

Innovative Performance Management Model for SME in Thailand

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Current situations have forced SME(s) to fail and they feel that Balanced Scorecard and Malcolm Baldrige National Quality Awards are complex and difficult to understand and leverage. This paper reports the results of our literature review and face to face surveys. The results of our literature review identify 18 factors contributing to business performance. The face to face surveys of 167 SMEs with owners and management from various industries, helps to verify the conceptual model derived from our review by eliminating the factors which show no contribution to business performance. The results of the first part of the survey indicate that most of the SME(s) in Thailand do not adopt any performance management models. Only 12% of respondents are currently applying Balanced Scorecard within their organizations. 11% of respondents are having TQA and Just in Time in their operation. 26% of respondents are developing business strategies and all of these are classified as small businesses. None of them knows what Malcolm Baldrige is. The second part of the survey concluded that external factors such as industry, competition, customer and economics analysis did not contribute to business performance. The rest of the factors are used to group (14 remaining factors excluding results) into four perspectives which are Development, Execution, Progress and Results. The factors under Development consist of HR Development and Management, Leadership, Strategy Development and Culture. The factors under Execution include Risk Management, Corporate Social Responsibility, Strategy Implementation and Ownership Structure. The factors under Progress are Customer Focus, Process Innovation, Competency, IT & Knowledge Management and Collaboration. Last but not least factors under Results are Product Outcome, Customer Focus Outcome, Financial and Market Outcome, Workforce Focus Outcome, Process Effectiveness Outcomes and Leadership Outcome.

Field of Research: Management of Small Business, Modern Management, Strategic Management

1. Introduction

In 2009, they were a total of 2,900,759 companies in Thailand. Small enterprises accounted for 99.45 % while medium enterprise accounted for 0.4 % which left only 0.2 % as large ones. The definition of SME in Thailand is any organization with employees between 15 and 200 people asset between 30 and 200 million baht in value (<http://www.sme.go.th>). As in other developing countries, Thailand SME(s) play

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important role in supporting the development of economy. Thailand SME(s) create and distribute employment throughout the country.

The main issues with Thailand SME(s) are the difficulty in getting access to financial institutions, the impact of high interest, inefficiencies of information usages and lack of efficient tools in managing organizations. With these circumstances, SME(s) are forced to seek loans from non-financial institutions who charge high interest. These deficiencies contribute to inaccurate decision and lead to critical errors in organization's financial status. These two issues, combined, ultimately lead the organization to failure. Large organizations perform better since they are utilizing many management tools including performance management. Large organizations have started to bring in many performance management tools for their day to day operations, thus assisting them in monitoring their performance and ensuring they achieve their business goals. Most large organizations have the ability to hire external consultants who design and implement performance management and monitoring tools. This results in fewer issues in understanding the introduced performance management tool, as they have more capable employees. In comparison, SME(s) have less effective resources which create obstacles in adopting many of the World's current performance management tools.

The success of an SME is crucial to our country's economic growth. The achievement of an SME operation will lead organizations from survival to sustainability. In Thailand, SME(s) are divided into three parts; Production, Service and Trading. Where some SME(s) are able to employ profound technical skills, others lack sufficient resources to make use of such an important performance management tool (Brulhart, F. et al., 2010). This imbalance, of performance measurement vs. management system, prevents the owner-manager from producing reliable and accurate financial information. The resulting impediment of this situation is an inability to entice prospective investors, who provide the necessary operating capital (Brulhart, F. et al., 2010).

The inefficiency of SME(s) financial reports and the failure of SME(s) in Thailand have been obstacles of growth. A SME's lacks of assets and information prevents their ability to gain credit for loan requests. SME(s) continue to face lofty financial expenses. Possible reasons contributing to the failure and disadvantages of SME(s) may include (Ghobadian, A. & Gallear, DN. 1996):

- Owners or executives may dominate the culture and decision making
- Limited size of the management team burdens each of them with day to day operational tasks. Thus, they are so busy they don't have sufficient time to devote to efficient management.
- With the flat structure of SME(s); talented people have no motivation since they don't envision a successful career path. Ultimately, their talent is lost to a large organization with more reliable career advancement.
- SME(s) are under pressure to standardize their quality management systems. Standardization incurs additional expense; therefore many SME(s) are forced to discontinue maintaining their certifications. Many may choose not to attempt to standardize, in the first place.

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- SME(s) can afford fewer specialists with technical knowledge and expertise. They also lack the external network, many large organizations use, to gather information for effective decision making.
- SME(s) have limited incentive and rewards programs; consequently it is hard for them to maintain an efficient performance management system.
- Finally SME(s) may be skeptical of outside help. They have less interaction with outsiders which contributes to their lack of success.

