

ASSESSING STRATEGIC TYPOLOGY AND BUSINESS PERFORMANCE: EMPIRICAL EVIDENCE IN SMALL CONSTRUCTION INDUSTRY IN MALAYSIA

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ABSTRACT

The research investigates Miles and Snow (1978) strategic typology as the strategic choice and business performance among Class F entrepreneurs in civil construction industry in Malaysia. The result concluded that Prospector strategy is the most effective strategic typology in the small construction industry in Malaysia whereas reactors are the lowest achievers. Analyzer and defender are the moderate class F performers. The most competitive and the destructive strategic typology have been revealed from this study. This is important to serve as a guide to those who involved or intend to be involved in the small construction industry in Malaysia. It is useful for strategist and businessman, especially in the small construction industry in Malaysia to take it as a normative theory which they might practice throughout the daily activities especially during the formation of the business strategy.

Keywords: *Strategic Typology, Business Performances, Class F Entrepreneurs*

BACKGROUND OF THE STUDY

The purpose of this study is to extend the entrepreneurship and strategy research to the context of small construction industry in Malaysia by developing and testing strategic typology (Miles and Snow, 1978) with business performance. It is designed to gain some insight on the failure and success of the Class F entrepreneurs in Malaysian construction industry in addition to advancing the theory of entrepreneurship and strategic management.

Strategic typology is chosen as a most important factor influencing the performance of the Class F entrepreneurs because the quality of entrepreneurs has been blamed by the Malaysian Ministry of Entrepreneurship and Co-operative Development (1995) as one of the factors contributing to the poor performance of Class F contractors in Malaysian small construction industry. This factor is the reflection of the quality of an entrepreneur, where the strategy reflects their behavior in response to a given situation. When top management or entrepreneurs face a complex situation, their perception of a given situation, combines with the cognitive base and values, provide the basis for their strategic choices (Hambrick and Mason, 1984).

Construction industry is one of the important service sectors in SME where Class F contractors plays important role in the Malaysian economy by providing their services in the civil works such as the construction of buildings, roads, drainages, fences and others as their main expertise. The registration of Class F contractors is managed by Malaysian Contractor's Service Center or in Malay language called as Pusat Khidmat Kontraktor (PKK), an agency under the Ministry of Entrepreneurship and Co-operative Development (MECD). Currently, MECD has been dissolved by the new Prime Minister, Dato Seri Najib Bin Tun Razak and PKK placed under the Ministry of Public Works (KKR).

Besides Class F, there are five more classes of civil contractors regulated by PKK which are Class A, Class B, Class C, Class D and Class E. One of the most important criteria for the companies intended to register with PKK is the paid-up capital of the company (Pusat Khidmat Kontraktor, 2009) such as in the table 1.

Table 1: Paid-up capital requirement for civil contractor registration under PKK

Class	Minimum paid-up capital
A	RM600,001.00
B	RM400,001.00
C	RM100,001.00
D	RM35,001.00
E	RM17,501.00
F	RM10,000.00

When registered, these contractors are qualified for government civil contracts according to their registered specializations. The specializations are categorized into seven different headings, which are Heading I (civil engineering works), Heading II (building works), heading III (mechanical, sanitary and water works), Heading IV (specialized civil engineering works), Heading V (Quarrying Metal and Earth Supply, Cartage and Transport), Heading VI (forest and land development) and lastly Heading VII (telecommunication works).

Each class of contractors is eligible for the government projects according to the cost of project range as exhibited in the table 1.2. Unfortunately, the registration of Class F entrepreneurs has been frozen since 8th April 2005. The decision was made by Cabinet Ministers Meeting on 30th March 1995 due to a report of a study by MECD which concluded four important findings as listed below:

- i) too many Class F contractors compared to the number of projects offered by the government
- ii) limited chance for Class F contractors to secure government projects
- iii) poor quality of Class F entrepreneurs.
- iv) corruption and dishonesty by Class F contractors.

Table 2: Eligibility of project for each class of civil contractor

Class	Cost of project
A	More than RM10 million
B	RM 5,000,001.00 to RM10,000,000.00
C	RM 2,000,001.00 to RM5,000,000.00
D	RM 500,001.00 to RM2,000,000.00
E	RM 200,001.00 to RM500,000.00
F	Up to 200,000.00

Since January 2006, the government of Malaysia has reviewed the registration of Class F contractors and terminated inactive Class F contractors. As a result 3,399 Class F contractors had already terminated. The contractors are considered as active if they maintain an active bank account, participate in or secure any government jobs, attending courses organized by PKK or do not neglect their secured project (Entrepreneur, 2009).

Realizing the problem faced by these contractors and entrepreneurs, the government of Malaysia had increased the number of projects offered to Class F contractors under the Ninth Malaysia Plan (2006 to 2010). Malaysiakini reported on 8th December 2006 that a decision was made by the government to allocate an additional RM600 million for Class F contractors. The projects will be distributed via 191 Umno divisions nationwide within 2007. Each division will receive RM3 millions handled by the respective division heads with the help of the district office and Public Works Department (PWD). This solution was targeted to solve the problems related to the first and second reasons for freezing the registration of class F (Razif, 2006).

However, it was reported on 30th July 2007 by The Star newspaper that the Deputy Works Minister, Datuk Mohd Zin Mohamed mentioned that only 30% out of almost 40,000 Malaysian Bumiputra Class F contractors are still active and undertaking their jobs genuinely. He revealed that a study conducted by the Construction Industry Development Board (CIDB) in May 2007 reported that only 13,000 of the 40,000 contractors were

actually participating in the industry. Others are only interested in becoming commission earners. Some of them are holding between five to ten Class F licenses in a single family (The Star Online, 2009).

