# CHAPTER 4

# RESEARCH RESULTS

This chapter presents results of the analysis of data collected from the survey questionnaires. The data collected was also analysed for its frequency as well as to check for any missing items. Later, several analyses were performed accordingly.

#### 4.1 Reliability and Validity analysis

The data collected was analysed for its reliability and the results obtained is shown in TABLE 2, below.



## TABLE 2

Based on Cronbach, Alpha = 0.6051 shows that there is internal consistency in the scale chosen for the questionnaires. The Alpha value seems to be in the lower range as an acceptable strong value should be in the range of 0.8 and above. However, this value is acceptable and adequate for this study, since the survey was conducted mainly among companies located in the

Klang Valley which are of various types, including timber based, plastic, textile and chemical industries.

Data validity was tested via e-mail with responses from less than 10 respondents. The results show some consistency in the questions answered by these respondents. Furthermore these questions were adapted from previous research papers that were proven to be acceptable.

#### 4.2 Frequency Analysis on the Data collected

The data collected from 89 respondents was first analysed for its frequency. The results of the frequency analysis are as follows;

#### 4.2.1 Price

The respondents have been asked to respond to the negative approach questions of the questionnaires. The questions were set in such away, to provide greater impact on respondents who answered in the defensive mode. On the other hand, if we were analysing the responses from the respondents, it seems that most of the respondents are concerned with price in their buying decisions. In item 1 of TABLE 3 for example show that 43.8% of respondents agree and are willing to go all out to obtain low prices prior to making a decision. Similarly for item 2, a reverse score of 62.9% of respondents agreed to shop more looking for low prices.

Other variables also show that respondents are very willing to spend more time looking for low prices, with score of 49.4%.

Overall, the respondents agree and strongly agree that the company should make extra effort, shop more, spend some time and think of saving money to look for low prices prior to making a buying decision.

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## TABLE 3

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	Not willing to go to extra effort to find low prices	4 4.5%	1 1.1%	9 10.1%	39 43.8%	36 40.4%	4.15	89 100%
2	Would never shop more than one supplier to find low prices	5 5.6%	8 9.0%	9 10.1%	56 62.9%	11 12.4%	3.67	89 100%
3	The time it takes to find low prices is usually not worth the effort	2 2.2%	1 1.1%	4 4.5%	38 42.7%	44 49.4%	4.36	89 100%
4	The money saved by finding low prices is usually not worth the time and effort	12 13.5%	7 7.9%	20 22.5%	31 34.8%	19 21.3%	3.43	89 100%

## FREQUENCIES OF RESPONDENTS - RELATED TO PRICE

## 4.2.2 Transaction Value

In TABLE 4, the results provide some indication that respondents prefer to deal with suppliers that offer products or services in packages of "buy one, get one free" (supplier 2's deal) rather than reduced price (supplier 1's deal.

The scores for items 1 and 3 of TABLE 4, shows that the majority of the respondents are not agreeable to greater cost saving (reduced price) when dealing between two suppliers related to economic transaction values. This is also consistent with items 2 and 4 that show the respondents agree with bargaining to reduce suppliers' prices. As mentioned above, transaction values could include the functions,

performances, economics (types of promotions) being offered by suppliers. The results also match with a study conducted previously by Sinha and Smith (2000).

## TABLE 4

# FREQUENCIES OF RESPONDENTS - RELATED TO TRANSACTION

No.	Variables	Strongly Agree	Agree	Neutral	Dis-agree	Strongly Disagree	Mean	Total
1	We would end up getting greater savings from Supplier 1's deal than Supplier 2's deal	0 0%	10 11.2%	28 31.5%	30 33.7%	21 23.6%	3.70	89 100 %
2	Compared to Supplier 2's deal, Supplier 1's deal would reduce the price we have to pay	3 3.4%	36 40.4%	41 46.1%	7 7.9%	2 2.2%	2.65	89 100 %
3	Supplier 1's deal would save us more money than Supplier 2's deal	0 0%	12 13.5%	39 43.8%	24 27%	14 15.7%	3.45	89 100 %
4	Supplier 1's deal appears to us to be a better bargain than Supplier 2's deal.	8 9.0%	33 37.1%	42 47.2%	5 5.6%	1 1.1%	2.53	89 100 %

VALUE

## 4.2.3 Repeat Purchase (Loyalty)

In TABLE 4A, a majority of the respondents (66.3%) are very concerned with products or services provided that they will work best, require low maintenance cost and is easy to operate. There is some indication that most respondents do not bother much about the brand other companies are buying. This is shown in item 2 of TABLE 4 by the survey scores between agree, neutral and disagree.

In TABLE 4A, items 3, 4 and 5 are basically questions tailored to the after sales services provided by suppliers. Items 3 and 5 score about 40% agreeing that the supplier should handle problems immediately and provide replacement or rework for unsatisfactory products or services. Whereas item 4, respondents mostly did not agree to keep unsatisfactory products and just complain to the suppliers.

The results obtained, are consistent with the response of suppliers to complaint when it occurs in the previous study conducted by Hansen, Swan and Powers (1996).

	1	r	T			1	r	r
No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	Buy the brand which works with best - low maintenance cost and ease of operations	59 66.3%	19 21.3%	6 6.7%	1 1.1%	4 4.5%	1.56	89 100 %
2	Buy the same brand that other companies buy	5 5.6%	24 27.0%	47 52.8%	9 10.1	4 4.5%	2.81	89 100 %
3	After sales Technical support services - Supplier immediately takes care of the problem	2 2.2%	41 46.1%	26 29.2%	17 19.1%	3 3.4%	2.75	89 100 %

## TABLE 4A

## FREQUENCIES OF RESPONDENTS - RELATED TO REPEAT PURCHASE

#### Cont. Table 4A

		1					1	
No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
4	After sales Technical support services - Kept the product, but complained to supplier	6 6.7%	20 22.5%	20 22.5%	28 31.5%	15 16.9%	3.29	89 100 %
5	After sales Technical support services - Returned product for replacement or rework unsatisfactory material and charge supplier cost of rework	35 39.3%	36 40.4%	10 11.2%	6 6.7%	2 2.2%	1.92	89 100 %

## 4.2.4 Customer – Supplier Relationship

Questions in TABLE 4B are set to gauge the customer-supplier relationship that could also influence the buying decision of the buying centre. Generally, respondents scored higher between agree and neutral scales, except for the last item. For Item 8 respondents respond between the neutral and disagree scales. In item 7, if we were to reinstate in the reverse statement, the respondents would agree to leave these suppliers in the coming year provided they are maintaining good record and reputation.

The results also show indications that a good buyer - relationship should exist in order for the respective supplier to still be maintained; suppliers are provided with referrals by buyers if required and recommendations to other buyers.

## TABLE 4B

## FREQUENCIES OF RESPONDENTS – RELATED TO CUSTOMER – SUPPLIER RELATIONSHIP

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	Customer – Supplier relationship - If our supplier salesperson asks us for the names of other prospective business customers, we would be happy to provide them	8 9.0%	26 29.2%	49 55.1%	4 4.5%	2 2.2%	2.62	89 100%
2	Customer – Supplier relationship - We would not have a problem giving referrals to our supplier salesperson.	1 1.1%	21 23.6%	37 41.6%	20 22.5%	10 11.2%	3.19	89 100%
3	Customer – Supplier relationship - We would provide referrals to our supplier salesperson if he/she asked for them	7 7.9%	69 77.5%	8 9.0%	5 5.6%	0 0%	2.12	89 100%
4	Customer – Supplier relationship – If asked, we would definitely recommend our supplier salesperson to any business needing the service he/she sells	3 3.4%	18 20.2%	42 47.2%	22 24.7%	4	3.07	89 100%

# Cont. Table 4B

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
5	Customer – Supplier relationship - If someone asked us to suggest a long distance service for their business, we would suggest they talk with our supplier salesperson	8 9.0%	45 50.6%	29 32.6%	7 7.9%	0 0%	2.39	89 100%
6	Customer – Supplier relationship - It is very likely that our firm will drop supplier(s) as our long- distance carrier during the next year	0	10 11.2%	50 56.2%	24 27%	5 5.6%	3.27	89 100%
7	Customer – Supplier relationship - In the next year, we do not anticipate that our firm will stop doing business with those suppliers	10 11.2%	14 15.7%	48 53.9%	15 16.9%	2 2.2%	2.83	89 100%
8	Customer – Supplier relationship - There is virtually no chance that our firm will leave this supplier(s) during the coming year	1	5 5.6%	23 25.8%	51 57.3%	9 10.1%	3.70	89 100%

## 4.2.5 Market Orientation - Trust

The element of trust is one of the most important features that should exist in a buyer and supplier relationship. Ganesan (1994) argues that within the marketing context, there exist at least two elements of these features; such as credibility and benevolence. In TABLE 5, there are 7 statements on credibility and 5 on benevolence requested to be responded. The results show that most of the scores lean towards 'agree' and 'neutral' scales with reverse score for items 4, 11 and 12.

