiness Model Canvas

BMC	$\bar{x}$	S.D.	Level
Total	3.62	0.63	high
Customer Segments	3.46	0.74	moderate
Value Proposition	3.80	0.61	high
Channels	3.29	0.99	moderate
Customer Relationship	3.46	0.83	moderate
Revenue Streams	3.37	0.75	moderate
Key Resources	3.83	0.73	high
Key Activities	3.84	0.75	high
Key Partners	3.33	0.96	moderate
Cost Structure	3.81	0.70	high

Table 2 Descriptive statistic of Risk Management

Risk Management	$\bar{x}$	S.D.	Level
Total	3.89	0.65	high

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Strategic Risk	3.91	0.66	high
Operational Risk	3.90	0.64	high
Financial Risk	3.89	0.66	high
Compliance Risk	3.86	0.62	high

Table 3Descriptive statistic of Balance Scorecard

Balance Scorecard	$\bar{x}$	S.D.	Level
Total	3.82	0.85	high
Financial perspective	3.87	0.87	high
Customer perspective	3.82	0.83	high
Internal process perspective	3.77	0.83	high
Learning and Growth perspective	3.83	0.86	high

The model was, therefore, improved, taking modification Indices into consideration as advised byArbuckle (2011, pp. 107-109). The final structural model (Figure 2) demonstrated adequate goodness of fit characteristics, it was found that theChi-square statistic was 121.869, with 107 degree of freedom p-value of .154, and CMIN/DF of 1.139, which CMIN/DF below or equal to 3 that mean the model fit with empirical data (Kline, 1998). Incidentally, the goodness of fit index (GFI) and the adjusted goodness of fit index (AGFI) were .942 and .917 respectively, which were higher than the acceptable criterion of model fit (GFI, AGFI > .90). In addition, the root mean square error of approximation (RMSEA) were. 025 which were below the acceptable of model fit (RMSEA < .08) at PCLOSE. 991 (PCLOSE> .05), passing the evaluation criteria and was consistent with the empirical data asshown in Figure 2 and Tables 4 below.

Table 4 Goodness of fit statistics

Model	Model Fit Criteria	Result
Chi- square	-	121.869
Degrees of freedom(DF)	-	107
p- value	>.05	.154
CMIN/DF	< 3	1.139
GFI	> .90	.942
AGFI	> .90	.917
NFI	> .90	.971
CFI	> .90	.996
RMSEA	< .08	.025

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PCLOSE	> .05	.991

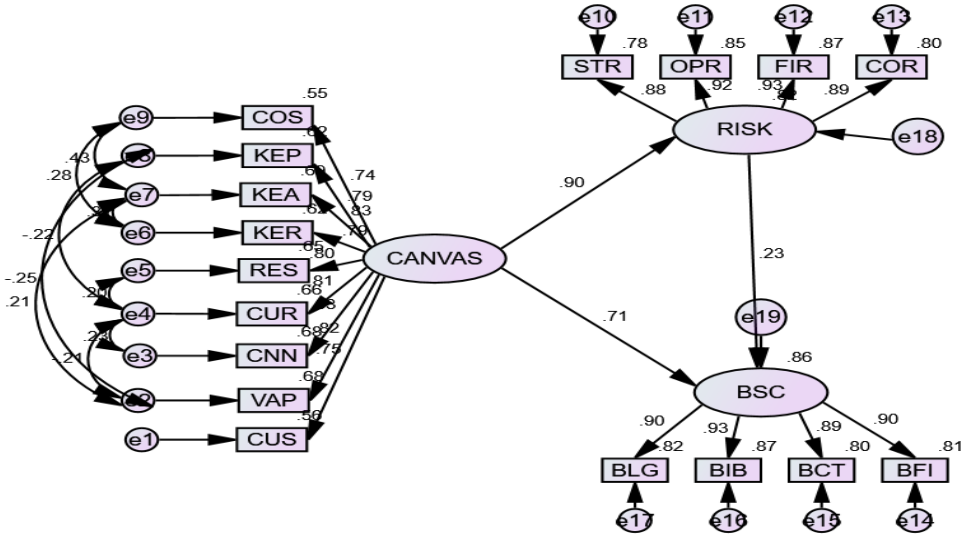

Figure 2 Structural model

According to the results of regression weights from Table 5 shown that all factors are fit for this model. This presents that each factor loading as well as the model were consistent and adequately fit. The factors loading verification found that a critical ratio (C.R.) value between 6.769 – 22.344 was greater than 1.96 and p-value was less than 0.05. In conclusion, the result confirmed that all factors can be measure BMC, risk management and BSC.