Malaysiakini webpage on 7th December 2006 had identified three categories of Class F entrepreneurs. Firstly is the genuine Class F contractors who undertake the projects genuinely; secondly the part-time contractors who hold other full-time jobs while running the Class F businesses and lastly, contract brokers who are just sleeping partners dependant on the internal or external unregistered contractors as their partners to run their Class F business. These part-time contractors and brokers who get the projects sell them off to others and make a profit immediately. They are known as “Alibaba” or “Alisami” contractors and are usually the commission earners (Razif, 2006).

Alibaba is a terminology which has been widely used in Malaysia to refer to the Malay business people who have their name appeared in all official company documents but the business is actually operated by Chinese business people. Similarly, Alisami is a terminology used to refer to the Malay business people who have their name appeared in the official company documents but the business is actually run by Indian people. Both Alibaba and Alisami are lazy commission earners who earn their commission without putting any effort to accomplish their contract successfully. They manipulate their good relationship with the government officers who are in charge of government contracts to successfully win the contracts that they are interested in. Then they subcontract the works to Chinese genuine entrepreneurs for the case of Alibaba or subcontracted to Indian genuine entrepreneurs in the case of Alisami

PROBLEM STATEMENT

The abovementioned evidences have supported that the quality of Class F contractors and entrepreneurs is under question. There are still complaints related to the shortage of government projects offered even though the number of projects had been increased and distributed through proper channel. Consequently, a research which related to the personality of Class F entrepreneurs is needed in order to gain some insight on the issue of success and failure of the Class F entrepreneurs in Malaysian construction industry.

Studies in the field of personality based theory of entrepreneurship has gained insights on who entrepreneurs and what entrepreneurs do. Even though some prior studies had raised denial to the relationship between personality and business success (Gartner, 1985; Low and McMillan, 1988), recent studies have proven that both of these factors have significant effect on business and organizational performance of business (Higgs, 2006; Norburn and Briley, 1988).

Nevertheless, the personality base explanatory theory (Amit, Glosten and Muller, 1993) seems not enough to predict the performance of business due to mix findings on relationship between psychological traits and performance (Gartner, 1985; Low and McMillan, 1988). Both predictive and normative theories (Amit et. al., 1993) are needed in addition to explanatory theory to serve as guidance for the strategist or particularly the Class F businessman in the small construction business in Malaysia to be successful in their business.

The search for relevant normative theory, plus the inconclusive findings in the personality base research has forced researchers to turn into multidisciplinary approach of inquiry by integrating the psychologist, strategist and economist field of study into a single inquiry. This multidisciplinary approach of research is supported by earlier studies including Hambrick and Mason (1984). They argued that the study of strategy should not be detached from the person involved because both strategies and its effectiveness are viewed as reflections of the values and cognitive bases of powerful actors in the organization or particularly the entrepreneurs of a small construction business in this empirical research (Hambrick and Mason, 1984).

Additionally, the strategy, according to Rumelt (1984) is “a unique package of resources” employed to gain competitive advantage which contributes to the survival and prosperity of a business as long as the business resources are aligned with the environmental condition. A business that devotes their internal forces to exploit the opportunities while aligning their resources and capabilities with the environment to neutralize threats are more liable to obtain competitive advantages compared to those that do not (Barney, 1995).

The top management in large corporation or entrepreneurs of small business has important role in scanning, adapting and coping with the environmental forces and changes. Most of the earlier strategists have supported this line of thought by advocating that the fitness between environment and strategy is the determinant of success. The resource-based theory complementing the traditional model of Porter’s (1996) competitive advantage provide an additional support to this view by stressing the importance of the internal resources and capabilities of the firm in the context of the competitive environment (Collis and Montgomery, 1995).

Further, this line of thought is supported by Miles and Snow (1978) through their strategic typology. The typology views an organization or business as a complete integrated system which interacts with the environment internally and externally in the process of a strategy formation (McDaniel and Kolari, 1987). The typology is one of the strategic choices which have been empirically validated (Doty, Glick and Huber, 1993; Shortell and Zajac, 1990) and academically considered as internally consistent (Dvir, Segev and Shenar, 1993). The Miles and Snow (1978) strategic typology is chosen as the strategic choices of the entrepreneurs to be evaluated for this study. The major issue which needs to be answered is; Does Class F entrepreneur's strategic approach influence performance?

LITERATURE REVIEW

As discussed earlier, entrepreneurs of small business has important role in scanning, adapting and coping with the environmental forces and changes. Most of the earliest strategist has supported this line of thought by advocating that the fitness between environment and strategy is the determinant of success (Aldrich, 1979; Barney, 1995; Bourgeois, 1985; Hofer and Schendel, 1978; Rumelt, 1984; Pfeffer & Salancik, 1978; Porter, 1980, 1985, 1996; Thompson 1967).

The numerous situational variables involved with strategic activity have caused the operationalization of the fitness between strategy and environmental scanning concept become complicated. Therefore, Hambrick (1984) had advocated researchers to use classification systems as a means to reduce the huge number of variables into manageable few. Most of the strategic types are found in between 1970s to 1980s. Somehow, one of the widely used strategic typology is the Porter's (1980) generic strategies which represent broad categories of strategic choice. It is generally applicable to most organizations regardless of industry, size or type.