The objectives of this study are to:

- Identify and confirm the factors which are contributing to business performance or failure.
- Construct an innovative performance management conceptual model for SME(s) in Thailand.

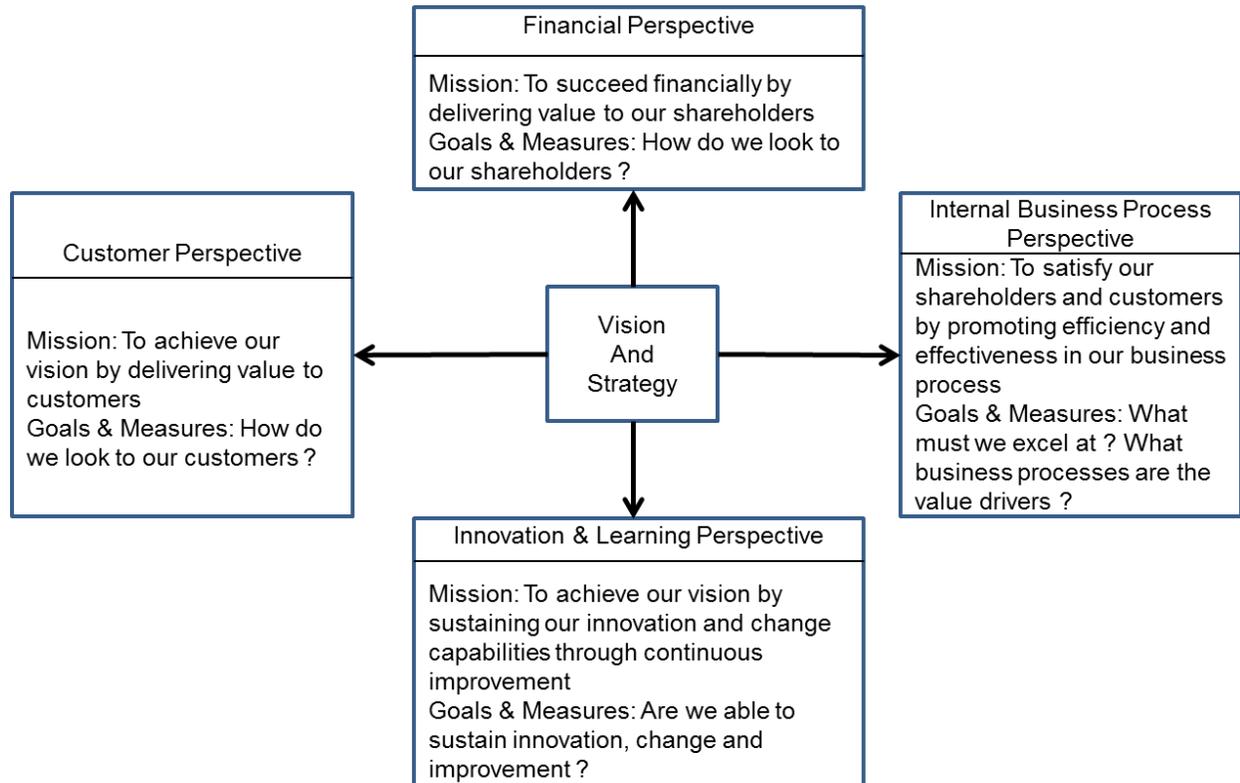
2. Literature Review

Quality management tools have been widely used to aid in performance management. There has been an evolution of improvement in this area. During the 1950s and the 1970s, there were relatively few choices within the quality control circle (QCC): total quality control (TQC), and JIT (Thawesaengskulthai, N., Tannock, D.T.J. 2006). Today, however, numerous tools and techniques have been created for the purpose of better performance management. Among many of the popular initiatives, which are acclaimed to improve effective business performance, are: TQM, ISO9000, Six Sigma, Lean, Business Process Reengineering, Deming, EFQM, Balanced scorecard, Malcolm Baldrige (MBNQA). Currently, according to Google trends, Balanced scorecard and Malcolm Baldrige are the leading tools in Southeast Asia while others have shown minimal interest by searchers. These performance management systems are used in many businesses. Each has their own advantages and disadvantages; suitable to the type and size of different entities. The recommended performance management model should be the one that best suits the most factors within, performance management and monitoring, a multitude of organizations. The ultimate goal of the, performance management, model is to contribute to the SME in a positive manner; successfully improving performance results.

2.1 Balanced Scorecard

The Balanced Scorecard was introduced by Kaplan and Norton as, an effective, performance management tool. Martinsons, Davision R., Tse D. (1997) have suggested that many business leaders now evaluate, their business, performance by supplementing financial accounting data with goal-related measures from the following perspectives: 1) financial; 2) customer; 3) internal business process; and 4) learning and growth; shown in figure 1.

