



Sustaining Competitive Advantages of Malaysian Construction Industry

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ABSTRACT

This paper attempted to discuss the competitive advantages among the contractors in Malaysia through the relationship between the variables such as human resource management, finance, government, suppliers, technology, and new market entrance with competitive advantages (product differentiation, cost leadership, and focus strategy). The paper further explored the profile of the contractors in the state of Terengganu, as well as examining the ability of each class of contractors in maintaining the competitive advantages. From the total population list, 349 samples were taken for the analysis. The population of the study was taken based on the sampling frame generated by Contractor Services Centre (PKK). The researchers used stratified sampling as a sampling technique in order to get the most efficient representation of the population. The questionnaire was designed and distributed to the contractors by using the Personally Administered Questionnaire approaches. The instrument was made up of five (5) sections measured by using Likert scale. Based on the findings, it demonstrated that only five (5) out of six (6) factors (human resource management, finance, technology, suppliers, and new market entrance) had a significant relationship towards competitive advantages. Hence, 72.2% from the six (6) independent variables were able to explain the competitive advantages among contractors in Terengganu.

KEYWORDS: Competitive Advantages, Human Resource Management, Finance, Technology, Suppliers, New Market Entrance.

INTRODUCTION

Background of the Study

Maintaining competitive advantages is always a concern for any contractors if they wish to survive. The construction industry is changing constantly with the developments of new business methods and technologies. Thus, construction companies have to adopt various applications and develop appropriate strategies to be more competitive in this industry and to become successful in their business. Competitive pressures, both in domestic and global markets, shifted the desired outcomes in management of the relationship away from compliance of employees' behaviour towards a more positive commitment on customers and business requirements. People are individuals who bring their own perspectives, values and attributes to organizational life, and when managed effectively, these human traits can bring considerable benefits to organizations. Construction organizations have a tendency to shed labour as part of a survival strategy, retaining and retraining the more skilled employees or those whose skilled employees could less easily be replaced [1].

Construction is considered as a labour-intensive industry. Basically, the concept of labour intensity is relative between industries. There are complexities interfaces of different personnel within construction industry whether in-house or within an organization, or even inter-organization. Construction profession offers opportunity to create works for the benefit of mankind, but in turn, those that work in the profession accept substantial responsibilities. Construction industries serve as industries that contribute to the growth of country's economy and promote continuous improvement to environment by enhancing mankind lifestyle. In general, there are four (4) types of construction; residential, commercial or institutional building, industrial, and heavy or high-way segments. Most contracts are awarded to a general contractor who awards subcontracts to specialty contractors as a common practice in a traditional design-bid-build procurement system method. Within the construction industry, various organization groups put together their efforts in forming teams to run the project by performing intellectual effort in devoting individual capability to complete the project within project deliveries criteria. In [2] has stated that, as for the traditional design-bid-build procurement system, the project players may involve the professional in the industry such as owners or clients, constructors groups (including main contractor, subcontractors, suppliers and etc.), consultants groups (including architects, civil and structural engineers, quantity surveyors, land surveyors, and etc.).

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PROBLEM STATEMENT

The scenarios of contractors in the state of Terengganu demonstrated that they are in the state of anxiety due to the lack of development projects in Terengganu. As such, the probability of the contractors to get tenders or projects will be much lower. Furthermore, following the increasing number of contractors and the imbalance of development projects in the state further added fierce competition to the industry. Although there were government actions to freeze the contractor license for some classes, but still the number of registered contractors outnumbered the total existing project in the state. In terms of business performance, the above development will generate significant impact, whereby due to intense competition among the contractors, it led to consideration of 'popular' pricing at the minimum profit. Although, the provision of the price tag for the project is much higher but still they go for a lower prices in order to secure the project. In view of this scenario, the tenders will take into consideration the 'popular ones' than the price which should be as planned. As such, due to low profits margin, any occurrences of late payments will further weaken the ability of the contractors. Consequently, this made it difficult for contractors to be in a comfortable position.