TABLE 5 FREQUENCIES OF RESPONDENTS – RELATED TO TRUST

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	The supplier has been frank in	18 20.2%	61 68.5%	10 11.2%	0	0%	1.91	89 100%
	dealing with us							
2	Promises made by this supplier	2	39	35	11	2	2.69	89
	are reliable	2.2%	43.8%	39.3%	12.4%	2.2%		100%
3	This supplier is	55	30	4	0	0	1.43	89
	knowledgeable about the product	61.8%	33.7%	4.5%	0%	0%		100%
4	This supplier has	0	2	36	39	12	3.69	89
	problems understanding our position	0%	2.2%	40.4%	43.8%	13.5%		100%
5	This supplier has	5	17	59	8	0	2.79	89
	made sacrifices for us in the past.	5.6%	19.1%	66.3%	9%	0%		100%
6	This supplier	2	37	42	7	1	3.15	89
	cares for our welfare	2.2%	41.6%	47.2%	7.9%	1.1%		100%
7	In times of	0	14	50	23	2	2.64	89
	shortage, this supplier has gone out on a limb for me.	0%	15.7%	56.2%	25.8%	2.2%		100%

Cont. Table 5

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
8	This supplier is like a friend	12 13.5%	36 40.4%	21 23.6%	13 14.6%	7 7.9%	2.63	89 100%
9	We feel this supplier has been on our side	12 13.5%	55 61.8%	19 21.3%	2 2.2%	1 1.1%	2.16	89 100%
10	This supplier does not make false claims	18 20.2%	49 55.1%	19 21.3%	3 3.4%	0 0%	2.08	89 100%
11	This distributor is not open in dealing with us.	0 0%	8 9.0%	48 53.9%	25 28.1%	8 9%	3.37	89 100%
12	This supplier has problems answering our questions	4 4.5%	9 10.1%	36 40.4%	31 34.8%	9 10.1%	3.36	89 100%

## 4.2.6 Market Orientation – Cooperative Norm

In TABLE 6, most of the scores are in the range of Strongly Agree to Neutral scales. The results indicate that most of the respondents agree with statements related to cooperative norm provided in the survey. The results are also in line with Canon and Pearreault (1994) who believe that buyers and sellers should work together jointly to achieve mutual and individual goals.

## TABLE 6

# FREQUENCIES OF RESPONDENTS – RELATED TO COOPERATIVE NORM

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	No matter who is at fault, problems are joint responsibilities.	28 31.5%	22 24.7%	21 23.6%	11 12.4%	7 7.9%	2.40	89 100%
No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
2	Both sides are concerned about the other's profitability	18 20.2%	34 38.2%	21 23.6%	9 10.1%	7 7.9%	2.47	89 100%
3	One party will not take advantage of a strong bargaining position.	37 41.6%	39 43.8%	10 11.2%	3 3.4%	0 0%	1.76	89 100%
4	Both sides are willing to make cooperative changes.	11 12.4%	45 50.6%	25 28.1%	6 6.7%	2 2.2%	2.36	89 100%
5	We must work together to be successful.	33 37.1%	45 50.6%	7 7.9%	3 3.4%	1 1.1%	1.81	89 100%
6	We do not mind owing each other favors.	7 7.9%	43 48.3%	25 28.1%	11 12.4%	3 3.4%	2.55	89 100%

## 4.2.7 Market Orientation - Satisfaction

Most of the respondents agree that they are quite satisfied with the relationship they have with their suppliers. In item 1 TABLE 7, the scores of the respondents tend towards the disagree scale. However, this will be on the agree scale if the question of Item 1 is reversed.

## TABLE 7

## FREQUENCIES OF RESPONDENTS - RELATED TO SATISFACTION

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	The relationship of our company with this supplier has been an unhappy one	1 1.1%	6 6.7%	20 22.5%	51 57.3%	11 12.4%	3.73	89 100%
2	Generally, our company is very satisfied with its overall relationship with this supplier	8 9.0%	48 53.9%	22 24.7%	7 7.9%	4 4.5%	2.45	89 100%
3	Our company is very pleased with its working relationship with this Supplier	24 27.0%	58 65.2%	6 6.7%	1 1.1%	0	1.82	89 100%

### 4.2.8 Market Orientation - Commitment

The questionnaires were adapted from Anderson and Weitz (1992) which comprised of five statements designed to determine the relationship between one company towards another. In this study these questions were then adapted to determine the commitment relationship between buyers and suppliers.

The results are shown in TABLE 8. Most of the respondents scores are between agree and neutral scales. This means that the respondents response are consistent with the study of Anderson and Weitz that commitment can be grouped into three facets; "desire to develop a stable relationship, a willingness to make short term sacrifices to maintain the relationship and a confidence in the stability in the relationship".

## TABLE 8

## FREQUENCIES OF RESPONDENTS - RELATED TO COMMITMENT

No.	Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Total
1	We defend this supplier when outsiders criticize that company	1 1.1%	25 28.1%	58 65.2%	5 5.6%	0 0%	2.75	89 100%
2	We are continually on the lookout for another supplier to replace or to add in this supplier's territory	14 15.7%	44 49.4%	21 23.6%	7 7.9%	3 3.4%	2.34	89 100%
3	If another supplier offered us better coverage, we would most certainly take them on, even if it meant dropping this supplier.	10 11.2%	30 33.7%	28 31.5%	14 15.7%	7 7.9%	2.75	89 100% VAV W
4	We are patient with this supplier when they make mistake that cause us trouble	16 18.0%	47 52.8%	24 27.0%	2 2.2%	0	2.13	89 100%
5	We are willing to dedicate whatever people and resources it takes to grow sales for this supplier	1 1.1%	10 11.2%	50 56.2%	17 19.1%	11 12.4%	3.30	89 100%

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#### 4.2.9 Respondent And Company Demographics

The distribution of respondents' years of working experience scores high between seven to twelve years with percentage of 39.3%. Next is followed by working experience between thirteen to sixteen years with percentage score of 32.6%. Refer to Table 9 A.

The score for the respondents' education level is highest in the college level. The results show that most of the respondents have an average education level between diploma and first degree level. This could also affect the decision of the buying centre. Refer to Table 9 B.

In TABLE 9 C, the results show that managers score highest with percentage of 36% and followed by purchasing agent with percentage of 29.2%. These indicate that most of the buying decisions of the buying centre may be influenced by these personnel holding the position of managers and purchasing agents such as buyers.

In TABLE 9 D, the respondents score highest for knowing the supplier between one to two years (41.6%) and followed by respondents knowing the supplier between 2 to 4 years (28.1%).

The background of the company where the respondents are working, is shown in TABLE 9 E and F. The companies have a number of employees between six to one hundred with company's annual revenue of one to twenty million.

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## TABLE 9

# FREQUENCIES OF RESPONDENTS' DEMOGRAPHICS

Years of Experience	Frequency	Percent	Cumulative Percent
0-6 year	17	19.1	19.1
7-12 year	35	39.3	58.4
13-16 year	29	32.6	91.0
17 year	8	9.0	100.0
Total	89	100.0	

# A. Respondents' Purchasing Experience

# B. Respondents' Education Level

Education Level	Frequency	Percent	Cumulative Percent
High School	16	18.0	18.0
College	58	65.2	83.1
Masters	11	12.4	95.5
Special Training	4	4.5	100.0
Total	89	100.0	

# C. Respondents' Job Title

Job Title	Frequency	Percent	Cumulative Percent
Owner/president	8	9.0	9.0
Vice-president	4	4.5	13.5
Manager	32	36.0	49.4
Purchasing agent	26	29.2	78.7
Staff	19	1.3	00.0
Total	89	100.0	

Duration	Frequency	Percent	Cumulative Percent
0-6 months	1	1.1	1.1
7-12 months	11	12.4	13.5
13-22 months	37	41.6	55.1
2-4 years	25	28.1	83.1
5-8 years	9	10.1	93.3
9 year and over	6	6.7	100.0
Total	89	100.0	

# D. Respondents' Know the Suppliers

# E. Number of Employees

Number	Frequency	Percent	Cumulative Percent
0-5	6	6.7	6.7
6-25	21	23.6	30.3
26-50	37	41.6	71.9
51-100	20	22.5	94.4
Over 1000	5	5.6	100.0
Total	89	100.0	

## F. Company Revenue

Revenue	Frequency	Percent	Cumulative Percent
<rm1 mill<="" td=""><td>6</td><td>6.7</td><td>6.7</td></rm1>	6	6.7	6.7
RM1 mill - RM10 mill	38	42.7	49.4
RM11 mill - RM20 mill	22	24.7	74.2
RM21 mill - RM50 mill	16	18.0	92.1
RM51 mill - RM100 mill	3	3.4	95.5
	2	2.2	97.8
RM101 mill - RM200 mill			
> RM201 mill	2	2.2	100.0
Total	89	100.0	

## 4.3 Multiple Regressions Analysis

Multiple Regressions analysis (MR) was conducted on the data and the results of ANOVA show that F values are equal to 10.807, 3.804, 16.861 and 12.649 for respondent purchasing experience, education level, job title and knows the suppliers respectively have significant values equal to 0.000. The results mean that 92.5%, 81.3%, 95.1% and 93.5% of the variances (R – Square) in the respective respondent demographics has been significantly explained by the variables. The results are summarised in Table 10 – Results of Multiple Regression.

