

IDENTIFICATION OF COMMON PROBLEMS FACED BY THE BUMIPUTERA CONTRACTORS (CASE STUDY LOCATIONS: PERLIS AND PULAU PINANG)

by

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ABSTRACT

This paper identifies common problems faced by Bumiputera contractors in Perlis and Pulau Pinang. The data collections were used to explain level of the common problems by the contractors and the differences between contractor's demographic factors toward the common problems. The samples of study consist of 50 contractors in Perlis and Pulau Pinang whereby the data was collected using self-administered questionnaire and interview. One-way ANOVA method was applied in the data analysis. The results of the study will show the level of the common problems faced by Bumiputera contractors in Perlis and Pulau Pinang. It is shown in the study that the contractors in F class category tend to face more common problems compared with the contractors of other categories.

Some of the common problems identified in this study are unique problems which consist of the wrong project estimation, procedures, human resources, management and others problems. It is found that there was no difference in unique problems between the respondents years in the company. The ranking of the problems among the contractors can be also determined in this study. Eventhough bumiputera contractors problems in Perlis and Pulau Pinang are not so serious but it can bring negative effects to their company performance. The

findings of this study will be useful for contractors to evaluate the common problems faced by the Bumiputera contractors and can be used as future guidance. Lastly, this study also provides suggestions and recommendations for future research.

1. INTRODUCTION

Construction is a process whereby designers' plans and specifications are converted into physical structures and facilities. It involves the organization and coordination of all the resources for the project-labour, construction equipment, permanent and temporary materials, supplies and utilities, money, technology and methods, and time to complete the project on schedule, within budget, and according to the standards of quality and performance specified in the contract documents.

The contractors and subcontractors play the key roles at this stage. There are also some considerable inputs for inspection and interpretation from the architect or engineer. Supporting roles are played by suppliers of materials and equipment, consultants, shipping organizations, etc.

The main aim of this research was to elicit responses from Bumiputera contractors on their perception of a set criteria that are related to their general problems, needs, and expectations in the construction industry.

2. RESEARCH QUESTIONS

It is the aim of this paper to study the particular problems faced by Bumiputera contractors in Malaysia so that problems among Bumiputera contractors can be

identified and recommendations can be made with regard to the impacts of the problems as guidance to other researcher.

Therefore, the objectives of this research are:

- i. To identify the common problems faced by the Bumiputera contractors in Perlis and Pulau Pinang.
- ii. To determine the level of the problems among Bumiputera contractors.

3. LITERATURE REVIEW

A professional contractor should also have an understanding of his or her limitations. The client works with an architect and financier long before the first shovel of dirt is removed by a contractor. During the bidding process, a contractor may have to work with the building's architect to discuss potential problems with a design element. If the complexities of the building's design or the potential cost overruns threaten to overwhelm a contractor's skills, he or she needs to step back and allow other contractors to win the bid. A good contractor understands that the success of the project depends on his or her ability to hire the right independent subcontractors and follow the wishes of the client (Michael Pollick, 2006)

A contractor is someone who enters into a binding agreement to perform a certain service or provide a certain product in exchange for *valuable consideration*, monetary, goods, services, even barter arrangements. In the building trades, a contractor is one who is engaged in the construction or building related services for a client. The construction site is overseen by a "Prime", General, or Specialty contractor, who may perform the work with employees, *subcontractors* or any combination there of (Wikipedia, the free encyclopaedia © 2001-2006)

3.1 The Financial Limitation (Work Cost) for Civil Work Contractor

Table 3.1 shows the financial limitation for civil work contractors in Malaysia.

Table 3.1 : Class and Financial Limitation (Work Cost) for Civil Work Contractor (Source: Pusat Khidmat Kontraktor Malaysia), (PKK).

Class	Financial Limitation (RM)
A	Exceed RM 10,000,000
B	RM 5,000,001 to RM 10,000,000
C	RM 2,000,001 to RM 5,000,000
D	RM 500,001 to RM 2,000,000
E	RM 200,001 to RM 500,000
F	Until RM 200,000

Until December 2004, the total registration of Civil Works Contractor and the Electrical Works Contractor with PKK is 48,765.

Out of that number, 46,409 of Civil Work Contractors are with bumiputera status. A total number of 34,900 Bumiputera contractors were registered as F class contractors. The number of Contractors in Civil Work that registered with PKK under different classes between the year 2000 until 2004 are shown in Table 3.2 below.

