

CHAPTER FOUR: DATA ANALYSIS AND RESULTS

4.1 Introduction

In this chapter, detailed information acquired from the questionnaire survey is presented and discussed in order to prove the research objective. This chapter consists of five sections as follows:

Section 1: Demographic Analysis

Section 2: Preferred Brand Analysis

Section 3: Reliability and Factor Analysis of Measures

Section 4: Brand Equity Analysis

Section 5: Hypothesis Testing and Interpretation

4.2 Demographic Profile of Respondents

This survey was conducted for the present study. The total sample size is 165 (n = 165) and survey was conducted from the different places in Malaysia. Respondents' personal information obtained included gender, age, nationality, educational qualification, occupation, and preferences to buy a particular sportswear brand. These data have been shown in tables as follows:

Table 4.1: Gender analysis

Gender	Frequency	Percentage
Male	63	38.2
Female	102	61.8
Total	165	100.0

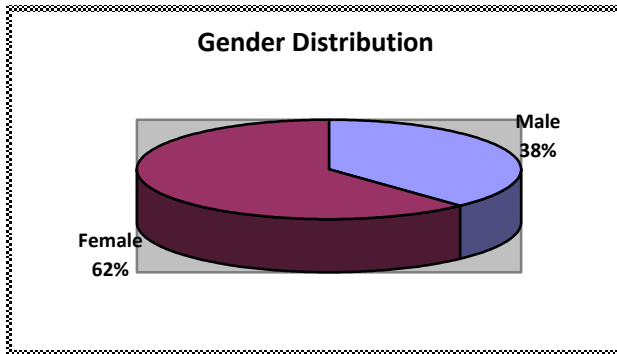


Chart 4.1 : Gender Distribution

More female respondents than male responded in this study. Out of 165 respondents, female respondents are 102, i.e. 62 percent and male respondents are 63, i.e. 38 percent of the total sample size. The ratio of male to female respondents is 1:1.6, as compared to the actual gender ratio of Malaysia demographic of 1:1.01 (Statistics Department of Malaysia, 2009). Thus, the respondents distribution according to age is close enough representative of the exact Malaysian total population.

Table 4.2: Age Analysis

Age	Frequency	Percentage
below 21 years	31	19
21 - 30 years	64	39
31 - 40 years	47	28
41-50 years	23	14
Total	165	100

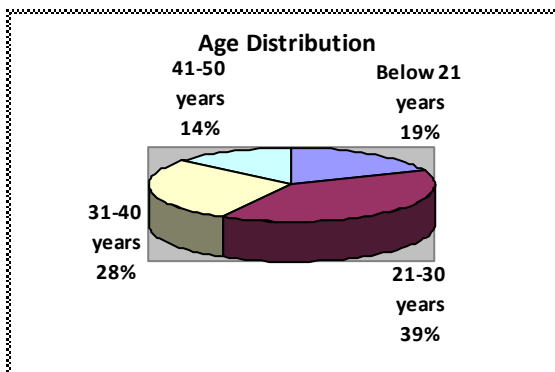


Chart 4.2 : Age Distribution

The most respondents are from the age group of 21-30 years (64, i.e. 39%). This could be due to a lot of questions were distributed in a private college and shopping centers. Second to that is the 31-40 age group (47, i.e. 28%), third is the below 21 age group (31, i.e. 19%) then only followed by the 41-50 age group (23, i.e. 14%). Two age groups of 51-60 years and above 60 years had to be dropped from the study due to zero respondents were received from this group. Comparing the no. of respondents to the actual demographic of Malaysia in the table 4.21 below (Statistics Department of Malaysia, 2009) the distribution of age respondents do not quite match the actual demographic of Malaysia, which may not be good representation of the actual Malaysian population.

Table 4.2.1 Actual demographic of Malaysia (source: Statistics Department of Malaysia)

Age Group	Total %
0-14 years	32%
15-64 years	64%
65 and over	5%

Table 4.3: Nationality Analysis

Nationality	Frequency	Percentage
Malaysian	121	73
Non-Malaysian	44	27
Total	165	100

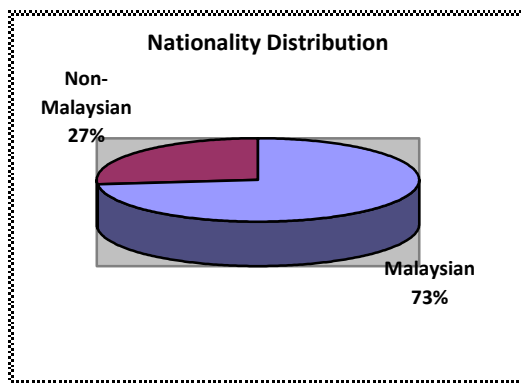


Chart 4.3 : Nationality Distribution

In this survey, there were more Malaysian respondents than non-Malaysian respondents. Table 4.3 shows that Malaysian respondents are 121, i.e. 73 percent of the total sample size, and 44 non-Malaysian respondents, i.e. 27 percent of the total sample size.

Table 4.4: Educational Qualification Analysis

Educational Level	Frequency	Percentage
Secondary School	7	4
Diploma	36	22
Bachelor Degree	66	40
Post Graduate Degree	46	28
Others	10	6
Total	165	100

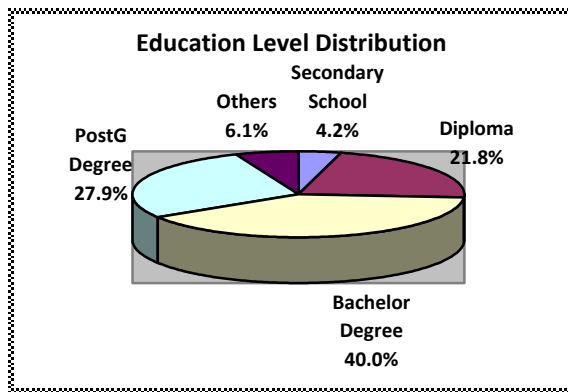


Chart 4.4 : Education Level Distribution

The two highest groups of respondents are from bachelor degree and post graduate degree. 40 percent of the total respondents are from the bachelor degree group (66 numbers), while around 28% respondents are from the postgraduate degree group (46 numbers). This shows that the sample was representative of the study’s intended population of well-educated younger Malaysian consumers. Since this study is conducted in Kuala Lumpur city area, which is the biggest city in Malaysia, thus the education level of the respondents should be higher than the average education level of total population of Malaysia.