Figure 1: Robert S. Kaplan and David P. Norton have developed what is considered to be the standard Balanced Scorecard template



Source: Robert S. Kaplan and David P. Norton, Balanced scorecard

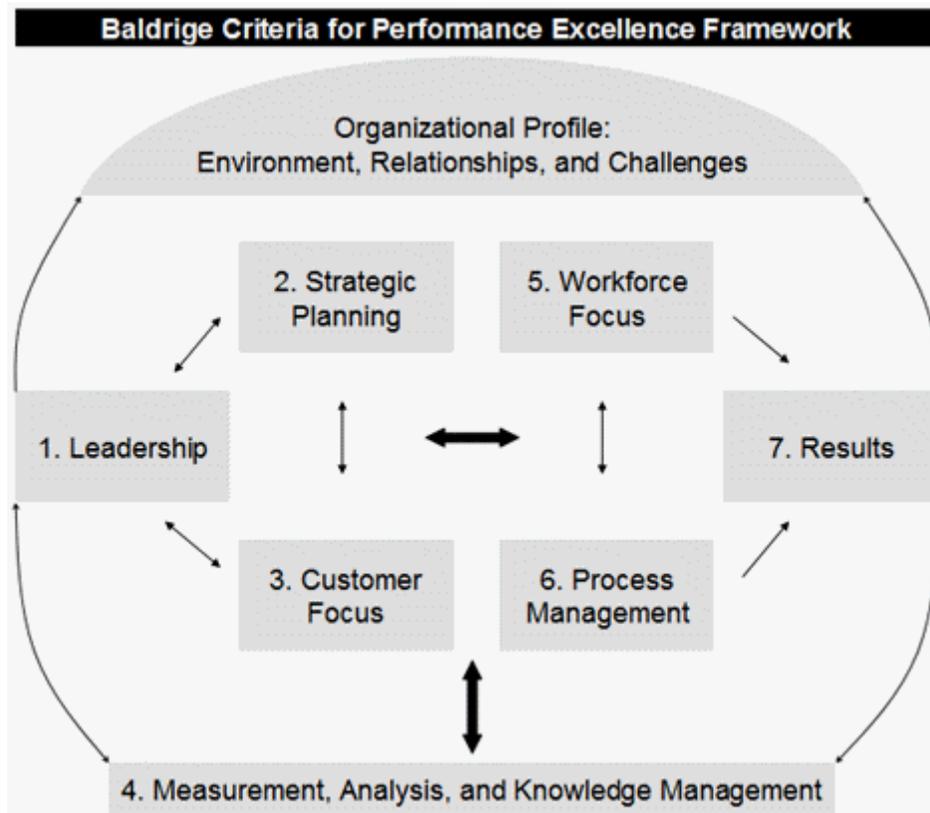
In order to efficiently operate the business, the four perspectives of balanced scorecard have to support each other (Davis, S., Albright, T. 2004). The financial perspective's goal is to query how we look to our shareholders. The customer perspective's goal is to query how we keep our customers satisfied with our service. The business process goal assists us in identifying and evaluating ways, in which, we must excel to promote growth. Determining what drives values, while striving to improve, and promoting innovation within the organization is vital to operating a successful business.

The Balanced Scorecard is successfully implemented by translating its strategy to a, financial and non-financial, set of measures (Fernandes, J.K., Raja, V., Whalley, A. 2006). Currently, many large organizations are successfully utilizing Balanced Scorecard within their daily performance management activities. However, Balanced Scorecard was found to have some limitations: with no basic guideline for selecting performance measures, combined with, the complexity of financial and process perspectives (Dror, S. 2008).

2.2 Malcolm Baldrige National Quality Award (MBNQA)

MBNQA was introduced in 1987 by the National Institute of Standards and Technology (Baldrige National Quality Program, Criteria for Performance Excellence, 2009-2010). This Framework has been proven to be very effective in all sized organizations with three objectives. They are: 1) to increase awareness of quality as an ever more important element in competitiveness; 2) to share information on successful quality strategies and on the benefits derived from implementation of these strategies; and 3) to promote understanding of the requirements for quality excellence (Flynn, B.B., & Saladin, B. 2001). MBNQA helps an organization achieve a balance between the needs of customers, employees, stockholders, suppliers, neighbors, the public and government (Deliz, R.J. 1997). The companies who have, successfully, adopted MBNQA are able to provide quality products and services to meet customer requirements (Ma, R. 1996). MBNQA consists of the following:

Figure 2: Malcolm Baldrige Performance Excellence Framework



Source: Baldrige (2006)

Thailand Quality Award (TQA) has adopted the MBNQA model. This is how they have evaluated performances of, organizations for awarding, The TQA winners' every year since 1996. Explained below are the criteria definitions and examples of how, the TQA and MBNQA (www.tqa.or.th), award winners', were best able to implement these

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practices. However it should be noted, that from the face-to-face interview with an SME, they mentioned that MBNQA is extremely complex and difficult to design and monitor effectively. Moreover most of them do not know MBNQA.