The Regression Weights (Table 5) is used to assess the significance of the proposed relationship paths in the model, assessed at $p < 0.05$.The proposed factors in business model canvasand risk management were significant. Standardized regression weights showed at high score ($\beta = 0.904$).Business model canvas factors had a significant relationship to BSC. The regression weights showed that BMC had almost high positive score ($\beta = 0.714$).Finally, risk management had a significant positive relationship to BSC. The regression weights showed that risk management had a moderate positive score ($\beta = 0.229$).

Table 5 Regression Analysis

			Estimate		S.E.	C.R.	P
			Unstandardized	standardize			
RISKMANAGEMENT	<---	CANVAS	.943	.904	.073	12.949	***
BALANCE SCORE CARD (BSC)	<---	CANVAS	1.013	.714	.150	6.769	***
BALANCE SCORE CARD (BSC)	<---	RISK	.312	.229	.129	2.408	.016*
CUSTOMER SEGMENTS (CUS)	<---	CANVAS	1.000	.750			

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			Estimate		S.E.	C.R.	P
			Unstandardized	standardize			
VALUE PROPOSITION (VAP)	<---	CANVAS	.990	.823	.075	13.163	***
CHANNELS (CNN)	<---	CANVAS	1.461	.827	.110	13.270	***
CUSTOMER RELATIONSHIP (CUR)	<---	CANVAS	1.205	.810	.094	12.844	***
REVENUE STREAMS (RES)	<---	CANVAS	1.087	.805	.085	12.858	***
KEY RESOURCES (KER)	<---	CANVAS	.987	.790	.078	12.619	***
KEY ACTIVITIES (KEA)	<---	CANVAS	1.105	.832	.083	13.375	***
KEY PARTNERS (KEP)	<---	CANVAS	1.360	.789	.109	12.531	***
COST STRUCTURE (COS)	<---	CANVAS	.930	.745	.079	11.788	***
STRATEGIC RISK (STR)	<---	RISK	1.000	.882			
OPERATIONAL RISK (OPR)	<---	RISK	1.034	.922	.048	21.652	***
FINANCIAL RISK (FIR)	<---	RISK	1.063	.934	.048	22.344	***
COMPLIANCE RISK (COR)	<---	RISK	.956	.894	.047	20.121	***
FINANCIAL PERSPECTIVE (BFI)	<---	BSC	1.000	.901			
CUSTOMER PERSPECTIVE (BCT)	<---	BSC	.949	.894	.045	21.164	***
INTERNAL BUSINESS PROCESS (BIB)	<---	BSC	.980	.931	.042	23.593	***
LEARNING AND GROWTH (BLG)	<---	BSC	.988	.903	.045	21.763	***

Note: * p < .05, **p < .01, ***p < .001

The mediating effects analysis (Table 6) did identify some significant mediation effects within the data. The mediated variables, BMC, showed small effects sizes based on the rules of thumb offered by Cohen (1988). Thus, H4 was partly accepted. The combination of the regression analysis and the mediating effects demonstrate that risk management does partial mediate the effects of BMC on the firmperformance. This finding may be related to the role of the BMC.

Table 2 Mediation effects

	Direct Effect (DE)	Indirect Effect (IE)	Total Effect (TE)	IE/TE Ratio	Effects level
Canvas ~~BSC~~	.714	.207	.922	.225	Small

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HYPOTHESIS OUTCOMES

Hypothesis 1showed that Business operations based on business elements of BMChad a significant effect on Risk management. Hypothesis 2 showed that risk managementhad a significant effect on firm performance. Hypothesis 3 showed thatBusiness operations based on business elements of BMChad a significant effect on firm performance. Thus, Hypothesis 1, Hypothesis 2 and Hypothesis 3 are accepted. Finally, risk management was a partial mediating variable between the significant Business operations based on business elements of BMC and firm performance.Thus, Hypothesis 4 was accepted

CONCLUSION AND DISCUSSION

This study examined whether risk management served as a mediating variable in the relationship between BMC and the firm performance. The research found that SMEs in Rayong had good business operations based on business elements of BMC at a high level, resulting in a well-balanced performance. Thus, this research provides a novel contribution to understanding of risk management and its business operations based on business elements of BMC and its effects on the firm performance. It is in line with the research by Timo Sohl, Govert Vroom and Markus A. Fitza(2020) who claimed that the business model effect varies with operating experience. It also has research to support that the BMC as a new tool contributes to a sustainable business model (Joyce, A., & Paquin, R. L. ,2016).In addition, in each organization, the business model should be tied to the implementation of the sustainable development paradigm based on the triple bottom line (TBL) conceptand including business risk assessment. Adding the above elements to a business model allows organizations to provide formal and integrated or non-financial reporting on finance, according to stakeholder expectations and the requirements of the EU 2014a/95.