The competition within the industry rose not only among the registered contractors but it also involved contractors that are not registered with Contractor Services Centre (PKK). This would threaten and affect the career and sources of income of the contractors. Of the total population, only 10% of the successful contractors were those that have contacts, high capital capacity, and efficient management. Meanwhile, 40% of the contractors could only survive and maintain the business as well as be able to meet the current needs, while 50% of them were not capable of sustaining their ability to remain competitive in the industry.

Objectives

This research is conducted for achieving following objectives:

- i. To investigate the relationship between the variables such as human resource management, finance, government, suppliers, technology, and new market entrance with competitive advantages.
- ii. To determine the influence of contractors' profile towards competitive advantage.

LITERATURE REVIEW

Competitive Advantage

Competitiveness is a multi-dimensional concept which has many definitions at different levels of analysis. Among the common measures of competitiveness includes market share, profitability, growth rate, and the ability to supply low-cost or high quality products or services at the firm level [3]. Referring to [4], competitive advantages is define as offering consumer's greater value either through lower price or by providing more benefits that justify higher price better than competitors. In the meantime, the company must designs broad competitive marketing strategies by which it can gain competitive advantage through superior customer value [5]. In [6] views competitiveness as the ability of a firm to design, produce and promote or market products superior to those offered by competitors upon considering the price and non-price qualities.

A quick review of the relevant literature reveals the paradigm shift. Rational usage of resources was the common strategy to remain competitive in the 1980s markets, while more emphasis was put in the 1990s and early 2000s on the multi-dimensional and evolutionary nature of competition. The dynamic of the businesses has become more dependent on knowledge investments and learning ability than on physical capital [7]. It is often assumed by most people that only the firms with the ability to transform individual and organizational knowledge resources into strategic skills will achieve competitive advantages and survive [8].

The purpose of competitive advantages is not to retreat from competition but to compete selectively from an advantageous strategic position. In [9] defined three generic, competitive strategies as overall cost leadership, differentiation and focus. Differentiation is possible only until selection has taken place. Thereafter, competition is on the price alone. For a contracting firm to be differentiated from its competitors, it can adopt one or more forms of competitive advantages; strategic management in construction, bidding strategy, technological and organizational innovations, technology strategy, strategic planning, and alliances.

Competitive advantages are the essence of success or failure of a company. The competitive spirit provides determination in executing proper activities for the company in developing efforts such as innovation, cohesive culture and good realization. With competitive strategy, it lays out a way to find competitive positions in industry as well as strengthens and continuously positions a company [10]. The definition of competitive advantages therefore should be able to satisfy customer needs as a key characteristic of a product and service, be able to satisfy the worker needs and have potential to grow up [11]. Therefore, the aforementioned effects are hypothesized as shown as below.

- H1a: There is a significant difference between areas and competitive advantages
- H1b: There is a significant difference between areas of business operation
- H1c: There is a significant difference between license category and competitive advantages
- H1d: There is a significant difference between experience level and competitive advantages
- H1e: There is a significant difference between age and competitive advantages

FACTOR AFFECTING COMPETITIVE ADVANTAGE

Human Resource Management

Human Resource Management (HRM) includes all activities related to the management of employment relationships in the firm [12]. Having the ability to develop HRM practices aligned with business strategy could be a source of sustainable competitive advantages [13]. Thus, with strategic HRM practices, it provides firms with the internal capacity to adapt and adjust to their competitive environments by aligning HRM policies and practices [14].

Entrepreneurial orientation is critical for organizational survival and growth in today's business environment. Moreover, the current trend towards knowledge-intensive industries means that competitiveness increasingly depends on the management of the relational bases of members of organizations. HRM theory and practice can contribute to understanding issues faced by the entrepreneurial firm [15]. An example of this is human resource acquisition and deployment in start-ups, highly innovative ventures, and development on the speed and direction of growth in rapidly expanding firms [16].