Regressions Output	Respondent Purchasing Experience	Respondent Education Level	Respondent Job Title	Respondent Knows the Suppliers
Model summary - R Square Value	0.925	0.813	0.951	0.935
ANOVA – F	10.807	3.804	16.861	12.649
ANOVA - Significant value	0.000	0.000	0.000	0.000

#### Table 10 – Results of Multiple Regressions

The results of the coefficients of the regressions in Table 11, show that respondent purchasing experience has the highest number of dependent variables (16) that correspond to significant values less than 0.05. The respondent knows the suppliers scored 11 dependent variables which are significant for values less than 0.05. The least independent variable that has significant values less than 0.05 is the respondent education level. However, the highest Beta value -0.894 which is significant at 0.008 corresponds to repeat purchase which indicates that repeat purchase influences more buying decision process of the respondent with lower level of education.

Variables related to price have highest beta values with respondent purchasing experience and followed by respondent job title. It seems that there is less concerned on the price for respondent education level and knows the supplier. However, among the four variables the highest Beta value is equal to -0.564 which corresponds to significant value equal to 0.004. Negative value means that the higher the respondents hold the job position, the more they are interested in saving company's money by getting low prices. Thus, hypothesis  $H_{07}$  is substantiated.

The significant values of MR results for the four variables of transaction values are mostly higher than 0.05, which show that all respondents who have a background of purchasing experience, level of education, job title

and know the suppliers are not really concerned with the transaction values offered. Except respondents with more purchasing experience who has highest Beta value which is equal to 0.5760 and corresponds to significant value equal to 0.024. The Beta value indicates that respondents with more purchasing experience will ensure that transaction values should end up greater saving to the company. Thus, hypothesis  $H_{04}$  is substantiated.

Among the five variables related to repeat purchase (loyalty), the highest Beta value is equal to -0.894 and significant value equal to 0.008. The result means that the lower the respondent education level, the more likely that they will keep the faulty products or services but keep on complaining to the suppliers or vendors who supplied the products or services. Thus, hypothesis  $H_{\rm ex}$  is substantiated.

There are five variables related to customer-supplier relationship (user recommendation) and one of these variables has the highest Beta value equal to -0.695 and is significant at 0.014. It means that the higher the respondent education level the lesser will be responding to giving names of suppliers if asked. Thus, hypothesis  $H_{02}$  is substantiated.

The highest Beta value is equal to 0.767 and significant value equals to 0.000. Beta value represents respondent with more purchasing experience tend to continue doing business with suppliers or vendors even though experienced some problems with these suppliers. This shows that there are customers willing to stay and maintain relationship between the customer-supplier. Thus, hypothesis  $H_{05}$  is substantiated.

In the market orientation, there are four main features (trust, cooperative norm, satisfaction, commitment) discussed in the study. Each of these features has its own variables being considered in the analysis. In total, the variables being analysed for the market orientation was 26. Among these variables, there are 10 variables have significant values less than 0.05 with the variable "Our company is very pleased with its working relationship with the supplier" for satisfaction that corresponds to respondent education level has Beta value equals to 0.901 which is significant at 0.001. This indicates that the higher the education level of the respondent the more they need very pleased relationship for them to be satisfied with the suppliers. Hence, the hypothesis  $H_{00}$  is substantiated.

The following is detail elaboration of the results for each of the features of the market orientation.

- I. There are six out of twelve variables in the trust feature of market orientation have significant values less than 0.05. Among these six variables, the highest Beta value is -0.803 for respondent knows the suppliers, which is significant at 0.000 and correspond to "promises made by suppliers are reliable". This means that the more the respondent knows the supplier the less trust with the promises made by suppliers.
- II. In the cooperative norms, there are only two variables have significant values less than 0.05. Variable, "We do not mind owing each other favours" has Beta value equals to 0.677 for respondent knows the suppliers, which is significant at 0.008. This indicates that respondent knows the suppliers more tend to favour each other.
- III. All the three variables discussed for the satisfaction have significant values less than 0.05. Among these three variables, variable "Our Company is very pleased with its working relationship with the supplier" has the highest Beta value equal to 0.901 which is significant at 0.001.
- IV. Five variables were considered in the study for the commitment feature and one out of these five variables, one has Beta value equal to -0.404 which is significant at 0.004. This indicates that respondent with more

purchasing experience tend to give less commitment or dedication of resources to grow sales for the supplier.

	Respond Purchas Experier	ing	Respondent Education Level		Respondent Job Title		Respondent Knows the Suppliers	
Variables	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.
PRICE								
price1.willing to go extra	.482	.009	008	.976	131	.359	.352	.036
price2.nevershopmore	542	.020	.250	.483	.089	.626	094	.655
price3.taketofindlowpric e	.318	.145	.392	.253	.400	.027	.205	.310
price4.savemoney	.508	.032	.392	.287	564	.004	.287	.186
TRANSACTION VALUE							-	
tv1.endupgreatersaving	.576	.024	.698	.081	.277	.173	.376	.108
tv2.supplier1wuldreduc eprice	129	.560	.426	.227	505	.007	.033	.874
tv3.supp.1savemoney	.165	.532	729	.085	152	.478	381	.124
tv4.sipp1.appearsbetter	234	.206	.085	.769	.260	.086	.409	.020
REPEAT PURCHASE (Loyalty)								
Rp1.brandthatworks	.007	.972	.435	.156	.054	.729	.092	.607
Rp2.buysamebrand	.318	.070	.441	.111	142	.313	.378	.022
Rp3.supp.takecareprobl ems	438	.007	315	.199	.161	.202	388	.009
Rp4.keptproduct&compl aint	733	.001	894	.008	187	.263	514	.009
Rp5.returnprod.forrepal cement	598	.013	.189	.607	.174	.357	.167	.440

Table 11 – Summary of Coefficients of Multiple Regressions

## Cont. Table 11.

	Respo Purcha Exper	asing	Respon Educa Lev	ation	Respo Jo	b		ondent ows ippliers
Variables	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.
CUSTOMER – SUPPLIER RELATIONSHIP (Recommendation)								
Rp6.providenamesifask	131	.452	695	.014	029	.836	006	.969
Rp7.noproblemgivereferral s	.482	.036	.377	.291	.254	.167	.303	.152
Rp8.providereferralsifask	100	.586	105	.718	278	.067	.091	.593
Rp9.recommendifask	.056	.768	.235	.430	252	.104	278	.117
Rp10.suggestifask	.199	.377	.324	.363	.187	.309	.339	.109
CUSTOMER – SUPPLIER RELATIONSHIP (Willingness to stay)								
Rp11.dropnextyear	088	.593	358	.173	134	.317	.092	.546
Rp12.donotstopdoingbusin ess	.767	.000	.242	.376	.293	.040	.448	.007
Rp13.nochanceleavenexty ear	089	.465	031	.874	.017	.865	085	.454
MARKET ORIENTATION - TRUST								
trust1.frank	190	.069	.130	.426	066	.428	136	.159
trust2.promisesreliable	402	.032	441	.132	146	.327	803	.000
trust3.knowaboutproducts	.146	.281	.105	.622	048	.662	.096	.443
trust4.noprob.understandin gours	.265	.085	196	.413	- 165	.182	032	.819
trust5.sacrificeforus	.332	.093	451	.146	.176	.267	.263	.149
trust6.goneoutonlimb	.550	.000	.333	.151	.082	.489	.369	.009
rust7.caresforus	036	.821	.219	.384	196	.133	. 162	.274
rust8.supp.likefriend	362	.218	.046	.920	634	.010	117	.665

## Cont. Table 11.

	Respo Purcha	asing	Educ	ondent ation		oondent Job	Kr	ondent lows
	Exper	ience	Le	vel		Title		uppliers
Variables	Stand. Coeff. Beta	Sig.	Stand. Coeff. Beta	Sig.	Stan d. Coeff	Sig.	Stand. Coeff. Beta	Sig.
trust9 onourside	.110	.460	.036	.878	Beta 105	.383	- 175	209
trust10.doesnotmakefalseclaim	260	.080	.181	.434	.102	.393	237	.085
trust11.notopenindealing	036	.847	678	.025	.104	.489	117	.498
trust12.prob.ans.questions	274	.068	391	.098	089	.458	011	.933
MARKET ORIENTATION - COOPERATIVE NORM								
coop1.joint	174	.418	021	.951	.181	.299	.079	.689
coop2.concern	.565	.014	.411	.244	.527	.005	277	.183
coop3.donottakeadvant.	.149	.382	074	.782	.166	.231	.026	.869
coop4.willing	133	.601	.003	.994	395	.061	234	.325
coop5.together	121	.436	121	.622	024	.848	070	.628
coop6.donotmindowing	048	.853	.643	.127	417	.056	.677	.008
MARKET ORIENTATION - SATISFACTION								
sat1.unhappy	411	.038	.568	.067	354	.028	267	.141
sat2.verysatisfied	.200	.446	.135	.744	- 120	.572	.810	.002
sat3.verypleased	.139	.394	.901	.001	178	.181	.308	.046
MARKET ORIENTATION - COMMITMENT								
commit1.defendsupplier	088	.548	308	.188	075	.527	182	.187
commit2.lookoutforanothersupp	158	.444	.425	.197	189	.262	.186	.336
commit3.willingtoconsiderofferb yothers	.489	.097	.240	.601	.088	.708	.478	.081
commit4.patientwiththissupp.	009	.963	351	.240	.105	.490	.078	.654
commit5.dediacatetothissupplie	400	.040	343	.257	006	.968	237	.184