Table 4.5: Occupation Analysis

Occupation	Frequency	Percentage
Professional	12	7
Manager/Executive	70	42
Clerical Staff	1	1
Full time student	70	42
Currently not working/ Retiree	9	6
Others	3	2
Total	165	100

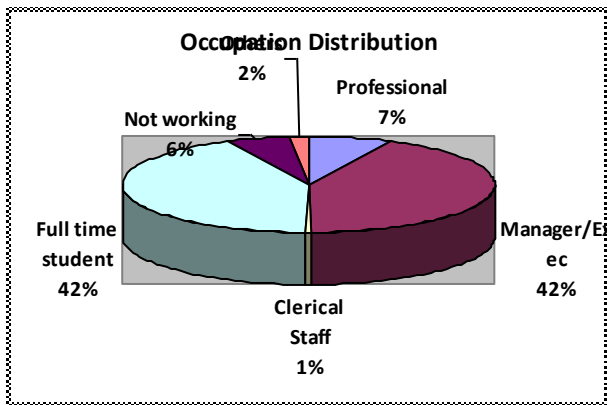


Chart 4.5 : Occupation Distribution

In this study, the occupation groups was chosen rather than the income level group due to the simple fact that did not want to create any awkwardness for the respondents in answering that part of question. The occupation level should already be a vague representative of the income level earned. In this study, the group Manager/Executive and Full Time Student had the same number of respondents, i.e. 70 which represent 42% respectively. This result tallied with the education level distribution as the most respondents were in the Bachelor degree group. However, the technical staff group had to be dropped from this analysis as there were zero respondents from this group.

Table 4.6: Preference to Buy Sportswear Brand Analysis

Brand	Frequency	Percentage
Nike	58	35
Adidas	26	16
Reebok	54	33
Puma	1	1
New Balance	21	13
Others	5	3
Total	165	100

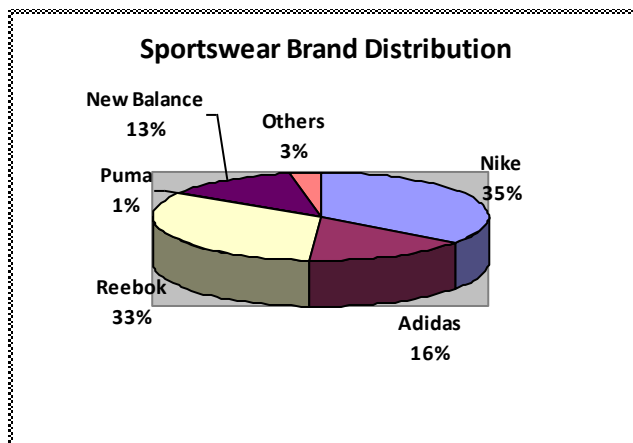


Chart 4.6 : Sportswear Brand Distribution

In this study, there were six options given in the questionnaire to find out which sportswear brand the respondents like to buy for themselves. The six brand options were Nike, Adidas, Reebok, Puma, New Balance, and others. Based on the survey, the most chosen brand from the six options was Nike which scored 58, i.e. 35%, second most chosen brand was Reebok which scored 54, i.e. 33%, third is Adidas with 26 respondents, i.e. 16%, followed by New Balance with 21 respondents, i.e. 13%, then others brand with 5 respondents, i.e. 3% and lastly was Puma with 1 respondent, i.e. 1%. To note that, due to only 1 respondent of Puma, Puma had to be dropped in some of the analysis as explained respectively.

In summary, this sample consisted mainly of young and well-educated Malaysian consumers with comparatively high dispensable income due to their level of occupation. This sample are more attracted to foreign-branded apparel products, able to afford them and are educated enough to appreciate branding and which all that comes with the brand. The target market of foreign products in Malaysia is rapidly expanding in the middle class group, again this belongs to the young, well-educated

and high-income people in the Kuala Lumpur city. Therefore, this study sample well represents the target consumers of foreign branded clothing in the Malaysian market.

4.2 Preferred Brand Analysis

4.2.1 Male likes Reebok, Female likes Nike

Gender		Preferred Brand						Total
		Nike	Adidas	Reebok	Puma	New Balance	Others	
Male	Frequency	22	2	26	0	11	2	63
	%	35%	3%	41%	0%	18%	3%	100%
Female	Frequency	36	24	28	1	10	3	102
	% of Total	35%	23%	28%	1%	10%	3%	100%

Table 4.7: Preferred brand by gender

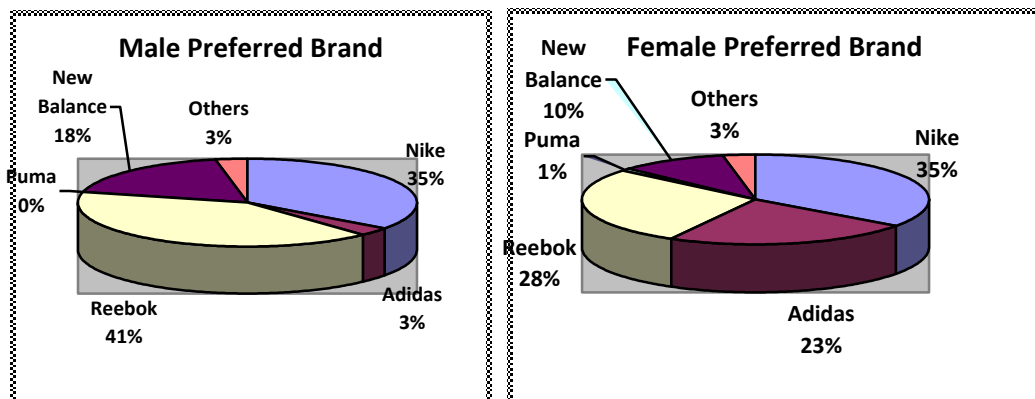


Chart 4.7 : Preferred brand by gender

As for the male respondents, Reebok scored highest in the male category with 26 out of 63 respondents chose Reebok, which is 41%, second highest is in Nike category with 22 out of 63 chose Nike, which is 35% (as circled in Table 4.7). Next is New