The results showed that the effectiveness of risk management had an effected on firm performance. It supports previous researches (Florio, C., and Leoni, G. 2017). It also found that the efficiency of risk management was partially mediation from the business operations based on business elements of BMC to the performance. That support the concept suggested that the business had a good management would be more effective in managing risk. That the literature is so fragmented implies that there is a need for better theoretical development and potentially more empirical attention to the internal decision process that underlies the role of risk management in firm performance.With business processes to be used for managing and identifying risks in business models, managers can make informed and conscious decisions.Overall, this study provides empirical evidence to debate whether the business model is a useful structure in management research and explores solutions for future theoretical research (Brillinger, A. S., Els, C., Schäfer, B., & Bender, B. 2020). Overall, this study provides empirical evidence to debate whether the business model is a useful structure in management research and explores solutions for future theoretical research.

REFERENCE

1. Aloini, D., Dulmin, R., &Mininno, V. (2007). Risk management in ERP project introduction: Review of the literature. Information & Management, 44(6), 547-567.
2. Arbuckle, J. L. (2011). IBM SPSS Amos 20 User's Guide. NY: Amos Development Corporation.

P-ISSN: 2204-1990; E-ISSN: 1323-6903
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3. Bolton, P. (2003). Toward a statutory approach to sovereign debt restructuring: lessons from corporate bankruptcy practice around the world. IMF Staff Papers, 50(1), 41-71.
4. Brillinger, A. S., Els, C., Schäfer, B., & Bender, B. (2020). Business model risk and uncertainty factors: Toward building and maintaining profitable and sustainable business models. Business Horizons, 63(1), 121-130.
5. Bromiley, P., McShane, M., Nair, A., &Rustambekov, E. (2015). Enterprise risk management: Review, critique, and research directions. *Long range planning*, *48*(4), 265-276.
6. Brown, J. R., & Petersen, B. C. (2009). Why has the investment-cash flow sensitivity declined so sharply? Rising R&D and equity market developments. Journal of Banking & Finance, 33(5), 971-984.
7. Brustbauer, J., 2016. Enterprise risk management in SMEs: Towards a structural model. International Small Business Journal, 34(1), pp.70-85.
8. Byrne, B. M. (2016). Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming (3rd ed.). New York: Routledge.
9. Chittithaworn, C., Islam, M. A., Keawchana, T., & Yusuf, D. H. M. (2011). Factors affecting business success of small & medium enterprises (SMEs) in Thailand. *Asian social science*, *7*(5), 180-190.
10. Cohen, J., (1988). Statistical power analysis for the behavioral sciences, London: Lawrence Erlbaum Publishers
11. Cooper, D. J., Ezzamel, M., & Qu, S. Q. (2017). Popularizing a management accounting idea: The case of the balanced scorecard. *Contemporary Accounting Research*, *34*(2), 991-1025.
12. Cornalba, C., &Giudici, P. (2004). Statistical models for operational risk management. Physica A: Statistical Mechanics and its applications, 338(1-2), 166 172.
13. Dionne, G. (2019). Corporate risk management: Theories and applications.John Wiley & Sons, New Jersey.
14. Falkner, E.M. &Hiebl, M.R. (2015). Risk management in SMEs: a systematic review of available evidence. The Journal of Risk Finance, 16(2), pp.122-144.
15. Florio, C., & Leoni, G. (2017). Enterprise risk management and firm performance: The Italian case. *The British Accounting Review*, *49*(1), 56-74.
16. Gibbons, R., & Kaplan, R. S. (2015). Formal measures in informal management: can a balanced scorecard change a culture?. American Economic Review, 105(5), 447-51.
17. Hopkin, P. (2018). Fundamentals of risk management: understanding, evaluating and implementing effective risk management. Kogan Page Publishers.
18. Hubbard, D. W. (2020). *The failure of risk management: Why it's broken and how to fix it*. John Wiley & Sons.
19. Israel, G. D. (1992). Determining sample size (Fact sheet PEOD-6). *Gainesville, FL: University of Florida*.
20. Joyce, A., & Paquin, R. L. (2016). The triple layered business model canvas: A tool to design more sustainable business models. *Journal of cleaner production*, *135*, 1474-1486.
21. Kaliappen, N., Nu'Man, A., &Jermsittiparsert, K. (2019). The Mediating Role of Learning Orientation in the Relationship between Organizational Innovativeness, Financial Performance, Production Performance and Marketing Performance of SMEs in Thailand. International Journal of Innovation, Creativity and Change, 6(11), 19-40.