#### 4.4 Factor Analysis

It is prudent that factor analysis be conducted on the data collected to obtain insights from the groupings of variables that emerge. It will also to reduce the number of variables that may have been overlapping or highly correlated to a manageable size. For these reasons, principal component analysis is used to achieve this objective. Each group of variables is analysed accordingly as follows:

#### 4.4.1 Price

Prior to conducting the factor analysis, reliability analysis was performed on the four price dependent variables set in the questionnaires. The result of reliability analysis of Cronbach's Alpha is equal to 0.8037 after deletion of two of the variables. The results of the factor analysis on the two left variables price2 and price4 are shown in TABLE 12. The variables price2 and price4 are correlated significantly with a value of 0.694. The factor analysis has also resulted in one new component or factor as shown in the Total Variance Explained table. The component has 84.69 % of the variance.

The results of communality values (extraction) 0.847 are on the higher range. Relatively high communality values indicate that a variable has much in common with other variables. Thus, these values in the same component indicate possibility of highly correlated, price2 and price4. Hence, the four variables were reduced to two dependent variables under one factor of the price grouping. This factor is called Factor 1: Price. as shown in TABLE 13.

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		price2.nevershopmore	price4.savemoney
Correlation	price2.nevershopmore	1.000	.694
	price4.savemoney	.694	1.000
Sig. (1-tailed)	price2.nevershopmore		.000
	price4.savemoney	.000	

#### TABLE 12 Price - Correlation Matrix

#### Table 13 - Factor 1: Price (Reliability, Alpha = .8037)

	Component or factor loading	Communalities (Extraction)
price2.nevershopmore	.920	.847
price4.savemoney	.920	.847

## 4.4.2 Transaction Value

Reliability analysis was conducted on the data collected for the transaction value questionnaires and the result of the reliability analysis Cronbach's Alpha is 0.8868 after deletion of two of the variables. The two left variables tv2 and tv4 were further analysed for factor analysis. In TABLE 14, the Correlation Matrix shows that there exist correlations between variables tv2 and tv4 with a correlation value equal to 0.797. The factor analysis has also resulted in a single factor or component that accounted for 89.83% of the variance of the Total Variance Explained table.

The communality extraction values of 0.898 for these correlations are also high as shown in TABLE 15 that indicates high redundancy among these variables. This confirms that variables will be reduced to one factor variables as indicated by one component or factor matrix. This factor is called Factor 2: Transaction value as shown in TABLE 15.

		tv2.supplier1wuld reduce price	tv4.sipp1.appears better
Correlation	tv2.supplier1wuldreduce price	1.000	.797
	tv4.sipp1.appearsbetter	.797	1.000
Sig. (1-tailed)	tv2.supplier1wuldreduce price		.000
	tv4.sipp1.appearsbetter	.000	

## TABLE 14 - Correlation Matrix For tv2 and tv4

## TABLE 15 - Factor 2: Transaction value (Reliability, Alpha = .8868)

	Component or factor loading	Communalities (Extraction)
tv2.supplier1wuldreduce price	.948	.898
tv4.sipp1.appearsbetter	.948	.898

### 4.4.3 Repeat Purchase

Results of reliability analysis for the five dependent variables set in the questionnaires showed that the Cronbach's Alpha value is 0.698 after deletions of three dependent variables rp1, rp3 and rp5.

TABLE 16, shows that there are correlations that exist among variables rp2 and rp4 with correlation value equals to 0.564, which is acceptable in this study. The factor analysis has also resulted in a single-factor or component with 78.176% of the variance of the Total Variance Explained table. This factor is called Factor 3: User Loyalty as shown in TABLE 14.

	rp2.buysame brand	rp4.keptproduct& complaint
rp2.buysamebrand	1.000	.564
rp4.keptproduct&complaint	.564	1.000
rp2.buysamebrand		.000
rp4.keptproduct&complaint	.000	
	rp4.keptproduct&complaint	rp2.buysamebrand 1.000 rp4.keptproduct&complaint .564 rp2.buysamebrand

TABLE 16 - Correlation Matrix for rp2 and rp4

## TABLE 17 - Factor 3 : User Loyalty

(Reliability, Alpha = .6980)

	Component Or factor loading	Communalities (Extraction)
rp2.buysamebrand	.884	.782
rp4.keptproduct&complaint	.884	.782

## 4.4.4 Customer – Supplier Relationship

The result of reliability analysis for a set of variables in the customersupplier relationship is equal to 0.8038 after deletion of six variables. TABLE 15 reports the correlation among these variables in the analysis. The higher the value the higher is the correlation as shown among the variables rp2 and rp4. The factor analysis has also resulted in a single-factor or component with 83.64% of the variance. This factor is called Factor 4: User Recommendation as shown in TABLE 16.

		rp6.providenames if ask	rp10.suggest if ask
Correlation	rp6.providenamesifask	1.000	.673
	rp10.suggestifask	.673	1.000
Sig. (1-tailed)	rp6.providenamesifask		.000
	rp10.suggestifask	.000	

## TABLE 18 - Correlation Matrix for rp6 and rp10

## TABLE 19 - Factor 4: User Recommendation (Reliability, Alpha =.8038)

	Component or factor loading	Communalities (Extraction)
rp6.providenamesifask	.915	.836
rp10.suggestifask	.915	.836

## 4.4.5 Market Orientation - Trust

Reliability analysis was conducted on the data collected relating to trust in the survey questionnaires. The reliability analysis shows that the reliability coefficient Cronbach's Alpha is equal to 0.7951 after deletion of the variables trust1, trust3 to trust5, trust7 to trust12.

The results of factor analysis on the data left after the reliability analysis are shown in TABLE 17. The results indicate that there are correlations among the variables trust2 and trust6 with a significant value of 0.666. Factor analysis has also resulted in a single factor or component with 83.324% of the variance of the Total Variance Explained. This factor is called Factor 5: Trust as shown in TABLE 18.

		trust2.promises reliable	trust6.goneout on limb
Correlation	trust2.promises reliable	1.000	.666
_	trust6.goneout on limb	.666	1.000
Sig. (1-tailed)	trust2.promises reliable	,	.000
-	trust6.goneout on limb	.000	

TABLE 20 - Correlation Matrix fortrust2 and trust6

TABLE 21 - Factor 5: Trust (Reliability, Alpha= .7951)

	Component or factor loading	Communalities (Extraction)
trust6.goneout on limb	.913	.833
trust2.promises reliable	.913	.833

## 4.4.6 Market Orientation - Cooperative Norms

Results of the reliability analysis on data after deletion of the coop3. variable show that reliability coefficient Cronbach's Alpha is equal to 0.9154.

Factor analysis on data left after the reliability analysis for the cooperative norms indicate that there exist high correlations among the variables set in the questionnaires as shown by the higher values in the correlation matrix TABLE 19. Factor analysis also resulted in a single-factor or component accounting for 85.626% of the variance of the Total Variance Explained. This factor is called Factor 6: Cooperation as shown in TABLE 20.

	1	1	1			
		coop1	coop2	coop4.	coop5	coop6
Correlation	coop1.joint	1.000	.897	.867	.817	.802
	coop2.concern	.897	1.000	.890	.763	.843
	coop4.willing	.867	.890	1.000	.793	.821
	coop5.together	.817	.763	.793	1.000	.700
	coop6.donotmindowing	.802	.843	.821	.700	1.000
Sig. (1-tailed)	coop1.joint		.000	.000	.000	.000
	coop2.concern	.000		.000	.000	.000
	coop4.willing	.000	.000		.000	.000
	coop5.together	.000	.000	.000		.000
	coop6.donotmindowing	.000	.000	.000	.000	

#### TABLE 22 - Correlation Matrix for coop1, coop2, coop4, coop5 and coop6.

	Component or factor loading	Communalities (Extraction)
coop1.joint	.949	.900
coop2.concern	.951	.905
coop4.willing	.946	.895
coop5.together	.878	.771
coop6.donotmindowing	.900	.810

TABLE 23 - Factor 6: Cooperation (Reliability, Alpha = .9514)

#### 4.4.7 Market Orientation - Satisfaction

Results of the reliability analysis conducted on data for the variables related to satisfaction showed that the Cronbach's Alpha value is equal to 0.4718.