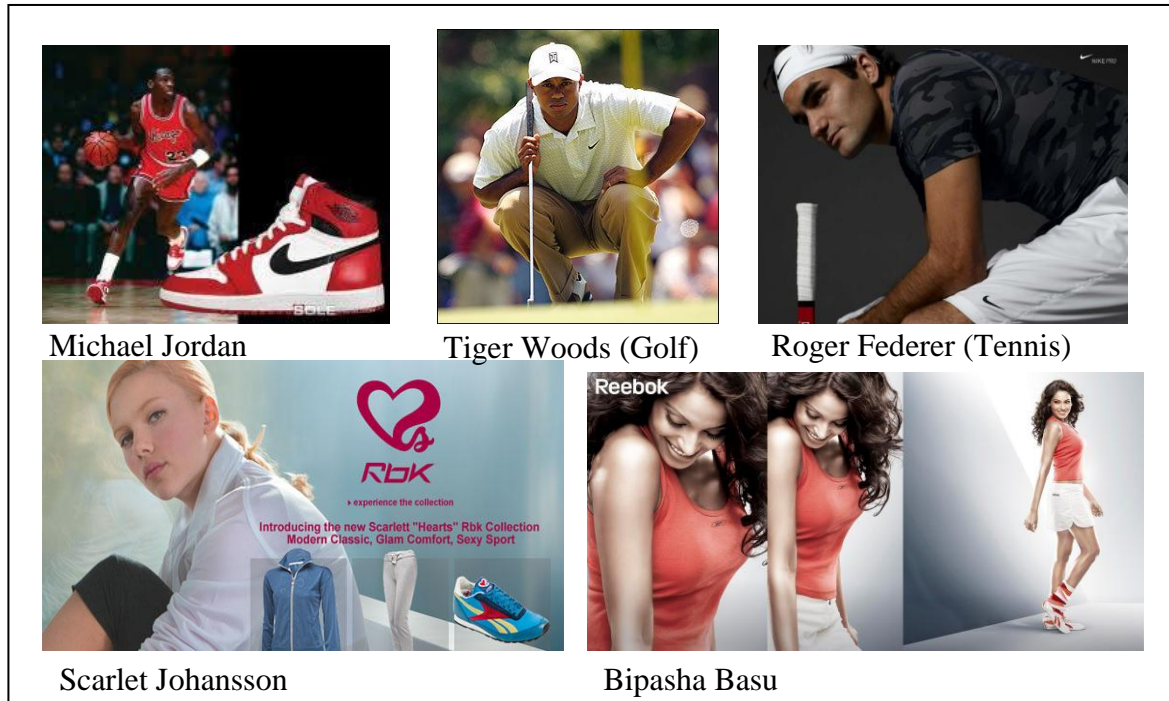
Balance where 11 out of 63 chose New Balance, which is 18% and Adidas, 2 out of 63 chose Adidas, which is 3% and other brands, also 2 out of 63, which is 3%.

As for the female respondents, it was observed that the highest chosen brand is Nike with 36 out of 102, i.e. 35%, second highest is Reebok with 28 out of 102, i.e. 28%. Next is Adidas with 24 out of 102 respondents, i.e. 23%, followed by New Balance with 10 out of 102, i.e. 10%, finally other brands and Puma are at 3 (3%) and 1 (1%) respectively.

It can be concluded from the sample here that more females are in favour of Nike than male, whereas more males are in favour of Reebok than female. What could be the reasons behind this? Looking at one aspect of branding strategy of brand ambassador, Nike's most famous ambassadors are Tiger Woods for Golf, Roger Federer for Tennis, and Michael Jordon for Basketball. Whereas Reebok's famous ambassadors are Bipasha Basu the Bollywood actress, and Scarlet Johansson the Hollywood actress. This could have some influence over many other factors that male could be attracted to the Reebok's brand endorser and female to Nike's. Research has shown that there is gender based purchasing, which should be taken into account when utilizing a celebrity endorser (Aiken, 1963; Gentry and Doering, 1977; Vitz and Johnston, 1965). Previous empirical studies identified that sex appeal serves a number of crucial roles in advertising including attracting initial attention (e.g. Reid and Soley, 1983), enhancing recall (e.g. Steadman, 1969), evoking emotional responses (e.g. Courtney and Whipple, 1983; Hoyer and MacInnis, 2001), and increasing persuasion (e.g. La Tour, Pitts, and Snook-Luther, 1990; Saunders, 1996) as well as

buying intention (e.g. Grazer and Keesling, 1995). Figure 4.1 below shows some examples of Nike and Reebok brand ambassadors.

Figure 4.1: Examples of Nike and Reebok Brand Ambassadors



There could also be other reasons, for example, Nike's fashion is more appealing to women than men, whereas, Reebok is more appealing to men than women, but no academic studies have been found to support this suggestion.

4.2.2 Youthful Nike

Age		Sportswear Brand						Total
		Nike	Adidas	Reebok	Puma	New Balance	Others	
Below 21 years	Frequency	17	3	7	0	2	2	31
	%	55%	10%	23%	0%	6%	6%	100%
21 - 30 years	Frequency	9	8	35	0	11	1	64
	%	14%	13%	55%	0%	17%	1%	100%
31 - 40 years	Frequency	24	15	4	1	1	2	47
	%	51%	32%	9%	2%	2%	4%	100%
41-50 years	Frequency	8	0	8	0	7	0	23
	%	35%	0%	35%	0%	30%	0%	100%

Table 4.8: Preferred Brand by Age

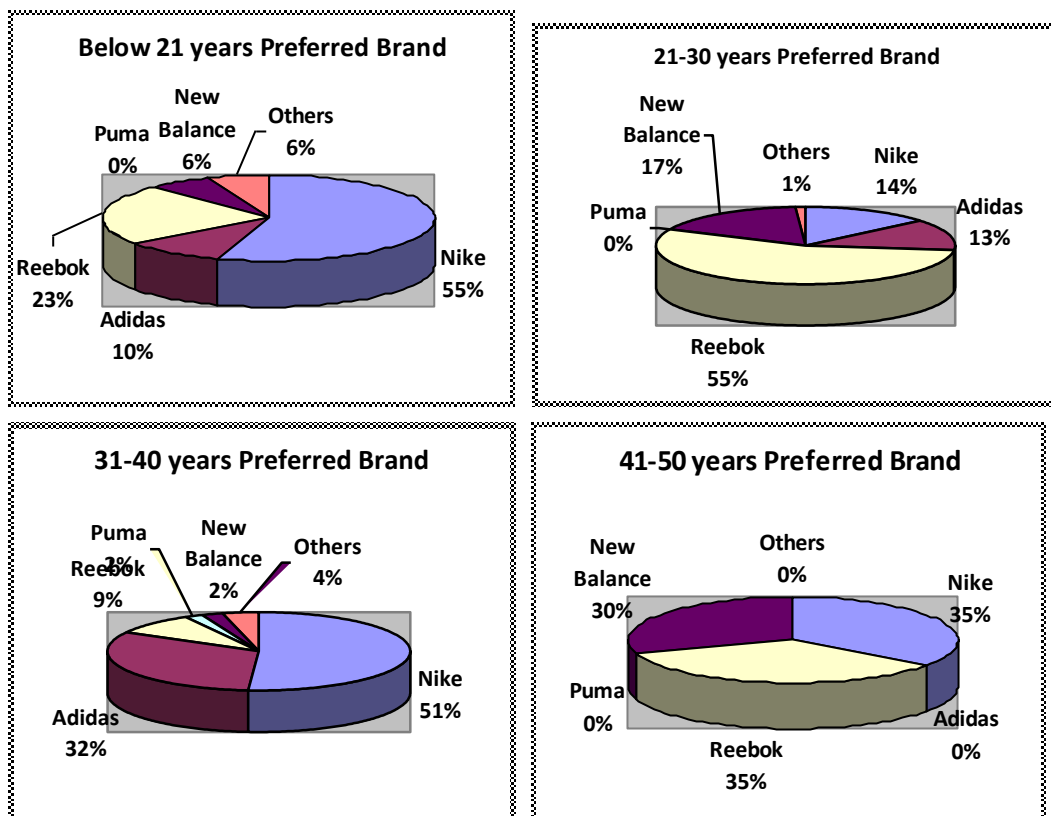


Chart 4.8 : Preferred Brand by Age Groups

It can be seen that the highest number of respondents preferring Nike and Adidas come from ages 31-40 years, whereas most preferring Reebok and New Balance come from ages 21-30 years. Teenagers prefer Nike to other brands, then the preference shifts to Reebok at 21-30 years, then the preference goes back again to Nike at ages 31-40 years, then equal preference between Nike and Reebok in the 41-50 years group. Many interesting factors could contribute to this phenomenon of changing preferences of brands as the age progresses.