2.3 Preliminary Conceptual Design of Innovative Performance Management Model

From the literature reviews, 18 factors are derived and have proved to be important factors in contributing to business performance. Factor 19 represents business performance.

Table 1: Final lists of factors and variables

No.	Factors	Variables	Sources
1	Strategy Development	Strategy Development	-Baldrige National Quality Program. 2009-2010, Criteria for Performance Excellence -Balanced Scorecard
		Strategy Action Plan	
2	HR Development/ Management	Continuous Improvement	
		Teamwork	
		Top Management Commitment	
		Training Needs versus Company and Employee Goals	
		Supervising Ability	
		Rewards and Recognition	
		Feedbacks	
3	Leadership	Senior Executive Leadership	
		Management of Quality	
		Public Responsibility	
		Governance	
4	Customer Focus	Customer Engagement	
		Voice of Customers	
5	Process Management	Business Process Reengineering	
		Work Flow	
		Work Instruction	
6	Information Technology and Knowledge Management	Use of Internal Quality Data	
		Use of External Quality Data	
		Reliability, Accuracy, Timeliness and Accessibility of Data	
		Use of Data Collection and Use to Guide Reports	
		Methods to Improve Data Collection and Analysis	
		Knowledge Creation and Sharing	

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No.	Factors	Variables	Sources
7	Corporate Social Responsibility	Social Responsibility	- Husted, WB 2003 - Scholtens, B 2008 - Ciliberti, F., Pontrandolfo, P, Scozzi, B 2008 - Malovies, G, Csigene, NN, Kraus, S 2008 - Bond, J 2009 - Levis, J 2006 - Waagstein, RP 2011
		Environment Concerns	
8	Strategy Implementation	Strategy Deployment	-Mendibil, K., & MacBryde, J 2006 -Herzog, VN, Tonchia, S, Polajnar, A 2009
		Business Value Realization Tracking	
9	Culture	Involvement	- Flynn, BB, Saladin, B. 2006 -Yilmaz, C, Ergun, E 2008
		Consistency	
		Adaptability	
		Mission	
10	Competency	Leadership	- Crawford, L, Nahmias, HA 2010 - Lokshin, B, Gils, VA, Bauer, E 2008
		Functional	
		Stakeholder Management	
		Planning	
		Team Selection/Team Development	
		Communication	
		Decision Making and Problem Solving	
		Cultural Awareness/Skill	
11	Innovation	Product/Service Innovation	
		Process Innovation	
12	Ownership Structure	% of Family Members in Management Team	-Kim, E 2006
		Successor Plan	