Factor analysis on the data collected left after the reliability analysis for commitment indicate that there exist a slightly weak correlation among the variables set in the questionnaires as shown by the value equal to 0.323 in the correlation matrix TABLE 21. Factor analysis has also resulted in a single-factor or component that accounted for 66.57% of the variance of the Total Variance Explained. This factor is called Factor 7: Satisfaction as shown in TABLE 22.

	sat1.	sat3.
sat1.unhappy	1.000	.323
sat3.verypleased	.323	1.000
sat1.unhappy		.001
sat3.verypleased	.001	
	sat3.verypleased	sat1.unhappy 1.000 sat3.verypleased .323 sat1.unhappy

### TABLE 24 - Correlation Matrix for sat1 and sat3

## TABLE 25 - Factor 7 : Satisfaction (Reliability, Alpha= .4718)

	Component or factor loading	Communalities (Extraction)
sat1.unhappy	.813	.662
sat3.verypleased	.813	.662

## 4.4.8 Market Orientation - Commitment

Results of the reliability analysis conducted on data collected for the variables related to commitment show that the Cronbach's Alpha value is equal to 0.7188.

Factor analysis on the data left after the reliability analysis for commitment indicate that there exists correlations among the variables set in the questionnaires as shown by the values equal to 0.318, 0.577 and 0.611 in the correlation matrix TABLE 23. Factor analysis has also resulted in a single factor or component that accounted for 67.13% of the variance of the Total Variance Explained. This factor is called Factor 8: Commitment as shown in TABLE 24.

		commit1.r	commit3.	commit5.
Correlation	commit1.defendsupplier	1.000	.318	.611
	commit3.willingtoconsidero fferbyothers	.318	1.000	.577
	commit5.dediacatetothissu pplier	.611	.577	1.000
Sig. (1-tailed)	commit1.defendsupplier		.001	.000
	commit3.willingtoconsidero fferbyothers	.001		.000
	commit5.dediacatetothissu pplier	.000	.000	

# **TABLE 26 - Correlation Matrix for Commitment**

## TABLE 27 - Factor 8: Commitment (Reliability, Alpha = .7188)

ading (Extraction)
.905 .820
.761 .579
.784 .615

# 4.4.9 Summary of Factor Analysis

The overall results of the factor analysis are summarised as follows:

Factor 1: Price	(Reliability	,Alpha	=	.8037	)
-----------------	--------------	--------	---	-------	---

	Component or factor loading	Communalities (Extraction)
price2.nevershopmore	.920	.847
price4.savemoney	.920	.847

Component or factor loading	Communalities (Extraction)
.948	.898
.948	.898
	or factor loading .948

Factor 2: Transaction value (Reliability, Alpha = .8868)

## Factor 3: User Loyalty (Reliability, Alpha = .6980)

	Component Or factor loading	Communalities (Extraction)
rp2.buysamebrand	.884	.782
rp4.keptproduct&compl aint	.884	.782

# Factor 4: User Recommendation (Reliability, Alpha = .8038)

	Component or factor loading	Communalities (Extraction)
rp6.providenamesifask	.915	.836
rp10.suggestifask	.915	.836

## Factor 5: Trust (Reliability, Alpha = .7951)

	Component or factor loading	Communalities (Extraction)
trust6.goneoutonlimb	.913	.833
trust2.promisesreliable	.913	.833

	Component or factor loading	Communalities (Extraction)
coop1.joint	.949	.900
coop2.concern	.951	.905
coop4.willing	.946	.895
coop5.together	.878	.771
coop6.donotmindowing	.900	.810

Factor 6: Cooperation (Reliability, Alpha = .9514)

Factor 7: Satisfaction (Reliability, Alpha = .4718)

	Component or factor loading	Communalities (Extraction)
sat1.unhappy	.813	.662
sat3.verypleased	.813	.662

Factor 8: Commitment (Reliability, Alpha=. 7188)

	Component or factor loading	Communalities (Extraction)
commit5.dediacatetothissupplier	.905	.820
commit3.willingtoconsiderofferbyoth ers	.761	.579
commit1.defendsupplier	.784	.615

## 4.5 Analysis of Variables by Respondents' Demographics

One Way ANOVA was used to analyse on the hypotheses that involve several dependent variables and independent variables. In this study, the dependent variables are those answered by respondents in item 1 to 38 of the questionnaires. Where as the independent variables are those questions from item 39 to 44. For further analysis, multiple regressions were conducted to determine the significance of these independent variables to each of the dependent variables.

In this study, there are four independent variables described the respondents' demographics and two company demographics. These independent variables are; purchasing experience, education level, job title and duration of knowing the supplier and for the company the variables are number of employees and company annual revenue.

These independent variables are also considered as the underlying components of the buying decision process which represent one of the characteristics of individual decision of participants in the buying centre as well as the organization (Frederick E. Webster, 1991 .pp 107). As shown in TABLE 28, the independent variables are correlated among them, thus we should base our analysis on the buying decision process of the buying centre on these independent variables to represent the "buyer" decision.
		respondent experience	respondent education level	respondent job title	respondent know the suppliers
respondent	Pearson Correlation	1	256*	.537**	331**
experience	Sig. (2-tailed)		.015	.000	.002
	N	89	89	89	89
respondent education	Pearson Correlation	256*	1	375**	.544**
level	Sig. (2-tailed)	.015		.000	.000
	N	89	89	89	89
respondent	Pearson Correlation	.537**	375**	1	588**
job title	Sig. (2-tailed)	.000	.000		.000
	N	89	89	89	89
respondent know the	Pearson Correlation	331**	.544**	588**	1
suppliers	Sig. (2-tailed)	.002	.000	.000	
	N	89	89	89	89

#### Table 28 - Correlations for Respondents' Demographics

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

To test the hypotheses that there exists some features that may influence the individual decision process in the buying centre, the first hypothesis will be related to price as the dependent variables influencing the decision process of the buying centre with respect to respondents' demographics.

## 4.5.1 Influence of Price

As a result of the factor analysis Factor 1 - Price, there are only two reliable variables (price2 and price4) set in the questionnaires relating to products and service pricing with two of the independent variables for the respondents' demographics will be analysed. The two independent variables selected for the purpose of analysis are respondent purchasing experience and job title.

The proposed hypothesis related to price as one of the features is as follows:

Hypothesis 1, H<sub>01</sub>: The decision of industrial buying centre is influenced by the prices of the products or services.

Alternate Hypothesis, H<sub>11</sub>: The decision of industrial buying centre is not influenced by the prices of products or services.

The results should be significantly positive to support that price has influence on the buying decision.

## 4.5.1.1 Price & Purchasing Experience

The results of ANOVA are shown in TABLE 29, indicate that there are significant differences between mean scores of variables related to price among the respondent purchasing experiences. This is true for each of the variables with significant values at 95% confident level at 0.000, and 0.000. The value of which is less then 0.05 is a small significant value, indicating group differences. Based on this analysis, it shows that price has influenced the respondent with purchasing experience in the buying decision process related to the prices of products or services being offered by the suppliers.

		Sum of Squares	df	Mean Square	F	Sig.
price2.neversh opmore	Between Groups	39.740	3	13.247	23.551	.000
	Within Groups	47.811	85	.562		
	Total	87.551	88			
price4.savemo ney	Between Groups	64.441	3	21.480	22.449	.000
	Within Groups	81.334	85	.957		
	Total	145.775	88			

#### TABLE 29 – ANOVA for Price & Purchasing Experience

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found out that pairs in each of the variables are significantly different as follows:

- a. Price2.nevershopmore the results show most pairs of the years purchasing experience are significantly different with values less than 0.025, except for pairs 0-6 and 7– 12, 0 -6 and 13 – 16, 7-12 and 13 - 16 years of respondent purchasing experience which are not significantly different, with values more than 0.025 (two-tailed).
- b. Price4.savemoney The results show that most of the pairs are significant with the significant values less than 0.025, except for the following pair 0 6 and 7 12 years of purchasing experience which are not significantly different with significant value equal to 0.997.

## 4.5.1.2 Price & Job Title

The results of ANOVA shown in TABLE 30, indicate that there are significant differences that exist between mean scores of variables related to price among the respondent job titles. This is true for each of the variables with the significant values at 95% confident level of 0.000, and 0.000 and F values equal to 16.355 and 30.703 respectively.

		Sum of Squares	df	Mean Square	F	Sig.
price2.nevers hopmore	Between Groups	38.332	4	9.583	16.355	.000
	Within Groups	49.218	84	.586		
	Total	87.551	88			
price4.savem oney	Between Groups	86.567	4	21.642	30.703	.000
	Within Groups	59.209	84	.705		
	Total	145.775	88			

TABLE 30 - ANOVA for Price & Job Title

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found out that pairs in each of the variables are significantly different are as follows:

a. Price2.nevershopmore - the results show most pairs of the years purchasing experience are significantly different with values less than 0.025, except for pairs between owner/president and vicepresident, owner/president and staff, vice-president and managers, vice-president and purchasing agents, managers and purchasing agents are not significantly different with values more than 0.025 (two-tailed).

b. Price4.savemoney – the results show that most of the pairs are significant with significant values of less than 0.025, except that following pair between owner/president and vice-president, owner/president and managers, owner/president and purchasing agents, vice-president and managers, vice-president and purchasing agents are not significantly different with a significant value equal to 0.997.