Transience arises within projects, since the composition of teams normally changes during different project stages, involving people from many organizations, backgrounds and locations. Male employment leads to many challenges such as skills shortages caused by recruiting from only a portion of population, difficulties in the management of equal opportunities and workforce diversity, and considerable challenges in terms of creating an accommodating atmosphere in which individuals' diverse skills and competencies are fully utilized [17]. Lack of effective training and performance appraisal - the important factor in implementing human resources management in construction is in need of effective training and ways in measuring the performance of their workers training. A system of 'performance measures' is needed in order to monitor improvements among construction teams. In other words, the participative approach addresses the development of good supervisor-subordinate relationships and cohesive work groups in order to satisfy both social needs and the needs of business demand [18]. That contributes to the following hypothesis:

- H2: There is a significant relationship between HRM and competitive advantages

Finance

According to [19], financial concepts are considered to be central to acquire needed capital, evaluate the worth of a business, buy raw material, expand the business, and renovate the premise. A successful business often requires additional capital. Besides net profit from the operation and the sale of assets, other basic sources of capital could be in a form of loan offered by the financial institutions. Usually, the financial institution has already determined the amount of loan that the entrepreneurs are eligible to apply. However, some entrepreneurs decided not to apply the loan because the interest charged is assumed to be high and, thus, reduces the profit margin and burdens the entrepreneurs. Hence, the alternatives are: they will use their own saving, or borrow from their family. For the partnering company, the capital comes from the partner (s) of the company.

Price is also one of the most flexible elements of the marketing mix; it changed quickly, unlike product features and subcontractor/supplier commitments. The number one problem encountered by most marketing executives in the industry is price competition. There are at least four common mistakes made by marketing executives [20]. First, pricing is too cost oriented. Second, once an offer is made, price is not revised to capitalize on market conditions or to fend off competitive pressures. Third, price is not set as an intrinsic element of a market-positioning strategy, and fourth, price is not adjusted enough for different clients, project types, and amount of work at hand, equipment ownership. With that, it leads to the next hypothesis:

- H3: There is a significant relationship between finance and competitive advantages

Technology

Technology is the knowledge of how to do or make something which yields benefits to users. Every business activity involves technology. While this may seem fundamental, every firm is constrained by what it knows how to do. The possession of technology is the price of entry in all businesses and its development is important to the maintenance of competitive position in most, for some, it is the key to competitive advantage [21].

New technologies have made dizzying changes in the way we live and work. Technology includes equipment, manufacturing processes, and materials which products are made of. Because of new discoveries and inventories,

better quality goods and services are built of a faster pace and often at a lower cost [22], and thus, contributed to the improvement of manufacturing for many years. Computers have dramatically improved the quality and speed of the production and have reduced costs. There are several fundamental strategic processes to which technology has the potential to contribute. Examples of these are: improving customer services, improving time to market, improving management communication, improving quality and increasing global reach [23].

IT has been proven to be an important key enabler in product design and much likely to be implemented in the construction industry. In manufacturing, a large scale and complex engineering projects as the development of the 'Airbus A380' aircraft are only feasible by using simultaneous and concurrent engineering interwoven with suitable 3D-design toolkits [24]. Similarity to an advance and more complex construction technology, for instance, the modular houses and mass-customization can only be developed and produced by using an extensive and interwoven IT tools. In [25] point out that IT improves tendering, planning, monitoring, distribution, logistic and cost comparison process by establishing collaborative design integration, accurate data and effective dealing with project documents.

In [26] identifies the role of IT tools which are to establish communication between project team and suppliers as a medium for quality control of overall project deliveries. InPro system, for instance, is one of the IT tools developed to improve design integration. InPro system is an advanced system of integrated design, analysis processes and decision-support developed based on existing IT tools. The tools will radically improve collaboration and integration between design, manufacturing and assembly process [24]. The importance of technology in construction has led to the next hypothesis:

H4: There is a significant relationship between technologies and competitive advantages