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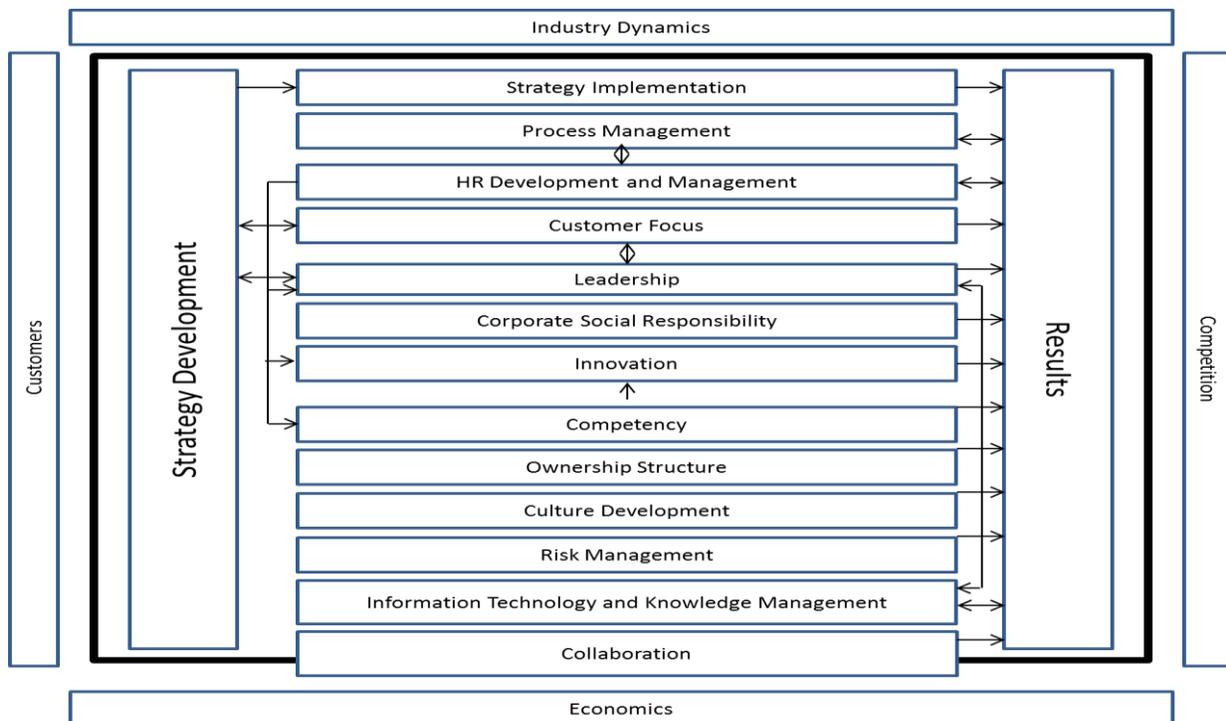
No.	Factors	Variables	Sources
13	Risk Management	Environment Uncertainty	- O'Donnell, E 2005 - Gordon, AL, Loeb, PM, Tseng, YC 2009
		Financial Risk	
		Market Risk	
		Operation Risk	
		Employee related Risk	
14	Industry Dynamics	Boundaries of competition	-Accenture Worldwide
		Maturity and life cycle	
		Economics and market factors driving growth and profitability	
15	Competition	Competitive intensity analysis	
		Financial/market performance compared to its Competitors	
		Operational benchmark	
		Competitive and value positioning	
		Levers of strategic competitive advantage/core competencies	
16	Customer	Segment Profiles Analysis	
		Buyer Behavior Analysis	
		Channel Structure Development	
		Segment Profiles Analysis	
17	Economics	Industry value chain analysis	
		Supplier, industry and customer dynamics	
		Margin and cost structure analysis	
		Supply and demand analysis	
		Product and market profitability analysis	

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No.	Factors	Variables	Sources
18	Collaboration	Internal Collaboration	-Mezgar, I Gyorgy, Paganelli, P 2000
		Collaboration with Customers and Suppliers	
		Collaboration among SMEs	
19	Results/Business performance	Product Outcomes	-Baldrige National Quality Program. 2009-2010, Criteria for Performance Excellence -Balanced Scorecard
		Customer Focus Outcomes	
		Financial and Market Outcomes	
		Work Force Focused Outcomes	
		Process Effectiveness Outcomes	
		Leadership Outcomes	
		Cost Reduction from Collaboration	

From literature review and analysis, 18 factors listed in table 1 contribute to business performance from which the authors draw the preliminary conceptual framework shown in figure 4. The framework/model covers the entire operation of the organization. The business research will be conducted to revise, align and confirm this model.

Figure 3: The preliminary conceptual framework used to conduct the business research for the confirmation