Herbert and Deresky (1987) proposed a strategic typology which includes development, stabilization, turnaround and harvest. They also summarized previous authors strategic typologies including James (1974) with corporate life cycle as emergence, growth, maturity, regeneration, and decline, Glueck (1980) with growth, stability, retrench, Hofer and Schendel (1978) with share increase, growth increase, profit, market concentration/asset reduction, turnaround, and liquidate or divest, Galbraith and Schendel (1983) with consumer products - builder, cashout, continuity, niche, climber, and harvest, as well as industrial products - growth, maintenance, niche, and low commitment, BCG with stars, cash cows, and dogs, Buzzell, Gale and Sultan (1975) with build, hold and harvest; Wissema, Van der Pol, and Messer, (1980) with explosion, expansion, continuous growth consolidation and slip contraction; Miles and Snow (1978) with prospector, defender, analyzer and reactor, and Burns and Stalker (1961) with organic and mechanistic. Kim and Mauborgne (2005) found the blue ocean and red ocean strategy.

Miles and Snow (1978) strategic typology is one of the strategic choices mentioned above which have been empirically validated (Doty, Glick and Huber, 1993; Shortell and Zajac, 1990) and academically considered as internally consistent (Dvir, Segev and Shenar, 1993). The strategic typology views an organization or business as a complete integrated system which interacts with the environment internally and externally in the process of a strategy formation (McDaniel and Kolari, 1987).

While some strategic typology concepts are more appropriate for a profit oriented firms such as Porter (low cost leadership) or Galbraith and Schendel (industrial products), Miles and Snow's (1978) strategic typology is suitable for both profit and non-profit oriented firms and industries. Miles and Snow (1978) proposed a complex typology which combined organizational strategy, structure and process variables in one framework.

Miles and Snow (1978) contended that the patterns resulted from consistent organizational decisions is useful in solving three problems namely the entrepreneurial problem, the engineering problem, and the administrative problem. In every organization, the solution to the entrepreneurial problem is marked by management's commitments on a particular product-market domain and allocation of resources to achieve objectives related to this domain. The engineering problem involves the creation of a system as an actual operation management's solution to the entrepreneurial problem. Miles and Snow (1978) noted that the administrative problem is primarily to reduce uncertainty within the organizational system by formulating and implementing processes. This will enable the organization to continue to evolve and innovate.

Variations in each of the abovementioned dimensions will determine the strategic typology which Miles and Snow termed as prospector, analyzer, defender and reactor. Studies (Miles & Snow, 1978; Snow & Hambrick,

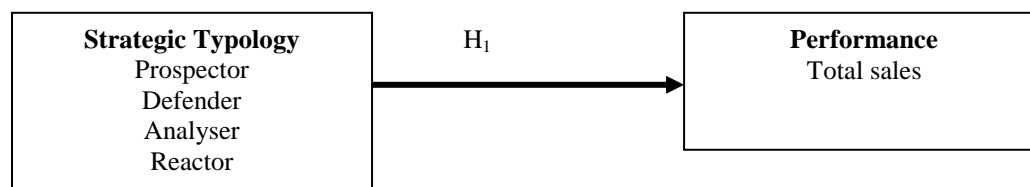
1980) suggest that the strategic types differ in functional strategies expertise, competencies and performance. Zahra and Pearce (1990) stated that the fundamental difference among these archetypes is the rate of change in the organizational domain. Defender demonstrates the lowest rate of change followed by analyzer while prospector has the highest rate of change. Reactors do not have constant strategy and viewed as a dysfunctional type (Zahra and Pearce, 1990). Further, O'Regan and Ghobadian (2006) classified the strategic typology according to their specific focus and traits.

THEORETICAL FRAMEWORK, RESEARCH QUESTION AND HYPOTHESIS

Theoretical Framework

Figure 1: Theoretical Framework

The independent variable of this study is strategic typology while the business performance is the dependent variable.



Research Question

Research question is constructed in order to meet the objectives of the research:

“Does an entrepreneur’s strategic typology influence business performance?”

Hypothesis

In order to answer this research question, several scholarly articles were carefully reviewed. Several studies revealed that defender, analyzer and prospector typology if properly implemented can lead to effective performance because each type emphasizes different functions to produce a set of sustainable and distinctive competencies. The three types have equal opportunity to be success and outcompete the reactors (Zahra and Pearce, 1990).

The findings implied that defender, prospector or analyzer may lead to satisfactory performance, but not for reactor due to lack of internal consistency (O'Regan and Ghobadian, 2006). Most of the previous studies revealed that prospector and analyzer performed better than defender and reactor (O'Regan and Ghobadian, 2006). Aragon-Sanchez and Sanchez-Marin (2005) found that strategic typology has impact on performance within manufacturing industry but inconclusive in services industry and construction industry. Based on the above statements, the significance of the relationship between reactor strategic typology and performance are then proposed through hypothesis, H_1 below:

H_1 : *Entrepreneurs with reactor orientation perform lowest compared to entrepreneurs with analyzer, defender and prospector orientation*

RESEARCH DESIGN AND METHODOLOGY

The Population and Sample

The population of this study consists of all registered Class F contractors throughout Malaysia. In order to provide a pool of potential respondents, a list of registered business owners of all registered Class F contractors could be obtained from Malaysian Contractor’s Service Center (PKK) official homepage (<http://www.pkk.kkr.gov.my>). Based on the database retrieved from the website, there are 31,844 numbers of active Class F contractors throughout Malaysia. Most of them are located in Selangor (15%) followed by Johor (10%). The detail of the number and percentage of contractors in each state of Malaysia is exhibited in the table 3.1 below:

Table 3 : Number and percentage of Class F contractors in each state

No	State	Number of registered Class F	%
1	Johor	3,223	10%
2	Kedah	2,460	8%
3	Kelantan	2,499	8%
4	Melaka	1,198	4%
5	Negeri Sembilan	2,372	7%
6	Pahang	2,228	7%
7	Pulau Pinang	1,394	4%
8	Perak	2,821	9%
9	Perlis	1,090	3%
10	Selangor	4,785	15%
11	Terengganu	2,416	8%
12	W.Persekutuan	1,685	5%
13	Sabah	2,665	8%
14	Sarawak	1,008	3%
		31,844	100%

Source : <http://smpkk.kkr.gov.my/subpkk/msDir/user/index2.php>

Stratified proportionate random sampling technique was used to get the amount of samples in this study. Sekaran (2005) postulated that this technique is under probability sampling whereby population is first divided into meaningful segments, thereafter subject are drawn in proportion to their original numbers in the population. The advantages of using this technique are most efficient among all probability designs and all groups are adequately sampled and comparisons among groups are possible.