Government

Government intervention has been historically important in creating economic growth and in fostering diffusion of technological innovations. In [27] highlights the role of the state as a promoter of economic growth by getting the nation into the 'right businesses', creating competitive advantages, setting standards and creating demand. The role of government has been fundamental in the diffusion of infrastructures such as telecommunication networks. In e-commerce diffusion, many studies address the role of government intervention to avoid digital division of poor and rich countries. In [28] stated that an analysis of the relationship between Internet diffusion and socio-economic development in developing countries identifies three (3) major areas of government intervention: creating knowledge, disseminating knowledge and human resources development. Government intervention is especially important at sustaining technological development in SMEs [29]. Recently, many governments and international organizations have taken initiatives to foster the adoption of electronic commerce in small- and medium-sized enterprises [30]. These initiatives are considered important to avoid a digital divide between small and large companies. This is a testable hypothesis of this research:

H5: There is a significant relationship between government and competitive advantages.

Supplier

The result of involving suppliers in product development seems to be mixed [31]. For example, involving suppliers early does not always lead to acceleration of project cycle time [32]. Some may argue that its involvement may contribute to reduced development time, reduced development and product costs and improved product quality. Some authors conclude that the way supplier involvement is managed in the product development process is important in explaining the success of this supplier involvement [33].

However, SMEs themselves are interested in merging with other complementary enterprises in order to achieve a critical dimension necessary to cope with existing challenges [34]. Consequently, there is a real pressure on SME subcontractors to grow through either mergers or the development of groups of interconnected enterprises. For instance, approximately half of the French manufacturing subcontractors belong to a group. This figure is highly dependent on the sector in which the subcontractor is active (i.e. higher presence of groups in forging activities but lower in other sectors such as coating of metals) as well as on the size of the enterprise. Such scenarios lead to the next hypothesis:

H6: There is a significant relationship between suppliers and competitive advantages

New Market Entrance

A new venture started by a large company will have certain features of a classical new venture (i.e. venture started from scratch, often without substantial funding and managerial skills). In [35] notes about his fundamental work on new ventures, "...many of the practices of what we usually consider well-managed companies tend to inhibit entrepreneurial behaviour". As far as classical new ventures are concerned, the leading role here belongs to

entrepreneurship. It is claimed that the success of every new venture depends mostly on the entrepreneurial capabilities of the founder(s). Areas of research here are the entrepreneurship itself, business opportunity in the new market and business concept, resource acquisition (finance, human, organization, knowledge), and managing growth of the venture.

One of the important issues in managing a new venture is the transition from informal, low-control style of management (characteristic of early phases of new ventures) to formal, high-control management present in well-established companies. Stevenson distinguishes between the ‘promoter’, who is mainly focused on organizing activities and bringing entrepreneurial ideas into life, and the ‘trustee’, who is mostly concerned with administrating the existing business and safeguarding achieved results. It is critical to reach a reasonable balance between the two managerial modes. That contributes to the following hypothesis:

H7: There is a significant relationship between new market entrance and competitive advantages

Based on literature, the following dimensions on Figure 1 are gathered and analysed:

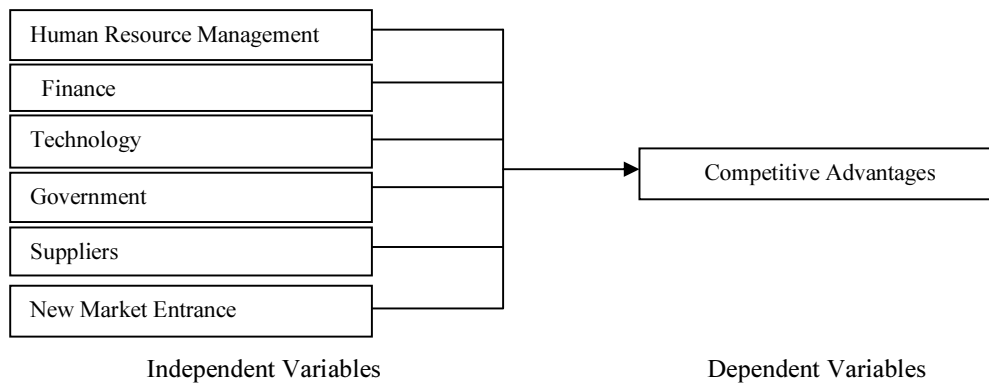


Figure 1: Framework of the study

RESEARCH METHODOLOGY

Sampling Design and Data Collection

The decision of the sample size for the study followed the table generated by [36]. With the population of 3,331 contractors, 349 samples were selected. The study population would be taken based on sampling frame generated by Contractor Services Centre (PKK) for the year 2010. The study adopted stratified sampling technique in order to get the most efficient representation of the population. The researchers decided to divide 349 samples into seven areas. Of the samples were 32 respondents from Marang, 32 respondents from Setiu, 36 respondents from Kemaman, 136 respondents from Kuala Terengganu, 30 respondents from Hulu Terengganu, 32 respondents from Dungun, and 51 respondents from Besut. The technique further divided the samples according to classification of contractors. All respondents’ names were placed into bowl that has already been marked according to the areas and classes. Thus, every sample was given the equal chance to be selected as a respondent for this study.

The survey instrument, which is Personally Administered Questionnaire, was distributed to the contractors (respondents) of classes A, B, C, D, E, and F. The instrument was made up of 5 sections measured by using Likert Scale whereby the respondents needed to indicate a degree of agreement or disagreement with each series of statements about the stimulus object. The scale items were made up of 5 responses rating from “1” or “Strongly Disagree” to “5” or “Strongly Agree”. Section A of the questionnaires is for demographic profile of the respondents. This part may include the respondents’ gender, age, origin, race, marital status, education level, level of monthly income, year(s) involved as a contractor, license category, area, business status, and getting project in several years. In section B, the questions are related to investigating how internal factors can influence competitive advantages, which are HRM, Finance, and Technologies. The concept of HRM focuses on recruitment of management and providing direction for the employees in the organization. The financial factor is measured in terms of the credit and banking involving money, time, and risk while technology is measured in terms of the usage and knowledge of tools, techniques, crafts, systems or methods. As in section C, D, and E, the questions aimed at measuring external factors involving government, suppliers, and new market entrance subsequently. Section F examined the competitive advantages among contractors.

SURVEY FINDINGS AND DISCUSSION

Frequency Distribution

Frequency analysis is used to analyze the overall profile of the respondents. The result in the Table 1 was used for determining the influence of respondents (contractors) profile towards the competitive advantages.

Table 1: Respondents' profiles

No	Profile	Description	Responses	Percentage (%)
1	Gender	Male	327	93.7
		Female	22	6.3
2	Marital Status	Single	331	94.8
		Married	18	5.2
3	Age	20-24	1	0.3
		25-29	11	3.2
		30-34	4	1.1
		35-39	52	14.9
		40 and >	281	80.5
4	License Category	Class A	17	4.9
		Class B	14	4.0
		Class C	25	7.2
		Class D	37	10.6
		Class E	16	4.6
		Class F	240	68.8
5	Education level	PMR	40	11.5
		SPM	183	52.4
		Diploma	67	19.2
		Degree	55	15.8
		Further degree	4	1.1
6	Year involved as a contractor	< 1 year	2	0.6
		1-5 years	25	7.2
		6-10 years	38	10.9
		> 10 years		81.4
7	Area	Kemaman	36	10.3
		Kuala Terengganu	136	39.0
		Dungun	32	9.2
		Marang	32	9.2
		Besut	51	14.6
		Hulu Terengganu	30	8.6
		Setiu	32	9.2
8	Business Status	Sole Proprietorship	226	64.8
		Partnership	43	12.3
		Sdn Bhd	79	22.6
		Bhd	1	3

Based on the samples of the study, a majority of the respondents were male-dominated and they were in the middle age and above brackets (40 years old and above) indicating that the youth categories were not willing or yet to be ready to meet the challenges in the industry. For those who involved in the industry where most of contractors were in the form of sole proprietorship, the earning of the contract business was not that encouraging compared to the risk involved. In the meantime, the fourth objective attempted to examine the ability of each class of contractors in maintaining the competitive advantages. The result indicated the existence of differences as each class had their own strength to maintain in this industry. Those who were from class F, though made up the majority of the population, were still at the handicapped side while those who were from classes B and C were found to be more stable in the industry.