In the year 2004, there were a total of 137 contractors that had been charged for penalties and disciplinary actions. Out of that numbers, 13 contractors were blacklisted and 124 contractors were barred or suspended from entering any bidding or tendering process. The actions were due to contractors problems

such as failing to make the necessary declaration of the company profiles or project when requested, false statements, refusing to proceed on price estimation or tender after being awarded with the project, subcontracting the whole contract to a third party contractor, etc. The number of the contractors who had been charged with penalties are shown in Figure 3.1

Table 3.2: The numbers of Contractor in Civil Work that registered by the following class for the year 2000 until 2004(Source:Pusat Khidmat Kontraktor Malaysia), (PKK).

CLASS	STATUS	2000	2001	2002	2003	2004
A	Bumiputera	488	734	959	1,041	1,058
	Non - Bumiputera	522	507	568	591	607
B	Bumiputera	327	471	651	1,225	1,122
	Non - Bumiputera	328	353	411	670	770
BX	Bumiputera	557	754	883	27	-
	Non - Bumiputera	447	443	503	283	-
C	Bumiputera	317	392	464	1,063	1,021
	Non - Bumiputera	284	265	281	438	620
D	Bumiputera	2,160	2,588	3,071	3,250	3,277
	Non - Bumiputera	1,363	1,429	1,504	1,571	1,715
E	Bumiputera	246	285	307	526	633
	Non - Bumiputera	337	339	344	519	672
EX	Bumiputera	87	84	97	20	1
	Non - Bumiputera	374	371	395	192	12
F	Bumiputera	16,394	18,394	25,137	31,314	34,900
	Non - Bumiputera	-	-	-	-	-
Total	Bumiputera	20,576	24,242	31,569	38,466	42,012
	Non - Bumiputera	3,655	37,078	4,006	4,264	4,396