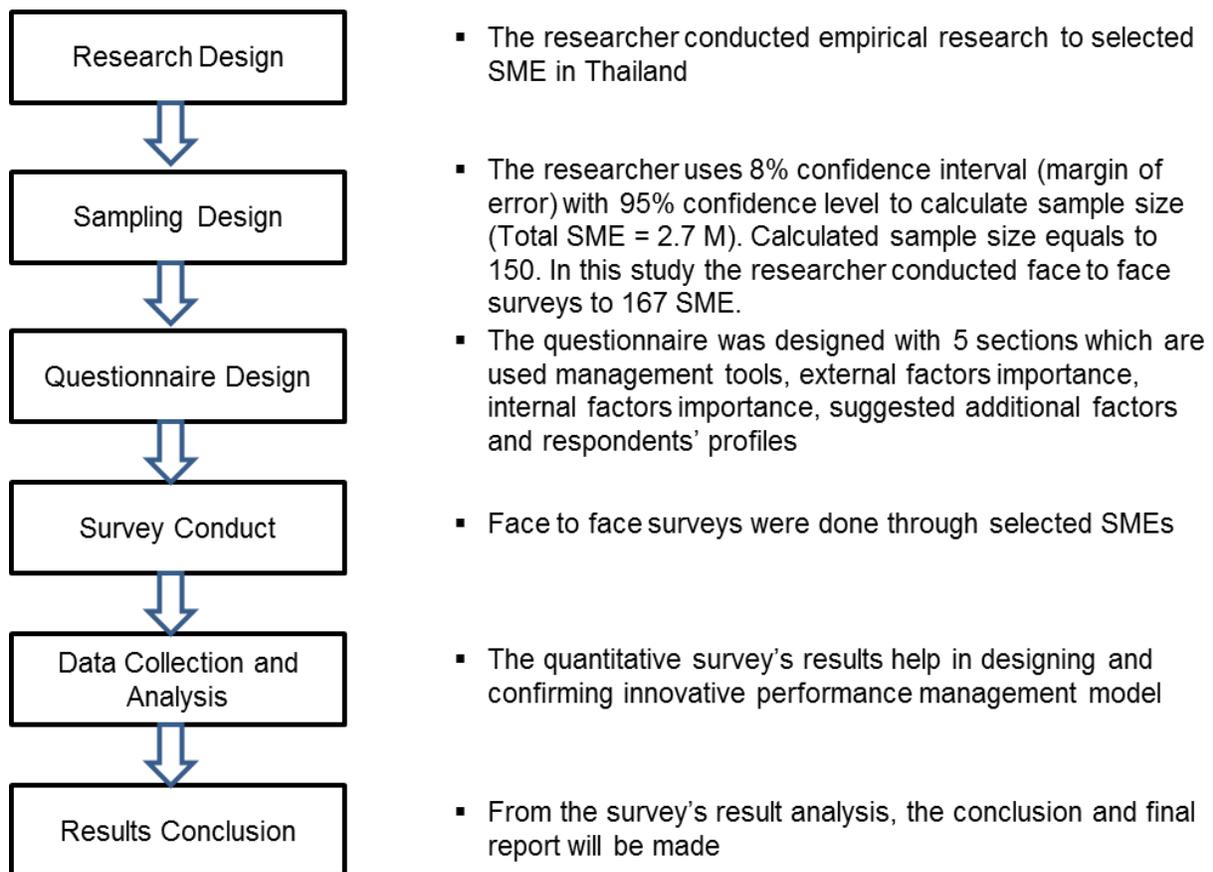


3. Research Methodology

The research is conducted to revise and finalize an innovative performance management model for the SME(s) in Thailand. The literature review helps to initiate the factors which contribute to the Business performance; as well as the variables involved with each factor. The preliminary conceptual design of the innovative performance management framework will be used as a preliminary for the quantitative research. From literature review, the authors hypothesized (H1-H18) that 18 factors (excluding results/business performance factor) mentioned above has positive contribution to business performance. The research will be conducted based on the following research methodology.

Below are the stages in the quantitative research processes used for this activity.

Figure 4: Quantitative Research Processes



4. Results

4.1 Respondent Profiles

Face-to-face surveys were conducted to challenge the, innovative performance management conceptual model on whether factors and variables derived from the literature review have a correlation with business performance. 167 respondents were interviewed. 30 percent of respondents (50 respondents) are involved in a manufacturing type of SME, 31 percent of respondents (52 respondents) are service type(s) of SME and 30 percent of respondents (50 respondents) are trading companies. 8% of respondents (13 respondents) cannot be classified into any of these three types; and 1 percent of respondents (2 respondents) did not answer this question.

The revenues of respondents span from less than 50 million baht per year to more than 500 million. 44.3 percent of respondents (74 respondents) have less than 50 million baht of revenues per year while 19.2 percent (32 respondents) earn between 50 and 100 million baht a year. 10.2 percent of respondents (17 respondents) have revenues between 101 and 200 million baht per year. The last two groups are 12.6 percent (17 respondents) and 11.4 percent (19 respondents) earn 201-500 million baht and more than 500 million baht per year, respectively.

The numbers of employees of the SME(s) respondents also span a wide range. 47.3 percent (79 respondents) are having less than 50 employees while 11.4 percent (19 respondents) are having more than 500 employees (according to respondents, even though they have more than 500 employees, within their organization, their revenues are considered to be SME).

The respondents who participated in the survey are mostly top management. The remainders are dependent on the judgment of Managing Directors. During the face-to-face surveys, Managing Directors assigned the responsibility to the appropriate people. 15 percent of respondents (25 people) are a Managing Director; were dedicated by a Managing Director to respond to the survey due to appropriateness. From the survey results; 43 companies, have developed and, use a business strategy and most of them are classified as small enterprises. 20 of them are currently applying Balanced Scorecard as their performance management tool. TQA and Just in Time are applied in 18 companies.