As teenagers are mostly living with their parents/family, thus according to Hite and Hite (1994) argue that it is difficult to separate the dual influences, of parental example and advertising, in encouraging your consumers toward repeated choices of leading brands; and thus in affecting the development of young consumers brand preferences and choices. Reflecting on child development theory it is suggested that children's consumer behavior is absorbed at very young ages from familial examples. If parents repeatedly choose a brand the child perceives it to be good. Thus, this suggests that children have little influence over how much to spend, where to make the purchase and the final decision (Beastly and Talpade, 1994). Relating back to the preference findings above, these may have explained as to why the teenagers (below 21 years age) group have the same preference, i.e. Nike, with the 31-40 years group and 41-50 years group, as the latter groups are their parental/familial group of people that may have influenced the young preference.

Hogg, Bruce & Hill (1998) also found that the Nike "swoosh" and the three stripes from Adidas logos are easily recognized by youngsters as brand names, thus brand

recognition, as compared to Reebok and other brands. This could be another reason to explain the preferences found in this study.

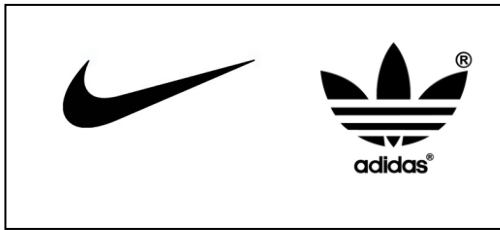


Figure 4.2: Nike Swoosh and Adidas “Three Stripes” Logos

4.2.3 Brand Conscious Malaysians

Nationality		Sportswear Brand						Total
		Nike	Adidas	Reebok	Puma	New Balance	Others	
Malaysian	Frequency	44	25	36	1	11	4	121
	%	36%	21%	30%	1%	9%	3%	100%
Non-Malaysian	Frequency	14	1	18	0	10	1	44
	%	32%	2%	41%	0%	23%	2%	100%

Table 4.9: Preferred brand by nationality

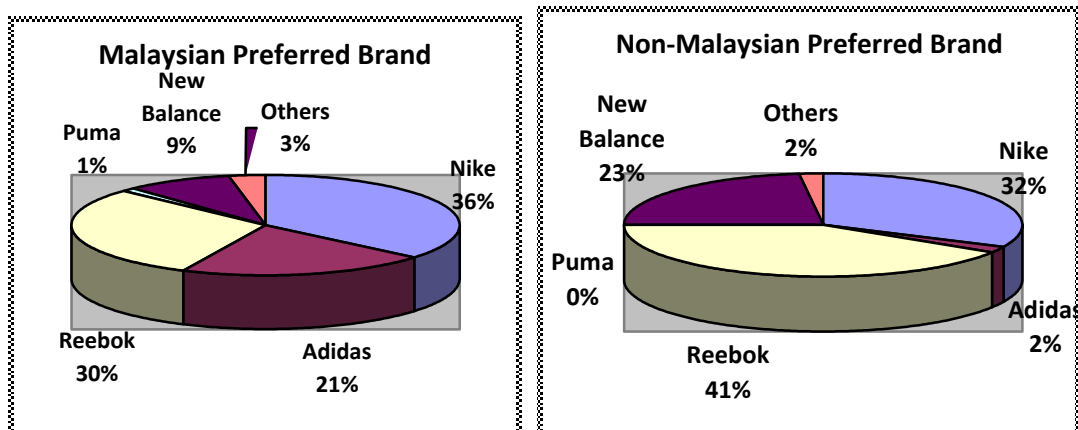


Chart 4.9 : Preferred brand by Nationality

It can be noted from the chart above that Malaysians prefer Nike (at 36%) than non-Malaysian who prefer Reebok (at 41%). Although Nike's score are in the 30's for both categories, but it is interesting to note here that Reebok dominates the Non-Malaysian sample much more. Adidas scored very low for non-Malaysian but did quite good with Malaysian. New Balance on the other hand is more popular for the non-Malaysian as compared to Malaysian.

This finding may imply that Malaysian are more brand conscious as compared to non-Malaysian as Nike is one of the top global brand. As the landscape of the global economy has changed dramatically in Southeast Asia, particularly Malaysia, the purchasing power of Southeast Asian consumers illustrates the extent to which some of these once-small markets such as Malaysia have now become important players. Described as "Asia's Tiger with a Vision" (Selvarajah, 1993), Malaysia is presently classified as an upper-middle income country and considered as one of the most developed of the developing countries. Among the notable impacts of Malaysia's recent economic development is that Malaysian consumers are increasingly exposed to international products and brands, and are selecting from a wider range of products, brands, quality and prices than ever before. Mokhlis 2009 interpreted that young Malaysian consumers who are fashion conscious derive pleasure from buying well-known brands that are the latest in style and expensive at nice department and specialty stores. According to Consumer Malaysia Info Site (2008), Malaysian consumers are becoming more knowledgeable and discerning, and are not easily influenced by advertisements and promotions. They are price conscious, but at the same time desire brand quality. With the growing affluence and changing lifestyle,

consumers are becoming more demanding; not only of the quality of goods but also the services they receive.