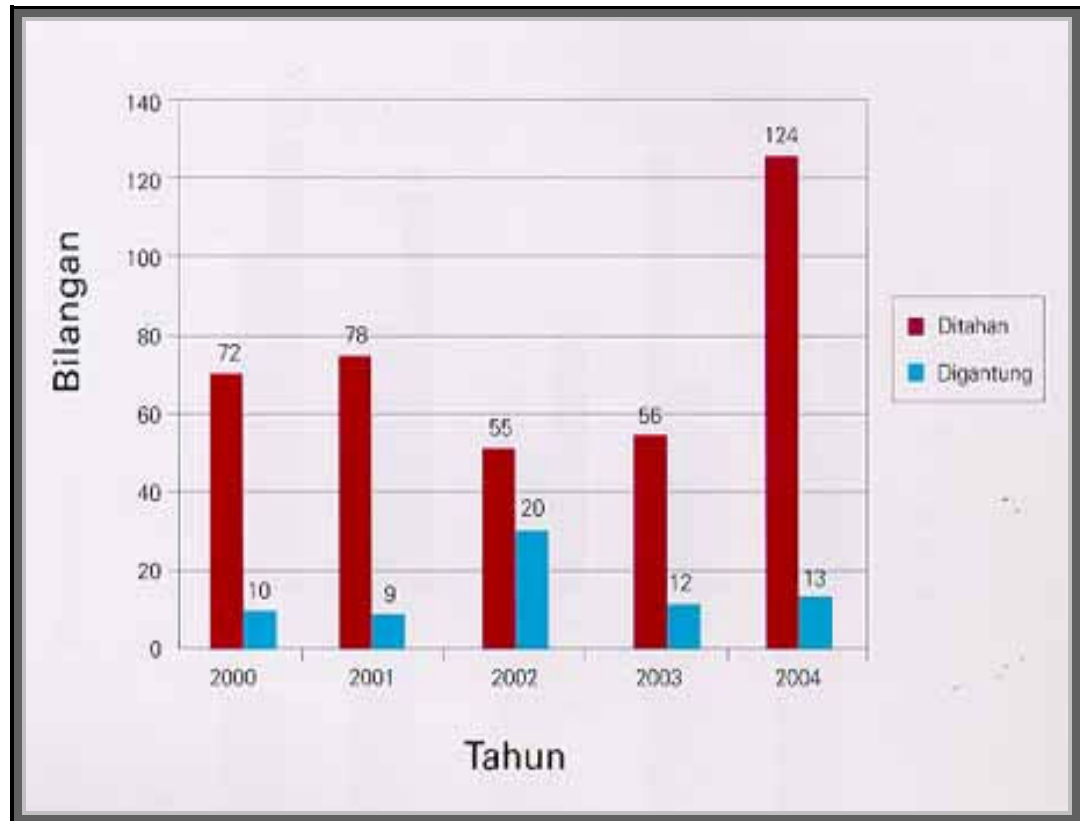


Figure 3.1: The number of the contractors had been charged with penalties from the year 2000 until 2004 (Source:Pusat Khidmat Kontraktor Malaysia (PKK)).

Some common types of problem faced by bumiputera contractors in Malaysia construction industry are shown as follows:

- i. Lack of expertise and experiences
- ii. Over-optimistic estimation in tender bids
- iv. Material price escalation
- v. Financial Problems
- vi. Materials supply networking
- vii. Lack of skilled workers
- viii. Lack of construction materials and machineries
- ix. Inefficient and ineffective planning and management
- x. Communication problems

(Abdul Rahman, 2006)

4.0 RESEARCH METHODOLOGY

4.1 First Stage (*Research design*)

First stages will involve studying and understanding of the topic area and to identify scope and objective of research proposal. This study uses a cross-sectional study design. Cross-sectional design involves the collection of data from any given sample of population elements only once (Malhotra, 1996).

This study also employs the survey method by using questionnaire. Self-administered questionnaire was selected as the means to data collection. The unit of analysis for this study was single contractor companies in Pulau Pinang and Perlis. The questionnaires were distributed by the researcher to the contractor companies in Pulau Pinang and Perlis.

4.2 Second Stage (*Data Collection Procedure*)

This stage is to identify project data and to conduct study for further details of the research.

The sources of data are classified into two categories :

i. Prime sources

Prime sources provide original data and latest information for the research. A total number of 50 questionnaires were distributed to the respondents. The respondents consist of personnel in management level such as CEO, owner, managing director, engineer, supervisor, quantity surveyor and others.

ii. Secondary sources

Secondary sources are:

- a. Magazine and newspaper cutting.
- b. Printed sources such as books, journals, internet, worksheet, thesis and case studies.

4.3 Third Stage (Study Population and Sample)

The population for this study is the contractors in Pulau Pinang, and Perlis. The sampling frame is obtained from the directory of Pusat Khidmat Kontraktor Malaysia, (PKK) and the Construction Industry Development Board Malaysia (CIDB) directory (2005-2006). The directory contains the list of Bumiputera contractors in Pulau Pinang and Perlis which is divided into 6 classes based on the project limit. Those classes are A Class, B Class, C Class and D Class, E Class, and F Class. Sampling design method used in this study is stratified random sampling. This sampling design, which is the most efficient, is a good choice when differentiated information is needed regarding various strata within the population which are known to differ in their parameters (Cavana *et.al*, 2001).

4.4 Fourth Stage (Pilot Test)

The questionnaire was tested with 10 contractors from each class of C class, E class and F class in Pulau Pinang to ensure the reliability and validity of the questionnaire. According to Burns and Bush (1998), a pre-test of 5 to 10 representative participants is usually sufficient to validate the questionnaire. The participants were asked to evaluate the questionnaire to clarify any ambiguous questions. Then, from the feedback of the pilot test, the questionnaire was later redesigned.

4.5 Fifth Stage (Data Analysis)

Data was analyzed using **SPSS version 12.0** and several statistical tools were employed. These include reliability analysis and descriptive analysis.

4.6 Six Stage (Descriptive Analysis)

Descriptive analysis was conducted to describe and to interpret the data. The descriptive analysis used in this study was the frequency analysis to examine the respondents' demographic factors, central tendency and dispersion .

5.0 DATA ANALYSIS AND RESULTS

5.1 Descriptive Analyses of the Respondents

Two analyses of the respondents, frequency analyses and central tendency and dispersion for the demographic factors were performed to investigate the frequency, mean and variance of the demographic factors and variables.

Majority of respondents in this study are from F class with the total of 24 %, followed by A class and C class with the total of 22 %. The fourth number of respondents in this study is B class which is 14 %. The fifth class is D class with the total of 10 % and the least class of respondents is in E class with the total of 8 %.