4.2 The Different Views of Different Type of Business

According to the survey results, each type of business perceives the importance of each factor differently. Consequently, each of their operations has focused on each factor differently. In the context of importance; manufacturing thinks that innovation is the most important factor to boost business performance; while service and trading companies believe in the power of customer focus. All three business type thinks that corporate social responsibility is one of the least important factors. As a result, manufacturing is currently focusing primarily on the customer. Subsequently, most

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manufacturing companies in Thailand are outsourced or ordered by large trading companies. The customer focus, primarily, consists of the product specifications ordered by customers and/or other requests: such as lead time and delivery date. Service and trading types of business also emphasize the most on customer focus. All three types of business have put the corporate social responsibility as the least effort. By no surprise, the corporate social responsibility issue has just recently been pointed out in Thailand; and most of SME(s) do not see its benefits. The ranking of each factor, in both importance and fact, results in similar patterns. However, the interpretation from the survey results implies that respondents feel that their organization has not succeeded under all factors yet. Since all of them rated the importance greater than current situations; in all of them.

4.3 The Perception and Actual Practice of Business Type to Each Factor

The objective of this activity is to analyze the relationship between type of business and each factor by using analysis of variance or Anova. The first part of the survey is to check on how different business types perceive the importance of each factor while another part of the survey is to check on actual practice. From the analysis' first part only risk management and strategy implementation factors have p value lower than 0.05. Which means each type of business perceives the level of importance differently on both risk management and strategy implementation. Other factors are perceived to have the same level of importance by all of them. In terms of actual operation (second part of the survey), collaboration, innovation, risk management and strategy implementation factors have p value lower than 0.05. We can interpret that manufacturing, service and trading companies conduct more or less differently in collaboration, innovation, risk management and strategy implementation.

4.4 The Relationship between Factors and Business performance

The authors use bivariate correlation analysis to test the relationship between each factor and business performance.

From the questionnaires; the research asks respondents, based on importance, what they think of each factor in relation to its contribution of boosting business performance. The result of the survey stated that the respondents think that industry dynamics, competition, customer and economics analysis do not impact the business performance. As we can see from the survey results, industry dynamics, competition, customer and economics analysis have p value greater than 0.05. The respondents think that these factors do not have any relationship to the business performance. Other 14 factors (excluded Results/Business Performance) are contributing to business performance.

4.5 Final Innovative Performance Management Model

Factor analysis is used to identify the similarity of factors and merge them together. This activity will help to refine and/or revise an innovative performance management model derived from this literature review.

First of all, we analyze whether the factors are appropriate to use factor analysis. Kaiser-Meyer-Olkin Measure of Sampling Adequacy is at 0.865 which is greater than 0.5 therefore it can be concluded that data is enough, and appropriate, to conduct factor analysis. The Barlett's Test of Sphericity has p value of 0.000 which means some factors have correlations and therefore these factors can be merged.

There are 14 factors or components left (proved to have relationship with business performance) to group for factor reduction purpose. The authors conducted the varimax technique to rotate the matrix and only three factors are remaining as follows.

Factor Group 1 – HR Development and Management, Leadership, Strategy Development, and Culture

Factor Group 2 – Customer Focus, Process, Innovation, Competency, Collaboration and IT & Knowledge Management

Factor Group 3 – Risk Management, Corporate Social Responsibility, Strategy Implementation and Ownership Structure

According to the characteristics of sub factors under factor(s) 1 to 3, the authors name the group as follows.