4.2.4 School Kids Love Nike!

Education		Sportswear Brand						Total
		Nike	Adidas	Reebok	Puma	New Balance	Others	
Secondary School	Frequency	4	1	1	0	0	1	7
	%	58%	14%	14%	0%	0%	14%	100%
Diploma	Frequency	16	2	10	1	4	3	36
	%	44%	5%	29%	3%	11%	8%	100%
Bachelor Degree	Frequency	15	13	28	0	9	1	66
	%	23%	20%	42%	0%	14%	1%	100%
Post Graduate Degree	Frequency	16	10	12	0	8	0	46
	%	35%	22%	26%	0%	17%	0%	100%
Others	Frequency	7	0	3	0	0	0	10
	%	70%	0%	30%	0%	.0%	0%	100%

Table 4.10: Preferred brand by education level

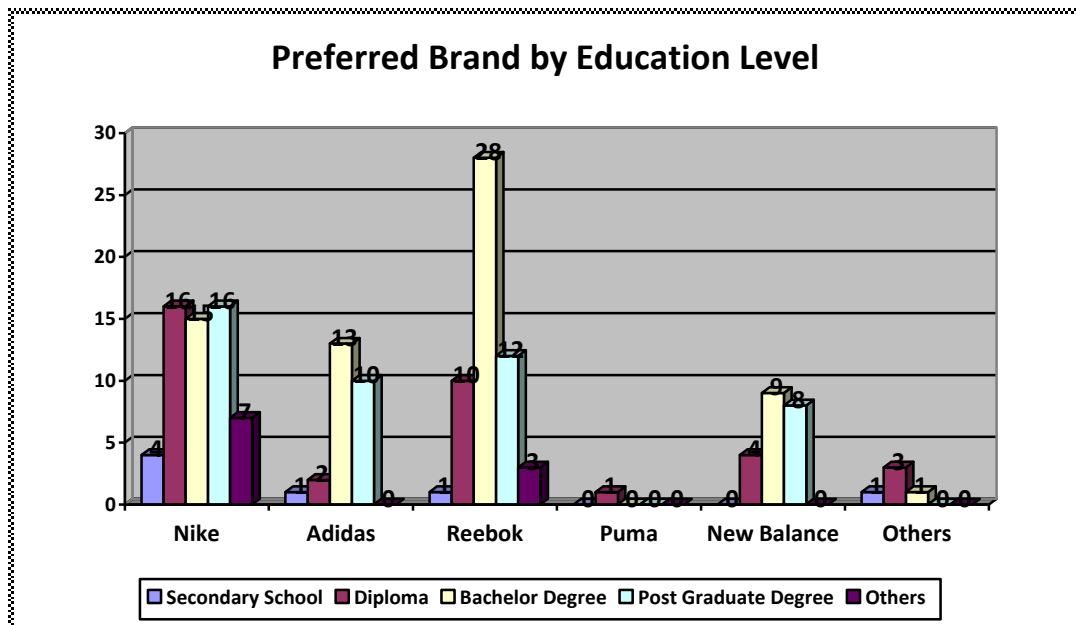


Chart 4.10 : Preferred Brand by Education Level

From the result above, it is noted that both categories of school children and diploma prefer Nike the most. As for bachelor degree group, Reebok is their preferred choice, but the preference shifted to Nike again in post graduate group, and in other category group Nike is also the most preferred brand. This is comparable to the result from analysis between the age group and sportswear brand, which had Reebok scoring the highest for the group 21-30 years and Nike highest for the age group of 31-40 years. According to Achenreiner (2003), there is a growing interest in the role played by brands in the everyday life of consumers, including that of younger consumers, brand consciousness amongst children is on the increase, it has in fact become an integral part of the way young consumers define themselves and how they would like others to view them.

4.2.5 Nike Dominates Professionals and Full time student

Occupation		Sportswear Brand						Total
		Nike	Adidas	Reebo k	Puma	New Balance	Others	
Professional	Frequency	9	1	1	0	1	0	12
	%	75%	8%	8%	0%	8%	0%	100%
Manager/Executive	Frequency	20	19	24	0	7	0	70
	% of Total	29%	27%	34%	0%	10%	0%	100%
Clerical Staff	Frequency	0	0	1	0	0	0	1
	% of Total	0%	0%	100%	0%	0%	0%	100%
Full time student	Frequency	27	4	25	0	12	2	70
	% of Total	39%	6%	36%	0%	17%	3%	100%
Currently not working/ Retiree	Frequency	2	2	2	0	1	2	9
	% of Total	22%	22%	22%	0%	11%	22%	100%
Others	Frequency	0	0	1	1	0	1	3
	% of Total	0%	0%	33%	33%	0%	34%	100%

Table 4.11: Preferred brand by occupation

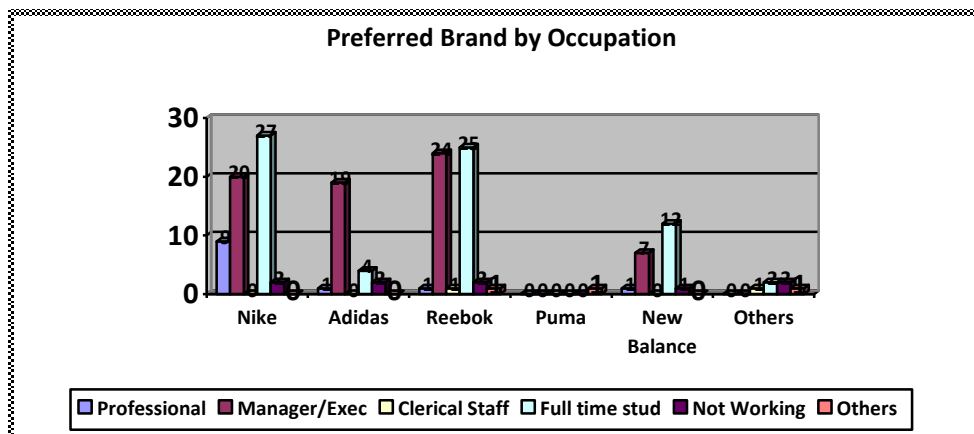


Chart 4.11 : Preferred brand by occupation

It can be observed that 34% of Manager/Executive group chose Reebok, followed by Nike at 29%, and followed by Adidas 27%. As for full-time student group, 39% chose Nike, 36% Reebok and 17% New Balance. As for the professional group, 75% chose Nike, followed by Adidas, Reebok and New Balance at 8% each. In this analysis, the groups clerical staff and others had very small respondents, so can be abandoned. This suggests that Nike is more favorable to the professional and full-time student group, Reebok is more favorable to the Manager/Executive group.

4.3 Reliability and Factor Analysis of Measures

4.3.1 Reliability Analysis

According to Malhotra and Birks (1999, p. 313), reliability refers to the extent to which measurements of the particular test are repeatable. This means that the outcomes of the measurement, in repeated sequences of measuring, must be consistent. The greater the level of consistency in repeated sequences the greater the reliability.

Reliability analysis using Cronbach's Alpha was conducted for both dimensions. The value range of this coefficient is between 0 and 1. The value of the coefficient is closer to 1 indicates the greater reliability.

In this study, Cronbach's alpha coefficients are used to examine the internal consistency of the items, and items with adequate Cronbach's alphas are retained for the scales.

The values of the coefficients calculated by using SPSS reliability procedure are presented in Table 4.12.