5.2 Contractors By Location

The majority of respondents in this study are from the Perlis with a total of 52 %. The following respondents are in Pulau Pinang with a total of 48 %.

5.3 Number of Years Respondents Joining the Company

The purpose of this study is to measure the frequency of the respondents joining the company in years. From the data analysis, the majority of the respondents' years of joining the company are between 4 years to 6 years with the total of 30 %, followed by between 2 to 4 years with a total of 28, between 6 years to 8 years is 16 % and lastly more than 10 years and less than 8 years are 14% and 12%.

5.4 The Respondents Experience (in Years)

This study also measures the frequency of the respondents based on their working experiences in years . Majority of the respondents experience in years is between 4 years to 6 years with a total of 32 %, followed by between 2 years to 4 years at 24 %, more than 10 years at 20 % and lastly between 6 years to 8 years and 8 years to 10 years at 10 % each.

5.5 The Respondents Position in the Company

This study is to measure the frequency of the respondents based on their position in the company. Majority of the respondents were Managing Director at 44 %, followed by Administrator at 18 % and Site Engineer at 6%.

5.6 Central Tendency and Dispersion

Table 5.3 displays the central tendency and dispersion of the variables. The central tendencies and dispersion of variables were used to observe the response of the respondents for all the variables involved in this research. Descriptive statistics such as maximum, minimum, means, standard deviations, and variance were obtained for the demographic factors.

5.6.1 The Impact Due to the Problems In Construction Project

The respondents who gave the answer (YES) were at higher percentage of 80% while respondents with the answer (NO) at 20%.

5.6.2 Degree of Satisfaction with the Implementation of Construction Project

Figure 5.7 below shows the percentage of the contractors satisfied or agreed with the implementation of construction project nowadays. The respondents who gave the answer (YES) were at higher percentage of 70% while percentage of respondents who gave the answer (NO) was at 30%.

Table 5.3: Central Tendency and Dispersion of the Variables.

	CONTRACTOR CLASS	IMPACT DUE TO THE PROJECT	SATISFIED WITH THE PROJECT IMPLEMENTATION	SEC. B1	SEC. B2
N	Valid	50	50	50	50
	Missing	0	0	0	0
Mean		3.40	1.20	1.30	3.06
Median		3.00	1.00	1.00	3.00
Mode		6	1	1	3
Std. Deviation		1.874	.404	.463	.652
Minimum		1	1	1	2
Maximum		6	2	2	5

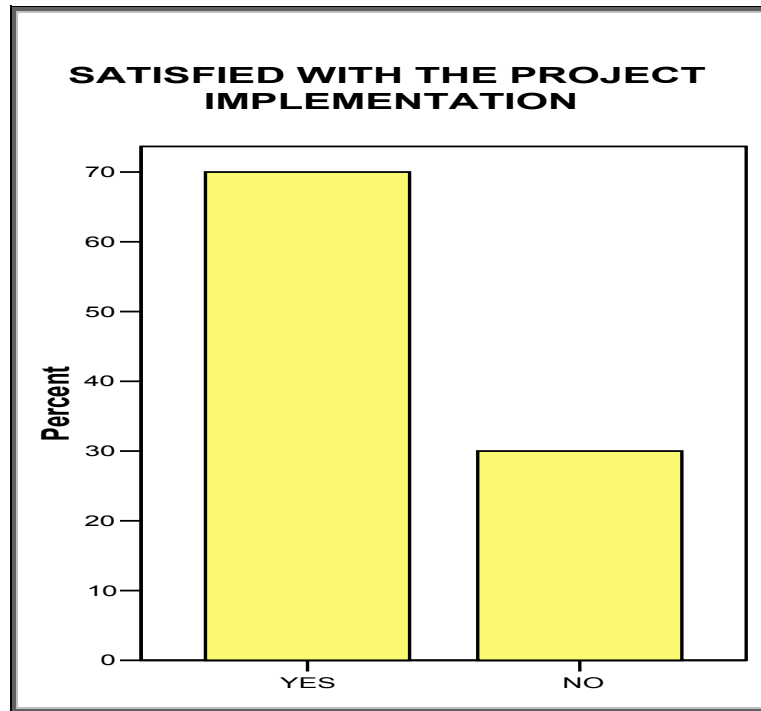


Figure 5.7: Percentage of the Contractors Satisfied or Agreed with the Implementation Status of Construction Project Nowadays.