Reliability Analysis

About 370 sets of questionnaires were distributed to the selected respondents for assessing the reliability of the instrument. The result for the reliability test for the samples collected is as follows: 0.895 for HRM, 0.797 for Finance, 0.906 for Technologies, 0.855 for Government, 0.904 for Suppliers, 0.638 for New Market Entrance, and 0.938 for Competitive Advantages.

Correlation Among Variables

Pearson Correlation was used to test for association. The rules of thumb proposed by [44] was used to characterize the strength of association between variables.

Table 2: Correlations among variables

	COMP	HRM	FIN	TECH	GOV	SUPP	NME
Competitive Advantages (COMP)	1.00						
HRM	0.744**	1.00					
Finance (FIN)	0.580**	0.612**	1.00				
Technology (TECH)	0.764**	0.658**	0.498**	1.00			
Government (GOV)	-0.040	.085	0.163**	-0.156**	1.00		
Suppliers (SUPP)	-.485**	-0.312**	-0.164**	-0.465**	0.398**	1.00	
New Market Entrance (NME)	-0.059	0.019	-0.265**	-0.089	-0.228**	0.087	1.00

**Note: **correlation is significant at the 0.01 level (two-tailed)

The results of the analysis showed that the relationship between HRM and Technologies with Competitive Advantages indicating a high correlation as shown by 0.744 and 0.764 respectively. The coefficient analysis between Finance with Competitive Advantages showed that it is moderate at correlation value of 0.580. But there was a moderate, negative correlation between Suppliers and Competitive Advantages, $r = -0.485$, $n = 349$, $p < 0.005$, with higher involving suppliers in product development, the less contractor's competitive advantages. However, Government and New Market Entrance were not significant as indicated by the value of -0.040 and -0.059.

Regression Analysis among Variables

Table 3: Summary of regression analysis

Summary		ANOVA		Dimensions			Collinearity Stat		
R	R ²	F	Sig.		B	T	P	Tolerance	VIF
0.850*	0.722	148.396	0.000	HRM	0.320	7.120	0.000	0.402	2.488
				Finance	0.156	3.991	0.000	0.530	1.887
				Technology	0.394	9.344	0.000	0.456	2.194
				Government	0.058	1.697	0.091	0.696	1.438
				Suppliers	-0.202	-5.686	0.000	0.644	1.553
				New Market Entrance	0.042	1.321	0.187	0.791	1.265

Note: a predictors (constant) HRM, finance, technology, government, suppliers and new market entrance

Table 3 provides the analysis of regression. The result showed that HRM, Finance, Technologies, Government, Suppliers, and New Market Entrance contributed significantly ($F = 148.396$; $p = 0.000$). The results further showed that there was a significant relationship between HRM ($t = 7.120$; $p = 0.000$), Finance ($t = 3.991$; $p = 0.000$), Technologies ($t = 9.344$; $p = 0.000$), Suppliers ($t = -5.686$; $p = 0.000$) and Competitive Advantages at 5 % significant level. There was a marginal relationship between Government and Competitive Advantages ($t = 1.697$; $p = 0.091$). However, the result showed no significance relationship between New Market Entrance ($p = 0.187$) and Competitive Advantages. Of all the six dimensions, technology possesses the strongest value, followed by HRM, Finance, and Suppliers. There was no statistical support for H₇. Though, there was marginal support for Government (H₅) and lastly significant evidence to support for H₂, H₃, H₄, and H₆. However, H₆ shows the negative significant relationship with competitive advantages such as the higher supplier's involvement, it becomes lower of competitive advantages. All the above variables were able to explain 72.2% of the variations in competitive advantages.