P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2021.27.02.165

22. Kaplan, R. S. & Norton, D. P. (1992). The balanced scorecard—Measures that drive performance. Harvard Business Review, 70,71–79.
23. Kaplan, R. S., & Norton, D. P. (2006). Alignment: using the Balanced Scorecard to create corporate synergies. Boston, MA: Harvard Business School Press.
24. Kerzner, H. (2017). *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons.
25. Khurana, I. K., Martin, X., & Pereira, R. (2006). Financial development and the cash flow sensitivity of cash. Journal of Financial and Quantitative Analysis, 41(4), 787-808.
26. Lam, J. (2014). Enterprise risk management: from incentives to controls. John Wiley & Sons.
27. Leland, H. E., & Toft, K. B. (1996). Optimal capital structure, endogenous bankruptcy, and the term structure of credit spreads. The Journal of Finance, 51(3), 987-1019.
28. Mahmod, M. S., Aziz, K., Yazid, A. S., Rasid, N., Salleh, F., Ghazali, P. L., & Mahmood, S. (2018). A Conceptual Framework of ERM Practices among SMEs IN Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *8*(11), 1209-1221.
29. Malagueño, R., Lopez-Valeiras, E., & Gomez-Conde, J. (2018). Balanced scorecard in SMEs: effects on innovation and financial performance. *Small Business Economics*, *51*(1), 221-244.
30. Marcelino-Sádaba, S., Pérez-Ezcurdia, A., Lazcano, A. M. E., & Villanueva, P. (2014). Project risk management methodology for small firms. International journal of project management, 32(2), 327-340.
31. Mello, A. S., & Parsons, J. E. (1992). Measuring the agency cost of debt. The Journal of Finance, 47(5), 1887-1904.
32. Mikes, A. (2011). From counting risk to making risk count: Boundary-work in risk management. *Accounting, organizations and society*, *36*(4-5), 226-245.
33. Morden, T. (2016). *Principles of strategic management*. Routledge.
34. Oliveira, C., Martins, A., Camilleri, M. A., &Jayantilal, S. (2021). Using the balanced scorecard for strategic communication and performance management. In *Strategic corporate communication in the digital age*. Emerald Publishing Limited.
35. Osterwalder, A., & Pigneur, Y. (2010). Business model canvas. *Self published. Last*.
36. Pandya, V. M. (2012, September). Comparative analysis of development of SMEs in developed and developing countries. In *The 2012 International Conference on Business and Management* (pp. 6-7).
37. Papadopoulos, Ph. (2016). Identification Framework for Business Model Risks, openriskwhitepaper, 2-14.
38. Raosoft (2015). *Raosoft Sample Size Calculator*. Available online at: http://www.raosoft.com/samplesize.html. (Accessed October 6, 2019).
39. Régnier, P., & Wild, P. (2017). Internationalization of SMEs and the entrepreneurship hub role of global cities in Asia & Europe. In *Proceedings of the 2017 EAMSA Conference* (No. CONFERENCE). 15-18 November 2017.
40. Saunila, M. (2016). Performance measurement approach for innovation capability in SMEs. *International Journal of Productivity and Performance Management*.
41. Scandizzo, S. (2005). Risk mapping and key risk indicators in operational risk management. Economic Notes, 34(2), 231-256.

P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2021.27.02.165

42. Seville, M., &Teyssier, C. (2017). Role of the governance system in strategic risk management. *Risk Management: Lever for SME Development and Stakeholder Value Creation*, 1-23.
43. Sohl, T., Vroom, G., &Fitza, M. A. (2020). How much does business model matter for firm performance? A variance decomposition analysis. *Academy of Management Discoveries*, *6*(1), 61-80.
44. Tuck, L. (2014). Keynote address. Ministerial conference: Stronger SMEs for shared prosperity-Developing sustainable Financial Reporting Frameworks in Europe and Central Asia. *Vienna, Austria*.
45. Verbano, C., &Venturini, K. (2013). Managing risks in SMEs: A literature review and research agenda. Journal of technology management & innovation, 8(3), 186-197.
46. Watkins, J. A. (2012). A literature review of small and medium enterprises (SME) risk management practices in South Africa. African Journal of Business Management, 6(21), 6324-6330.
47. Yang, S. O., Hsu, C., Sarker, S., & Lee, A. S. (2017). Enabling Effective Operational Risk Management in a Financial Institution: An Action Research Study. Journal of Management Information Systems, 34(3), 727-753.
48. Zaman, Q., & Ali, L. (2017). Association between Size, Ownership and Operational Risk Management (Comparative study of Private and Public Banks). International Journal of Academic Research in Business and Social Sciences, 7(10), 125-131.