5.6.3 Rate of Satisfaction On Solution To The Common Problems

Figure 4.8 below shows the percentage of the rate of satisfaction towards the solutions of common problems in construction projects. The majority of the respondents gave answer (Average) at 64% while the least percentage at 2% was answering (Poor).

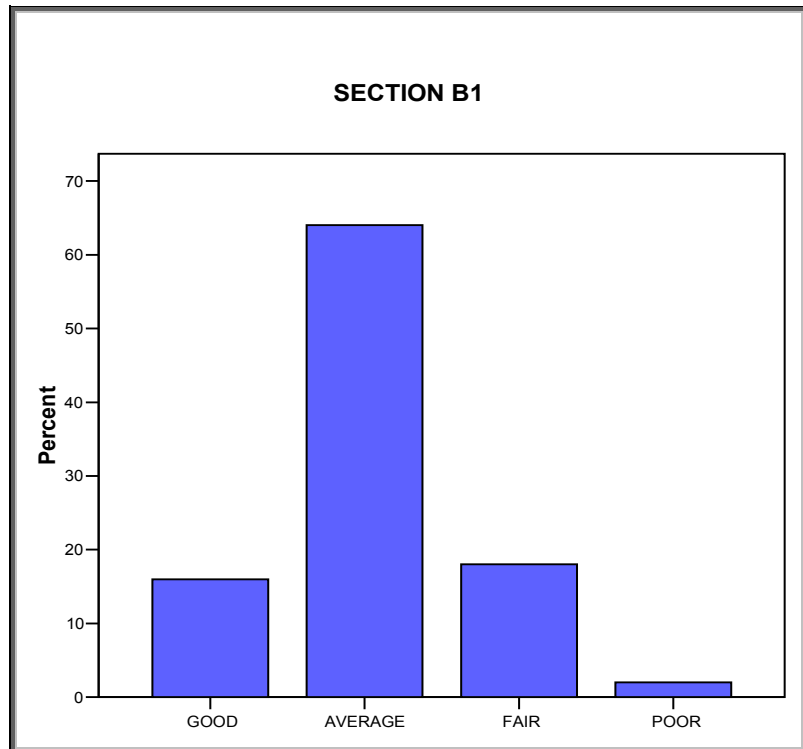


Figure 4.8: Satisfaction rate towards solution of common problems in construction project

5.6.4 Satisfaction Rate On The Volume of the Construction Project

Figure 4.9 shows the satisfaction rate on the volume of the construction project implemented in Malaysia. Most of the respondents gave the answer (Average) at 44%, followed by the answer (Fair) at 30% and the least percentage at 2% answered (Excellent).

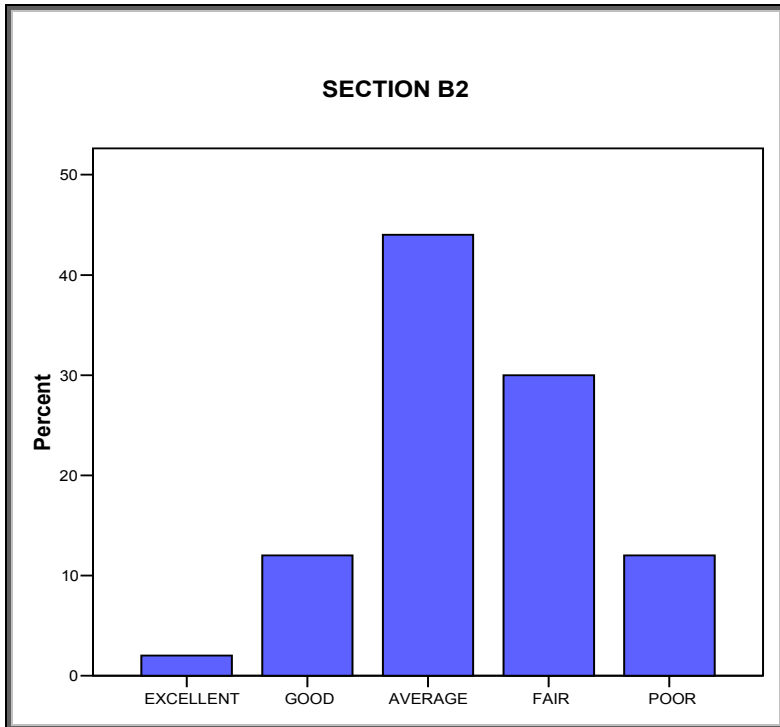


Figure 4.9: Percentage of Satisfaction On the Volume of the Construction Project in Malaysia.