Data Collection

Mail questionnaires are advantageous when the information are needed from the sample which is widely dispersed with reasonable cost but low response rate are usually obtained with bias because the respondents may be different from those who did respond (Cavana et. al., 2001). The mail questionnaire method is viewed as the best method of data collection for this particular study. This is primarily due to the fact that the sample is distributed all over the states in Malaysia including Sabah and Sarawak. The research requires a high cost and such a long journey to reach them if face-to-face interviews or observational study are to be employed.

After in-depth review and consideration of all available methods of data collection, 500 potential respondents have been contacted simultaneously via mail which contains participant information letter and survey form. In order to avoid bias and fulfill the need of representing the population of class F entrepreneurs throughout Malaysia, stratified random sampling were used where sample of entrepreneurs were drawn from every state in Malaysia. In addition, they need to fulfill the criteria set by the questionnaire such as already been in the business for more than 2 years. Terminated contractors within less than a year are also qualified to participate in this study.

RESULTS

Descriptive Analysis

Out of 500 invited Class F entrepreneurs, only 114 (23%) of them had answered the questionnaires completely and returned them using the enveloped provided. The state of Selangor (14.9%) contribute the highest number of respondents followed by Johor (10.5%) , Perak (8.8%) and Sabah (8.8%). The distribution of the respondents is proportionate to the total number of registerd contractors in the particular state.

Out of these 114 respondents, 15 (13.2%) of them are female while the others are male. This fact suggests that the small construction industry is dominated by male contractors. Based on the descriptive statistics, the respondents have been registered as Class F contractors for between 1 to 29 years with the average of 8.9 years. When they grouped into 3 major groups, it was found that, most of the Class F contractors participated in this study have been registered as Class F contractors for less than 10 years (74.56%), followed by between 10.1 to

20 years (21%) and lastly between 20.1 to 30 years. None of the respondents have been registered as Class F contractors for more than 30 years.

The descriptive statistics of number of full time workers employed by Class F contractors as also explained that the Class F contractors of the sample employed between 0 to 24 numbers of full time workers with an average of 4 full time workers. Based on the number of full time workers, most of the contractors are trying to maintain the minimum number of workers for their business which is between 0 to 6 full time workers in order to maintain low cost of overhead.

In term of age, they are between 21 to 73 years old with the average age of 41.85 years of age. the skewness and kurtosis readings are close to 0 which implied that the age of respondents are normally distributed.

In term of formal education, 64% of them, which is more than half, have not entered higher learning institution. The highest educational level of the contractors is only degree level while none of them had obtained Master or PhD qualification.

Their total sale ranges between RM40,000.00 to RM5 millions. In average, they gained a total sale of RM700,000.00 within those 2 years (standard deviation of RM800,000.00). From these revenue, they managed to gain total profit that ranges between RM8,500.00 to RM1.33 millions with the average of RM560,000.00 (standard deviation of RM181,000). The total numbers of projects undertaken within 2007 to 2008 are between 2 to 76. In average, the respondents had secured almost 16 numbers of projects within 2007 to 2008. In term of profitability per project, each project had contributed a profit of at least RM1062.50 up to the maximum of RM66,500.00 per project.

One Way ANOVA Analysis

Based on the One Way ANOVA analysis as in table 4, H_1 is supported ($F=30.5$, $df=3,110$, $p<0.05$). Therefore, we can clearly conclude that strategic typology exerts a significant influence on total sale by resulting in a significantly different level of total sale for at least two of four strategic typologies. The strength of relationship between strategic typology and total sale as measured by Eta Squared is 0.45, indicating a moderate influence of strategic typology on total sale.

Table 4: ANOVA of strategic typology and total sale

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.44×10^{13}	3	1.14×10^{13}	30.52	.000
Within Groups	4.13×10^{13}	110	3.76×10^{11}		
Total	7.58×10^{13}	113			

The Tamhane's T2 multiple comparisons tests (table 5) established that there are significant differences in total sale between prospector and reactor (mean difference of RM1.52 millions, standard error of RM0.25 million), prospector and analyzer (mean difference of RM1.04 million and standard error of RM0.25 million) and prospector and defender (mean difference of RM1.38 million and standard error of RM0.25 million). All four categories have resulted in different levels of strategic typology with the highest total sale being performed by prospector, followed by analyzer, defender and the lowest is reactor. Therefore H_1 is supported.