Analysis of variance (ANOVA)

Analysis of variance was conducted to explore the possibility of differences in areas on competitive advantages. Contractors were divided into seven categories according to their areas (Kemaman, Kuala Terengganu, Dungun, Marang, Besut, Hulu Terengganu, and Setiu). There was significantly difference at the $p < 0.05$ level of competitive advantages for all areas: $F(6, 342) = 9.859$, $p = 0.000$. There was statistical evidence to support for H_{1a}. Table 4 showed that, comparing all the areas, Kuala Terengganu is the highest mean 4.39 and the lowest mean 3.97 is Dungun and Marang.

Table 4: Means and standard deviations comparing competitive advantages

Areas	Kemaman	Kuala Terengganu	Dungun	Marang	Besut	Hulu Terengganu	Setiu	Total
Competitive Advantages	4.20	4.39	3.97	3.97	4.07	4.16	4.19	4.21
SD	0.30	0.45	0.35	0.42	0.34	0.39	0.35	0.42
N	36	136	32	32	51	30	32	349

Table 5 demonstrated Tukey Post-Hoc test result which revealed that there were no statistically significant differences between areas. However, Kuala Terengganu ($M = 4.39$, $SD = 0.45$) was significantly different with Dungun ($p = 0.000$), Marang ($p = 0.000$), and Besut ($p = 0.000$). Thus, there was no statistical support for H1b.

Table 5: Multiple comparisons

Area	Kuala Terengganu	Dungun	Marang	Besut	Hulu Terengganu	Setiu
Kemaman	0.157	0.174	0.179	0.725	0.999	1.000
Kuala Terengganu		0.000	0.000	0.000	0.056	0.166
Dungun			1.000	0.901	0.487	0.234
Marang				0.907	0.497	0.241
Besut					0.967	0.803
Hulu Terengganu						1.000

Note: the two groups compared are significantly different from one another at the $p < 0.05$ level

Kruskal-Wallis H

Table 6 indicates that there was an overall difference between competitive advantages with license category ($p = 0.000$) and experience as a contractor ($p = 0.010$). but there was no significant difference with the age group ($p = 0.680$). The greater significant difference was Class B ($M = 310.25$) because it had a highest mean rank compared to other classes, followed by Class C, Class D, Class A, Class E, and Class F. Experience of 6 to 10 years was a higher mean rank for being a contractor, followed by experience of more than 10 years, 1 to 5 years, and less than 1 year, whose mean ranks were $M = 211.05$; 174.64; 132.68, and 70.75 respectively. Age of 40 years old and above was the most suitable age for contractors that had competitive advantages because they had more experience on how to manage the business more effective and efficient. Consequently, there is statistical evidence to support H1c and H1d. However, there is no statistical evidence to support H1f.

Table 6: Analysis of differences between license categories, experience, age with competitive advantages

License Category	Mean Rank	Experience	Mean Rank	Age Group (Years)	Mean Rank
Class A	266.09	< 1 year	70.75	20 -24	120.50
Class B	310.25	1 - 5 years	132.68	25 - 29	134.73
Class C	272.58	6 - 10 years	211.05	30-34	181.13
Class D	268.77	> 10 years	174.64	35-39	181.71
Class E	263.41			> 40	175.44
Class F	130.14				
Sig. value	.000	Sig. value	.010	Sig. value	0.68

From the foregoing therefore, the following of hypotheses testing are displayed in Table 7.