5.8 Common Problems Affecting The Construction Project.

Table 5.5 until table 5.10 show the statistics on the existence of common problems among the bumiputera contractors in Pulau Pinang and Perlis.

Table 5.5: Financial Problems.

		FINANCIAL PROBLEM		Total
		NO	YES	
CONTRACTOR CLASS	A	52.9%	6.1%	22.0%
	B	17.6%	12.1%	14.0%
	C	11.8%	27.3%	22.0%
	D	17.6%	6.1%	10.0%
	E	-	12.1%	8.0%
	F	-	36.4%	24.0%
Total		100.0%	100.0%	100.0%

Table 5.6: Bias During Tender Process

		BIAS DURING TENDER PROCESS		Total
		NO	YES	
CONTRACTOR CLASS	A	40.9%	7.1%	22.0%
	B	27.3%	3.6%	14.0%
	C	22.7%	21.4%	22.0%
	D	4.5%	14.3%	10.0%
	E	-	14.3%	8.0%
	F	4.5%	39.3%	24.0%
Total		100.0%	100.0%	100.0%

Table 5.7: Insufficient Raw Materials By Location.

LOCATION			INSUFFICIENT RAW MATERIALS		Total
			NO	YES	
PERLIS	CONTRACTOR CLASS	A	6.3%	30.0%	15.4%
		B	6.3%	20.0%	11.5%
		C	37.5%	30.0%	34.6%
		D	-	20.0%	7.7%
		E	25.0%	-	15.4%
		F	25.0%	-	15.4%
	Total		100.0%	100.0%	100.0%
PULAU PINANG	CONTRACTOR CLASS	A	53.8%	-	29.2%
		B	15.4%	18.2%	16.7%
		C	7.7%	9.1%	8.3%
		D	15.4%	9.1%	12.5%
		F	7.7%	63.6%	33.3%
	Total		100.0%	100.0%	100.0%

Table 5.8: Lack Of Experiences Problem.

		LACK OF EXPERIENCES IN HANDLING PROJECT		Total
		NO	YES	
CONTRACTOR CLASS	A	34.4%	-	22.0%
	B	12.5%	16.7%	14.0%
	C	21.9%	22.2%	22.0%
	D	6.3%	16.7%	10.0%
	E	6.3%	11.1%	8.0%
	F	18.8%	33.3%	24.0%
	Total		100.0%	100.0%

Table 5.9: Out-Dated Technology Problem

		OUT-DATED TECHNOLOGY		Total
		NO	YES	
CONTRACTOR CLASS	A	20.8%	50.0%	22.0%
	B	14.6%	-	14.0%
	C	22.9%	-	22.0%
	D	10.4%	-	10.0%
	E	8.3%	-	8.0%
	F	22.9%	50.0%	24.0%
Total		100.0%	100.0%	100.0%

Table 5.10: Other Typical Problems

		OTHER TYPICAL PROBLEMS					Total
		WRONG ESTIMATION	PROCEDURE	HUMAN RESOURCES	MANAGEMENT	Others	
CLASS	A	-	22.2%	62.5%	-	50.0%	22.0%
	B	-	5.6%	25.0%	50.0%	25.0%	14.0%
	C	35.7%	16.7%	12.5%	16.7%	25.0%	22.0%
	D	7.1%	16.7%	-	16.7%	-	10.0%
	E	14.3%	11.1%	-	-	-	8.0%
	F	42.9%	27.8%	-	16.7%	-	24.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

5.9 The Summaries Of Other Typical Problems Of Bumiputra’s Contractors

Attachment 1 shows the summaries of the other typical problems among bumiputera’s contractors .

5.10 Inferential Analysis

Inferential analysis was used to analyze the hypothesis and to explain the variance of variables. The one-way ANOVA test was used to find the differences for hypothesis one (H1) and hypothesis two (H2).

5.11 Differences Analysis

5.11.1 Hypothesis One (H1)

H1: The level of unique problems is different between the contractors’ classes.