Table 5: Multiple Comparisons

	(I) type	(J) type	Mean Difference (I-J)	Std. Erro	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tamhane	Reactor	Defender	-1.32×10^5	4.93×10^4	0.068	-2.72×10^5	6328.05
		Analyzer	$-4.75 \times 10^{5*}$	5.98×10^4	0.000	-6.40×10^5	-3.11E5
		Prospector	$-1.52 \times 10^{6*}$	2.52×10^4	0.000	-2.24×10^6	-7.99E5
	Defender	Reactor	1.32×10^5	4.93×10^4	0.068	-6328.05	272,224.67
		Analyzer	$-3.42 \times 10^{5*}$	4.95×10^4	0.000	-4.77×10^5	-2.08×10^5
		Prospector	$-1.38 \times 10^{6*}$	2.50×10^4	0.000	-2.10×10^5	-6.70×10^5
	Analyzer	Reactor	$4.75 \times 10^{5*}$	5.98×10^4	0.000	311501.64	640,027.49
		Defender	$3.42 \times 10^{5*}$	4.95×10^4	0.000	208312.44	477,320.07

	Prospector		$-1.04 \times 10^{6*}$	2.52×10^5	0.002	-1.76×10^6	-3.23×10^5
	Prospector	Reactor	$1.52 \times 10^{5*}$	2.52×10^5	0.000	799,419.78	2.24×10^5
		Defender	$1.38 \times 10^{5*}$	2.50×10^5	0.000	670,769.89	2.10×10^6
		Analyzer	$1.04 \times 10^{6*}$	2.52×10^5	0.002	323,648.63	1.76×10^6

**Dependent Variable: total sale

* The mean difference is significant at the 0.05 level.

DISCUSSION

Result from hypothesis test has answered the research question related to the relationship between strategic typology and business performance of Class F entrepreneurs in Malaysia. The result generally concludes that strategic typology exerts a significant influence on performance by resulting in a significant different level of performance for all strategic typologies.

This study found that in Malaysia small construction industry, reactor performs the lowest followed by defender, analyzer and prospector is the highest performer which is consistent with the findings from recent study which revealed that prospector and analyzer perform better than defender and reactor (O'Regan and Ghobadian, 2006) although earlier research across industries by Aragon-Sanchez and Sanchez-Marin (2005) had found inconclusive evidence in services industry and construction industry in Spain.

This variations are due to the differences in functional strategies, expertise, competencies (Miles & Snow, 1978; Snow & Hambrick, 1980), rate of change in the organizational domain (Zahra and Pearce, 1990), specific focus and traits (O'Regan and Ghobadian, 2006). Additionally, this study also supports Zahra and Pearce (1990) finding that prospector, analyzer and defender have equal opportunity to be success and outcompeted the reactors (Zahra and Pearce, 1990).

The hypothesis of this study has accomplished the objective of this study which is to identify the best strategy applied by the best and worst Class F performers. It is revealed that prospectors are the best performers while reactors are the worst. Therefore, Class F contractors should adopt prospector strategy and avoid reactor strategy.

Blue ocean strategy introduced by Kim and Mauborgne (2005) is recommended because the strategy has suggested a new approach beyond competing by creating entrepreneur's owned market territory called "blue ocean". This kind of strategy had also denied the differentiation – low cost trade-off. Therefore, differentiation can be applied intensively as recommended by Hall and Wahab (2007) that differentiation is the most important factor to for survival in small business of Malaysia.

Class F entrepreneurs should adapt themselves in order to be proactive and innovative business person in order to create their own "blue ocean". Informal conversation with the top class F has revealed that top class F performers put their effort in planning and executing their strategies. The Class F entrepreneurs with prospector strategy in Malaysia proactively push their proposals for construction projects to their prospects customers based on the problem and issues currently faced by their customers instead of waiting for architect drawing or tender participation only.

Besides putting all efforts to secure government projects, prospectors also prepared good packages such as free measurement and plan drawing, submission and others in their proposals of renovation works. The similar proactive strategy is also applicable to other construction contracts in both government as well as private market segment. These initiatives can be either constructed completely by their company or outsourced to subcontractors. However, the prospectors realized that they need to supervise the subcontractors in order to avoid the government projects from being neglected or any other unforeseen problems created by the subcontractors.

On the other hand, low performance contractors are mostly those known as "Ali Baba and Ali Sami" (Razif, 2006) who are part timers, and brokers. They never monitor the progress and performance of their projects. They rely totally on their subcontractors to perform all technical and management aspects of the project. Besides, these low performer contractors admitted that they never spend much time to analyze their clients' needs or articulate their strategic plan into a written form of document for their references in order to perform better in their business. As a result, they only secure a few projects per year and most of them suffered from loss.

Additionally, Class F contracts should not be too dependence on the government projects because it is limited and over demanded especially during the world economic recession period. It was reported earlier in chapter 1 that the number of Class F contractors has exceeded the number of government projects. The contractors should start switching their services from government projects to the private market segment because the competition in securing the government projects has been too tense especially during the economic downturn. It was proven that the prospectors have put their marketing effort not only to the government projects but to the private sectors as well. This will guarantee them to gain the maximum profit.

CONCLUSION

From the predictive perspective, the most competitive and the destructive strategic typology has been revealed from this study. This is important to serve as a guide to those who involved or intend to be involved in the small construction industry in Malaysia. It is useful for strategist and businessman, especially in the small construction industry in Malaysia to take it as a normative theory which they might practice throughout the daily activities especially during the formation of the business strategy. Scanning the internal environment (resources) as well as the external environment (industry and competitors) is important before taking any decision to consider or discards their values base on the eventual perception of the situation they are facing (Hambrick and Mason, 1984).

Consultants or policy makers may use this study as a justification to provide training to the Class F entrepreneurs by categorizing them into prospector, analyzer, defender or reactor and further predict the performance of the business people under their consultation.