Table 4.12: Reliability brand equity dimensions (Cronbach's Alpha)

Brand Equity Dimension	Cronbach's Alpha Score
Perceived Quality	0.829
Brand Awareness	0.709
Brand Association	0.722
Brand Loyalty	0.829
Overall Brand Equity	0.686

The value of Cronbach's alpha for "overall brand equity" is calculated as a score of 0.686, which was very close to the traditional acceptable value of 0.70. Four other constructs meet the recommended cut-off value. As a result, all of the constructs are acceptable and a total of eighteen items are retained for the five constructs in the study. More tables about reliability test (Chronbach's alpha) are shown in Appendix B.

4.3.2 Factor Analysis

Factor analysis, a class of procedures primarily used for data reduction and summarization (Malhotra and Birks, 1999, p. 760), is used to examine discriminant validity. Factor loadings were obtained using SPSS factor analysis procedure in order to create constructs.

The questionnaire was developed from a theoretical framework that was derived from an extensive literature review.

This study was applied factor analysis procedure to test the variable to reconfirm convergent of the entire factor adopted from the previous questionnaire (Tong and Halwey, 2009).

The value of factor loadings indicates the strength of the relationship between the item and the factor. The minimum requirements for the value of factor loadings is 0.3; one should take into account all factor loadings with the value above 0.4 as important, while those which have the value above 0.5 are considered significant (Sharma, 1996, p. 111). Therefore, higher the factor loading, the claim that the item is represented by the factor which is assigned to it, is more reliable.

Product brand equity consists of four factors: perceived quality, brand awareness, brand association, and brand loyalty. The purpose of this section is to explain how the scales for each of the constructs were developed.

The following are the value of factor loading of particular question consists in the questionnaire which shown in the Table 4.13.

Table 4.13: Factor loading of brand equity questions

Item	Factor Loading			
Perceived Quality				
I trust the quality of product from the chosen brand	0.80			
Chosen brand would be of very good quality	0.79			
Chosen brand offer excellent features	0.64			
Brand Awareness				
Characteristics of the chosen brand come to my mind quickly		0.61		
I can recognize the chosen brand quickly among other competing brands		0.60		
I am familiar with the chosen brand		0.49		
Brand Association				
The chosen brand has very unique brand image, compared to competing brands			0.82	
I respect and admire people who wear the chosen brand			0.62	
I like the brand image of the chosen brand			0.84	
I like and trust the company, which makes the chosen brand products			0.95	
Brand Loyalty				
I consider myself to be loyal to the chosen brand				0.58
When buying athletic shoes, the chosen brand would be my first choice				0.61
I will keep on buying the chosen brand as long as it provides me satisfactory products				0.62
I am still willing to buy the chosen brand even if its price is a little higher than that of its competitors				0.69
I would love to recommend the chosen brand to my friends				0.67
Overall Brand Equity				
Even if another brand has the same features as the chosen brand, I would prefer to buy the chosen brand				0.84
If another brand is not different from the chosen brand in any way, it seems smarter to purchase the chosen brand				0.95
The chosen brand is more than a product to me				0.82

Perceived quality: This factor is measured by three items of question included in the questionnaire. Perceived quality refers to the extent to which consumers perceive the quality of product. Factor loading scores are presented in Table 4.13. As one can see all factor loadings for Perceived Quality construct are highly significant (above 0.50). The highest factor loading is for the 1st item = 0.80 and the lowest factor loading is for the 3rd item = 0.64 (above 0.50). Therefore, all items formed the perceived quality.

Brand awareness: This component consists of three items of question included in the questionnaire. This construct measures how consumers aware on brand in question. It can be seen in Table 4.13 that loadings on this factor are highly significant except one. The highest factor loading is = 0.61 and the lowest is the factor loading is = 0.49 which is very close to 0.50. Therefore, all three items included formed the brand awareness scale.

Brand association: This factor consists of four items of question included in the questionnaire. This construct measures the extent to which the consumers perceive the brand association as positive. Factor loadings on this factor are presented in Table 4.13, and it can be seen that factor loadings are highly significant (above 0.50). The highest factor loading is the 4th item = 0.95 and the lowest factor loading is the 2nd item = 0.62. Therefore, all five items formed the brand association scale.

Brand loyalty: This component consists of five items of question included in the questionnaire. This construct measures how consumers loyalty on the brand in question. It can be seen in Table 4.13 that loadings on this factor are highly significant (above 0.50). The highest factor loading is the 4th item = 0.69 and the lowest is the

factor loading is the 1st item = 0.59. Therefore, all five items included formed the brand loyalty scale.

Overall brand equity: This factor consists of three items of question included in the questionnaire. This construct measures the extent to which the consumers perceive regarding the overall brand equity as positive. Factor loadings on this factor are presented in Table 4.13, and it can be seen that factor loadings are highly significant (above 0.50). The highest factor loading is the 2nd item = 0.95 and the lowest factor loading is the 3rd item = 0.82. Therefore, all five items formed the overall brand equity scale.

4.4 Brand Equity Analysis by Brand

In a likert scale, usually above 3.00 mean represents agree, and our comment will be based on the mean value. In the Table 4.14 shows the respondents' opinions on the level of agreement of brand equity factors to the respondents.

Table 4.14: The analysis of brand equity perception

Brand equity factor	Mean	S.D.	Level of Agreement
Perceived Quality			
I trust the quality of product from the chosen brand	4.05	0.656	Agree
Chosen brand would be of very good quality	3.94	0.722	Agree
Chosen brand offer excellent features	3.94	0.621	Agree
Total	3.94	0.621	Agree
Brand Awareness			
Characteristics of the chosen brand come to my mind quickly	3.87	0.700	Agree
I can recognize the chosen brand quickly among other competing brands	3.99	0.855	Agree
I am familiar with the chosen brand	3.96	0.811	Agree
Total	3.94	0.628	Agree

Brand Association			
The chosen brand has very unique brand image, compared to competing brands	3.62	0.799	Agree
I respect and admire people who wear the chosen brand	3.06	0.935	Neutral
I like the brand image of the chosen brand	3.65	0.779	Agree
I like and trust the company, which makes the chosen brand products	3.61	0.786	Agree
Total	3.48	0.611	Agree
Brand Loyalty			
I consider myself to be loyal to the chosen brand	3.32	0.950	Agree
When buying athletic shoes, the chosen brand would be my first choice	3.62	0.906	Agree
I will keep on buying the chosen brand as long as it provides me satisfied products	3.83	0.888	Agree
I am still willing to buy the chosen brand even if its price is a little higher than that of its competitors	3.36	1.059	Agree
I would love to recommend the chosen brand to my friends	3.53	0.927	Agree
Total	3.53	0.730	Agree
Overall Brand Equity			
Even if another brand has the same features as the chosen brand, I would prefer to buy the chosen brand	3.65	0.779	Agree
If another brand is not different from the chosen brand in any way, it seems smarter to purchase the chosen brand	3.61	0.786	Agree
The chosen brand is more than a product to me	3.62	0.799	Agree
Total	3.62	0.617	Agree

It was mentioned earlier that there are five factors included in the questionnaire which are: perceived quality, brand awareness, brand association, brand loyalty, and overall brand equity. Perceived quality factor was constituted with three questions in the questionnaire. Based on our data analysis, the overall mean = 3.94, S.D. = 0.621 shows that agree level of respondents on perceived quality of sportswear brand for the Malaysian consumers. All the three questions are agreed by the respondents.