Table 5.12 below show one-way ANOVA test was used to examine whether there was any differences between contactors’ classes and their other typical problems. The table shows that there are some differences between the overall contractors’

classes and typical problems at $F = 5.129$ and $p < 0.05$. However, Post-Test (LSD) was carried out to find differences between groups. According to Table 4.13, LSD test showed that there was a significant difference between A class, B class, C class, D class, E class and F class in mean of financial problems at mean difference equal to -1.33, -1.905, -1.481, -1.371, -2.071, -1.905 and $p < 0.05$. Therefore, hypothesis H1 is accepted.

Table 5.12: One-way ANOVA for the Difference between Contractors' Classes and Typical Problems.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24.430	5	4.886	4.208	.003
Within Groups	51.090	44	1.161		
Total	75.520	49			

5.11.2 Hypothesis Two (H2)

H2: The level of unique problems is different between the number of years respondents joining the company (in Year).

Table 5.14 below shows the result of One-way ANOVA to test the differences between the respondents joined the company (in Year) and unique problems. There was not significant difference the respondents joined the company (in Year) and unique problems at $F = 0.732$ and $p > 0.05$. Therefore, H2 is rejected.

Table 5.14: One-way ANOVA for the Respondents joined the Company (in Year) and Unique Problems

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.673	4	2.418	1.732	.160
Within Groups	62.827	45	1.396		
Total	72.500	49			

5.12 Overall Result of the Findings

Table 5.15 below summarizes the overall result of the findings. From the table, H1 was accepted and H2 were rejected.

Table 5.15: Summary of the Findings

HYPOTHESIS STATEMENTS	TEST	RESULT
H1: The level of unique problems is different between the contractors' classes.	One-way ANOVA	Accepted
H2: The level of unique problems is different between the respondents joined the company (in Year).	One-way ANOVA	Rejected

6.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In summary, this study was undertaken to seek answers to two main research questions: (i) what are the common problems faced by the Bumiputera contractors in Perlis and Pulau Pinang? (ii) what is the level of the problems among the Bumiputera contractors?.

Responding to the first research question, this study found that contractors in Perlis and Pulau Pinang were actually facing common problems in their constructions project. The common problems highlighted in this study are financial problems, bias during tendering processes, insufficient raw materials, lack of an experiences in handling projects, wrong project estimation and some other typical problems.

However, with standard deviation of 1.216, it indicates that statistically the variation of the common problems among contractors in Perlis and Pulau Pinang is quite high.

While the first research question addressed the level of common problems among contractors in Perlis and Pulau Pinang, the findings indicate that the level of unique problems among contractors for different class is also significantly different. However, there were no significant different between the number of years respondents joining the company .

Based on the study, the contractors in Perlis and Pulau Pinang are faced with common problems such as financial problems, bias during tender process, insufficient raw materials, lack of experiences in handling project, out-dated

technology and some other typical common problems. In conclusion, it can be said that the majority of contractors in Perlis and Pulau Pinang are faced with one or more common problems in construction industry.

The study also shows that the majority of contractors with financial problems are from the contractor F class with the total of 36.4%. From observation, most of the contractors with financial problems are the new F class contractors below 4 years or work experiences. Data analysis on the second common problem which is bias during tender process also indicate majority of the contractors that select (Yes) are from the F class contractors with the total of 39.3% and the least are from contractors B class with the total of 3.6%. The data analysis on the other common problems are shown in Table 4.3 until Table 4.10

It can also be shown in the study that the financial problems with a total of 66 % is considered as the most significant common problem faced by the bumiputera contractors in the Northern Region. Second most common problem is bias during tender process at 56 %, followed by insufficient supply of raw materials at 42 %, lack of experiences at 36 %, and lastly out-dated technology with a total of 4 % respondents. It is recommended that some further studies need to be conducted on ways to mitigate the common problems among bumiputera contractors so that any project failure will no longer be associated or synonym with bumiputera contractors.

According to a New Strait Times report on February 6th. 2007, Malaysia Prime Minister was reported to have said “ *It should become our practice that once we notice something is not right with a project, we act immediately to overcome the*

problem and prevent the project from being a flop. Follow-up and inspection are important but follow-up actions must always be there.” He further added “ Actually, what is needed is effective distribution of work flow. There must be improvement in the way we do things so that we can finish our jobs, fast and efficiently.”

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