REFERENCES

1. Acedo, F. J. and Florin, J. (2007) Understanding the risk perception of strategic opportunities: a tripartite model, *Strategic Change*, 16, 97-116.
2. Alderfer, C. P. (1969) An empirical test of a new theory of human needs, *Organizational Behavior and Human Performance*, 4, 142-175.
3. Aldrich, H. E. (1979) *Organizations and Environments*, , Prentice-Hall, Englewood Cliffs, NJ
4. Aldrich H. E. (1999) *Organizations Evolving*, Sage Publishers, London,
5. Amit, R., Glosten, L. and Muller, E. (1993) Challenges to theory developments in entrepreneurship research. *Journal of Management Studies*, 30, 815-834
6. Barney, M. (2002) Macro, meso, micro: Six Sigma, *The Industrial Organizational Psychologist* 39(4), 104-107
7. Beal, R.M. and Yasai-Ardekani, M. (2000) Performance implications of aligning CEO functional experiences with competitive strategies, *Journal of Management*, 26(4), 733-62
8. Berthoud, R. (2000) A measure of changing health, in Berthoud, R. and Gershuny (eds.), *Seven years in the lives of British families: Evidence on the dynamics of social change from the British household panel survey*, Policy Press, Bristol.
9. Blumer, H (1956) Sociological analysis and the "variable", *American sociological review*, 21, 683-690.
10. Bourgeois, L. J., III (1985) Strategic Goals, Perceived Uncertainty, and Economic Performance in Volatile Environments, *Academy of Management Journal*, 28(3), 548-573.
11. Boone, C., De Brabander, B., and Van Witteloostuijn, A. (1996) CEO Locus of Control and Small Firm Performance: An Integrative Framework and Empirical Test, *Journal of Management Studies*, 33(5), 667-699.
12. Bridge, S., O'Neill, K., and Cromie, S. (2003). *Understanding Enterprise: Entrepreneurship and Small Business* (second edition), New York: Palgrave Macmillan.
13. Brockhaus, R. H., (1980) Risk taking propensity of entrepreneurs, *Academy of Management Journal*, , 23(3), 509-520.
14. Bruyat, C. and Julien, P-A. (2001) Defining the field of research in entrepreneurship, *Journal of Business Venturing*, 16(2), 165-80.
15. Bryman, A. (2008) *Social Research Methods*, 3rd Edn, Oxford University Press, Oxford.
16. Bryman, A. and Cramer, D. (1990) *Quantitative Data Analysis for Social Scientists*, Routledge, London.
17. Buang, N. A. and Yusof, Y. M. (2006) Motivating factors that influence class F contractors to become entrepreneurs, *Jurnal Pendidikan* 31, 107-121.
18. Burns, T. and Stalker, G.M. (1961) *The Management of Innovations*, Tavistock Publications, London, 119-121.
19. Busenitz, L. W. (1999) Entrepreneurial risk and strategic decision making: It's a matter of perspective, *The Journal of Applied Behavioural Science*, 35(3), 325-340.

20. Busenitz, L. W. (1999) Entrepreneurial risk and strategic decision making: It's a matter of perspective, *The Journal of Applied Behavioural Science*, 35(3), 325-340.
21. Buzzell R. D., Gale, B. T and Sultan, G. M. (1975) Market Share-A Key to Profitability, *Harvard Business Review*, 97-106.
22. Carsrud, A., Gaglio, C., & Olm, K. (1986) Entrepreneurs, mentors, networks, and successful new venture development: An exploratory study, in *Frontiers of Entrepreneurial Research*, Ed. Ronstadt, R., Hornaday, J., Peterson, R. & Vesper, K. Wellesley, MA: Babson College, 199-235.
23. Cavana, R. Y., Delahaye, B. L. and Sekaran, U. (2001) *Applied Business Research: Qualitative and Quantitative Methods*, John Wiley & Sons, Australia.
24. Cervone, D (2000) Evolutionary psychology and explanation in personality psychology, *The American Behavioral Scientist*. Thousand Oaks, 43(6), 1001-1013.
25. Chaganti, R. and Sambharya, R. (1987) Strategic orientation and characteristics of upper management, *Strategic Management Journal*, 8(4), 393-401.
26. Chandler, A.D., Jr. (1962) *Strategy and structure: Chapters in the history of industrial enterprise*, Cambridge, MA: Harvard University Press.
27. Chen, C.C., Greene, P. G. and Crick, A. (1998) Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?, *Journal of Business Venturing*, 13, 295-316.
28. Chin, W. W. (1998) Issues and opinions on structural equation modeling, *MIS Quarterly*, 22(1), 7-16
29. Cicourel, A. (1964) *Method and measurement in the social sciences*, Free Press, New York
30. Cohen, A. (1993) Age and tenure in relation to organizational commitment: a meta-analysis, *Basic and Applied Social Psychology*, 14, 143-159.
31. Collis, D. J., Montgomery, C. A. (1995) Competing on resources: strategy in the 1990s, *Harvard Business Review*, 73(2), 118-128
32. Conant, J. S., Mokwa, M. P. and Varanadarajan, P. R. (1990) Strategic Types, Distinctive Marketing Competencies and Organizational Performance: A Multiple Measures- Based Study, *Strategic Management Journal*, 11, 365-383
33. Cools, E. And Broeck, H.V. (2007) The hunt for heffalump continues: Can trait and cognitive characteristic predict entrepreneurial orientation?, *Journal of Small Business Strategy*, 18(2), 23-41
34. Covin, J. G. and Slevin, D.P. (1989) Strategic Management of Small Firms in Hostile and Bening Environments, *Strategic Management Journal*, 10, 75-87.
35. Crabtree, B.F. and Miller, W.L. (1992) A template approach to textual analysis: developing and using codebooks, in Crabtree, B.F. and Miller, W.L. (Eds), *Doing Qualitative Research*, Sage Publications, Newbury Park, CA.
36. Cromie, S (2000) Assessing entrepreneurial inclinations: Some approaches and empirical evidence, *European Journal of Work and Organizational Psychology*, 9(1), 7-30.
37. Cunningham J.B. and Lischeron, J. (1991) Defining entrepreneurship. *Journal of Small Business Management*, 29, 47-8.
38. Delmar, F. (2000) The psychology of the entrepreneur, in Carter, S. and Jones-Evans, D. (Eds), *Enterprise and Small Business*, Prentice-Hall, Harlow.
39. Doty, D. H., Glick, W. H. and Huber, G. P. (1993) Fit, equifinality and organizational effectiveness: A test of two configurational theories, *Academy of Management Journal*, 36, 1196-1250
40. Drucker, P. F. (1985). *Innovation and entrepreneurship*. New York: Harper Business.
41. Dvir, D. E., Segev, and Shenar, A. (1993) Technology's Varying on the Success of Strategy Business Units within the Miles and Snow Typology, *Strategic Management Journal*, 14, 155-162
42. Floyd, S.W. and Wooldridge, B.W. (1992) Middle management involvement in strategy and its association with strategic type: a research note, *Strategic Management Journal*, 13, 153-67.
43. Frederick, H. H., Kuratko, D. F. and Hodgetts, R. M. (2006) *Entrepreneurship: Theory, Process, Practice*, Cengage Learning, Melbourne, Australia.
44. Gartner, W. B. (1985) A framework for describing the phenomenon of new venture creation, *Academy of management Review*, 10(4), 697-706
45. Gartner, W. B. (1988) "Who is an entrepreneur?" is the wrong question, *Entrepreneurship Theory & Practice*, 13(4), 47-68.
46. Garfield, C. A. (1986) *Peak performers, the new heroes of American business*, New York, NY: William Morrow and Company, Inc.
47. Gasse, Y. (1982), *Elaborations on the psychology of the entrepreneur*, in Kent, C.A., Sexton, D.L. and Vesper, K.H. (Eds), *Encyclopedia of Entrepreneurship*, Prentice-Hall, Englewood Cliffs, NJ, 57-71.
48. Gibson, B. and Cassar, G. (2002) Planning behavior variables in small firms, *Journal of Small Business Management*, 40(3), 171-186.