Brand awareness factor was constituted with three questions in the questionnaire. The overall mean = 3.94, S.D. = 0.628 shows that agree level of brand awareness on sportswear for the Malaysian consumers. All the three questions are agreed by the respondents regarding brand awareness of sportswear market in Malaysia.

Brand association factor was constituted with four questions in the questionnaire. The overall mean = 3.48, S.D. = 0.611 shows that agree level of brand association on sportswear market for the Malaysian consumers. The question no.2 shows the neutral level and the question no.1, 3, and 4 shows agree level regarding brand association of sportswear market in Malaysia.

Brand loyalty factor was constituted with five questions in the questionnaire. The overall mean = 3.53, S.D. = 0.730 shows the agree level of brand loyalty on sportswear for the Malaysian consumers. All five questions of brand loyalty shows that agree level regarding brand loyalty of sportswear market in Malaysia.

Overall brand equity factor was constituted with three questions in the questionnaire. The overall mean = 3.62, S.D. = 0.617 shows the agree level of overall brand equity on sportswear product for the Malaysian consumers. All the three questions are agreed by the respondents regarding overall brand equity of sportswear market in Malaysia.

4.5 Test of Hypotheses

In this study, there are four hypotheses which were mentioned in the methodology part (chapter three). Since all the four hypotheses are testing on the direct effect (influence) in nature, thus the Multiple Regression Analysis is used to check the significance of the hypotheses.

4.5.1 Relationship of perceived quality, brand awareness, brand association, brand loyalty and brand equity

Correlation analysis is used to examine the relationship between two variables in a linear fashion (Pallet, 2001). This study used the Pearson product-moment correlation coefficients to measure the relationship between the independent variables (perceived quality, brand awareness, brand association and brand loyalty). Cohen (1988) suggested some guidelines as to the strength of the relationship of the variables, whether it is small, medium or large as in Table 4.15. The Pearson correlation matrix obtained for the five interval-scaled variables is shown in Table 4.16 below.

Table 4.15: Strength of Relationship between two variables

Value of Pearson Correlation (r)	Strength of the relationship
$r = 0.10$ to 0.29 or $r = -0.10$ to -0.29	Small
$r = 0.30$ to 0.49 or $r = -0.30$ to -0.49	Medium
$r = 0.5-$ to 1 or $r = -0.50$ to -1	Large

Table 4.16: Pearson Correlations of Sportswear Brand Equity

		pq	baw	bas	bl	Strength of relationship
pq	Pearson Correlation	1	.490**	.426**	.418**	medium
	Sig. (2-tailed)		.000	.000	.000	
	N	165	165	165	165	
baw	Pearson Correlation	.490**	1	.457**	.450**	medium
	Sig. (2-tailed)	.000		.000	.000	
	N	165	165	165	165	
bas	Pearson Correlation	.426**	.457**	1	.492**	medium
	Sig. (2-tailed)	.000	.000		.000	
	N	165	165	165	165	
bl	Pearson Correlation	.418**	.450**	.492**	1	medium
	Sig. (2-tailed)	.000	.000	.000		
	N	165	165	165	165	

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

Note:

pq=Perceived Quality, baw=Brand Awareness, bas=Brand Association, bl=Brand Loyalty

Based on the data analysis, all independent variables were found to have medium positive relationship between each other. According to Sekaran (2003), if any of the variables have correlations higher than 0.75, it is suspected that whether or not the correlated variables are two different and distinctive variables and would have doubted the validity of the measures, which in this case all variables are valid.

4.5.2 Multiple Regression Analysis

Multiple regression analysis is done to examine the simultaneous effects of several independent variables on a dependant variable that is interval scaled (Sekaran, 2003).

As for the model fit testing via regression analysis, it has been found that the R-squared value for this model is $R^2 = 0.906$. Although, the empirical data and statistical tests in this study do not provide enough support for the positive and direct relationship between perceived quality and brand loyalty to the consumer-based brand equity on the sportswear market in Malaysia, but the overall analysis coefficients model fit shows that all the four independent variables (perceived quality, brand awareness, brand association, brand loyalty) combined, represents 90% of the dependent variable, i.e. brand equity as illustrated by Table 4.17 and 4.18 below. Thus the model is fit for hypotheses testing using its t-value and p-value and the use of multiple regression is valid.

Table 4.17: Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.952 ^a	.906	.904	.19183

a. Predictors: (Constant), bl, pq, bas, baw

Note: Constant = Overall Brand Equity, bl=Brand Loyalty, pq=Perceived Quality, bas=Brand Association, baw=Brand Awareness

However, it is mentioned here that the R-square value is exceptionally high and may suggest that the independent variables may be closely related to each other. This can be supported by the pearson correlation result which explains the strength of relationship are all on the medium level.

Table 4.18: Coefficients Results of Sportswear Brand Equity

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig. (p-value)
	B	Std. Error	Beta		
(Constant)	-.070	.116		-.599	.550
pq	.055	.029	.055	1.893	.060
baw	.131	.029	.134	4.456	.000
bas	.891	.030	.881	29.617	.000
bl	-.041	.025	-.048	-1.639	.103

Table 4.19: Results of hypotheses testing

Hypothesis	Relationships	Standardized Coefficient (β)	t-value	p-value	Results
H1	Perceived quality \rightarrow brand equity	0.055	1.893	0.060	Unsupported
H2	Brand awareness \rightarrow brand equity	0.134	4.456	0.000	Supported
H3	Brand association \rightarrow brand equity	0.881	29.617	0.000	Supported
H4	Brand loyalty \rightarrow brand equity	-0.048	-1.639	0.103	Unsupported

The results show that no support for H1, which is perceived quality does not directly influence brand equity for Malaysian sample ($\beta = 0.055$, $t = 1.89$, $p\text{-value} = 0.60$).

This is supported by previous study done by Tong & Hawley 2009 in Chinese sample,

which also indicated that perceived quality did not influence brand equity. As for H2, the result showed strong support for brand awareness influencing brand equity ($\beta = 0.134$, $t = 4.45$, $p\text{-value} = 0.00$) as also supported by study done by (Kim, K. H., Kim, K. S., Kim, D. Y., Kim, J. H. & Kang, S. H., 2008), which found brand awareness positively affect brand equity for hospital marketing in Korea.