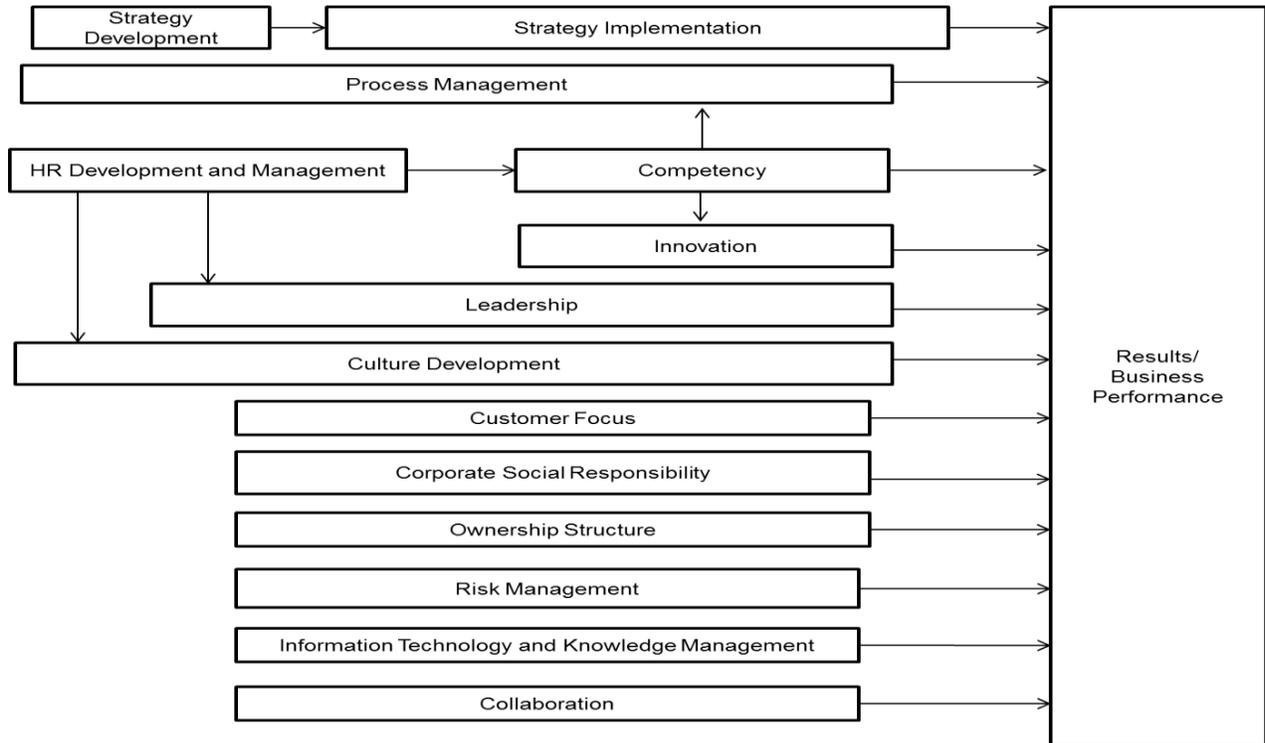
Group 1 –Development
(HR Development and Management, Leadership, Strategy Development and Culture)

Group 2 – Progress
(Customer Focus, Process, Innovation, Competency, Collaboration and IT & Knowledge Management)

Group 3 – Execution
(Risk Management, Corporate Social Responsibility, Strategy Implementation and Ownership Structure)

These three groups together with result factor were used to revise and finalize innovative performance management model shown below.

Figure 5: Final Innovative Performance Management Model



Above final innovative performance management model will be introduced to SME(s) in Thailand as the new performance management model.

After three factors have been confirmed, the regression analysis has been run to acquire equations.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785 ^a	.617	.609	.44602

Adjusted R Square values equal to 0.609 could prove that the equation has high medium to high accuracy.

Table 3: Anova Analysis Result

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.810	3	17.270	86.815	.000
	Residual	32.227	162	.199		
	Total	84.037	165			

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Moreover the Anova result can tell that these three factors have relationship or have impact to the business performance result with Sig. (2-tailed) of 0.000.

Table 4: Coefficients Values of Factors

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.769	.035		108.878	.000
	REGR factor score 1 for analysis 1	.222	.035	.311	6.397	.000
	REGR factor score 2 for analysis 1	.144	.035	.202	4.145	.000
	REGR factor score 3 for analysis 1	.494	.035	.692	14.224	.000

Finally the authors use coefficients to construct equations as follows.

Business Performance=3.769 + 0.222 Development+ 0.144 Progress+0.494 Execution

5. Summary and Conclusions

From the literature reviews, the authors found that 18 factors are contributing to the business performance. These factors are: 1) Strategy Development; 2) HR Development/Management; 3) Leadership; 4) Customer Focus; 5) Process Management; 6) Information Technology & Knowledge Management; 7) Corporate Social Responsibility; 8) Strategy Implementation; 9) Culture; 10) Competency; 11) Innovation; 12) Ownership Structure; 13) Risk Management; 14) Industry Dynamics; 15) Competition; 16) Customer Analysis; 17) Economics Analysis and 18) Collaboration.

After the authors conducted face-to-face surveys, the authors found that SME(s) do not perceive and do not conduct Industry Dynamics, Competition, Customer and Economics Analysis in their operations. The authors' interpretation is SME(s) do not have enough resources and skills to conduct Industry Dynamics, Competition, Customer and Economics Analysis.

Moreover the result of this study helps to group 14 factors into 3 groups and all of them are contributing to business performance. These 3 groups are:

- 1) Development (consists of HR Development and Management, Leadership, Strategy Development and Culture)
- 2) Execution (consists of Risk Management, Corporate Social Responsibility, Strategy Implementation and Ownership Structure) and

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- 3) Progress (consists of Customer Focus, Process Management, Innovation, Competency, Collaboration and IT & Knowledge Management). In addition, further research and case studies will be needed to confirm the conceptual model.

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