49. Gist, M. E., and Mitchell, T. R. (1992) Self-efficacy: A theoretical analysis of its determinants and malleability, *Academy of Management Review*, 17(2), 183-211.
50. Goldberg, L.R. (1999) A Broad-Bandwidth, Public-Domain, Personality Inventory Measuring the Lower-Level Facets of Several Five-Factor Models, in Mervielde, I. Deary, I., De Fruyt F. and Ostendorf F. (eds.), *Personality Psychology in Europe*, 7, Swets and Zeitlinger: Rockland, MA, 7-28.
51. Hall, G. and Wahab, K. A (2007) Influences on the survival and failures of small firms in Malaysia.
52. Hanserk, O. C. (2003) Need for achievement, locus of control and the prediction of business start-up: A longitudinal study, *Journal of economic Psychology*, 24, 301-319.
53. Higgs, M. (2006) What Makes for Top Team Success? A Study to Identify Factors Associated with Successful Performance of Senior Management Teams, *Irish Journal of Management*, 27(2), 161-188.
54. Horris, M. H., Miyasaki, N. N. Watters, C. E. and Coombes, S. M. (2006) The dilemma of Growth: Understanding venture size choices of women entrepreneurs, *Journal of Small Business Management*, 44(2), 221-244.
55. Hull, D. L., Bosley, J. J. and Udell, G. G. (1980) Renewing the hunt for the heffalump: Identifying potential entrepreneurs by personality characteristics, *Journal of Small Business Management*, 18, 11-18.
56. Jones, M. B. (2006) Top Management Team Fit in the US Airline Industry, *Journal of Applied Management and Entrepreneurship*, 11(3), 102-125.
57. Jaworski, B.J. and Kohli, A.K. (1993) Market orientation: Antecedents and consequences, *Journal of Marketing*, 57(3), 53-70.
58. Judge, T. A., & Bono, J. (2001) Five- factor Model of Personality and Transformational Leadership, *Journal of Applied Psychology*, 8(5), 751-765.
59. Judge T. A, Locke E. A, Durham C. C, Kluger A. N. (1998) Dispositional effects on job and life satisfaction: The role of core evaluations, *Journal of Applied Psychology*, 83, 17-34.
60. June, M. L. P., Ainuddin, R. A. and Junit, H. S. (2006) *International Small Business Journal*, 24(1), 61-82.
61. Keh, H. T., Foo, M. D. and Lim, B. C. (2002) Opportunity evaluation under risky condition: The cognitive processes of entrepreneurs, *Entrepreneurship Theory And Practice*, 125-148.
62. Kelle, U. (1995) *Computer-aided qualitative data analysis: Theory, methods and practice*, Sage, Thousand Oaks, CA.
63. Kim W. C., Mauborgne R., (2005) *Blue Ocean Strategy, How to Create Uncontested Market Space and Make Competition Irrelevant*, Harvard Business School Press.
64. Kor, Y. Y. (2003) Experience-Based top management team competence and sustained growth, *Organization Science*, 14(6), 707-719
65. James, B.G. (1974) The theory of the corporate life cycle, *Long range planning*, 7, 49-57.
66. Kotey, B., and Meredith, G. G. (1997) Relationship among owner-manager personal values, business strategies, and enterprise performance. *Journal of Small Business Management*, 35(2), 37-64.
67. Lau, C.M. and Busenitz, L. W. (2001) Growth Intention of entrepreneurs in a Transitional Economy: The People's Republic of China, *Entrepreneurship Theory and Practice*, 5-20
68. Low, M. B. and MacMillan, I. C. (1988) Entrepreneurship: Past research and future challenges. *Journal of Management*, 14(2), 139-161.
69. Lumpkin, G.T, and Dess, G. (1996) Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review*, 21(1), 135-172.
70. MacMillan, I. C., Zeman, L and Subba Narasimha (1987) Criteria distinguishing successful from unsuccessful ventures in the ventures of the venture screening process, *Journal of business venturing*, 2(2), 123-137.
71. McClelland, D. C. (1961) *The achieving society*. Princeton, NJ: D. VanNostrand.
72. Mcclelland, D. C, Winter, D. C (1969), *Motivating Economic Achievement*. 1, New York.
73. Miron, D. and McClelland, D.C. (1979), The impact of achievement motivation training on small businesses, *California Management Review*, 21(4), 13-25.
74. Mueller, S. L. and Thomas, A. S. (2000) Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness, *Journal of Business Venturing*, 16, 51-75.
75. Norburn, D. (1989) The CEO: a breed apart, *Strategic Management Journal*, 10, 1 -15.
76. Norburn, D. and Briley, S. (1988) The Top management team and corporate performance, *Strategic Management Journal*, 9(3), 225-237.
77. Nunally, J.C. (1978) *Psychometric Theory*, 2nd ed., McGraw-Hill, New York, NY.
78. Olson, S. F. and Currie, H. M. (1992) Female entrepreneurs: Personal value systems and business strategies in a male-dominated industry, *Journal of Small Business Management*, 30(1), 49-57.