Next is for brand association, H3, the result showed that there is strong support that brand association has direct effect on brand equity ($\beta = 0.881$, $t = 29.61$, $p\text{-value} = 0.00$), as also supported by the finding from Tong and Hawley 2009 in China. However for H4, the result showed that there is no support for brand loyalty influencing brand equity ($\beta = -0.048$, $t = -1.639$, $p\text{-value} = 0.103$). This finding is supported by the study done by (Kim et. al.. 2008) but contradicts with the study done by Tong and Hawley (2009) which indicated that brand loyalty had influence in brand equity.

The results above indicate that brand awareness and brand association are the two most important components of brand equity, as the foundation to brand equity. This suggests that one must be aware of the brand and want to be associated to the brand before one decides whether the brand is worth buying or not. According to Chen (2001), brand association is the core asset for the building strong brand equity compared to three other assets of Aaker's –brand awareness, brand loyalty, and perceived quality. He addressed several reasons for his argument. First, brand awareness is a necessary asset but not sufficient for building strong brand equity. Second, the other brand equity dimensions enhance brand loyalty. The perceived quality, the association, and the well-known name can provide reasons to buy and

affect user satisfaction, which results to brand loyalty. Nevertheless, brand loyalty is sometimes excluded from the conceptualization of brand equity. This is because consumers may be in the habit of buying a particular brand without really thinking much about why. Finally, the perceived quality is one kind of brand association. The concept of brand knowledge also focuses on the association network.

It is not surprising to find that perceived quality and brand loyalty do not affect brand equity as much as brand awareness and brand association. Although according to Aaker, 1996, perceived quality is one of the key dimensions of brand equity –it is the core construct in the total research approach to measuring brand equity, Malaysian market is not applicable such. Brand equity is highly associated with key brand equity measures, including specific functional benefit variables. Hence, perceived quality only provides a surrogate variable for other more specific elements of brand equity (Aaker, 1996)

As for brand loyalty, according to Brexendorf *et al.* (2009), sustaining brand loyalty is a key challenge in increasingly competitive markets. Brand loyalty generates numerous benefits like erecting barriers to competitors, generating greater sales and revenues, reducing customer acquisition costs, and inhibiting customers' susceptibility to marketing efforts of competitors. They also mentioned that brand loyalty is the central concern of brand equity. Building brand loyalty requires investments in marketing programs that target current and potential consumer. Through the marketing programs brand loyalty can influence to the consumers' mindset and may influence the result in a number of different outcomes, such as brand awareness, brand associations, attitude and behavior towards the brand. However, it can be

concluded here that Malaysian consumers are not ready to be brand loyal to a particular brand, as there are many suggested attributes that can co-influence this factor.

It is interesting to look at the brand loyalty result whereby Malaysian and Korean sample showed no influence with brand equity whereas the Chinese sample showed there is influence. Why brand loyalty has negative relationship with sportswear brand equity particularly in Malaysia? There are many reasons why brand loyalty has negative relationship with brand equity. To name a few:

- Price
- Brand style
- Store environment
- Service quality
- Religion and cultural affect

Price:

Price is probably the most important consideration for the average consumer. Consumers with high brand loyalty are willing to pay a premium price for their favored brand, so, their purchase intention is not easily affected by price (Cadogan and Foster, 2000).

According to Bucklin *et al.* (1998), price significantly influences consumer choice and incidence of purchase. They highlighted that discount pricing makes households switch brands and buy products earlier than needed. Price is described as the quantity of payment or compensation for something. It indicates price as an exchange ratio

between goods that pay for each other. Price also communicates to the market the company's intended value positioning of its product or brand.

Bases on above discussion it can be understood that price has strong impact on brand loyalty. If sportswear brand price is high, then consumers can switch to the alternative brands which brand price is lower than their favorite brand.

Brand style:

According to Sproles and Kendall (1986), fashion consciousness is generally defined as an awareness of new styles, changing fashions, and attractive styling, as well as the desire to buy something exciting and trendy.

Research conducted by Duff (1999) investigated the niche market in women's sportswear, and the results showed that sportswear shoppers were becoming more fashion conscious and were demanding products with more style; furthermore, consumers have a tendency to wear different attires for different occasions. However, if there is any problem in the style of sportswear brand, then consumers can lose interest in buying their preferred brand.

Store Environment:

Store location, store internal environment and layout is very important to the brand loyalty. If consumers find the store to be highly accessible during their shopping trip and are satisfied with the store's assortment and services, these consumers may become loyal afterwards (Evans *et al.*, 1996). Thus, a store's atmosphere is one of the factors that could influence consumer's decision making.

On the other hand, if consumers find the store to be difficult accessible due to the poor store layout, noises, bad odour, high temperature in the store, narrow shelf space, unclear signage, and poor colors (Abraham and Littrell, 1995), which may affect consumers loyalty to that particular brand.

Service Quality:

The impact of salespeople-consumer relationships will generally result in long term orientation of consumers towards the store or brand. Trust in salespeople appears to relate to overall perceptions of the store's service quality, and results in the consumer being totally satisfied with the stores in the end. Additionally, personalization (i.e. reliability, and responsiveness) significantly influence consumers' experience and evaluation of service, and in turn, affects the brand loyalty of consumers (Yee and Sidek 2008). However, if brand service quality is poor, then consumers can lost their faith on their preferable brand and they try to find some other alternative brands which service quality is better than previous brand.

Religion and Cultural Affect:

Religion and cultural affect is one of the important factors for the brand loyalty in the sportswear market. Different country has different religion and different culture. Due to the different culture and religion consumer has different faith on the different brand. For example, China and Malaysia country has different culture and different religion. The majority of Chinese consumers are Buddhist, whereas Malaysian consumers are Muslim. Due to the cultural difference and different religion faith, Malaysian consumers may not have different ways of responding to the brands as

supposed to the Chinese. Many underlying reasons could be thought of but no study has been properly done to compare between Malaysian and Chinese consumer behavior basing on religion and cultural values.

Thus, the following equation can be expressed as:

$$\text{Brand Equity} = -0.70 + 0.055 (\text{Perceived Quality}) + 0.131 (\text{Brand Awareness}) + 0.891 (\text{Brand Association}) - 0.41 (\text{Brand Loyalty})$$

4.6 Conclusion

Based on the results, out of four components of brand equity founded by Keller 2003, namely perceived quality, brand awareness, brand association and brand loyalty, only brand awareness and brand association were found to have influence with brand equity, but not perceived quality and brand loyalty for Malaysian market. However, the study also found that all the four components, ie, perceived quality, brand awareness, brand associations and brand loyalty, contribute to almost 90% of brand equity, which support Keller's model of brand equity.

Chapter 5 will cover the summary and the recommendations of this study.