#### 4.5.1.3 Multiple Regression Analysis

Further analysis was conducted using multiple regressions to determine the effect of independent variables on each of the dependent variables. The results of multiple regressions for price2 and respondent demographics is shown in TABLE 30A, B and C. The results indicate that 15.1% of the variance (R Square in TABLE 30A) in "never shop more than one supplier to find low prices" has been significantly explained by the two independent variables. Thus, hypothesis  $H_{of}$  is substantiated.

In TABLE 30B, the F statistic produced is significant at the 0.001 level.

In Table 30C, the highest value of Beta is -.347 for respondent purchasing experience which is significant at 0.004.

#### TABLE 30A - Model Summary of multiple regression for price2 and respondent demographic

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.388	.151	.131	.930

a Predictors: (Constant), respondent job title, respondent experience

#### TABLE 30B – ANOVA of multiple regression for price2 and respondent demographic

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	13.187	2	6.594	7.625	.001
1	Residual	74.364	86	.865		
	Total	87.551	88			

a Predictors: (Constant), respondent job title, respondent experience b Dependent Variable: price2.nevershopmore

## TABLE 30C – Coefficients of multiple regression for price2 and respondent demographic

	Model	Unstandardized	Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	4.784	.337		14.186	.000
	respondent experience	391	.133	347	-2.949	.004
	respondent job title	-5.885E-02	.102	068	576	.566

a Dependent Variable: price2.nevershopmore

The results of multiple regression for price4 and respondent demographic is shown in TABLE 31A, B and C. The results indicate that 46.2% of the variance (R Square in TABLE 31A) in "the money saved by finding low prices is usually not worth the time and effort" has been significantly explained by the two independent variables. Thus, hypothesis  $H_{01}$  is substantiated.

#### TABLE 31A - Model Summary of multiple regression for price4 and respondent demographics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.680	.462	.449	.955

a Predictors: (Constant), respondent job title, respondent experience

#### TABLE 31 B – ANOVA of multiple regression for price4 and respondent demographics

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.347	2	33.673	36.924	.000
'	Residual	78.429	86	.912		
	Total	145.775	88			

a Predictors: (Constant), respondent job title, respondent experience b Dependent Variable: price4.savemoney

Model		Unstandardized Coefficients		Standardized Coefficients	т	Sig.
		В	Std. Error	Beta		
	(Constant)	6.269	.346		18.100	.000
1	respondent experience	477	.136	329	-3.505	.001
	respondent job title	497	.105	444	-4.737	.000

#### TABLE 31C – Coefficients of multiple regression for price4 and respondent demographics

a Dependent Variable: price4.savemoney

In TABLE 32B, the F statistic produced equals to 36.924 which is significant at the 0.000 level. In Table 31C, the highest value of Beta is -.444 for respondent job title which is significant at 0.000. The negative sign indicates that finding low prices is worth the effort to both respondents with purchasing experience and job title.

#### 4.5.2 Influence of Repeat Purchase

There is also the possibility of influence for repeat purchase by user recommendation to the buying process of the buying centre. Nine variables are provided in the questionnaires related to this feature that need to be answered by respondents. The hypothesis on this matter is as follows:

Hypothesis 2, H<sub>02</sub>: The decision of industrial buying centre is influenced by the recommendations of end users who have experienced using the products or services Alternate Hypothesis, H<sub>12</sub>: The decision of industrial buying centre is not influenced by the recommendations of end users who have experienced using the products or services.

The above hypothesis was tested on the independent variables for Factor 4 - User Recommendation as a result of factor analysis of rp5 to rp13 on the questionnaires. These independent variables are rp6 and rp10. The test was carried out with respect to respondents' demographics; purchasing experience and job title.

### 4.5.2.1 User Recommendation & Purchasing Experience

The results of ANOVA summarised in TABLE 32, indicate that there are significant differences that exist between mean scores of variables related to repeat purchase (rp6 and rp10) among the respondents with purchasing experience. This is true for each of the variables that the significant values at 95% confident level at 0.000, and 0.000 and F values equal to 23.190 and 10.590 respectively. This indicates that repeat purchase has some influence on the respondents' demographics (purchasing experience) in the purchasing decision with significant values less than 0.025 (two-tailed) at 95% confident level.

		Sum of Squares	df	Mean Square	F	Sig.
rp6.providenam esifask	Between Groups	25.660	3	8.553	23.190	.000
Callaak	Within Groups	31.351	85	.369		
	Total	57.011	88			
rp10.suggestifa sk	Between Groups	13.939	3	4.646	10.590	.000
U.C.	Within Groups	37.296	85	.439		
	Total	51.236	88			

#### TABLE 32 – ANOVA for User Recommendation and Respondent Purchasing Experience

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found out that pairs in each of the variables are significantly different as follows:

- a. rp6.providenamesifask the results show most pairs of the years of purchasing experience are significantly different with values less than 0.025, except for pairs 0-6 and 7-12, 0-6 and 13 -16 years of respondent purchasing experience are not significantly different with values of more than 0.025 (twotailed).
- b. rp10.suggestifask The results show that most of the pairs are significant with significant values of less than 0.025, except for pairs 0 - 6 and 7 – 12, 0-6 and 13 -16, 7-12 and 13-16 years of purchasing experience which are not significantly different with significant values of more than 0.025.

#### 4.5.2.2 User Recommendation & Job Title

The results of ANOVA are summarised in TABLE 33, they indicate that there are significant differences exist between means scores of variables related to repeat purchase (rp6 and rp10) among the respondent job title. This is true for each of the variables, with significant values at 95% confident level are 0.000, and 0.000 and F values equal to 11.239 and 7.095 respectively. This indicates that the two respondent demographics elements have some influence on the repeat purchase decision with significant values less than 0.025 (two-tailed) at 95% confident level.

		Sum of Squares	df	Mean Square	F	Sig.
rp6.provid enamesifa sk	Between Groups	19.875	4	4.969	11.239	.000
	Within Groups	37.136	84	.442		
	Total	57.011	88			
rp10.sugg estifask	Between Groups	12.939	4	3.235	7.095	.000
	Within Groups	38.297	84	.456		
	Total	51.236	88			

TABLE 33 – ANOVA for User Recommendation and Respondent Job Title

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found out that pairs in each of the variables are significantly different as follows:

 a. rp6.providenamesifask - the results show most pairs of the years of purchasing experience are significantly different with values less than 0.025, except the pairs between owner/president and vice-president, owner/president and managers, owner/president and purchasing agents, vice-president and managers, vicepresident and purchasing agents, managers and purchasing agents are not significantly different with values more than 0.025.

b. rp10.suggestifask – the results show that most of the pairs are significant with the significant values less than 0.025, except the following pair between owner/president and vice-president, owner/president and managers, vice-president and managers, managers and purchasing agents which are not significantly different with significant values more than 0.025.

#### 4.5.2.3 Multiple Regression Analysis

Further analysis was conducted using multiple regressions to determine the effect of independent variables on each of the dependent variables. The results of multiple regression for price2 and respondent demographic is shown in TABLE 34A, B and C. The results indicate that 37.5% of the variance (R Square in TABLE 34A) in "rp6. provide names if ask" has been significantly explained by the two independent variables. Thus, hypothesis **H**<sub>02</sub> is substantiated.

In TABLE 34B, the F statistic produced equals to 25.775. This is significant at the 0.001 level. In Table 34C, the highest value of Beta is -.363 for respondent job title which is significant at 0.001.

## TABLE 34A - Model Summary of multiple regressions for rp6 and respondent demographics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.612	.375	.360	.644

a Predictors; (Constant), respondent job title, respondent experience

#### TABLE 34B - ANOVA of multiple regressions for rp6 and respondent demographics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regressio n	21.366	2	10.683	25.775	.000
	Residual	35.645	86	.414		
	Total	57.011	88			

a Predictors: (Constant), respondent job title, respondent experience b Dependent Variable: rp6.providenamesifask

### TABLE 34C – Coefficient of multiple regressions for rp6 and respondent demographics

	Model		Model Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		Ū	
1	(Constant)	4.210	.233		18.032	.000	
	respondent experience	305	.092	336	-3.320	.001	
	respondent job title	254	.071	363	-3.588	.001	

a Dependent Variable: rp6.providenamesifask

The results of multiple regressions for price10 and respondent demographics is shown in TABLE 35A, B and C. The results indicate that 27.0% of the variance (R Square in TABLE 35A) in "rp10. suggest if asked " has been significantly explained by the two independent variables. Thus, hypothesis  $H_{02}$  is substantiated.