79. Rauch, A. and Frese, M. (2007) Let's Put the person back into entrepreneurship research: A meta-analysis on the relationship between business owner's personality traits, business creation and success, *European Journal of Work and Organization Psychology*, 16(4), 353-385.
80. Remenyi, D., Williams, B., Money, A and Swartz, E. (2005) *Doing Research in Business and Management: An Introduction to Process and Method*, Sage Publication, New Delhi.
81. Roccas, S., Sagiv L., Schwartz, S. H and Knafo, A (2002) The big five personality factors and personal values, *Personality and Social Psychology Bulletin*, 28(6), 789-801.
82. Rotter, J. (1966) Generalized expectancies for internal versus external control of reinforcement, *Psychology Monographs*, 80, 1-27
83. Saunders, M., Lewis, P. and Thornhill, A. (2003) *Research Methods for Business Students*, 3rd edn, Prentice Hall Financial Times,
84. Sauner-Leroy J-B, (2004) Managers and productive investment decisions: the impact of uncertainty and risk aversion, *Journal of small business management*, 42(1), 1-3
85. Schumpeter, J. (1934) *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.
86. Schutz, A. (1962) *Collected Papers 1*, The Hague Martinus Nijhoff.
87. Sekaran, U. (2005) *Research Methods for Business: A Skill Building Approach*, 4th Edn, John Wiley & Sons, India.
88. Shane, S. (2000) Prior Knowledge and the Discovery of Entrepreneurial Opportunities, *Organization Science*, 11, 448-469.
89. Shaver, K. G., & Scott, L. R. (1991) Person, process, choice: The psychology of new venture creation, *Entrepreneurship Theory and Practice*, 16(2), 23-45.
90. Spector, P. E. (1988). Development of the work locus of control scale, *Journal of Occupational Psychology*, 61, 335-340.
91. Sitkin, S. B., and Weingart, L. R. (1995) Determinants of risky decision-making behavior: A test of the mediating role of risk perceptions and propensity, *Academy of Management Journal*, 38, 1573-1592.
92. Steers, R., & Braunstein, D. (1976) A behaviorally based measure of manifest needs in work settings, *Journal of Vocational Behavior*, 9, 251-266.
93. Stewart, W. H., Jr., and Roth P. L. (2001) Risk Propensity Differences Between Entrepreneurs and Managers: A Meta-Analytic Review, *Journal of Applied Psychology*, 86, 145-153.
94. Vecchio, R. P (2003) Entrepreneurship and leadership: Common trends and common threads, *Human Resource Management Review*, 13, 303-327.
95. Waller, M.J., Huber, G.P. and Glick, W.H. (1995) Functional background as a determinant of executives selective perception, *Academy of Management Journal*, 38(4), 943-74.
96. Westergaard, J., Noble, I and Walker, A. (1989) *After redundancy: The experience of economic insecurity*, Polity, Cambridge.
97. Westhead, P. and Wright, M. (1998) Novice, serial and portfolio founders: are they different?, *Journal of Business Venturing*, 13(3), 173-204.
98. Wu, S., Mathews, L. And Dagher, G.K. (2007) Need for achievement, business goals and entrepreneurial persistence, *Management Research News*, 30(12), 928-941.
99. Zhao, H., Seibert, S. E. and Hills, G. E (2005) The mediating role of self-efficacy in the development of entrepreneurial intentions, *Journal of Applied Psychology*, 90(6), 1265-1272

WEB REFERENCES

1. Economic Review, 2009, online, retrieved 16 June 2009, from http://ww2.publicbank.com.my/cnt_review65.html
2. Entreprenet, 2009, online, retrieved 31st March 2009, from <http://web10.bernama.com/mecd/news.php?id=342058>
3. Pusat Khidmat Kontraktor, 2009, online, retrieved 17 June 2009, from <http://pkk.kkr.gov.my>
4. Razif, M., 2006, 'YDP Persatuan Kontraktor Kelas F Kuala Lumpur: Help real contractors', 8 December 2006, Ronnieu's blog, online, retrieved 25 February 2009, from <http://colour-blind.org/wordpress/?p=82>
5. SMIDEC, 2009, 'Statistics', online, retrieved 16 June 2009 from <http://www.smidec.gov.my/detailpage.jsp?page=statistic>
6. The Star Online, 2009, 'Only 30% of Class F contractors active', online, retrieved 15 March 2009, from <http://thestar.com.my/news/story.asp?file=/2007/7/30/nation/18442963&sec=nation>