Table 7: Summary of hypotheses result

	Hypotheses	Result
H1a	There is a significant difference between areas and competitive advantages	Supported
H1b	There is a significant difference between areas of business operation	Not supported
H1c	There is a significant difference between license categories and competitive advantages	Supported
H1d	There is a significant difference between experience level and competitive advantages	Supported
H1e	There is a significant difference between age and competitive advantages	Not supported
H2	There is a significant relationship between HRM and competitive advantages	Supported
H3	There is a significant relationship between finance and competitive advantages	Supported
H4	There is a significant relationship between technology and competitive advantages	Supported
H5	There is a significant relationship between government and competitive advantages	Marginal supported
H6	There is a significant relationship between suppliers and competitive advantages	Supported
H7	There is a significant relationship between new market entrance and competitive advantages	Not supported

CONCLUSION

Basically, the entire proposed objectives have been addressed. The first objective was to investigate the relationship between independent variables and competitive advantages of the contractors in Terengganu. The result showed that the factor that was identified as the most significant relationship to competitive advantages of the contractors was technology. This was similar to the early theory mentioned as well as some earlier findings which supported the notion that, with the technology application, it will eventually improve quality, speed of production, and cost reduction [22, 26].

Next, from the independent variables that have been analyzed, four out of six independent variables showed significant relationship with competitive advantages. However, there was moderately negative relationship between

suppliers and competitive advantages. The involvement of suppliers in projects was argued by many scholars [31]. In some cases, the suppliers and contractors were competing each other. Thus, not all suppliers were willing to collaborate with the contractors. In addressing the relationship between government and also new market entrance, both variables failed to support contractors in promoting competitive advantages. Government and new market entrance were the external factors that were beyond the control of contractors who were responsible for an activity but those had an effect on the success or failure of the activity.

In summary, the role of government was still crucial. The government was responsible to create an environment in terms of regulations, institutional structures, and policy initiatives in micro and macro economic levels to enable corporations in order to make economic decisions that can facilitate and enhance its productivity, provision of quality human resources, and provide the physical and communication infrastructures. All the above achievements provided a road map for continuously gaining competitive advantages in the industry. Having a more transparent "contract award" to the contractors will definitely make the industry more healthy.

In order to improve their competitive advantages, contractors are advised to focus on aspects of HRM included planning, organising, staffing, leading and controlling. Factors that are frequently considered as a part of the internal environment include the organisation mission statement, leadership styles, and its organisational culture. To maintain as contractors, they need financial strength to roll their capital if they face late compensation. The contractors must also consider the differentiation of its products in terms of price and quality compared to its competitors and developing strategies by appropriate configuration in terms of inbound and outbound logistics, marketing and sales, and the level of co-ordination, which meet the above objectives and contribute to competitive advantages particularly for corporations involved in international business and industries.

Based on the findings, 72.2% from the six independent variables were able to explain the relationship toward competitive advantages among contractors. Then, 27.8% from the six independents was unexplained. The other independents could be elements such as political actor, timeliness, and service quality. For further research, these variables can be added to get more information for explaining the competitive advantages. Political actors can be either individuals or temporal or functional coalitions of actors with common interests. Accordingly, the literature on political NPD project selection distinguishes between actors with product championing or similar roles [37]. In the definition of a product champion, implicit acknowledgement of organizational politics can be found in championing literature since championing roles are suggested to be related to hierarchy, autonomy, persuasion or cross-functional ties.

In some instances, in [38] highlighted that time is the most important measure of project performance success. This is supported by [39] who claimed that project delays have a significant implication on cost and quality. In [40] study in Thailand found that the blame for most project delays is laid on the contractors. In [41] conducted a literature survey on causes of a project delay where they claimed that 50% of the delays could be categorised as non-excusable delays why the contractors were responsible.

The fact that management commitment to service quality critically affects the excellence of the services delivered and the neglect in this area may lead to service failure. In order to assess objectively the initiatives relating to management commitment to service quality, in [42] has suggested that employee evaluations of such management initiatives are an appropriate tool to use. According to [43], when the management is committed to improve service quality, employees will be provided with more resources for training. Such training may enhance the skills of employees in dealing with unexpected work problems and their competence in making appropriate suggestions for decision-making.

The second objective was to investigate the influence of contractors profile towards competitive advantages. Thus, the result shows that there was significantly difference between area, license category and experience level among contractors toward competitive advantages. However, the age of contractors was not significantly difference towards competitive advantages. Thus, the further study should be done among contractors from other state in order to get the better scenarios and understanding of competitive advantages in construction industry.

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