# TABLE 35A - Model Summary of multiple regressions for rp10 and respondent demographics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.519	.270	.253	.660

a. Predictors: (Constant), respondent job title, respondent experience

### TABLE 35B -ANOVA of multiple regressions for rp10 and respondent demographics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.826	2	6.913	15.891	.000
	Residual	37.410	86	.435		
	Total	51.236	88			

a Predictors: (Constant), respondent job title, respondent experience b Dependent Variable: rp10.suggestifask

Mod	lei			Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	3.683	.239		15.396	.000
	respondent experience	194	.094	226	-2.065	.042
	respondent job title	240	.073	362	-3.316	.001

#### TABLE 35C - Coefficients of multiple regressions for rp10 and respondent demographics

a Dependent Variable: rp10.suggestifask

In TABLE 35B, the F statistic produced equals to 15.981 which is significant at the 0.000 level. In Table 35C, the highest value of Beta is -.362 for respondent job title which is significant at 0.001. The negative sign indicates that the lower the position of job title the more suggestions will be given for suppliers' names.

#### 4.5.3 Influence of User Loyalty

In this study, loyalty will be based on brand loyalty as the main core of the features for brand loyalty. Four variables related to loyalty are set in the survey sheet. The hypothesis related to this is as follows:

- Hypothesis 3, H<sub>03</sub>: The decision of industrial buying centre is influenced by customer loyalty to the products or services.
- Alternate Hypothesis, H<sub>13</sub>: The decision of industrial buying centre is not influenced by customer loyalty to the products or services.

As a result of factor analysis of rp1 to rp4 on the questionnaires, Factor 3 – User Loyalty was developed based on rp2 and rp4 which are considered reliable for further analysis.

#### 4.5.3.1 User Loyalty and Purchasing Experience

TABLE 36 summarises the results of the ANOVA analysis for user loyalty (rp2 and rp4) and respondent demographic (purchasing experience). The results show that there are significant differences between mean scores of variables related to user loyalty among the respondent purchasing experiences. These are indicated by the significant values of less than 0.025 and F values equal to 14.115 and 16.501 respectively. This indicates that user loyalty has influence on the respondent with purchasing experience in the buying decision.

		Sum of Squares	df	Mean Square	F	Sig.
rp2.buysamebr and	Between Groups	21.865	3	7.288	14.115	.000
	Within Groups	43.888	85	.516		
	Total	65.753	88			
rp4.keptproduct &complaint	Between Groups	45.786	3	15.262	16.501	.000
	Within Groups	78.619	85	.925		
	Total	124.404	88			

TABLE 36 - ANOVA for User Loyalty and Respondent Purchasing Experience

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found

out that pairs in each of the variables are significantly different as follows:

- a. rp2.buysamebrand the results show most pairs of the years of purchasing experience are significantly different with values less than 0.025, except for pairs 0-6 and 7– 12, 7- 12 and 13 – 16 years of respondent purchasing experience which are not significantly different with values more than 0.025.
- b. rp4.keptproduct&complaint The results show that most of the pairs are significant with the significant values of less than 0.025, except the following pair 0 - 6 and 7 – 12, 0-6 and 13 -16, years of purchasing experience which are not significantly different with significant values more than 0.025.

#### 4.5.3.2 User Loyalty and Job Title

TABLE 37 summarises the results of the ANOVA analysis for user loyalty (rp2 and rp4) and respondent demographic (Job title). The results show that there are significant differences between mean scores of variables related to user loyalty among the respondent job title. These are indicated by the significant values of less than 0.025 and F values equal to 19.436 and 14.418 respectively. This indicates that user loyalty has influence on the respondent job title in the buying decision.

	· .	Sum of Squares	df	Mean Square	F	Sig.
rp2.buysame brand	Between Groups	31.605	4	7.901	19.436	.000
	Within Groups	34.148	84	.407		
	Total	65.753	88			
rp4.keptprodu ct&complaint	Between Groups	50.642	4	12.661	14.418	.000
	Within Groups	73.762	84	.878		
	Total	124.404	88			

#### TABLE 37– ANOVA for User Loyalty and Respondent Job Title

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found out that pairs in each of the variables are significantly different as follows:

- a. rp2.buysamebrand the results show most pairs of the years of purchasing experience are significantly different with significant values less than 0.025, except the pairs owner/president and vice-president, owner/president and managers, vice-president and mangers, vice-president and purchasing agent, managers and purchasing agents of respondent job title which are not significantly different with values more than 0.025.
- b. rp4.keptproduct&complaint The results show that most of the pairs are significant with the significant values less than 0.025, except the following pair owner/president and vice-president, owner/president and managers, vice-president and managers, vice-president and purchasing agent of respondent job title which are not significantly different with significant values more than 0.025.

### 4.5.3.3 Multiple Regression Analysis

Further analysis was conducted using multiple regressions to determine the effect of independent variables on each of the dependent variables. The results of multiple regression for rp2 and respondent demographic is shown in TABLE 38A, B and C. The results indicate that 46.2% of the variance (R Square in TABLE 38A) in "rp2. buy same brand" has been significantly explained by the two independent variables. Thus, hypothesis  $H_{03}$  is substantiated.

In TABLE 38B, the F statistic produced equals to 36.887 is significant at the 0.000 level. In Table 38C, the highest value of Beta is -.484 for respondent job title which is significant at 0.000. The negative sign indicates that the less experienced the respondent the more likely to buy the same brand.

## TABLE 38A- Model Summary of multiple regressions for rp2 and respondents' demographics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.679	.462	.449	.642

a Predictors: (Constant), respondent job title, respondent experience

#### TABLE 38B-ANOVA of multiple regressions for rp2 and respondent demographics

	Model	Sum of Squares	df	Mean Square	F	Sig.
4	Regression	30.356	2	15.178	36.877	.000
'	Residual	35.397	86	.412		
	Total	65.753	88			

a Predictors: (Constant), respondent job title, respondent experience b Dependent Variable: rp2.buysamebrand

#### TABLE 38C- Coefficient of multiple regressions for rp2 and respondent demographics

	Model	Unstand Coeffi		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	4.720	.233		20.285	.000
	respondent experience	277	.091	284	-3.025	.003
	respondent job title	364	.071	484	-5.156	.000

a Dependent Variable: rp2.buysamebrand

The results of multiple regression for rp4 and respondent demographic is shown in TABLE 39A, B and C. The results indicate that 37.7% of the variance (R Square in TABLE 39A) in "rp4.keptproduct&complaint" has been significantly explained by the two independent variables. Thus, hypothesis  $H_{03}$  is substantiated.

#### TABLE 39A - Model Summary of multiple regressions for rp4 and respondent demographics

Model	R	R Square		Std. Error of the Estimate
1	.613	.375	.361	.951

a Predictors: (Constant), respondent job title, respondent experience

## TABLE 39B - NOVA of multiple regressions for rp4 and respondent demographics

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	46.694	2	23.347	25.837	.000
1	Residual	77.711	86	.904		
	Total	124.404	88			

a Predictors: (Constant), respondent job title, respondent experience b Dependent Variable: rp4.keptproduct&complaint

### TABLE 39C – Coefficients of multiple regressions for rp4 and respondent demographics

	Model	Unstand Coeffi		Standardized Coefficients	t	Sig.
	F	В	Std. Error	Beta		
1	(Constant)	5.660	.345		16.418	.000
	respondent experience	310	.135	231	-2.285	.025
	respondent job title	473	.105	457	-4.523	.000

a Dependent Variable: rp4.keptproduct&complaint

In TABLE 39B, the F statistic produced equals to 25.837 which s significant at the 0.000 level. In Table 39C, the highest value of Beta is -.457 for respondent job title which is significant at 0.001. The negative sign indicates that the lower the position of the job title the more likely to buy the same brand.

## 4.5.4 Influence of Transaction Value

There are dependent variables (tv1,tv2,tv3 and tv4) set on the survey questionnaires which are related to transaction value. Most of these questions were set to enable respondents to answer how they perceive price discount, extra product promotion and mixed promotions that come along with the product. The hypothesis related to this study is as follows:

Hypothesis 4, H<sub>ot</sub>: The decision of industrial buying centre is influenced by the value of the products or services.

Alternate Hypothesis, H<sub>14</sub>. The decision of industrial buying centre is not influenced by the value of the products or services.

As the results of factor analysis, these dependent variables have been reduced to two reliable variables (tv2 and tv4) called Factor 2 – Transaction Value. The above hypothesis was tested on the independent variables (purchasing experience and job title of the respondents).

## 4.5.4.1 Transaction Value and Purchasing Experience

TABLE 40 summarises the results of the ANOVA analysis for transaction value (tv2 and tv4) and respondent demographic

(purchasing experience). The results show that there are significant differences between means scores of variables related to transaction value among the respondent purchasing experiences. These are indicated by the significant values of less than 0.025 and F values equal to 10.481 and 17.525 respectively. This indicates that transaction value has influence on the respondent with purchasing experience in the buying decision.

TABLE 40 – ANOVA for	Transaction	value &	Respondent
Purchasing	Experience		

		Sum of Squares	df	Mean Square	F	Sig.
tv2.supplier1wuldr educeprice	Between Groups	14.096	3	4.699	10.481	.000
	Within Groups	38.106	85	.448		
	Total	52.202	88			
tv4.supp1.appears betterbargain	Between Groups	20.705	3	6.902	17.525	.000
	Within Groups	33.475	85	.394		
	Total	54.180	88			

These significant differences are obviously noted in the Post Hoc Tests results. Based on Post Hoc ANOVA Tukey HSD, we found out that pairs in each of the variables are significantly different are as follows:

a. tv2.supplier1wuldreduceprice - the results show that most pairs of the years of purchasing experience are significantly different with values less than 0.025, except the pairs 0-6 and 7– 12, 0-6 and 13 – 16 years of respondent purchasing experience which are not significantly different with values more than 0.025.

b. tv4.supp1.appearsbetter bargain – The results show that most of the pairs are significant with significant values less than 0.025, except for pairs 0 - 6 and 7 – 12, 0-6 and 13 -16 years of purchasing experience which are not significantly different with significant values of more than 0.025.

#### 4.5.4.2 Transaction Value and Job Title

TABLE 41 summarises the results of the ANOVA analysis for transaction value (tv2 and tv4) and respondent demographic (job title). The results show that there are significant differences between means scores of variables related to transaction value among the respondent job title. These are indicated by significant values equal to 0.000 and F values equal to 13.491 and 8.277 respectively. This indicates that transaction value has influence on the respondent with respect to their job title in the buying decision.

		Sum of Squares	df	Mean Square	F	Sig.
tv2.supplier1wuldr educeprice	Between Groups	20.418	4	5.105	13.491	.000
	Within Groups	31.784	84	.378		
	Total	52.202	88			
tv4.supp1.appear sbetterbargain	Between Groups	15.317	4	3.829	8.277	.000
	Within Groups	38.863	84	.463		
	Total	54.180	88			

#### TABLE 41– ANOVA for Transaction value & Respondent Job Title

Further analysis on the data using Post Hoc ANOVA Tukey HSD, found out that pairs in each of the variables are significantly different as follows:

- a. tv2.supplier1wuldreduceprice the results show that most pairs of the years of purchasing experience are significantly different with values less than 0.025, except the pairs owner/president and vice-president, owner/president and managers, owner/president and purchasing agents, owner/president and staff, vice-president and managers, purchasing agents and staff of respondent job title which are not significantly different with significant values more than 0.025.
- b. tv4.supp1.appearsbetterbargain The results show that most of the pairs are significant with significant values less than 0.025, except the following pair owner/president and vice-president, owner/president and managers, owner/president and purchasing agents, owner/president and staff, vice-president and managers, vice-president and purchasing agents, managers and purchasing agents of respondent job title which are not significantly different with significant values more than 0.025.

#### 4.5.4.3 Multiple Regression Analysis

Further analysis was conducted using multiple regressions to determine the effect of independent variables on each of the dependent variables. The results of multiple regression for tv2 and respondent demographic is shown in TABLE 42A, B and C. The results indicate that 23.6% of the variance (R Square in TABLE 42A) in "tv2.supplier1wuldreduceprice" has been significantly explained by the two independent variables.

In TABLE 42B, the F statistic produced equals to 13.292 which is significant at 0.000 level. In Table 42C, the highest absolute value of Beta is -.321 for respondent job title which is significant at 0.005. However, respondent with purchasing experience has a significant value of 0.042, which means suppliers who would reduce price has no influence to the respondent with respect to their purchasing experience. The negative sign indicates that the less experienced the respondent the more likely to buy products or services when the suppliers reduce further the prices.

TABLE 42A - Model Summary of multiple regressions for tv2. and respondent demographics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486	.236	.218	.681

a Predictors: (Constant), respondent job title, respondent experience

#### TABLE 42B - ANOVA of multiple regressions for tv2. and respondent demographics

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.326	2	6.163	13.292	.000
	Residual	39.876	86	.464		
	Total	52.202	88			

a Predictors: (Constant), respondent job title, respondent experience

b Dependent Variable: tv2.supplier1wuldreduceprice

	Model	Unstand Coeffic		Standardize d Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	3.868	.247		15.662	.000
	respondent experience	201	.097	231	-2.068	.042
	respondent job title	215	.075	321	-2.874	.005

#### TABLE 42C – Coefficients of multiple regressions for tv2. and respondent demographics

a Dependent Variable: tv2.supplier1wuldreduceprice

The results of multiple regression for tv4 and respondent demographic is shown in TABLE 43A, B and C. The results indicate that 24.0% of the variance (R Square in TABLE 43A) in "tv4.supp1.appearsbetterbargain" has been significantly explained by the two independent variables.

# TABLE 43A - Model Summary of multiple regressions for tv4. and respondent demographics

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
ŀ	1	.490	.240	.222	.692
a	Predic	ctors' (C	onstant	respon	dent job title

a Predictors: (Constant), respondent job title, respondent experience

In TABLE 43B, the F statistic produced equals to 13.574 which is significant at the 0.000 level. In Table 43C, the highest value of Beta is -.383 for respondent with purchasing experience which is significant at 0.001. However, respondent job title has a significant value of 0.147, which means respondent holding respective position or title will not be influenced with suppliers who offer better bargain. The negative sign indicates that respondents with less purchasing experience are more likely to accept the offer. Thus, the hypothesis  $H_{04}$  is partially supported.

#### TABLE 43B - ANOVA of multiple regressions for tv4. and respondent demographics

M	odel	Sum of Squares	df	Mean Square	F	Sig.
1	Regressi on	13.000	2	6.500	13.574	.000
	Residual	41.180	86	.479		
	Total	54.180	88			

a Predictors: (Constant), respondent job title, respondent experience

b Dependent Variable: tv4.sipp1.appearsbetter

#### TABLE 43C – Coefficients of multiple regressions for tv4. and respondent demographics

	Model		Unstandardize d Coefficients		t	Sig.
		В	Std. Error	Beta		
1	(Constant)	3.701	.251		14.745	.000
·	respondent experience	339	.099	383	-3.434	.001
	respondent job title	111	.076	163	-1.462	.147

a Dependent Variable: tv4.sipp1.appearsbetter

#### 4.5.5 Influence of Customer – Supplier Relationship

There are eight variables set in the survey questionnaires related to customer-supplier relationship. However, these variables have been reduced to Factor 4 that represents Customer Recommendation. These variables are analysed with each feature of the respondent demographic as the independent variable. In this study, the proposed hypothesis related to customer-supplier relationship is as follows:

- Hypothesis 5, H<sub>05</sub>: The decision of industrial buying centre is influenced by the type of relation developed between customer and supplier.
- Restated as **H**<sub>05</sub>: Customer and Supplier relationship has no influence on the decision process of the industrial buving centre.

Thus, the results for Factor 4 in item 4.4.2.1 above substantiate and support *H<sub>os</sub>*.

### 4.5.6 Influence of Market Orientation

The Market Orientation has at least four factors that may influence the buying decision process. The four factors are: Factor 5 – Trust, Factor 6 – Cooperative Norm, Factor 7 - Satisfaction and Factor 8 – Commitment. Correlation analysis was also conducted on the mean of the variables for these factors, and the results indicate that these factors are highly correlated and significant at 0.01 confident levels among them, thus supporting that these factors can be grouped in one feature such as Market Orientation. The results also in lined with the results of correlation analysis conducted by Baker and Simpson (1999) that Market Orientation is supported by these factors. The results are shown in Table 44 below.

## Table 44 – Correlations Matrix for variables related to Market Orientation

		T	T	T	T	1	1	T	T	1
	omisesr eliable	roneouto	oint	jcoop2.c oncern	coop4.willi n ng		g sat1.unha ppy	sat3.veryp leased	commit3. willingtoco nsideroffer byothers	dediaca thissu
trust2.prom isesreliable	1									
trust6.gone outonlimb	.666**	1								
coop1.joint	.793**	.522**	.1							
coop2.con cern	.781**	.587**	.897**	1						
coop4.willi ng	.731**	.566**	.867**	.890**	1					
coop5.toge ther	.742**	.471**	.817**	.763**	.793**	1				
sat1.unhap py	655**	532**	779**	.760**	750**	687**	1			
sat3.verypl eased	451**	537**	400**	354**	357**	355**	.323**	1		
commit3.wi Ilingtoconsi derofferbyo thers	.731**	.520**	.789**	.672**	.700**	.724**	599**	468**	1	

#### Cont. Table 44.

		oneouto	oin	coop2.c oncern				leased	commit3. willingtoco nsideroffer byothers	ediac thissu
commit5.d ediacatetot hissupplier	.704**	.709**	.639**	.723**	.635**	.582**	592**	573**	.577**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

Further analysis using multiple regressions was also conducted on each of the dependent variables. The results show that most of the percentage of variance (R-Square) of the variable are between 30 to 53% and have been significantly explained by the two independent variables (respondent years of purchasing experience and respondent job title). Hence, the decision of the industrial buying centre is influenced by market orientation of selected variables. Thus, the results support *Hypothesis 6, Hos*: