CHAPTER 4

RESEARCH RESULTS

4.0 Introduction

This chapter outlines the analysis of the data, as well as presenting and discussing the results of the hypotheses testing. It will first discuss the results of the data collection, followed by the data screening and manipulating, including checking for errors, missing data and outliers. After that the discussion on the demographic profile of the respondents are presented. The demographic profile collected from this study included gender of the respondents, age, marital status, education level, occupation, household income, household members and the region or geographic area the respondents are located. Then, the descriptive analyses as well as the test of mean differences (independent sample T-Test and one-way ANOVA) are discussed. Lastly, the assumption for multivariate analysis and the results of the hypotheses testing are presented.

4.1 Demographic Characteristics of the Respondents

The demographic profile of the respondents, i.e., gender, age, marital status, education level, occupation, monthly income, number of household members, and the geographical location or the region of the respondents were included in this study. According to Zikmund (2000), descriptive analysis refers to the

transformation of raw data into a form that will make them easy to understand and interpret. Furthermore, frequency is a simple tabulation that indicates the frequency with which respondents give a particular answer. Frequency distributions and percentage distributions were used to describe responses on categorical demographic variables. The results of the descriptive analyses for all the demographic variables in this study are summarised in Table 4.1.

Table 4.1
Demographic Characteristics of Respondents (N=663)

Demographic Characteristics	Frequency	Percentage
1. Gender		
• Male	344	51.9
• Female	319	48.1
2. Age		
• Below 24 yrs	67	10.1
• 25 to 29 yrs	129	19.5
• 30 to 34 yrs	175	26.4
• 35 to 39 yrs	105	15.8
• 40 to 44 yrs	78	11.8
• 45 to 49 yrs	39	5.9
• 50 to 54 yrs	38	5.7
• 55 to 59 yrs	21	3.2
• Above 60 yrs	11	1.7
3. Marital Status		
• Single	172	25.9
• Married without Children	51	7.7
• Married with Children	422	63.7
• Divorced, Widowed, Separated	18	2.7
4. Education Level*		
• Not Educated	2	0.3
• Primary School	7	1.1
• LCE, SRP, PMR	14	2.1
• MCE, SPM, SPVM	153	23.1
• HSC, STP, STPM	45	6.8
• College Diploma	176	26.5
• Bachelor Degree	189	28.5
• Master Degree	74	11.2
• PhD	3	0.5

Table 4.1 (Continued)

Demographic Characteristics	Frequency	Percentage
5. Occupation		
• Manager, Director	36	5.4
• Officer, Executive	136	20.5
• Professional	32	4.8
• Government (Professional)	94	14.2
• Government (Support)	57	8.6
• School Teacher	60	9.0
• Self-employed, Businessmen	42	6.3
• Clerical (Private)	108	16.3
• Student	28	4.2
• Housewife	17	2.6
• Pensioner	14	2.1
• Others	39	5.9
6. Income**		
• Below RM1000	65	9.8
• RM1000 to RM2999	270	40.7
• RM3000 to RM4999	168	25.3
• RM5000 to RM6999	75	11.3
• RM7000 to RM8999	46	6.9
• RM9000 to RM10999	16	2.4
• RM11000 and above	23	3.5
7. Household Members		
• 1 to 2 persons	91	13.7
• 3 to 4 persons	254	38.3
• 5 to 6 persons	219	33.0
• 7 persons and above	99	15.0
8. Region		
• North (Perlis and Kedah)	140	21.1
• South (Melaka and Johor)	160	24.1
• East Coast (Kelantan and Terengganu)	156	23.5
• Central (Kuala Lumpur and Selangor)	207	31.2

** For Not Educated, Primary School, LCE, SRP, PMR and MCE, SPM, SPVM = O-Level and Below; for HSC, STP, STPM and College Diploma = A-Level; for Bachelor Degree, Master Degree and PhD = University Graduate*
*** RM = Ringgit Malaysia, US$1 ≈ RM3.60*

Gender was divided almost equally in this study. Slightly over half, i.e., 51.9% (n=344) reported they were male, while 48.1% (n=319) were female. It shows that a balanced gender group between male and female was obtained for the respondents.

In terms of age, the study found that out of the 663 respondents, 26.4% were 30 to 34 year old (n=175). The next largest group was the 25 to 29 year old (19.5%, n=129) followed by the 35 to 39 year old (15.8%, n=105), 40 to 44 year old (11.8%, n=78), below 24 years old (10.1%, n=67), 45 to 49 year old (5.9%, n=39), followed by the 50 to 54 year old (5.7%, n=38), 55 to 59 year old (3.2%, n=2) and lastly, above 60 years old (1.7%, n =11), respectively. The age of respondents in the 25 to 39 bracket was predominant as it was over 60%.

In terms of marital status, the majority of the respondents were married with children (63.7%, n=422), followed by the single group consisting of 25.9% (n=172), 7.7% (n=51) of the respondents were married without children and lastly, only 2.7% (n=18) were divorced, widowed or separated.

For the education level, most of the respondents were either college diploma or bachelor degree holders. There were 26.5% (n=176) college diploma holders and 28.5% of the respondents (n=189) were bachelor degree holders. The third largest group in terms of their educational level was MCE/SPM/SPMV group with 23.1% (n=153), followed by master degree holders (11.2%, n=74), HSC/STP/STPM (6.8%, n=45), LCE, SRP, PMR (2.1%, n=14), primary school (1.1%, n=7), PhD holders (0.5%, n=3) and lastly, not educated group counted at 0.3% (n=2). From the data, we can see that most of the respondents were at least college diploma holders. Perhaps, as more educated respondents have better knowledge on foreign made products it will influence the number of respondents from each group. In this case, for the respondents who have MCE/SPM/SPMV are equivalent to the high school

graduated and for those who passed the HSC/STP/STPM and College Diploma are equivalent to A-Level.

Respondents were also asked about their occupation. In terms of occupation, 22.2% (n=151) were working in the government sector either in a professional group or support group. Another 20.5% (n=136) were officers/executives, the clerical staff in private sector were counted at 16.3% (n=108), followed by school teachers (9%, n=60), self-employed (6.3%, n=42), managers/directors (5.4%, n=36), professional group (4.8%, n=32), students (4.2% n=28), housewives (2.6%, n=17), pensioner (2.1%, n=14) and lastly, approximately 6% of the respondents (n=39) indicated other jobs not listed in the questionnaire. More than 45% of the respondents worked at least as an officer/executive level. Possibly, one of the reasons for this is because more than half of the respondents were at least a college diploma holder.

In terms of monthly household income, the study found that the largest category answered by the respondents was the RM1,000 to RM2,999 income group. Over 40% of the respondents (n=270) earned this amount of monthly household income. The second largest group was the monthly household income of RM3,000 to RM4,999. There were 25.3% (n=168) of the respondents in this group, followed by the RM5,000 to RM6,999 group (11.3%, n=75), and below RM1,000 (9.8%, n=65). For the last 3 groups, 6.9 % (n=46), 3.5% (n=23), and 2.4% (n=16) of the total respondents had a monthly household income in the range of RM7,000 to RM8,999, RM11,000 and above, and RM9,000 to RM10,999 respectively. From the results, approximately 50% of the respondents earned a monthly household income of at least RM3,000 per month.

In regards to the size of the respondents' household members, 38.3% (n=254) said they have 3 – 4 persons in their family. The second largest group was 5 – 6 persons (33.0%, n=219), and followed by 7 persons and above (15.0%, n=99). The smallest group was 1 – 2 persons with only 13.7% (n=91) from the total respondents. Basically, most of the respondents come from either 3 – 4 members or 5 – 6 members in total; approximately slightly more than 71% of them come from these groups.

The final categorical demographic variable was the region or geographical location of the respondents. As explained in the previous chapter, the area was classified into four, i.e., North (Kedah and Perlis), Central / Klang Valley (Selangor and Kuala Lumpur), South (Melaka and Johor) and East Coast (Kelantan and Terengganu). A total of 31.2% (n=207) of the respondents were from the Central region, followed by South region (24.1%, n=160), East Coast (23.5%, n=156), and lastly, North region with 21.1% of the respondents (n=140). The number of respondents from the Central region was slightly more than the other regions simply because this area is a highly populated area in Malaysia. For the South and East coast the proportion of the respondents was approximately the same. Meanwhile, for the North region, this area is basically less populated compared to other regions in Peninsular Malaysia, so the number of respondents from this area is smaller compared to the other regions.

The results for the demographic variables show that generally, in terms of gender, it is almost equally divided between male and female. As targeted in the quota sampling method, the current research aimed to get 50 percent of male respondents and 50 percent of female respondents. As for income level, the result shows that

approximately 50 percent of the respondents earned less than RM3,000 per month. This also fulfil the earlier target quota of getting 50 percent respondent earned above RM3,000 monthly household income and another 50 percent of respondents who earned less than RM3,000 per month. Finally for the region quota, it is all within an acceptable range. For Central region the result was 31.2 percent which is slightly above the target of 30 percent. For South and East Coast region, it was slightly below target, i.e., 24.1 percent and 23.5 percent respectively where the target was 25 percent for both areas. Finally, as for Northern region, the result shows that it was slightly above the target of 20 percent of the total respondents where the questionnaires collected from Northern region are 21.1 percent of the total useable questionnaires.

4.1.1 Regrouping of the Demographic Variables

There were eight socio-demographic variables included in this study, i.e., gender, age, marital status, level of education, occupation, monthly household income, household members, and geographical region. The limited size of some of the subgroups made it difficult to carry out statistical analysis. Thus, some regrouping had to be done, particularly with respect to the age of the respondents, marital status, level of education and monthly household income. It was hoped that by regrouping the small size respondents in a particular group with another group, more meaningful results would be presented. The summary of the regrouped demographic variables is presented in Table 4.2.

Table 4.2
Regrouping of Selected Demographic Variables

Variables	Original Groups	New Groups
Age	• Below 24 yrs • 25 to 29 yrs • 30 to 34 yrs • 35 to 39 yrs • 40 to 44 yrs • 45 to 49 yrs • 50 to 54 yrs • 55 to 59 yrs • Above 60 yrs	• Below 24 yrs • 25 to 29 yrs • 30 to 34 yrs • 35 to 39 yrs • 40 to 49 yrs • Above 50 yrs
Marital Status	• Single • Married without Children • Married with Children • Divorced, Widowed, Separated	• Single • Married w/o Children/Divorced • Married with Children
Education Level	• Not Educated • Primary School • LCE/SRP/PMR • MCE/SPM/SPMV • HSC/STPM • College Diploma • Bachelor Degree • Master Degree • PhD	• MCE/SPM/SPMV and below • STPM/College Diploma • University Graduate
Occupation	• Manager, Director • Officer, Executive • Professional • Government (Professional) • Government (Support) • School Teacher • Self-employed, Businessmen • Clerical (Private) • Student • Housewife • Pensioner • Others	• Manager/Director/Professional/ Businessman • Officer/Executive • Government Staff • Clerical (Private) • Student/Housewife/Pensioner/ Others
Monthly Household Income	• Below RM1000 • RM1000 to RM2999 • RM3000 to RM4999 • RM5000 to RM6999 • RM7000 to RM8999 • RM9000 to RM10999 • RM11000 and above	• Below RM1000 • RM1000 to RM2999 • RM3000 to RM4999 • RM5000 to RM6999 • RM7000 and above

For the age of the respondents, initially there were nine groups ranging from "below 24 years old" to "above 60 years old". Responses for the group of "40 to 44 year old" (n=78) and "45 to 49 years old" (n=39) were regrouped into the same category (n=117). The next three groups, i.e., "50 to 54 years" (n=38), "55 to 59 years" (n=21) and "above 60 years" (n=11) were regrouped into one category, i.e., "above 50 years old" (n=70). These categories were regrouped because relatively few respondents were in such groups. Other groups remained the same.

Under marital status, originally there were four groups, but due to the low number of respondents from the "divorced, widow and separated" group (n=18), this category was regrouped with the "married without children" group. After both categories were combined, in total, there were 69 respondents from this group.

For education level, originally there were nine groups, however, due to the low number of respondents in several groups (i.e., two respondents from "not educated", seven respondents from "primary school", 14 respondents from "LCE/SRP/PMR" and three respondents from the "Ph.D." group) they were regrouped into three new groups, i.e., "MCE/SPM/SPMV and below" (n=176), "HSC/STPM and College Diploma" (n=221) and "University Graduated" (n=266).

In terms of the respondents' occupation, the 12 categories provided in the questionnaire, were reduced to only five groups. For the first category, "Manager/Director" group was combined with "Professional" and "Businessman". All the government related occupations, i.e., "Government (Professional)", "Government (Support), and "School Teacher" were regrouped under the same

category. For the last category, “Student”, “Housewife”, “Pensioner” and “Others” were put under the same group. After the regrouping process, there were only five categories in the occupation, i.e., “Manager/Director/Professional/Businessman” (n=110), “Officer/Executive” (n=136), “Government Staff” (n=211), “Clerical (Private)” (n=108) and “Student/Housewife/Pensioner/Others” (n=98).

Finally, for the monthly household income, in the beginning the respondents were divided into seven different categories from “Below RM1,000” to RM11,000 and above”. The first four groups, i.e., “Below RM1,000” (n=65), “RM1,000 to RM2,999” (n=270), “RM3,000 to RM4,999” (n=168), and RM5,000 to RM6,999” (n=75) were maintained but the next three groups were merged into one group, i.e., RM7,000 and above (n=85).

4.2 The Relationships between Demographic Variables and the Study Constructs

This section will examine the association between the study constructs and the demographic variables. This is accomplished by means of bivariate analysis. This analysis ascertains whether there is a relationship between the dependent variables and the independent variables. The most commonly used techniques are independent sample t-test or one-way analysis of variance (ANOVA). For the current study, the independent sample t-test and one-way ANOVA were used to analyze the group mean differences.

The independent sample t-test compares a dependent variable across two groups and one-way ANOVA is used whenever the number of groups is two or more. These

tests were conducted to determine whether or not the subgroups within each demographic variable are significantly different in terms of their perceptions towards all the constructs, i.e., Muslim religiosity, consumer animosity, consumer ethnocentrism, patriotism, US product judgment, purchase willingness of US made products and purchase action of US made products.

The tests of significance were performed on the demographic variables including gender, age, marital status, educational level, occupation, monthly household income, number of household member and geographical region. As explained earlier, two kinds of statistical tools were used for these purposes, i.e., independent samples t-test, when involved with comparing the means for two groups of the demographic variables (gender) and one-way ANOVA when involved with comparing the means for three or more groups of the demographic variables (age, marital status, educational level, occupation, monthly income, number of household member and geographical region).

4.2.1 The Relationship between Gender and the Study Constructs

The independent sample t-test assesses the statistical significance of the difference between two independent sample means for a single dependent variable. The difference in group mean scores is the result of assigning respondents to one of the two groups. Table 4.3 shows the results of the independent t-test between gender and the study constructs.

Table 4.3
The Relationship between Gender and the Study Constructs^

	Gender	N	Mean	t-value	Sig.
Muslim Religiosity	Male	344	125.10	3.719	.000**
	Female	319	121.75		
Consumer Animosity	Male	344	74.11	3.013	.003**
	Female	319	71.52		
Consumer Ethnocentrism	Male	344	78.07	-2.611	.009**
	Female	319	81.32		
Patriotism	Male	344	62.40	-0.483	.629
	Female	319	62.66		
US Product Judgment	Male	344	55.49	0.597	.551
	Female	319	55.04		
Purchase Willingness	Male	344	27.20	-0.175	.861
	Female	319	27.30		
Purchased Action	Male	344	22.19	-0.098	.922
	Female	319	22.23		

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the independent sample t-test

An independent sample t-test was conducted to test whether or not significant differences existed between the male and female respondents with regards to their means of the study constructs. From Table 4.3, three variables were found to be significant between the male and female respondents, i.e., Muslim religiosity, consumer animosity, and consumer ethnocentrism. All the relationships were significant at the 0.01 level. In terms of Muslim religiosity, the results suggest that male respondents were found to be more religious compared to their female counterparts. In terms of consumer animosity, males exhibited higher animosity towards the US compared to female respondents. As for consumer ethnocentrism,

the result shows that female tend to have higher ethnocentric tendencies compared to male respondents.

For Muslim religiosity, the result of the current study suggests that males are more religious than females which are differ to a result of a study conducted by Abdel-Khalek (2006) where he found that female tend to be more religious than male respondents. The finding for consumer animosity is consistent with previous research conducted by Klein et al. (1998) and Klein (2002), where they found that males tend to have higher animosity compared to females. Contrastingly, in terms of consumer ethnocentrism, females tend to be more ethnocentric compared to males. The findings regarding gender, in the relationship with consumer ethnocentrism are consistent with past research. For example, Huddleston et al., 2001; Lee et al., 2003; Watson and Wright, 2000; and Balabanis and Diamantopoulos, 2004, found that female respondents tend to show higher consumer ethnocentrism than male. These findings indicated that there are differences between male and female respondents in terms of their consumer animosity and ethnocentric tendencies.

On the other hand, other variables, i.e., patriotism, US product judgment, purchase willingness of US made products, and purchase action of US made products indicated a p-value of above 0.05. Therefore, there are no significant differences between gender with regards to these constructs. For patriotism, Han (1988) suggest that females are more patriotic than males. However, the current study suggests that no gender difference for patriotism. For other construct, no comparison could be made because no studies had addressed the issue.

4.2.2 The Relationship between Age and the Study Constructs

If the independent sample t-test compared the means of two groups, the one-way ANOVA compares the means for the categorical variables that have three or more groups. Table 4.4 shows the results of the one-way ANOVA test for age and the study constructs. The results show that age has a significant relationship with all the constructs except for the purchase action on the US made products by the Malaysian Muslim consumers. The results will be discussed in detail in the following paragraph.

Table 4.4
The Relationship between Age and the Study Constructs^

	Age	**Mean**	**F**	**Sig.**	**Diff^^**
Muslim Religiosity	Below 24 yrs (a) 25 to 29 yrs (b) 30 to 34 yrs (c) 35 to 39 yrs (d) 40 to 49 yrs (e) Above 50 yrs (f)	113.67 115.22 124.62 126.17 127.06 135.26	57.035	0.000**	c, d, e > a, b f > a, b, c, d, e
Consumer Animosity	Below 24 yrs 25 to 29 yrs 30 to 34 yrs 35 to 39 yrs 40 to 49 yrs Above 50 yrs	69.18 65.87 73.21 74.32 75.35 82.07	27.215	0.000**	c > b d, e > a, b f > a, b, c, d, e
Consumer Ethnocentrism	Below 24 yrs 25 to 29 yrs 30 to 34 yrs 35 to 39 yrs 40 to 49 yrs Above 50 yrs	80.70 76.95 77.72 84.05 77.73 84.94	4.846	0.000**	d > b, c f > b, c, e
Patriotism	Below 24 yrs 25 to 29 yrs 30 to 34 yrs 35 to 39 yrs 40 to 49 yrs Above 50 yrs	60.78 61.04 61.84 63.11 62.98 66.97	8.709	0.000**	f > a, b, c, d, e

Table 4.4 (Continued)

US Product Judgment	Below 24 yrs 25 to 29 yrs 30 to 34 yrs 35 to 39 yrs 40 to 49 yrs Above 50 yrs	57.75 54.71 55.81 53.52 56.38 53.39	2.581	0.025*	a > d, f
Purchase Willingness	Below 24 yrs 25 to 29 yrs 30 to 34 yrs 35 to 39 yrs 40 to 49 yrs Above 50 yrs	20.34 20.84 20.74 18.47 20.15 16.94	4.610	0.000**	a, b, c, e > f
Purchase Action	Below 24 yrs 25 to 29 yrs 30 to 34 yrs 35 to 39 yrs 40 to 49 yrs Above 50 yrs	23.43 22.15 22.41 22.09 21.78 21.57	1.011	.410	–

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – below 24 yrs; b – 25 to 29 yrs; c – 30 to 34 yrs; d – 35 to 39 yrs; e – 40 to 49 yrs; and f – above 50 yrs.

In terms of the Muslim religiosity, age was found to be significant (F=57.035, p=0.000). To test the significant difference between groups, the post hoc test using Tukey was performed. The results indicated that the mean differences could be found among various age groups. Older respondents were found to have higher mean scores in terms of their Muslim religiosity, with the oldest group (above 50 years old) having highest mean score. There were no significant differences between those who are below 24 years old and those who are from 25 to 29 years old.

In addition, there were also no significant mean differences between 30 to 34 years, 35 to 39 years and 40 to 49 years old. This indicates that older people tend to be more religious than younger people and age was a significant indicator of Muslim

religiosity. However, no comparison could be made to the past studies since no previous studies had addressed this issue in Muslim religiosity studies. However, for religiosity in general, Ecklund and Scheitle (2007) argued that the data from the General Social Surveys (GSS) in the US suggest that older individuals express higher levels of religious belief and practice when compared to younger individuals, and it is consistent with the result of the current study.

For the consumer animosity construct, age was found to be significant (F=27.215, p=0.000). The mean score shows that older people tend to have higher animosity towards the US compared to the younger generation. From the post hoc test, the significant mean difference was found among those who were above 50 years old and the other age groups. Additionally, the significant mean difference was also found among those who were from 30 to 49 years old with those who were below 29 years of age. Other results from the post hoc test indicated that no significant mean differences had been found. Compared to previous studies, the finding is consistent with studies conducted by Klein and Ettenson (1999) and Klein (2002) where older people tend to show higher consumer animosity.

With respect to the consumer ethnocentrism, the results shows that age was also found to be significant with F=4.846 and p=0.000. From the results, respondents who were above 50 years old had a higher mean value compared with those who were below 50 years of age. From the Tukey post hoc test, the mean was found to be significantly different between respondents who were above 50 years of age and with those who were between 25 to 29 years old, between 30 to 34 years old and between 40 to 49 years old. Moreover, those who were between 35 to 39 years old

had a significant mean difference with those who were between 25 to 29 years old and 30 to 34 years old group. There was no further significant mean difference among groups recorded by the Tukey post hoc test. The result is consistent with previous results, for example, Balabanis and Diamantopoulos (2004); Balabanis et al. (2002); Lee et al. (2003); Huddleston et al. (2000); and Brodowsky et al (2004) where consumer ethnocentrism will be exhibited higher by the older consumers than the younger age groups.

In terms of patriotism, age was found to be significant at the significance level of 0.01, with F=8.709. From the results of the Tukey post hoc test, the significant mean differences were found among those who were above 50 years old and all other age groups. This indicates that those who were above 50 years of age exhibited higher patriotic tendencies compared to those who were 49 years old and below. Furthermore, the post hoc test could not suggest any significant mean difference between other age groups of respondents. Han (1988) also found that age was a significant indicator of patriotism. In Han's study, he found that older respondents were more patriotic than younger respondents. Therefore, consistent with Han's result, the current study suggests that older respondents tend to be more patriotic than younger respondents.

With regards to the US product judgment, it was significant at the 0.05 level (F=2.581). The post hoc test indicated that younger people judge the US made products more positively compared to older people. Below 24 years old respondents show a more positive judgment of US made products than those who were 35 to 49 years of age. No other significant mean difference was recorded from the Tukey post

hoc test for the US product judgment between the age groups of the respondents. This result, however, could not be compared to past studies as no previous studies had addressed this issue.

For the purchase willingness of the US made products, age (F=4.610) was found to be significant at $p \leq 0.01$. Using the Tukey post hoc test, the significant mean differences with regard to the purchase willingness were found between above 50 years old and those who were: (i) below 24 yrs; (ii) 25 to 29 yrs; (iii) 30 to 34 yrs; and (iv) 40 to 49 yrs. The result indicated that older respondents had lower willingness to purchase US made products. Unfortunately, no comparison with previous studies could be made.

Finally, in terms of the purchase action of US made products, the results showed that there was no significant mean difference among the age groups of the respondents. This implies that the respondents did not differ in their actual purchase behaviour when compared in terms of their age. Therefore, age is not a significant indicator of the purchase action. However, no comparison with past studies could be made.

It can be concluded that in terms of age, older Malaysian Muslim consumers tend to be more religious, exhibited higher consumer animosity towards the US, higher consumer ethnocentric tendencies and are more patriotic than younger consumers. Additionally, older respondents also have a lower willingness to purchase US made products.

4.2.3 The Relationship between Marital Status and the Study Constructs

The significant mean difference among groups with regard to marital status of the respondents was also analysed. Table 4.5 summarizes the results.

Table 4.5
The Relationship between Marital Status and the Study Constructs^

	Marital Status	Mean	F	Sig.	Diff^^
Muslim Religiosity	Single (a)	116.33	50.496	0.000**	b, c > a
	Married w/o Children/Divorce (b)	124.74			
	Married w Children (c)	126.20			
Consumer Animosity	Single	67.56	30.913	0.000**	b, c > a
	Married w/o Children/Divorce	72.16			
	Married w Children	75.14			
Consumer Ethnocentrism	Single	76.53	4.944	0.007**	b, c > a
	Married w/o Children/Divorce	82.64			
	Married w Children	80.41			
Patriotism	Single	61.12	4.738	0.009**	c > a
	Married w/o Children/Divorce	63.09			
	Married w Children	63.00			
US Product Judgment	Single	56.52	2.430	0.089	–
	Married w/o Children/Divorce	53.71			
	Married w Children	55.02			
Purchase Willingness	Single	21.52	7.078	0.001**	a > c
	Married w/o Children/Divorce	19.81			
	Married w Children	19.18			
Purchase Action	Single	22.88	2.147	0.118	–
	Married w/o Children/Divorce	22.58			
	Married w Children	21.87			

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – single; b – married without children/divorce; c – married with children.

The original marital status was regrouped into three groups, i.e., single, married without children/divorced and married with children. The p-value shown in Table 4.5 indicates that there were significant differences among groups in five out of seven variables. The variables were Muslim religiosity, consumer animosity, consumer ethnocentrism, patriotism and purchase willingness. Two variables were found to be not significant. The variables were US product judgment and purchase action.

In terms of religiosity, the result indicates that married or previously married respondents with or without children tends to show higher religiosity tendencies compared to single respondents. This result suggests that have higher attitudes towards religiosity scales compared to respondents who are still single. Practically, single respondents are normally young, and young people tend to be less committed to the religious commitment compared to older generation. However, no empirical studies could be compared to this results as know previous research examined this issue.

Concerning the consumer animosity construct, the results of the one-way ANOVA showed that the marital status of the respondents was significant ($F=30.913$, $p=0.000$). With respect to the marital status, the Tukey post hoc test indicates that the mean differences were found between married or previously married respondents with those who were still single. The married/divorced respondents tended to have higher consumer animosity towards the US compared to the single respondents. However, no comparison could be made with previous studies as none of them addressed this issue.

For the consumer ethnocentrism construct, those who were married/divorced show a significant mean difference compared to those who were single. Consistent with the consumer animosity construct, this construct was also found to have a significant mean difference among groups (F=4.944, p=0.007). The Tukey post hoc test shows that married/divorced respondents tend to have higher ethnocentric tendencies than the single group. The result contradicts a study conducted by Caruana and Magri (1996) who found no significant relationship between marital status and consumer ethnocentrism.

In terms of their patriotism, it was significant at the 0.01 level (F=4.738). From the results of the post hoc test, it was found that that the mean was only significantly different between married with children and those who were still single. There was no significant mean difference between those who were married without children/divorced group with those who were single. However, the current study result is not consistent with a study conducted by Han (1988). In Han's study, he found that there was no significant different between single and married respondents in terms of their patriotic emotion. However, the current study found that married respondents tended to be more patriotic compared to single respondents.

With regards to the purchase willingness of the US products, the study found that there was a significant mean difference among groups in the marital status of respondents (F=7.078, p=0.001). The Tukey post hoc test results show that the single group tends to have a higher willingness to purchase US made products compared to those who are married with children, but there was no significant difference between single and married without children/divorced group as well as

between married without children/divorced and married with children group. Unfortunately, no comparison could be made with previous studies.

Finally, for the US product judgment and purchase action of the US made products, the study found that there were no significant differences among all the three groups in the marital status variable. However, no comparison with previous study could be made because no previous studies had addressed this issue.

It can be concluded that single respondents tend to be less religious, and have lower consumer animosity, lower consumer ethnocentric tendencies, are less patriotic compared to married or divorced respondents, but they have more willingness to purchase products from the US. Generally, no studies have analysed the marital status effects on the constructs used in the current study except for religiosity and consumer ethnocentrism and patriotism. Therefore, the result could not be compared with previous findings.

4.2.4 The Relationship between Level of Education and the Study Constructs

For the mean difference among groups based on their level of education, only two constructs, i.e., consumer ethnocentrism and purchase willingness have significant mean differences.

Table 4.6 summarize the relationship between level of educations among respondents and the study constructs.

Table 4.6
The Relationship between Level of Education and the Study Constructs^

	Level of Education	Mean	F	Sig.	Diff^^
Muslim Religiosity	MCE/SPM/SPMV and below (a)	123.31	0.033	0.968	–
	STPM/College Diploma (b)	123.62			
	University Graduate (c)	123.49			
Consumer Animosity	MCE/SPM/SPMV and below	72.40	0.264	0.768	–
	STPM/College Diploma	73.22			
	University Graduate	72.88			
Consumer Ethnocentrism	MCE/SPM/SPMV and below	82.13	13.975	0.000**	a > c
	STPM/College Diploma	82.41			b > c
	University Graduate	75.68			
Patriotism	MCE/SPM/SPMV and below	62.32	0.160	0.852	–
	STPM/College Diploma	62.71			
	University Graduate	62.50			
US Product Judgment	MCE/SPM/SPMV and below	54.44	0.880	0.415	–
	STPM/College Diploma	55.49			
	University Graduate	55.64			
Purchase Willingness	MCE/SPM/SPMV and below	19.23	3.380	0.035*	c > a, b
	STPM/College Diploma	19.32			
	University Graduate	20.71			
Purchase Action	MCE/SPM/SPMV and below	22.51	1.224	0.295	–
	STPM/College Diploma	22.47			
	University Graduate	21.79			

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – MCE/SPM/SPMV and below; b – STPM/College Diploma; c – University graduate.

With regards to consumer ethnocentrism, the results were found to be significant (F=13.975, p=0.000). The subsequent test using the Tukey post hoc test found that with regards to consumer ethnocentrism, the mean was different between those who had MCE/SPM/SPMV and below (O-level and below) and those who had a university degree. Similarly, those who had STPM/college diploma (A-level), the mean were significantly different with those who had a university degree. There was no significant mean difference between those who had MCE/SPM/SPMV and those who had STPM/college diploma.

This finding is consistent with studies conducted by Klein and Ettenson (1999); Balabanis et al. (2001); Bawa (2004); Balabanis and Diamantopoulos (2004); Watson and Wright (2000); and Javalgi et al. (2005). In general, the current study found that less educated people tend to exhibit higher ethnocentric tendencies than higher educated people. It shows that, in Malaysia, education level is a significant indicator of consumer ethnocentrism.

In terms of the purchase willingness of the US made products, the study found that it was significant at the 0.05 level (F=3.380). From the post hoc test, the mean was significantly different between those who were university graduate and those who had MCE/SPM/SPMV and below and those who had STPM/college diploma. It was found that the mean value of university graduate was significantly higher compared to the other two groups. There was no significant mean difference between those who had MCE/SPM/SPMV and those who had STPM/college diploma. There were no past studies that had addressed this issue, thus no comparison could be made to the present finding.

In general, for the current study, the finding indicates that the higher the level of their education, the lower their ethnocentric tendencies. Furthermore, the level of education also influences their purchase willingness of US made products. Higher educated respondents are likely to be more willing to purchase products made in the US. Therefore, level of education among respondents will significantly influence consumer ethnocentric tendencies and purchase willingness of the US made products among Malaysian consumers.

Furthermore, the results also showed that there are no significant differences between level of education and other constructs in the current study. However, no comparison with previous studies could be made for Muslim religiosity, US product judgment and purchase action since no researches had addressed these issues. For consumer animosity, Klein and Ettenson (1999) found no significant relationship between level of education and consumer animosity, which is consistent with the current study. for patriotism, Han (1988) found that level of education does not influence consumers' patriotic emotion and the same results also found in the current study

4.2.5 The Relationship between Occupation and the Study Constructs

The one-way ANOVA test was then performed to examine whether or not there were significant differences between occupational subgroups and the study constructs. Table 4.7 shows the results of the one-way ANOVA between occupation and the study constructs. For the current study, the results of the one-way ANOVA on occupation show that only three out of seven constructs were significantly

different between the subgroups. The construct that have a significant mean difference are Muslim religiosity, consumer animosity and consumer ethnocentrism.

Table 4.7
The Relationship between Occupation and the Study Constructs^

	Occupation	**Mean**	**F**	**Sig.**	**Diff^^**
Muslim Religiosity	Manager/Director/ Professional/Business-man (a)	124.40	7.282	0.000**	a > d
	Officer/Executive (b)	122.04			c > b, d, e
	Government Staff (c)	126.47			
	Clerical (Private) (d)	119.97			
	Student/Housewife/ Pensioner/Others(e)	121.90			
Consumer Animosity	Manager/Director/ Professional/Business-man	72.43	8.003	0.000**	c > a, b, d
	Officer/Executive	71.15			
	Government Staff	76.00			
	Clerical (Private)	69.35			
	Student/Housewife/ Pensioner/Others	72.86			
Consumer Ethnocentrism	Manager/Director/ Professional/Business-man	75.74	3.625	0.006**	c > a
	Officer/Executive	77.41			
	Government Staff	81.72			
	Clerical (Private)	80.78			
	Student/Housewife/ Pensioner/Others	81.36			
Patriotism	Manager/Director/ Professional/Business-man	62.38	1.724	0.143	–
	Officer/Executive	61.72			
	Government Staff	63.35			
	Clerical (Private)	61.65			
	Student/Housewife/ Pensioner/Others	62.97			

Table 4.7 (Continued)

US Product Judgment	Manager/Director/ Professional/Business-man	56.04	0.354	0.842	–
	Officer/Executive	55.32			
	Government Staff	55.28			
	Clerical (Private)	54.46			
	Student/Housewife/ Pensioner/Others	55.22			
Purchase Willingness	Manager/Director/ Professional/Business-man	20.44	0.707	0.587	–
	Officer/Executive	20.27			
	Government Staff	19.28			
	Clerical (Private)	20.03			
	Student/Housewife/ Pensioner/Others	19.65			
Purchase Action	Manager/Director/ Professional/Business-man	22.15	0.505	0.732	–
	Officer/Executive	22.10			
	Government Staff	21.92			
	Clerical (Private)	22.36			
	Student/Housewife/ Pensioner/Others	22.87			

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – Manager/Director/ Professional/Businessman; b – Officer/Executive; c – Government Staff; d – Clerical (Private); e – Student/Housewife/Pensioner/Others.

In terms of Muslim religiosity, the study found that there is a significant mean difference between the subgroups (F=7.282, p=0.000). From the post hoc test, the significant mean difference was found among those who were manager/director/ professional/businessman with those who worked in the clerical level in the private sector. Furthermore, the significant mean difference was also found between those who work with government sector and those who work as an officer/executive in the

private sector and a clerk in the private sector. This result could not be compared to past studies as none had addressed the same issue.

With regards to consumer animosity, the mean difference was found to be significant at $p \leq 0.01$ ($F=8.003$). The results of the Tukey post hoc test shows that those who work in the government sector tend to exhibit higher consumer animosity compared to those who are manager/director/professional/businessman, officer/executive in the private sector, and clerical in the private sector. In addition, no significant mean difference was found among other groups. However, this result is not consistent with a study conducted by Klein and Ettenson (1999) who found that occupation had no significant relation with consumer animosity.

For consumer ethnocentrism, the mean score was found to be significant between the subgroups ($F=3.625$, $p=0.006$). Using the post hoc test, the significant mean difference with regard to consumer ethnocentrism was found between those who work in government sector and those who were manager/director/professional/ businessman. Government staff show higher ethnocentric tendencies compared to the other group. The results found no significant mean difference among other groups. For a comparison, de Ruyter et al. (1998) found that persons who work in the services sector are significantly more consumer ethnocentric than persons who work in the trade and industry sector, which shows that occupation could be a significant predictor for consumer ethnocentrism.

The results for the other constructs, i.e., patriotism, US product judgment, purchase willingness and purchase action showed that no significant differences among the

subgroups in occupation. These results suggested that occupation had no significant relation with these construct. As a comparison, for patriotism, Han (1988) found that blue-collar workers were more patriotic than white-collar workers. The result indicated that occupation could significantly influence the patriotic emotion. However, the result of the current study found that occupation does not influence the patriotism among Malaysian consumers and it is not consistent with a result suggested by Han (1988). For US product judgment, purchase willingness and purchase action, no comparison with previous studies could be made.

4.2.6 The Relationship between Income Level and the Study Constructs

The significant mean differences among groups with regard to income level of the respondents were then performed and analysed using the one-way ANOVA. Only three constructs, i.e., Muslim religiosity, consumer ethnocentrism and purchase willingness have significant mean differences, as shown in Table 4.8.

With respect to Muslim religiosity, the results show that the mean was found to be significant with F=5.032 (p=0.001). When the post hoc test using the Tukey test was performed, the results show that the mean difference could be found between those who earned between "RM3,000 to RM4,999" and those who earned "below than RM1,000". The mean difference could also be found between those who earned between "RM3,000 to RM4,999" and those who earned "RM1,000 to RM2,999". These results could not be compared to past studies as there were no previous studies addressing this issue.

Table 4.8
The Relationship between Income Level and the Study Constructs^

	Income Level	Mean	F	Sig.	Diff^^
Muslim Religiosity	Below RM1000 (a)	119.32	5.032	0.001**	c > a, b
	RM1000 to RM2999 (b)	122.56			
	RM3000 to RM4999 (c)	126.26			
	RM5000 to RM6999 (d)	124.23			
	RM7000 and above (e)	123.48			
Consumer Animosity	Below RM1000	72.51	1.768	0.134	–
	RM1000 to RM2999	72.13			
	RM3000 to RM4999	74.33			
	RM5000 to RM6999	71.12			
	RM7000 and above	74.12			
Consumer Ethnocentrism	Below RM1000	83.88	7.459	0.000**	a, b, c > e
	RM1000 to RM2999	81.63			
	RM3000 to RM4999	79.45			
	RM5000 to RM6999	77.84			
	RM7000 and above	72.01			
Patriotism	Below RM1000	62.80	1.179	0.319	–
	RM1000 to RM2999	61.86			
	RM3000 to RM4999	63.13			
	RM5000 to RM6999	62.48			
	RM7000 and above	63.26			
US Product Judgment	Below RM1000	55.35	0.847	0.496	–
	RM1000 to RM2999	55.10			
	RM3000 to RM4999	54.49			
	RM5000 to RM6999	55.95			
	RM7000 and above	56.72			
Purchase Willingness	Below RM1000	18.80	3.704	0.005**	e > a, b, c, d
	RM1000 to RM2999	19.82			
	RM3000 to RM4999	19.11			
	RM5000 to RM6999	19.71			
	RM7000 and above	22.36			
Purchase Action	Below RM1000	22.40	0.492	0.742	–
	RM1000 to RM2999	22.50			
	RM3000 to RM4999	21.76			
	RM5000 to RM6999	22.05			
	RM7000 and above	22.16			

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – Below RM1,000; b – RM1,000 to RM2,999; c – RM3,000 to RM4,999; d – RM5,000 to RM6,999; e – RM7,000 and above.

Concerning consumer ethnocentrism, the results in Table 4.8 show that it was significant at $p \leq 0.01$ (F=7.459). From the Tukey post hoc test, the significant mean differences were found: (i) between "below RM1,000" and "RM7,000 and above", (ii) between "RM1,000 to RM2,999" and "RM7,000 and above", and (iii) between "RM3,000 to RM4,999" and "RM7,000 and above". The group of "below RM1,000", "RM1,000 to RM2,999" and "RM3,000 to RM4,999" were found to have a higher mean indicating that they tend to be more ethnocentric than those who earned "RM7,000 and above". Similarly, Keillor et al. (2001) and Lee et al. (2003) also found a significant relationship between income level and consumer ethnocentrism. Lower income consumers are likely to display higher ethnocentric tendencies.

Contrastingly, in terms of the purchase willingness of US made products, significant mean differences were found: (i) between "RM7,000 and above" and "below RM1,000", (ii) between "RM7,000 and above" and "RM1,000 to RM2,999", and (iii) between "RM7,000 and above" and "RM3,000 to RM4,999". It was found to be significant at the 0.01 level with F=3.704. The value of mean differences (mean difference = 3.565, 2.542 and 3.258 respectively) suggested that those who earned "RM7,000 and more" tend to have higher purchase willingness of US made products. However, no comparison could be made with previous studies.

The results also show that there were no significant differences between income level and other constructs in this study. From the p-value, there were no significant mean differences between the subgroups in the income level with regard to consumer animosity, patriotism, US products' evaluation and purchase action of US

made products. For consumer animosity, the result of the current study was consistent with Klein and Ettenson (1999) who found no significant relationship between income and consumer animosity. Similarly, Han (1988) suggested that income level does not influenced patriotic emotion. By the same token, the current study also found that income level does not have significant relation with patriotism. For other constructs, there were no past studies focused on this issue, thus no comparison could be made to the present findings.

In general, for the level of income among Malaysian consumers, consumers in the middle group perceived themselves being significantly more religious than the lower income group, but equally religious with the higher income group. The high income group of consumers tend to have low ethnocentric tendencies and show high purchase willingness of US made products.

4.2.7 The Relationship between Number of Household Members and the Study Constructs

Table 4.9 shows the results of the one-way ANOVA between the number of household members and the study constructs. From the table, it shows that only Muslim religiosity and consumer animosity have a significant mean difference among the subgroups. Furthermore, the results show that the number of household members has no significant effect on consumer ethnocentrism, patriotism, product judgment, purchase willingness and purchase action.

Table 4.9
The Relationship between Number of Household Member and the Study Constructs^

	Household Member	Mean	F	Sig.	Diff^^
Muslim Religiosity	1 to 2 persons (a) 3 to 4 persons (b) 5 to 6 persons (c) 7 persons and above (d)	120.92 122.85 124.38 125.50	3.136	0.025*	d > a
Consumer Animosity	1 to 2 persons 3 to 4 persons 5 to 6 persons 7 persons and above	69.07 72.12 73.58 76.71	8.357	0.000**	c > a d > a, b
Consumer Ethnocentrism	1 to 2 persons 3 to 4 persons 5 to 6 persons 7 persons and above	77.19 79.32 80.00 81.91	1.429	0.233	–
Patriotism	1 to 2 persons 3 to 4 persons 5 to 6 persons 7 persons and above	63.08 62.11 62.49 63.16	0.764	0.514	–
US Product Judgment	1 to 2 persons 3 to 4 persons 5 to 6 persons 7 persons and above	53.97 55.18 55.71 55.74	0.772	0.510	–
Purchase Willingness	1 to 2 persons 3 to 4 persons 5 to 6 persons 7 persons and above	21.45 19.78 19.77 18.74	2.470	0.061	–
Purchase Action	1 to 2 persons 3 to 4 persons 5 to 6 persons 7 persons and above	22.58 22.28 22.17 21.77	0.353	0.787	–

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – 1 to 2 persons; b – 3 to 4 persons; c – 5 to 6 persons; d – 7 persons and above.

For Muslim religiosity, it was found to be significant at $p \leq 0.05$ (F=3.136). The Tukey post hoc test was then performed and indicated that those who come from a large family (7 persons and above) tend to be more religious than those who had a small family (1 to 2 persons). Other subgroups show no significant mean difference. However, no comparison with past studies could be made since no previous studies

examined the relationship between number of household member and Muslim religiosity.

In terms of consumer animosity, the study found that it was significant at the 0.01 level with F=8.357. The post hoc test results show that large family ("5 to 6 persons" and "7 persons and above") tend to have higher consumer animosity towards the US compared to those who have a small family ("1 to 2 persons"). Furthermore, those who have more than 7 members in a family also show higher consumer animosity compared to those who have 3 to 4 persons in a family. The results of the post hoc test show that there are no significant mean differences among other subgroups for consumer animosity. Generally, large families tend to be more religious and the religiosity will directly influence the consumer animosity. Therefore, large families will show higher consumer animosity towards the US. However, no comparison with past research could be made with the result of the current study because no researchers addressed this issue in their research.

The results of the current study found that there were no significant relations between number of household members and other constructs in this study, i.e., consumer ethnocentrism, patriotism, US product judgment, purchase willingness and purchase action. In general, the results showed that the number of members in a family does not influence the attitude of Malaysian consumers. Unfortunately, a comparison with previous research could not be made since no researchers examined these relationships.

4.2.8 The Relationship between Region and the Study Constructs

The last demographic variable in this research is the respondents' regional residence area or respondents' geographical location. As explained in the previous chapter, it was divided into four regions, i.e., North, South, East Coast and Central. Basically, the results show that the geographical region has a significant relationship with religiosity, consumer animosity, consumer ethnocentrism and purchase willingness. Furthermore, the results of the one-way ANOVA on region also reveal that it has no significant relationship with patriotism, product judgment and purchase action. Further discussions are presented in the following paragraphs. Table 4.10 shows the results of the one-way ANOVA between region and the constructs used in this study.

With regards to Muslim religiosity, the study found a significant mean difference between the subgroups (F=15.369, p=0.000). After the Tukey post hoc test was performed, it was found that the significant mean differences were between: (i) North and South region (mean difference = 3.39), (ii) North and Central region (mean difference = 5.37), (iii) East Coast and South region (mean difference = 5.55), and (iv) East Coast and Central region (mean difference = 7.53). It was found that those who live in the Northern and East Coast regions tend to be more religious compared to those who live in the South and Central regions. Additionally, there was no significant mean difference between North and East Coast regions. Northern and East Coast region are basically Malay majority states and the peoples tended to be more conservatives and conservative was positively related to religiosity (Cukur et al., 2004; and Fam et al., 2004). Perhaps this is the most important reason why

peoples in Northern and East Coast region found to be more religious compared to respondents from Southern and Central region. However, these results could not be compared to past studies as none had addressed these issues.

Table 4.10
The Relationship between Geographical Region and the Study Constructs^

	Region	**Mean**	**F**	**Sig.**	**Diff^^**
Muslim Religiosity	North (a) South (b) East Coast (c) Central (d)	125.47 122.08 127.63 120.10	15.369	0.000**	a, c > b, d
Consumer Animosity	North South East Coast Central	74.76 69.74 78.92 69.43	31.132	0.000**	a > b, d c > a, b, d
Consumer Ethnocentrism	North South East Coast Central	80.14 79.43 84.97 75.43	10.946	0.000**	a > d c > a, b, d
Patriotism	North South East Coast Central	62.61 62.68 63.27 61.78	1.408	0.239	–
US Product Judgment	North South East Coast Central	54.13 54.34 56.19 56.08	2.069	0.103	–
Purchase Willingness	North South East Coast Central	18.89 19.76 19.28 21.01	3.227	0.022*	d > a
Purchase Action	North South East Coast Central	21.59 22.04 22.15 22.80	1.397	0.243	–

* - significant at $p \leq 0.05$
** - significant at $p \leq 0.01$
^ - test of significant using the one way ANOVA
^^ - to assess the pair-wise differences, the Tukey post hoc analysis is used: a – North; b – South; c – East Coast; d – Central.

For consumer animosity, the results of the one-way ANOVA also found a significant mean difference between region and consumer animosity (F=31.132, p=0.000). When the post hoc test was performed and analysed, the results shows that there were significant mean differences between: (i) North and South region (mean difference = 5.02), (ii) North and Central region (mean difference = 5.33), (iii) East Coast and South region (mean difference = 9.17), and (iv) East Coast and Central region (mean difference = 9.49). Additionally, a significant mean difference was found between East Coast and Northern region (mean difference = 5.02). Those who live in the Northern region tend to exhibit higher consumer animosity towards the US compared to those who live in the South and Central regions. Furthermore, those who live in the East Coast region tend to have a higher consumer animosity towards the US compared to those who live in other regions of Peninsular Malaysia. The animosity towards the US is higher for peoples in these areas (Northern and East Coast) possibly because they are more religious. The basis of the current consumer animosity study is on the relationship between the US and Muslim community. Indirectly, the more religious the peoples, the more they will attached to Muslim community and the more their animosity towards the US. This result is consistent with studies conducted by Shimp et al. (2004) and Amine et al. (2005). They argued that geographical region can have a significant effect on consumer animosity and the current study reveals similar results, where respondents from East Coast and Northern region tended to have higher consumer animosity towards the US compared to respondents in Southern and Central region.

In terms of consumer ethnocentrism, the study found that there was a significant mean difference between the subgroups with F=10.946 and p=0.000. The result of

the Tukey post hoc test shows that respondents who live in the North region (mean = 80.14) will show higher ethnocentric tendencies compared to those who live in the Central region (mean = 75.43). The results also show that those who live in the East Coast region (mean = 84.97) will have higher consumer ethnocentric tendencies compared to those who lived in the North (mean = 80.14), South (mean = 79.43) and Central (mean = 75.43). For the comparison of means between South and Central region, the post hoc test found that it was only marginally significant with p=0.076, which is significant at $p \leq 0.10$. Furthermore, there was no significant mean difference between those who live in the North and South regions. In earlier studies, region does not show any significant association in the respondents' ethnocentric tendencies (Abdul Razak et al., 2002). Therefore the results of the current study deviate from the results revealed in Abdul Razak's study, where the current study found that region has a significant relation with consumer ethnocentrism.

With regards to the purchase willingness of US made products, the study found that it was significant at the 0.05 level with F=3.227. The post hoc test results show that the mean of those who live in the Central region is significantly higher compared to those who live in the North region. The mean difference is 2.13. For the comparison between the willingness of Central and East Coast respondents, the result of the Tukey post hoc test show that it was only marginally significant with p=0.085 and it was only significant at $p \leq 0.10$. The mean difference between those who live in the Central and East Coast regions is only 1.73. There were no other significant mean differences among groups traced by the post hoc test. Since no past studies had addressed these issues, no comparison could be made to the present discussion.

Finally, the one-way ANOVA test performed between region and other constructs (patriotism, US products evaluation and purchase action) showed no mean differences between the subgroups. The results indicated that geographical region is not an important factor to determine the sub-group differences in terms of patriotism, US product judgment and purchase action. Unfortunately, these results could not be compared to past studies as there were no previous studies that addressed these issues.

For the current study, it was found that basically, respondents who live in the Northern and East Coast region tend to be more religious, exhibit higher consumer animosity towards the US, and tend to have higher consumer ethnocentric tendencies compared to those who live in the South and Central region. Contrastingly, the result shows that the consumers from central area tend to have a higher purchase willingness of US made products than any other area in Peninsular Malaysia.

4.3 Exploratory Factor Analysis

Factor analysis is an interdependence technique and it is essential in several stages of development and assessment of measure. The underlying principle of factor analysis is the data parsimony and data interpretations in which items are condensed into a common interrelated and meaningful dimension (Hair et al., 1998; Churchill and Iacobucci, 2002; Zikmund, 2000). The primary purpose of factor analysis is to define the underlying structure among the variables in the analysis (Hair et al., 2006). There are two main approaches to factor analysis that are always described in

the research methodology chapter, i.e., exploratory and confirmatory factor analysis. In this section, the exploratory factor analysis will be performed and confirmatory factor analysis will be discussed later in the chapter.

In this study, even though the measurement of a few variables, namely, consumer ethnocentrism, patriotism, foreign products judgment (US products for the current study), purchase willingness of US made products and purchase action of US made products have been firmly established in the literature, the variables of consumer animosity and Muslim religiosity are basically still in their early development phase. In the consumer animosity construct, two new items were added in order to match this study with the target respondents. In order to ascertain whether all the measurements used in this study have construct validity, that is, measure what they are supposed to measure, exploratory factor analysis was performed based on their category of variables.

Before proceeding with the analysis, several criteria must be considered in order to check on the suitability of the study in performing factor analysis. There are two main issues to consider in determining whether a data set is suitable for factor analysis (Pallant, 2005). First, is the sample size; as suggested by Tabachnick and Fidell (2001), the researcher needs to have at least 300 cases for factor analysis, however, a small sample size (e.g. 150 cases) should be sufficient if solutions have several high loading marker variables (above 0.80). Hair et al. (2006) suggest that, generally, the researcher would not factor analyse a sample of fewer than 50 observations, and, preferably, the sample size should be 100 or more.

Some authors suggest that it is not the overall sample size that is of concern, but rather the ratio of subjects to items. Nunnally (1978) recommends the ratio of subjects to item, i.e., 10 to 1 ratio. However, Tabachnick and Fidell (2001) suggest that five cases for each item are adequate. As a general rule, the minimum is to have at least five times as many observations as the number of items to be analyzed, and the more acceptable sample size would have a 10:1 ratio (Hair et al., 2006). The total number of items to measure all the variables for the current study is 90, i.e., Muslim religiosity (21 items), consumer animosity (15 items), consumer ethnocentrism (17 items), patriotism (11 items), US products judgment (13 items), purchase willingness of US made products (6 items) and purchase action of US made products (7 items), and five times 90 equals 450. Therefore, the present sample size of 663 is more than sufficient to perform the factor analysis based on the ratio of subjects to items.

The second issue to be concerned is the strength of intercorrelation among items (Pallant, 2005). Tabachnick and Fidell (2001) recommend an inspection of the correlation matrix for evidence of coefficients greater than 0.30. If only a few correlations above this level are found, then factor analysis may not be appropriate. Based on the inspection of the correlation matrix, it is appropriate to perform the factor analysis for the current study.

Two statistical measures that can help to assess the suitability in performing factor analysis are Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1974). The Bartlett's test of sphericity should be significant ($p<0.05$) for factor analysis to be considered

appropriate and the KMO index ranges from 0 to 1, with a suggested value of 0.6 minimum for a good factor analysis. As explained by Hair et al. (2006), the index can be interpreted as follows: 0.8 or above, as meritorious; 0.7 or above, as middling; 0.6 or above, as mediocre; 0.5 or above as miserable; and below 0.5 as unacceptable. Factor analysis under the extraction method of principal component analysis with the rotation method of Varimax with Kaiser Normalization was used to analyze the scales, which measures the variables using a 7-point Likert scale. The Varimax rotation is commonly recommended by researchers to clarify the factors (Loehlin, 1998). Besides that, Varimax rotation is also favoured since it minimizes correlation across factors and maximizes within the factors. This helps to yield 'clear' factors (Nunnally, 1978). The factor loadings for all the variables are provided in Tables 4.13, 4.14 and 4.15 (the tables to be discussed later).

Furthermore, only items with loadings higher than 0.50 on one factor and low crossloadings were retained for further analysis (Nunnally 1978). Factor loading is useful to ascertain the convergent and discriminant validity of the scales (Hurley, 1998). It also specifies the strength of the relationship between items and latent construct. According to Hair et al. (2006), factor loadings of ±0.5 or greater are considered practically significant. Nuisance items, those that do not load on the factor they are intended to measure, but on factors they did not intend to measure, were deleted from consideration (Chen and Paulraj, 2004).

Number of items or indicators for each construct has always been an issue for the researchers (Hair et al., 2006). It is suggested by Hair et al., (2006), that you can find the confirmatory factor analysis, conducted with only a single item representing a

factor, however, good practice dictates a minimum of three items per factor, preferably four. So, in this study, it is decided that factors retained for further analyses were factors extracted from exploratory factor analysis that had a minimum of three items or indicators in one factor. Confirmatory factor analysis will try to follow this recommendation, unless it proves necessary to have less than three items in one construct, as long as the model can be identifiable. The results of factor analysis are attached in Appendix 2. Generally, in this study, items not retained are because they: (i) did not load into any factor with a value of 0.5 or greater, (ii) loaded into the wrong factor, and (iii) had cross loading on two factors.

Another important matter to consider is the reliability of the factors. Hair et al., (2006), define reliability as the extent to which a variable or set of variables is consistent in what it is intended to measure. The reliability analysis was performed using the reliability coefficients (Cronbach's Alpha) to determine and make sure that there is internal consistency reliability among items contained in each of the factors extracted from exploratory factor analysis. According to Nunnally (1967), the alpha values that are above 0.5 can be considered as an adequate reliability. If the factors exhibited low reliability in the later scale, it would be discarded from further analyses. As explained earlier, SPSS version 12.0 will be used to perform both factor analysis and reliability analysis.

4.3.1 Factor Analysis on Muslim Religiosity

For the Muslim religiosity, principal component factor analysis with a Varimax rotation was conducted to reduce the 21-item scale. It was also conducted to group

the items in the suitable factors and to find similarity among these items. Table 4.11 shows the factors extracted and their factor loadings. This study used a coefficient of more than 0.5 for the factor loading (Hair et al., 1998), as a benchmark to indicate a reasonable loading for the items. Furthermore, as explained previously, factors retained for further analyses were factors extracted from exploratory factor analysis that had a minimum of three items or indicators in one factor.

The Bartlett's test of sphericity was based on a Chi-square transformation of the determinant of the correlation matrix and shows that the results are significant (p=0.000). The KMO measure of sampling adequacy is 0.912, which is well above 0.8, which is considered as meritorious by Hair et al. (2006). The value of Bartlett's test of sphericity and KMO are considered as acceptable. Thus, factor analysis was considered as an appropriate technique for analysing the Muslim religiosity constructs, and, additionally, establishing the construct validity.

The factor analysis was performed on the Muslim religiosity scale. Results presented in Table 4.11 show that four factors were extracted from the exploratory factor analysis. Based on the results of the EFA, the four factors extracted represent 45.8% of the total variance explained. For the eigenvalues, these four factors recorded a value of above 1 and, therefore, these factors were identified as significant (Hair et al., 2006). All the factors with latent roots less than 1 were considered insignificant and were disregarded. Out of 21 items included in the measurement of the Muslim religiosity construct, 16 items were highly loaded inside these four factors.

Table 4.11
Results of Exploratory Factor Analysis on Muslim Religiosity Construct

Factors/Items	Factor Loading
Factor 1: *Ibadah* (worship)	
• I read the Quran every day.	0.777
• I perform my daily prayers in the mosque/Muslim praying room regularly.	0.734
• I always perform other optional prayer (i.e., sunnat prayer such as Isra', Dhuha and others).	0.723
• I do the optional fasting on Monday and Thursday regularly.	0.764
• I cover my aurat properly.	0.510
Factor 2: Faith	
• I believe that Allah helps me.	0.564
• I will continuously seek to learn about Allah.	0.533
• I believe that Allah helps people.	0.504
• The five prayers help me a lot.	0.666
• The supplication (dua') helps me.	0.647
• I believe that Allah listens to prayers.	0.651
Factor 3: Obedience	
• I pray five times a day.	0.605
• I fast the whole month of Ramadan sincerely.	0.556
• I will perform hajj after I fulfil all the necessary conditions.	0.539
Factor 4	
• Prophet Muhammad (peace be upon him) provides a good conduct for me.	0.672
• I perform the obligation of zakat maal (asset/income) annually.	0.614

The four factors with eigenvalues of above 1 were: (i) *Ibadah* (worship) (explained 27.2% of the total variance), (ii) Faith (explained 8.3% of the total variance), (iii) Obedience (explained 5.5% of the total variance), and (iv) Factor 4 (explained 4.9%

of the total variance). The total variance explained was only 45.9%. However, this is not a concern since it is not uncommon to find the value below 50% (Hatcher, 1994). Examples of research that have total variance explained of below 50% are Sood and Nasu (1995), Klein et al. (1998), Kim, Atkinson and Yang (1999) and Bontis (1998).

However, Factor 4, which contained only two items, was dropped due to the number of items of less than three. The remaining three factors were then assessed. Factor 1 (Ibadah) contained six items, Factor 2 (faith) contained five items and Factor 3 (Obedience) contained three items. These three factors were then retained for the subsequent analysis.

4.3.2 Factor Analysis for Consumer Animosity, Consumer Ethnocentrism and Patriotism

There are three independent variables in this study, namely, consumer animosity, consumer ethnocentrism and patriotism. The result of factor analysis shows an excellent KMO value, with a value of almost 0.9, showing that it is adequate to use the factor analysis for these three constructs. In addition, the Bartlett's test of sphericity also exhibited a significant value of 0.000, indicating the appropriateness of using factor analysis.

The summary of the results are illustrated in Table 4.12.

Table 4.12
Results of Exploratory Factor Analysis on Consumer Animosity, Consumer Ethnocentrism and Patriotism Construct

Factors/Items	Factor Loading
Factor 1: Consumer Ethnocentrism	
• US companies are doing business unfairly with the Muslim companies.	0.500
• Malaysian people should always buy Malaysian-made products instead of imports.	0.583
• Buy Malaysian-made products. Keep Malaysians working.	0.542
• Malaysian products, first, last and foremost.	0.620
• Purchasing foreign-made products is un-Malaysian.	0.556
• It is not right to purchase foreign products.	0.588
• A real Malaysian should always buy Malaysian-made products.	0.669
• It is always best to purchase Malaysian products.	0.593
• There should be very little trading or purchasing of goods from other countries unless out of necessity.	0.544
• Malaysians should not buy foreign products, because this hurts Malaysian business and causes unemployment.	0.732
• Curbs should be put on all imports.	0.569
• It may cost me in the long run but I prefer to support Malaysian products.	0.565
• Foreigners should not be allowed to put their products on our markets.	0.558
• Foreign products should be taxed heavily to reduce their entry to Malaysian market.	0.671
• Malaysian consumers who purchase products made in other countries are responsible for putting their fellow Malaysians out of work.	0.652
Factor 2: War Animosity	
• I feel angry towards US involvement in the war against several Muslim countries.	0.588
• I can still get angry over US role in the war in Iraq and Afghanistan.	0.562
• I will never forgive the US for occupying Muslim countries and killing the civilians in those countries.	0.662
• US are liable for the damage cause by the bombardment of Muslim countries.	0.665
• US should pay for what it did during the occupation.	0.654
• US actions against Muslim prisoners in Guantanamo detention centre annoy me.	0.562
• I will never forgive the US for bombing Muslim countries.	0.655

Table 4.12 (Continue)

Factor 3: Patriotism	
• I feel a great pride in that land that is our Malaysia.	0.653
• When I see the Malaysian flag flying, I feel great.	0.666
• The fact that I am a Malaysian is an important part of my identity.	0.512
• It is not constructive for one to develop an emotional attachment to one's country.	0.514
• It bothers me to see children made to pledge allegiance to the flag or sing the national anthem or otherwise induced to adopt such strong patriotic attitudes.	0.507
Factor 4: Economic Animosity	
• US want to gain economic power over the Muslim countries.	0.580
• US companies often outsmart Muslim companies in business deals.	0.576
• US have too much influence on the Muslims and their countries' economy.	0.588

In this section the number of factors was fixed into four because basically, the measurement of these constructs has been firmly established in the literature, especially for the consumer ethnocentrism and patriotism. For the consumer animosity construct, as suggested by Klein et al. (1998), there are two types of consumer animosity, i.e., war and economic animosity. In this study, the researcher is expecting the factor analysis to produce only four factors, i.e., war animosity, economic animosity, consumer ethnocentrism and patriotism.

According to Hair et al. (2006), when applying a priori criterion, the researcher already knows how many factors to extract before undertaking the factor analysis, and instructs the computer to generate only the desired number of factors. Hair et al. (2006) added that it can be used in attempting to replicate another researcher's work and to extract the same number of factors.

The factor solution accounted for approximately 39.5% of the total variance explained by the four factors extracted. In Factor 1, basically, 15 items with factor loadings more than 0.5 were loaded into this factor (labelled as consumer ethnocentrism it explained 18.9% of the total variance). There were 14 items from the consumer ethnocentrism construct and one item from the consumer animosity construct. Therefore, the item from the animosity construct was dropped because it was loaded into the wrong factor. In the second factor, seven items from the consumer animosity construct were loaded into this factor (labelled as war animosity, which explained 7.3% of the total variance). In Factor 3, five items from the patriotism construct were loaded into this factor (labelled as patriotism, which explained 5.5% of the total variance). In Factor 4, three items from the consumer animosity construct were loaded into this factor (labelled as economic animosity, which explained 3.8% of the total variance).

4.3.3 Factor Analysis on US Product Judgment, Purchase Willingness and Purchase Action

As in the previous subsection, first, we examined the KMO and Bartlett's test of sphericity result. From the results, the KMO values of 0.879 and Bartlett's value of 0.000, show that factor analysis was adequate and appropriate. Therefore, the exploratory factor analysis can proceed for these variables. The summary of the results of factor analysis are presented in Table 4.13.

Factor 1 was basically loaded by the items from the purchase willingness construct. The first item in Factor 1 was deleted, mainly, because it did not measure what it

was intended to measure. The item should be in the products judgment construct. Factor 2 on the other hand, was loaded by the items from US products judgment construct. In total, six items were loaded in this factor.

Table 4.13
Results of Exploratory Factor Analysis on US Product Judgment, Purchase Willingness and Purchase Action Construct

Factors/Items	Factor Loading
Factor 1: Purchase Willingness	
• Products made in US are produced by firms that are more concerned with the outward appearance of the products than with the products performance.	0.532
• I would feel guilty if I would buy a US product.	0.762
• I would never buy a US product.	0.767
• Whenever possible, I avoid buying US products.	0.686
• Whenever available, I would prefer to buy products made in US.	0.689
• I do not like the idea of owning US products.	0.653
• If two products were equal in quality, but one was from US and one was from Malaysia, I would pay 10% more for the product from Malaysia.	0.690
Factor 2: US Product Judgment	
• Products made in US occupy very strong competitive position in comparison to the products of other countries.	0.587
• Products made in US are carefully produced and have a fine workmanship.	0.684
• Over the past several years, the quality of most products made in US seems to have improved.	0.655
• Products made in US show a very high degree of technological advancement.	0.552
• Products made in US usually show a very clever use of colour and design.	0.566
• Products made in US are usually quite reliable and seem to last the desired length of time.	0.593

Table 4.13 (Continue)

Factor 3: Purchase Action	
• I chose US made products when similar products from other countries were available.	0.675
• I bought products made in US when better quality items from other countries were available.	0.657
• I bought US made products even though cheaper items made from other countries were available.	0.622
• I explicitly recommended to someone else that he/she purchased only US made items available in the market.	0.547
• I left a store because I was mad that they sold too many products made in the US.	0.566

For the items from the purchase action construct, it was basically loaded into the third factor. In total, five items were loaded into Factor 3. In this subsection, the number of factors was fixed into three since all the construct measurements were adapted from previous research. So that, it was expected that only three factors will be extracted based on the three constructs used, i.e., only three factors desired from the factor analysis, namely, US products judgment, purchase willingness and purchase action.

The factor solution accounted for approximately 40.2% of the total variance explained by the four factors extracted. In Factor 1, basically 7 items were loaded into this factor (labelled as purchase willingness and explained 22.6% of the total variance), but as explained earlier, one of the items was dropped because it was loaded into the wrong factor. In Factor 2, 6 items were loaded in this factor (labelled as US products judgment and explained 11.2% of the total variance). In Factor 3,

five items from the purchase action construct were loaded in this factor (labelled as purchase action and explained 6.4% of the total variance).

Based on the factor analysis performed for all the constructs, all the factors and items used for further analysis are presented in Table 4.14.

Table 4.14
Final Factors/Variables Used for Subsequent Analysis

Variables/Items
Muslim Religiosity
***Ibadah* (Worship)** i. I read the Quran every day. ii. I perform my daily prayers in the mosque/Muslim praying room regularly. iii. I always perform other optional prayer (i.e., sunnat prayer such as Isra', Dhuha and others). iv. I do the optional fasting on Monday and Thursday regularly. v. I cover my aurat properly.
Faith i. I believe that Allah helps me. ii. I will continuously seek to learn about Allah. iii. I believe that Allah helps people. iv. The five prayers help me a lot. v. The supplication (dua') helps me. vi. I believe that Allah listens to prayers.
Obedience i. I pray five times a day. ii. I fast the whole month of Ramadan sincerely. iii. I will perform hajj after I fulfil all the necessary conditions.
Consumer Animosity
War Animosity i. I feel angry towards US involvement in the war against several Muslim countries. ii. I can still get angry over US role in the war in Iraq and Afghanistan.

Table 4.14 (Continued)

iii. I will never forgive the US for occupying Muslim countries and killing the civilians in those countries.
iv. US are liable for the damage caused by the bombardment of Muslim countries.
v. US should pay for what it did during the occupation.
vi. US actions against Muslim prisoners in Guantanamo detention centre annoy me.
vii. I will never forgive the US for bombing Muslim countries.
Economic Animosity
i. US want to gain economic power over the Muslim countries.
ii. US companies often outsmart Muslim companies in business deals.
iii. US have too much influence on the Muslims and their countries' economy.
Consumer Ethnocentrism
i. Malaysian people should always buy Malaysian-made products instead of imports.
ii. Buy Malaysian-made products. Keep Malaysians working.
iii. Malaysian products, first, last and foremost.
iv. Purchasing foreign-made products is un-Malaysian.
v. It is not right to purchase foreign products.
vi. A real Malaysian should always buy Malaysian-made products.
vii. It is always best to purchase Malaysian products.
viii. There should be very little trading or purchasing of goods from other countries unless out of necessity.
ix. Malaysians should not buy foreign products, because this hurts Malaysian business and causes unemployment.
x. Curbs should be put on all imports.
xi. It may cost me in the long run but I prefer to support Malaysian products.
xii. Foreigners should not be allowed to put their products on our markets.
xiii. Foreign products should be taxed heavily to reduce their entry to the Malaysian market.
xiv. Malaysian consumers who purchase products made in other countries are responsible for putting their fellow Malaysians out of work.
Patriotism
i. I feel a great pride in that land that is our Malaysia.
ii. When I see the Malaysian flag flying, I feel great.
iii. The fact that I am a Malaysian is an important part of my identity.
iv. It is not constructive for one to develop an emotional attachment to one’s country.

Table 4.14 (Continued)

v. It bothers me to see children made to pledge allegiance to the flag or sing the national anthem or otherwise induced to adopt such strong patriotic attitudes.
US Product Judgment
i. Products made in US occupy very strong competitive position in comparison to the products of other countries.
ii. Products made in US are carefully produced and have a fine workmanship.
iii. Over the past several years, the quality of most products made in US seems to have improved.
iv. Products made in US show a very high degree of technological advancement.
v. Products made in US usually show a very clever use of colour and design.
vi. Products made in US are usually quite reliable and seem to last the desired length of time.
Purchase Willingness
i. I would feel guilty if I would buy a US product.
ii. I would never buy a US product.
iii. Whenever possible, I avoid buying US products.
iv. Whenever available, I would prefer to buy products made in US.
v. I do not like the idea of owning US products.
vi. If two products were equal in quality, but one was from US and one was from Malaysia, I would pay 10% more for the product from Malaysia.
Purchase Action
i. I chose US made products when similar products from other countries were available.
ii. I bought products made in US when a better quality items from other countries were available.
iii. I bought US made products even though cheaper items made from other countries were available.
iv. I explicitly recommended to someone else that he/she purchased only US made items available in the market.
v. I left a store because I was mad that they sold too many products made in the US.

From the results, most of the items loaded into the factors the researcher intends to measure except for several items. Basically, as explained earlier, items were not retained if they: (i) did not load into any factor with a value of 0.5 or greater, (ii)

loaded into the wrong factor, and (iii) had cross loading on two factors. Therefore, the final items used for subsequent analysis were basically relevant to its own factors.

4.3.4 Internal Consistency Reliability Test using Cronbach's Coefficient Alpha

After the exploratory factor analysis was performed, reliability test was conducted to observe the internal consistency of the constructs. The alpha value is important to determine the consistency of items in each of the factors. If the alpha value falls below the minimum value that can be considered as an adequate reliability, that factor will be dropped before performing the confirmatory factor analysis using structural equation modelling.

According to Pallant (2005), internal consistency is the degree to which the items that make up the scale are all measuring the same underlying attribute, i.e., the extent to which the items "hang together". Additionally, the internal consistency can be measured in a number of ways and the most commonly used statistic is the Cronbach's coefficient alpha. Meanwhile, Hair et al. (2006) define reliability as the degree to which the observed variable measures the "true" value and is "error free"; thus, it is the opposite of measurement error. Hair et al. (2006) also argue that reliability is an assessment of the degree of consistency between multiple measurements of a variable. They added that the reliability coefficient then assesses the consistency of the entire scale, with Cronbach's alpha being the most widely used measure.

As explained in the previous chapter, Cronbach's coefficient alpha values vary between 0.00 and 1.00. However, there is no general agreement as to what constitutes good or very good levels of Cronbach's alpha. Gabel (1986) suggests that alpha coefficients in the high 0.80 or above should be considered good, and Cortina (1993) suggests that alpha coefficients of 0.85 or above are quite good. But, it is also important to know that Nunnally (1967) suggests that alpha values that are above 0.5 can be considered as adequate.

The summary of the results of the internal consistency reliability test, for all the constructs used in this study, are presented in Table 4.15. Basically, constructs with a Cronbach's coefficient alpha of above 0.5 will be retained.

Table 4.15
Cronbach's Coefficient Alpha for the Study Constructs

	Construct	**No. Of Items**	**Cronbach's Alpha**
1	*Ibadah* (worship)	5	0.804
2	Faith	6	0.733
3	Obedience	3	0.329
4	War Animosity	7	0.788
5	Economic Animosity	3	0.547
6	Consumer Ethnocentrism	14	0.880
7	Patriotism	5	0.580
8	US Product Judgment	6	0.743
9	Purchase Willingness	6	0.854
10	Purchase Action	5	0.683

From the results, two factors from the Muslim religiosity construct, i.e., the *Ibadah* factor ($\alpha = 0.804$) and faith factor ($\alpha = 0.733$) have coefficient alphas of above the 0.5 value suggested as the minimum value recommended by Nunnally (1967). Therefore, these two factors were retained for further analysis. However, one factor from the Muslim religiosity construct, i.e., the obedience factor ($\alpha = 0.329$), the alpha value was below the minimum value that can be considered as an adequate reliability level. As such, this factor was dropped in the subsequent analysis.

For the factors extracted from the consumer animosity construct, the alpha values were 0.788 for war animosity and 0.547 for economic animosity. The coefficient alpha for economic animosity was relatively low but still above the minimum value suggested by Nunnally (1967). Therefore, both factors were retained for further analysis.

For the other constructs, i.e., consumer ethnocentrism, patriotism, US products judgment, purchase willingness and purchase action, the alpha vales were 0.880, 0,580, 0.743, 0.854 and 0.683 respectively. None of the alpha values show a value below 0.5. All the factors exhibited high internal consistency reliability, However, one factor, i.e., patriotism showed a relatively low alpha value, but it was still slightly above the minimum value suggested by previous researchers. In total, nine factors, i.e., *ibadah* (worship), faith, war animosity, economic animosity, consumer ethnocentrism, patriotism, US products judgment, purchase willingness and purchase actions were retained for further analysis. As a comparison, Klein et al. (1998) reported that the reliability of war animosity (0.76), economic animosity (0.74), consumer ethnocentrism (0.83), product judgment (0.73) and purchase

willingness (0.79), which are comparable with the current study. However, other results of construct reliability could not be compared with previous results as it was not reported in earlier researches.

4.4 Correlation Analysis

Correlation analysis is used to describe the strength and direction of the linear relationship between two variables and it can also indicate the relationship of one variable to another (Pallant, 2005). To know the relationship between two variables, the product moment correlation is the most widely used statistic. In this study, Pearson's correlation analysis, which is also referred to as simple correlation, bivariate correlation, or correlation coefficient was conducted among all the main constructs. Apart from that, the results from this analysis would be useful in clarifying the findings of the hypotheses testing.

The correlation coefficient range must be from +1.0 to –1.0. If the value of the correlation coefficient is 1.0, there is a perfect positive linear relationship and if the value of the correlation coefficient is –1.0, a perfect negative linear relationship or a perfect inverse relationship is indicated (Pallant, 2005). When the value of the coefficient is 0, it indicates that there is no relationship between the two variables (Zikmund, 2000). The value of the correlation coefficient can be either positive or negative due to the direction of the variables studied. If associated values of both variables differ from their means in the same direction, then their covariance will be positive, and the covariance will be negative if the values of the variables have a tendency to deviate in opposite directions (Zikmund, 2000).

According to Burns and Bush (2000), correlation coefficients that fall between +1 and +0.81 or between -1 and -0.81 are generally considered to be "very high". However, correlation coefficients of +0.5 and -0.5 and above also reflect strong correlations between two variables (Tabachnick and Fidell, 2001). Cohen (1988) suggests the following outline on the interpretations of the correlation coefficient values; r = 0.10 to 0.29 or r = – 0.10 to r = – 0.29 as small correlation; r = 0.30 to r = 0.49 or r = – 0.30 to r = – 0.49 as medium correlation; and r = 0.50 to r = 1.0 or r = – 0.50 to r = – 1.0 as large correlation. Meanwhile, according to Benny and Feldman (1985), a rule of thumb states that any correlation exceeding a value of 0.8 or – 0.8 (very strong correlation) between independent variables is likely to result in multicollinearity in the data.

A correlation analysis was performed for all nine factors extracted from the seven variables included in this study to understand the relationships between each of the factors. The results of correlation analysis are presented in Table 4.16. From the table, it is evidenced that there is no very strong correlation (0.8 and above as suggested by Burns and Bush, 2000; and Benny and Feldman, 1985) between any pairs of the nine variables in this study. It shows that multicollinearity among variables is unlikely to happen for the subsequent analysis. In total, there were 36 correlations between the variables.

Table 4.16
Correlation Matrix for the Variables in the Study

Variables	Ibadah (Worship)	Faith	War Animosity	Economic Animosity	Consumer Ethnocentrism	Patriotism	US Products Judgment	Purchase Willingness	Purchase Action
Ibadah (Worship)	1								
Faith	0.515(**)	1							
War Animosity	0.365(**)	0.522(**)	1						
Economic Animosity	0.070	0.172(**)	0.250(**)	1					
Consumer Ethnocentrism	0.325(**)	0.212(**)	0.315(**)	0.078(*)	1				
Patriotism	0.179(**)	0.201(**)	0.164(**)	0.032	0.288(**)	1			
US Products Judgment	-0.129(**)	-0.106(**)	-0.066	0.197(**)	-0.211(**)	-0.057	1		
Purchase Willingness	-0.326(**)	-0.153(**)	-0.256(**)	-0.065	-0.702(**)	-0.122(**)	0.295(**)	1	
Purchase Action	-0.094(*)	-0.110(**)	-0.154(**)	0.029	-0.144(**)	-0.222(**)	0.414(**)	0.230(**)	1

Note: * – Correlation is significant at the 0.05 level (2-tailed).
** – Correlation is significant at the 0.01 level (2-tailed).

Out of 36 correlations, 28 correlation coefficient values were significant at the 0.01 level and two correlation coefficient values were significant at the 0.05 level. It was also revealed that there are six non-significant correlations between variables in this study. The correlation coefficient values found to be not significant were: (i) between *ibadah* (worship) and economic animosity; (ii) between war animosity and US products judgment; (iii) between economic animosity and patriotism; (iv) between economic animosity and purchase willingness; (v) between economic animosity and purchase action; and (iv) between patriotism and US products judgment).

Consumer ethnocentrism was found to have the strongest and highest negative correlation with one variable, i.e., the purchase willingness of US made products ($r = -0.702$, $p \leq 0.01$). It shows that there was a strong negative correlation between the variables. Other than that, two strong positive correlations between variables were found ($r > 0.5$). *Ibadah* (worship) was found to have a strong correlation with faith ($r = 0.515$, $p \leq 0.01$). This can be expected because both come from the same proposed variable, i.e., Muslim religiosity. Additionally, faith was also found to have a strong positive correlation with the war animosity construct ($r = 0.522$, $p \leq 0.01$).

Most of the correlation coefficient values were between 0.1 to 0.49 or -0.1 to -0.49. As suggested by Cohen (1988), these values can be considered as small to medium correlation. Five correlations were found to be medium correlation: (i) *ibadah* (worship) and war animosity ($r = 0.365$, $p \leq 0.01$); (ii) *ibadah* (worship) and consumer ethnocentrism ($r = 0.325$, $p \leq 0.01$); (iii) *ibadah* (worship) and purchase willingness ($r = -0.326$, $p \leq 0.01$); (iv) war animosity and consumer ethnocentrism (r

= 0.315, $p \leq 0.01$); and (v) US products judgment and purchase action (r = 0.414, $p \leq 0.01$). Other significant correlations were found to have a small correlation. For example, between war animosity and economic animosity (r = 0.250, $p \leq 0.01$) and between war animosity and patriotism (r = 0.164, $p \leq 0.01$). Additionally, small negative correlations between variables were also found. For example, between *Ibadah* (worship) and US products judgment (r = -0.129, $p \leq 0.01$) and between faith and US products judgment (r = -0.106, $p \leq 0.01$).

With regard to the relationships between war and economic animosity and the purchase willingness of US made products, it was found that the significant negative correlation was only between war animosity and purchase willingness (r = - 0.256, $p \leq 0.01$). It was not significant between economic animosity and purchase willingness. Additionally, the correlation coefficient values between war and economic animosity and the purchase action were also observed. It was small/low negative correlation between war animosity and purchase action (r = -0.154, $p \leq 0.01$), but the value was not significant between economic animosity and purchase action (r = 0.029, $p \leq 0.05$).

In terms of the relationship between consumer ethnocentrism and the purchase willingness of US made products, a strong negative correlation was found (r = - 0.702, $p \leq 0.01$). For the relationship of consumer ethnocentrism with purchase action of US made products, a negative significant correlation was found, but the value was not as strong as the purchase willingness (r = -0.144, $p \leq 0.01$). Basically, consumer ethnocentrism will negatively correlate with purchase willingness and

purchase action. Consumer ethnocentrism was also found to have a significant negative correlation with US products judgment ($r = -0.211$, $p \leq 0.01$).

For patriotism, the results also indicated a small and significant negative correlation with two variables in this study, namely, purchase willingness ($r = -0.122$, $p \leq 0.01$) and purchase action ($r = -0.222$, $p \leq 0.01$), but the correlation between patriotism and US products judgement was found to be not significant ($r = -0.057$, $p \leq 0.05$).

With regards to the relationship between US products judgment and purchase willingness, the results revealed that the correlation coefficient value was found to be small/low and positive with an r value of 0.295 ($p \leq 0.01$). For the relationship between US products judgment and purchase action, a moderate positive correlation among them was found ($r = 0.414$, $p \leq 0.01$). Meanwhile, purchase willingness was found to have a small and positive correlation with purchase action ($r = 0.230$, $p \leq 0.01$).

As an overall conclusion for the Pearson correlation coefficient analysis, results of correlational analysis showed that multicollinearity was unlikely to happen as the absolute values of the correlation coefficients (ranging from $r = – 0.702$ to $r = 0.522$) were lower than the acceptable cut-off value of 0.80 suggested by Benny and Feldman (1985) and Burn and Bush (2000). Furthermore, as the strong correlation value is from 0.80 to 1.0, no matter whether it is a positive or negative correlation (Cohen, 1988). It also shows that a strong correlation did not exist between factors in this study. In terms of the significant correlations values of the constructs, it is found that most of the are significant at 0.01 level, and some of them are significant

at 0.05 level. Only few of the correlations are not significant. The results also brought into early conclusion that consumer animosity, consumer ethnocentrism and patriotism will negatively influence the purchase willingness and purchase action of US made products. However, the testing of hypotheses is still needed to support the conclusion. This result is only an indication of the relationship between the independent and the dependent variables.

4.5 Assumptions of Multivariate Analysis

According to Hair et al. (2006), multivariate analysis refers to all statistical techniques that simultaneously analyze multiple measurements on individuals or objects under investigation. They added that multivariate analysis is an analysis of multiple variables in a single relationship or set of relationships. Before proceeding with the analysis related to multivariate analysis, several assumptions need to be performed. As suggested by Hair et al. (2006) and Pallant (2005), before conducting the multivariate analysis, the assumptions of skewness and kurtosis, multicollinearity, normality, outliers, linearity and homoscedasticity must be met and not violated.

4.5.1 Skewness and Kurtosis

In order to assess the distributions of the data in this study, skewness and kurtosis have been used. The function of these two tools is to check on the shape of the scores of the distribution. Skewness is used to describe the balance of the distribution; that is, is it unbalanced and shifted to one side (right or left) or is it

centred and symmetrical with about the same shape on both sides (Hair et al., 2006). In simple terms, it provides an indication of the symmetry of the distribution. A positively skewed distribution has relatively few large values and tails off to the right, and a negatively skewed distribution has relatively few small values and tails off to the left.

Kurtosis refers to the "peakedness" or "flatness" of the distribution compared with the normal distribution. Distributions that are taller or more peaked than the normal distribution are termed *leptokurtic*, while a distribution that is flatter is termed *platykurtic* (Hair et. al., 2006). In simple terms, it measures the height of the distribution. A positive value indicates a relatively peaked distribution (clustered in the centre), with long thin tails and a negative value indicates a relatively flat distribution. According to Norusis (1988), kurtosis is how observations "cluster around a central point" for a given standard distribution. Positive values for kurtosis show that a distribution has a higher than normal peak (*leptokurtic*) while negative values show that a distribution has a lower than normal peak (*platykurtic*).

If the distribution is perfectly normal, the results will obtain a skewness and kurtosis of 0, which is uncommon in social science (Pallant, 2005). Therefore, for the calculated skewness and kurtosis values, zero assumes perfect normality in the data distribution, ± 2.58 indicates rejecting the normality assumption at the 0.01 probability level, and ± 1.96 signifies a 0.05 error level (Hair et al. 2006).

By applying the above criteria to the skewness values for each of the study variables, it is clear that none of the variables fall outside the ± 2.58 range of skewness. Thus,

the data for this study is normal with regards to skewness. The same criteria for skewness was applied to the kurtosis values for each variable and it is clear that none of the variables fall outside the ± 2.58 range of kurtosis. Thus, the data for this study is also normal with regards to kurtosis. This is shown in Table 4.17.

Table 4.17
Skewness and Kurtosis of the Study Variables

Variables	Skewness	Kurtosis
***Ibadah* (worship)**	-0.193	-0.621
Faith (*Iman*)	-0.647	-0.093
War Animosity	-0.266	-0.432
Economic Animosity	-0.166	-0.406
Consumer Ethnocentrism	-0.219	-0.497
Patriotism	-0.712	0.062
US Products Evaluation	-0.179	-0.192
Purchase Willingness	-0.037	-0.465
Purchase Action	0.462	-0.313

From Table 4.17, it is evident that the skewness and kurtosis values for all the variables are within the suggested value. These values indicate no serious deviation from normality by the observed data.

4.5.2 Multicollinearity

Multicollinearity is the expression of the relationship between two or more independent variables. Two variables exhibit complete collinearity if their

correlation coefficient is 1 (Hair et al., 2006). Multicollinearity occurs when intercorrelations among some variables are so high that certain mathematical operations are either impossible or the results are unstable because some denominators are very close to zero (Kline, 1998). Multicollinearity also occurs when it appears that separate variables actually measure the same thing. It can be considered as multicollinearity when the correlation value is high, 0.9 according to Hair et al. (2006), Kline (1998) and Pallant (2005).

Researchers have suggested several ways to assess multicollinearity. For example, Punj and Steward (1983) suggest the use of factor analysis to drop all factors with low eigenvalues. Hair et al. (2006) suggest the use of Mahalanobis distance measure as one of the methods that can be used to adjust the high correlation factors.

According to Kline (1998) and Hair et al. (2006), to assess the multicollinearity in the multivariate level is not so straightforward and not as easy as detecting it in the bivariate level. They propose that to detect multicollinearity one checks the variables tolerance value. Tolerance can be defined as the amount of variability of the selected independent variable not explained by other independent variables (Hair et al., 2006). If the tolerance values are less than 10 percent or 0.1, it indicates a multicollinearity problem (Kline, 1998).

In addition, the value of the variance of inflation (VIF) can also be used to detect multicollinearity. The VIF is calculated simply as the inverse of the tolerance value. Thus, instances of a higher degree of multicollinearity are reflected in a lower tolerance value and a higher VIF value (Hair et al., 2006). Myers (1990) and Kline

(1998) suggest that if the VIF value is above 10, then the variables may be redundant with others, thus, it indicates a multicollinearity problem. Two ways to deal with multicollinearity are: (i) eliminate the variables, and (ii) combine redundant ones into a composite variable. In this study, both tolerance and VIF values were used to detect the existence of multicollinearity for the all the items and variables. The results of the multicollinearity test for the items and variables are presented in Table 4.18 and Table 4.19, respectively.

Table 4.18 presents the tolerance and VIF value of the items included in the final analysis. These items were actually extracted after the exploratory factor analysis and loaded firmly on the nine factors that have to be further tested using the confirmatory factor analysis. As we can see from the table, all the values were above 0.1 for the tolerance and far below the value of 10 for the VIF. It shows that there is no problem in multicollinearity among the items.

In Table 4.19, the tolerance and VIF values for all the variables in this study show no signs of multicollinearity since all the values of tolerance are above the 0.1cut-off threshold suggested by the literature, and all the VIF values are below 10 indicating that the current study have not violated the multicollinearity assumption. This, again, shows that the multicollinearity is not a problem in this study and the redundancy among the factors and items was low.

Table 4.18
Multicollinearity Diagnostics on Items

Collinearity Statistics					
Items	**Tolerance**	**VIF**	**Items**	**Tolerance**	**VIF**
Reli_2	0.650	1.538	**Ethno_11**	0.454	2.205
Reli_5	0.609	1.643	**Ethno_12**	0.548	1.824
Reli_6	0.543	1.842	**Ethno_13**	0.620	1.614
Reli_7	0.690	1.449	**Ethno_14**	0.601	1.663
Reli_8	0.578	1.730	**Ethno_15**	0.486	2.059
Reli_10	0.723	1.383	**Ethno_17**	0.528	1.894
Reli_15	0.529	1.891	**Patrio_5**	0.671	1.491
Reli_17	0.584	1.712	**Patrio_7**	0.643	1.555
Reli_18	0.494	2.025	**Patrio_8**	0.762	1.313
Reli_19	0.558	1.792	**Patrio_9**	0.774	1.292
Reli_21	0.587	1.705	**Patrio_11**	0.769	1.300
Animo_2	0.619	1.614	**Judge_3**	0.751	1.332
Animo_3	0.735	1.361	**Judge_4**	0.568	1.761
Animo_4	0.605	1.653	**Judge_6**	0.721	1.386
Animo_5	0.600	1.665	**Judge_7**	0.672	1.488
Animo_6	0.563	1.775	**Judge_11**	0.731	1.367
Animo_7	0.677	1.478	**Judge_12**	0.548	1.826
Animo_8	0.637	1.570	**Will_1**	0.389	2.572
Animo_12	0.747	1.339	**Will_2**	0.389	2.571
Animo_13	0.759	1.318	**Will_3**	0.505	1.980
Animo_14	0.754	1.326	**Will_4**	0.530	1.885
Ethno_1	0.641	1.559	**Will_5**	0.564	1.772
Ethno_3	0.577	1.733	**Will_6**	0.546	1.832
Ethno_4	0.569	1.758	**Act_1**	0.609	1.643
Ethno_5	0.664	1.506	**Act_2**	0.697	1.434
Ethno_6	0.636	1.573	**Act_3**	0.684	1.461
Ethno_7	0.536	1.865	**Act_5**	0.761	1.314
Ethno_9	0.579	1.728	**Act_6**	0.642	1.558
Ethno_10	0.637	1.570			

Table 4.19
Multicollinearity Diagnostics on Variables

Collinearity Statistics		
Variables	**Tolerance**	**VIF**
Ibadah	0.663	1.509
Faith	0.588	1.701
War Animosity	0.655	1.528
Economic Animosity	0.881	1.135
Consumer Ethnocentrism	0.451	2.218
Patriotism	0.881	1.135
US Products Evaluation	0.856	1.168
Purchase Willingness	0.461	2.168
Purchase Action	0.777	1.286

Based on the results presented in Table 4.18 and 4.19, it can be concluded that there is no signs of multicollinearity for the items and factors used in the current study.

4.5.3 Normality

According to Hair et al. (2006), normality is the most fundamental assumption in multivariate analysis. It refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution, the benchmark for statistical method. The analysis of skewness and kurtosis presented in the previous sub-section of this chapter revealed that the data in this study is normally distributed. In addition, the Normal Probability-Plot (P-P) for standardized residuals was also examined to determine the normality of the independent variables. As suggested by Pallant (2005), one way normality assumptions can be checked is by inspecting the Normal Probability Plot of the regression standardized residuals. In the plot, it is

hoped that the points will lie in a reasonably straight diagonal line from bottom left to top right (Pallant, 2005). This would suggest no major deviation from normality.

Hair et. al. (2006) mentioned that a more reliable approach to diagnose normality is by using the normal probability plot, which compares the cumulative distribution of actual data values with the cumulative distribution of a normal distribution. The variables that are not normally distributed, whatever significant results are found, are actually understated (Barrick and Mount, 1991). The normal distribution forms a straight diagonal line and the plotted data values are compared with the diagonal. If the distribution is normal, the line representing the actual data distribution closely follows the diagonal (Hair et al., 2006). The result of Normal P-P plot is presented in Appendix 3. The results in Appendix 3 show that the plotted data values do not deviate much from the straight diagonal line. Thus, indicating that the independent variables of this study are normally distributed.

4.5.4 Outliers

According to Pallant (2005), outliers can be identified from the standardized residuals plot. The value of standardised residual from casewise diagnostics is used to measure the outliers in the sample. Tabachnick and Fidell (1996) suggest outliers are those with standardized residual values above about 3.3 (or less than -3.3). However, the output from the analysis of the study data shows that no case was an outlier.

4.5.5 Linearity and Homoscedasticity

Besides the assumptions of normality, other important assumptions for the multivariate analysis are linearity and homoscedasticity. Since the statistical technique employed to test the hypotheses in this study is the multivariate technique, the assumptions with regards to the use of multivariate analysis must be met (Hair et al., 2006). As explained in the earlier section, there was no violation of assumptions in terms of normality since the normal probability plot showed that the data was normally distributed and no major deviations from normality were found. The next step is to check the linearity of the data. According to Pallant (2005), linearity exists when the residuals have a straight line relationship with the predicted dependent variable scores. Because correlations represent only linear association between variables, nonlinear effects will not be represented in the correlation value. Consequently, it is always prudent to examine the relationships to identify any departures from linearity that may affect the correlation (Hair et al., 2006).

Testing for linearity of the relationships between independent variables [*ibadah* (worship), faith, war animosity, economic animosity and patriotism] and US products judgment (the mediating variable), between independent variables and purchase willingness of US made products (dependent variable), between independent variable and purchase action of US made products (dependent variable) and between US products judgment (mediating variable) and purchase willingness as well as purchase action was done using the scatter plots. In a multivariate analysis, an examination of the actual standardized residual values of Y against the

predicted residual values of Y (predicted from the set of independent variables) can indicate a non-linear relationship.

The results of scatter plots for linearity analysis are shown in Appendix 4. From the scatter plot of residuals against predicted values, there is no clear relationship between the residuals and the predicted values, consistent with the assumptions of linearity. In other words, through an analysis of residuals and partial regression plots, a non-linear pattern to the residuals was not found, thus, the assumption of linearity was not violated. The same procedure was applied to check on the linearity of other relationships. Again, the results of the scatter plots for all the factors could be considered as linear since the non-linear pattern of the residuals was not found and, therefore, the assumption of linearity was not violated.

The next step was testing the homoscedasticity between the variables. In order to follow the assumptions of the multivariate analysis, the relationships between the variables should exhibit homoscedasticity. According to Pallant (2005), homoscedasticity is present when the variance of the residuals about predicted dependent variable scores is the same or consistent for all predicted scores. That is, the variance of one variable will be consistent across all values of the other variables. The opposite of homoscedasticity is heteroscedasticity. Heteroscedasticity degrades multiple regression analysis by underestimating the extent of the correlation between the variables (De Vaus, 2002).

As suggested by Hair et al. (2006), the standardized residuals are plotted on the dependent variable to determine the presence of heteroscedasticity. Again, the

scatter plots derived from the SPSS output were used in analyzing this assumption. Inspection of the residuals of the plots show that it can be considered as generally rectangularly distributed, with most of the scores concentrated in the centre. From the plots, we can also see that there are no clear or systematic patterns of residuals for the independent variables towards both dependent variables. Thus, homoscedasticity existed for the independent variables of this study and the assumption of these analyses was not violated.

4.6 Structural Equation Modelling (SEM)

Structural equation modelling (SEM) explores the relationship between the hypothesized constructs based on theoretical reasoning. SEM permits researchers to analyse groups of independent variables and dependent variables simultaneously (Hair et al., 2006; Schumacker and Lomax, 1996). In essence, SEM is the only multivariate technique that allows the simultaneous estimation of multiple equations (Hair et al., 2006). These equations represent the way constructs relate to measured indicator items as well as the way constructs are related to one another.

SEM grows out of and serves purposes similar to multiple regression but in a more powerful way, which takes into account the modelling of interactions, nonlinearities, correlated independents, measurement error, correlated error terms, multiple latent independents each measured by multiple indicators, and one or more latent dependents also each with multiple indicators (Schumacker and Lomax, 1996). SEM may be used as a more powerful alternative to multiple regression, path analysis, factor analysis, time series analysis, and analysis of covariance. That is, these

procedures may be seen as special cases of SEM, or, to put it another way, SEM is an extension of the general linear model of which multiple regression is a part. It is commonly used as a statistical method for quantifying the relationships among variables that cannot be observed directly (Kline, 1998 and Hair et al., 2006).

Advantages of SEM, compared to multiple regression, include more flexible assumptions, use of confirmatory factor analysis to reduce measurement error by having multiple indicators per latent variable, the attraction of SEM's graphical modelling interface, the desirability of testing models overall rather than coefficients individually, the ability to test models with multiple dependents, the ability to model mediating variables, the ability to model error terms, the ability to test coefficients across multiple between-subjects groups, and the ability to handle difficult data (Kline, 1998).

If a model that is tested using SEM procedures is found to be deficient, an alternative model is then tested based on changes suggested by the SEM modification indices and standardised residuals (Garver and Mentzer, 1999; Bryne, 2001; and Hair et al., 2006). This is the most common approach found in the literature. According to Bryne (2001), modification indices and standardised residual are examined for each of the variables to see whether there is any misspecification in the model as well as to fulfil the criteria of construct unidimensionality. Meanwhile, the biggest difference between SEM and other multivariate techniques is the use of separate relationships for each set of dependent variables (Hair et al., 2006).

The structural equation modelling process centres around two steps: validating the measurement model and fitting the structural model. The former is accomplished primarily through confirmatory factor analysis (the measurement model relating the observed indicators to the latent variables or factors), while the latter is accomplished primarily through the underlying structural model expressing a relationship among the unobserved variables (Hair et al., 2006). Each variable in the model is conceptualized as a latent one, measured by multiple indicators. Several indicators are developed for each model, with a view to finishing with at least three per latent variable after confirmatory factor analysis (Hair et al., 2006).

Indicators are observed variables, sometimes called manifest variables or reference variables, such as items in a survey instrument and latent variables are the unobserved variables or constructs or factors that are measured by their respective indicators (Kline, 1998). Latent variables include independent, mediating, and dependent variables. "Exogenous" variables are independents with no prior causal variable (though they may be correlated with other exogenous variables, depicted by a double-headed arrow – note two latent variables can be connected by a double-headed arrow (correlation) or a single-headed arrow (causation) but not both. "Endogenous" variables are mediating variables (variables, which are both effects of other exogenous or mediating variables, and are causes of other mediating and dependent variables), and pure dependent variables (Kline, 1998).

Based on a large sample (n>500), as suggested by Hair et al. (2006); if the number of factors is larger than six, low communalities are present and some of the factors use three measured items as indicator), the researcher proceeds only when the

measurement model has been validated. However, according to Kline (1998), sample sizes that exceed 200 cases could be considered as large. The model, during this process is then evaluated in terms of "model fit," which measures the extent to which the covariances predicted by the model correspond to the observed covariances in the data (Hair et al., 2006). As explained earlier, modification indices and standardized residuals may be used by the researcher to alter the model to improve fit.

Thus, as a conclusion, for this study the overall model for the observed variables consists of two parts: the measurement model relating the observed indicators to the latent variables or factors, and the underlying structural model expressing a relationship among the unobserved variables (Hair et al., 2006).

4.6.1 Confirmatory Factor Analysis / Measurement Model

As explained in the previous chapter, this study employs a two step analytic procedure. Before proceeding with the structural model, the first step in SEM is to do the confirmatory factor analysis or the measurement model. CFA is actually the way of testing how well measured variables represent a smaller number of constructs. The researcher can analytically test a conceptually grounded theory explaining how different measured items can represent different important measures. The results of CFA combined with construct validity tests, will obtain a better understanding of the quality of the measurements. In the measurement model, as a general guide, measurement theory suggests that multiple indicators, at least three, should be used to measure latent variables (Garver and Mentzer, 1999). Each

indicator should represent only one latent variable and must be designated by theoretical considerations (Bollen, 1989).

In the first step of the measurement model, components of the measurement model must be evaluated to test for the unidimensionality. Diagnostic indicators (standardized residuals and modification indices) and relationship between indicators and latent variables should be inspected (Garver and Mentzer, 1999). All the latent variables contained in the measurement model should be allowed to correlate. This can help the researcher to assess the unidimensionality of the construct in the presence of other constructs (Medsker et al., 1994). The criterion for assessing the construct unidimensionality use in this study is to evaluate the overall measurement model fit.

Modification indices are very helpful in determining how to modify the measurement model (Kline, 1998). According to Garver and Mentzer (1999), a value of index that is above 7.88 can be considered as substantial value, and dropping such item is expected to have a significant model improvement. On the other hand, Hair et al., (2006) recommend that modification indices of approximately 4 or greater will improve the model significantly by freeing that particular corresponding path. For standardized residuals, large residuals will be over 2.00 or 2.58, depending on the alpha level chosen by the researcher.

Using AMOS, it is possible to specify, test, and modify the measurement model. Model-data fit was evaluated based on multiple fit indexes. The overall model fit indexes include goodness of fit index (GFI), adjusted goodness of fit index (AGFI),

root mean square error of approximation (RMSEA), comparative fit index (CFI) and Tucker-Lewis Index (TFI). GFI indicates the relative amount of variance and covariance jointly explained by the model. The AGFI differs from GFI in that it adjusts for the number of degrees of freedom in the model (Bentler, 1990).

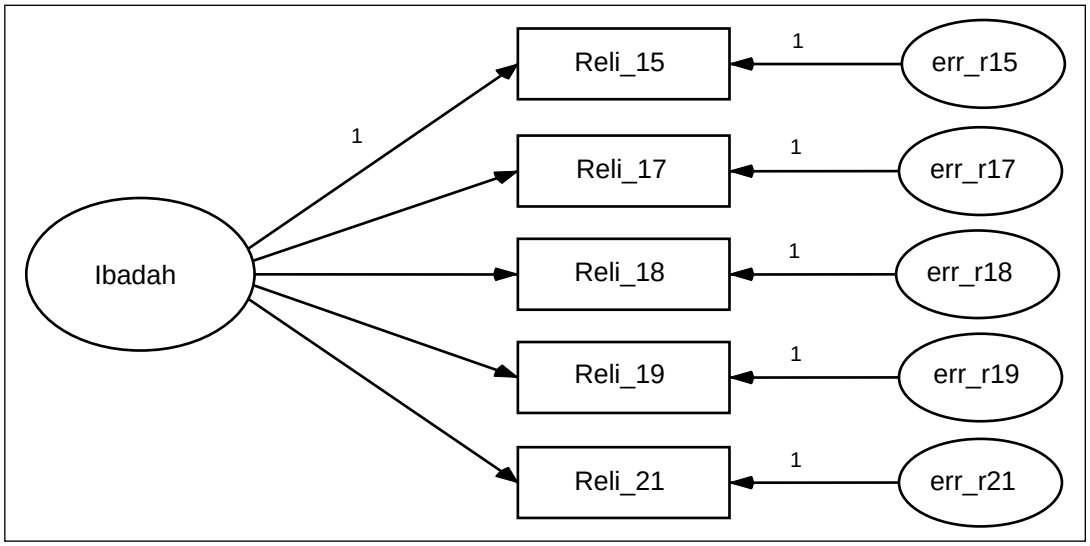
Many researchers argue that index scores of 0.90 or higher are considered as evidence of good fit except for the RMSEA. The RMSEA takes into account the error of approximation and is expressed per degree of freedom, thus making the index sensitive to the number of estimated parameters in the model; a RMSEA value of less than 0.05 indicates a good fit, values as high as 0.08 represent reasonable errors of approximation in the population (Browne and Cudeck, 1993), values ranging from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate a poor fit (MacCallum et al, 1996). Detailed explanations on these issues are provided and explained in the previous chapter.

According to Cheng (2001), there are two methods commonly used by researchers in evaluating the validity of the measurement model: testing each construct separately, or testing all the constructs together at one time. However, as suggested by Garver and Mentzer (1999); and Medsker et al. (1994), the process of refining and testing for unidimensionality should be conducted independently with each latent variable and once each construct in the measurement model is deemed acceptable, the overall measurement model should be assessed and each construct should be evaluated in the presence of other constructs. Hence, in this study, the researcher intends to apply both methods (separately and combined among latent variables) for the measurement model.

a) Measurement Model for *Ibadah* (Worship) Construct

Figure 4.1 shows the measurement model for the *Ibadah* (worship) construct in which there were five items for this variable. In order to get the model fit, model modification was carried out based on modification indices and standardized residual. If the model shows no modification required (if all the suggested overall model fit indices achieved the recommended value), then no item needs to be dropped. As explained in the previous chapter, this study uses five model fit indices, i.e., CFI, GFI, AGFI, TLI and RMSEA.

Figure 4.1
Measurement Model for *Ibadah* (Worship) Construct



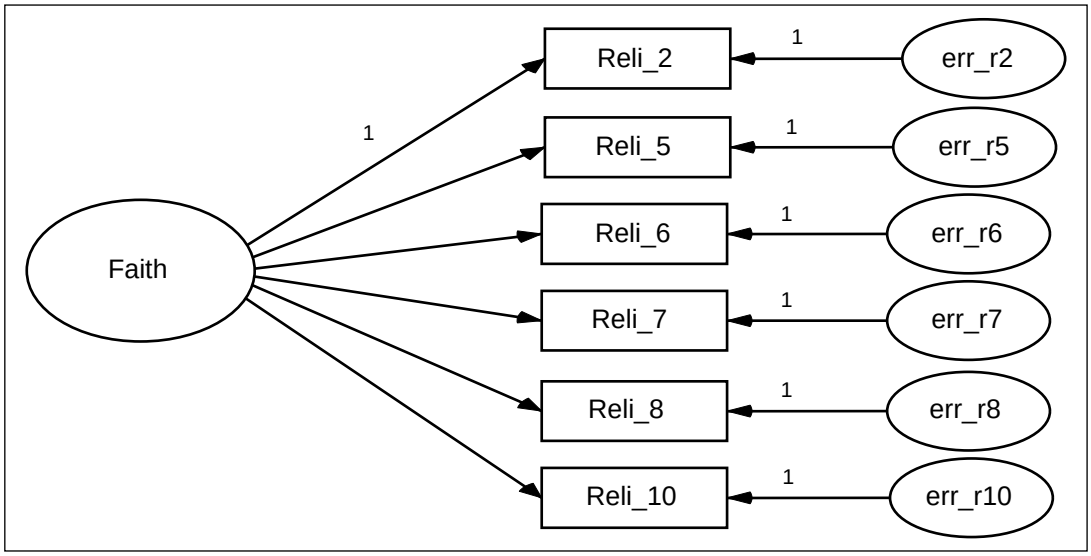
CFI	GFI	AGFI	TLI	RMSEA
0.989	0.991	0.973	0.978	0.056

From the results, no item needs to be dropped because in measurement model for the *ibadah* (worship) construct. This is because all the fit indices are within the recommended value. The value of CFI, GFI, AGFI and TLI are all well above 0.9 and the RMSEA value is below 0.08.

b) Measurement Model for Faith *(Iman)* Construct

Another construct extracted from the Muslim religiosity construct is faith (iman). From the EFA, there were six items loaded in this factor from the Muslim religiosity construct. As suggested by previous researchers, to test for the unidimensionality of a construct, the measurement model or the CFA were conducted. The result of the measurement model for this construct is presented in Figure 4.2.

Figure 4.2
Measurement Model for Faith (Iman) Construct



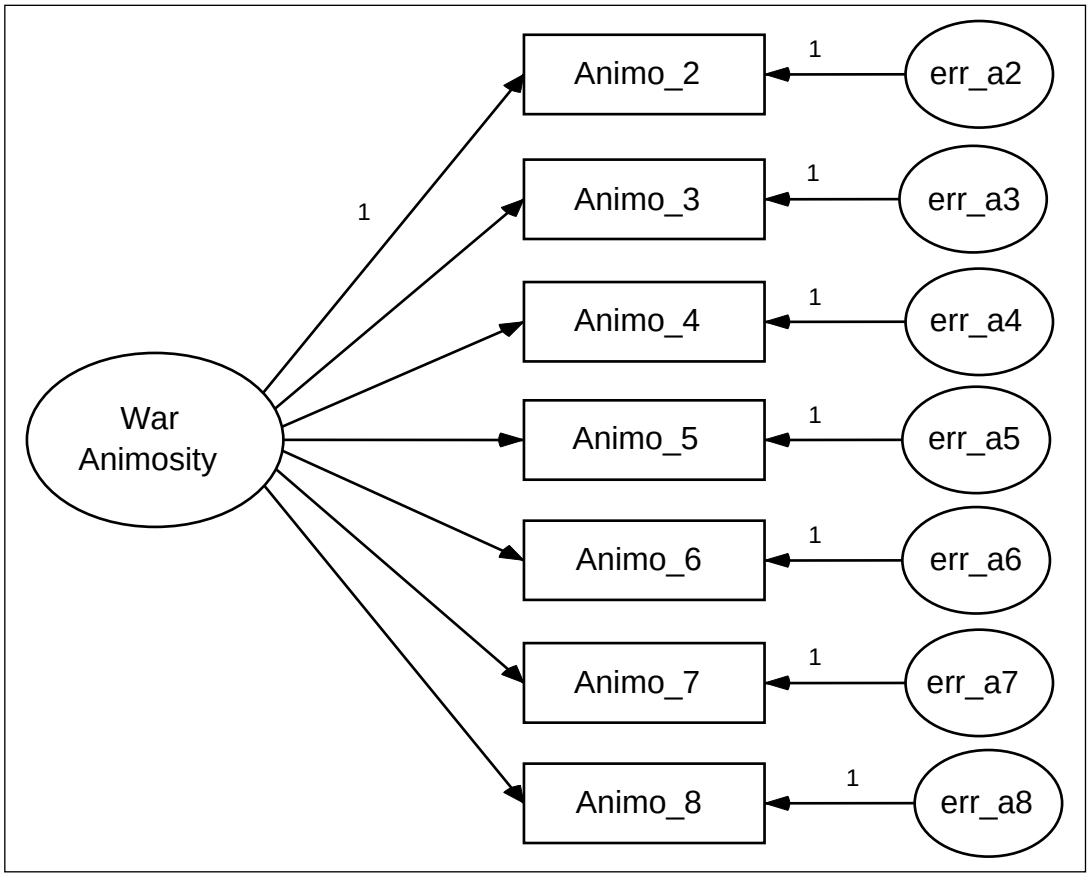
CFI	GFI	AGFI	TLI	RMSEA
0.982	0.989	0.974	0.971	0.048

From the results, no modification is needed to improve the model. The modification indices value and the standardized residuals value suggest that no item has to be dropped to achieve the desired fitness model.

c) Measurement Model for War Animosity Construct

For the consumer animosity construct, the first component is the war animosity. The measurement model for the war animosity was then performed and the results are presented in Figure 4.3.

Figure 4.3
Measurement Model for War Animosity Construct



CFI	GFI	AGFI	TLI	RMSEA
0.986	0.988	0.976	0.979	0.040

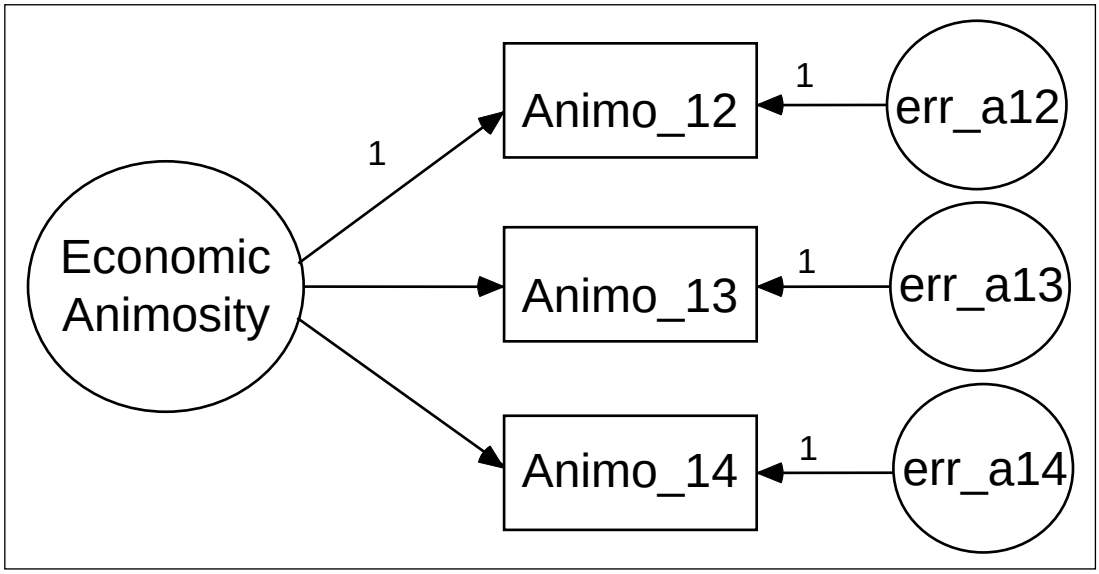
From the EFA, seven items were loaded into this construct and all the items were related to the construct the researcher intended to measure. Meanwhile, the results of the measurement model for the war animosity construct shows that all model fit

values for the fitness indices of CFI, GFI, AGFI, TLI and RMSEA are well within the recommended value. Consequently, no items from the war animosity construct have to be dropped as suggested by the modification indices and standardized residuals value.

d) Measurement Model for Economic Animosity Construct

The second component of consumer animosity construct, i.e., economic animosity only consists of three items. The result of the measurement model for economic animosity construct is presented in Figure 4.4 and no items were dropped.

Figure 4.4
Measurement Model for Economic Animosity Construct

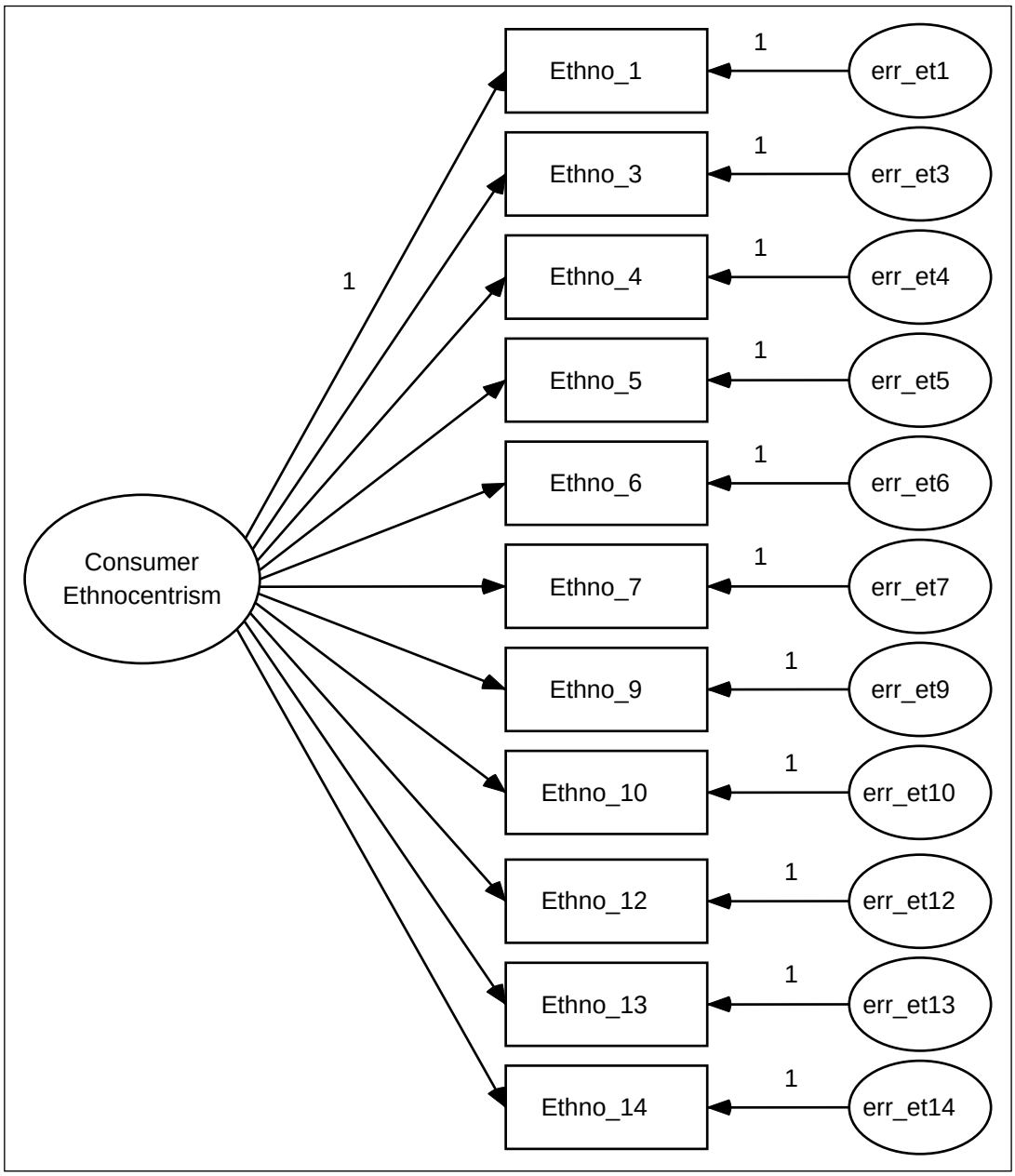


CFI	GFI	AGFI	TLI	RMSEA
0.980	0.996	0.977	0.940	0.066

e) Measurement Model for Consumer Ethnocentrism Construct

Figure 4.5 shows the measurement model for the consumer ethnocentrism construct in which there were 11 items for this variable.

Figure 4.5
Measurement Model for Consumer Ethnocentrism Construct



CFI	GFI	AGFI	TLI	RMSEA
0.951	0.965	0.947	0.939	0.054

During the EFA, 14 items were retained for subsequent analysis, and three items were dropped because they were not loaded into the factor that intends to measure the consumer ethnocentrism construct. All the 14 items were then assessed for the measurement model of the consumer ethnocentrism construct. The initial results indicated that the model do not have a reasonable fit. In order to get the model fit, model modification was carried out, which was based on modification indices and standardized residual.

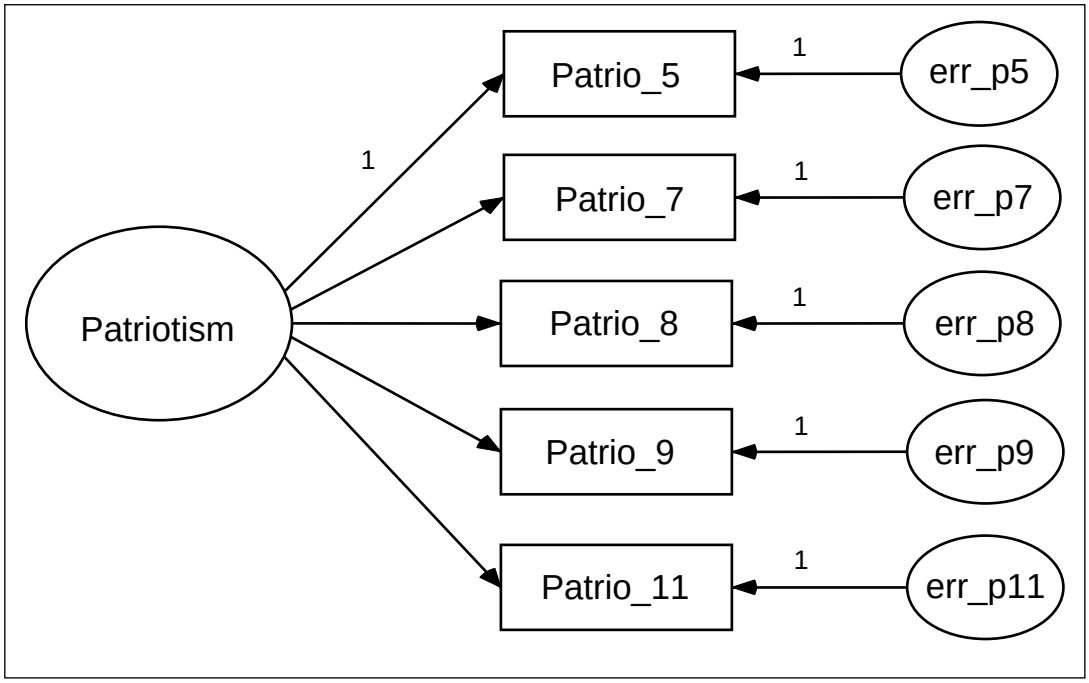
Three items were dropped to improve the model fit. The items were; (i) Ethno 11 – Malaysians should not buy foreign products, because this hurts Malaysian business and causes unemployment, (ii) Ethno 15 – Foreign products should be taxed heavily to reduce their entry to the Malaysian market, and (iii) Ethno 17 – Malaysian consumers who purchase products made in other countries are responsible for putting their fellow Malaysians out of work. Before dropping those three items, the model fit for the consumer ethnocentrism construct was CFI = 0.896, GFI = 0.913, AGFI = 0.882, TLI = 0.878 and RMSEA = 0.077. After those three items dropped based on modification indices and standardized residuals, the model fit of consumer ethnocentrism construct were improved and all the values were well within the recommended value.

f) Measurement Model for Patriotism Construct

The measurement model for the patriotism construct was then assessed. Figure 4.6 shows the measurement model for patriotism. From the EFA, five items were loaded into this construct and all the items were related to the construct the researcher

intended to measure. As explained earlier, to improve the model fit, model modification was carried out, which was based on modification indices and standardized residual if needed.

Figure 4.6
Measurement Model for Patriotism Construct



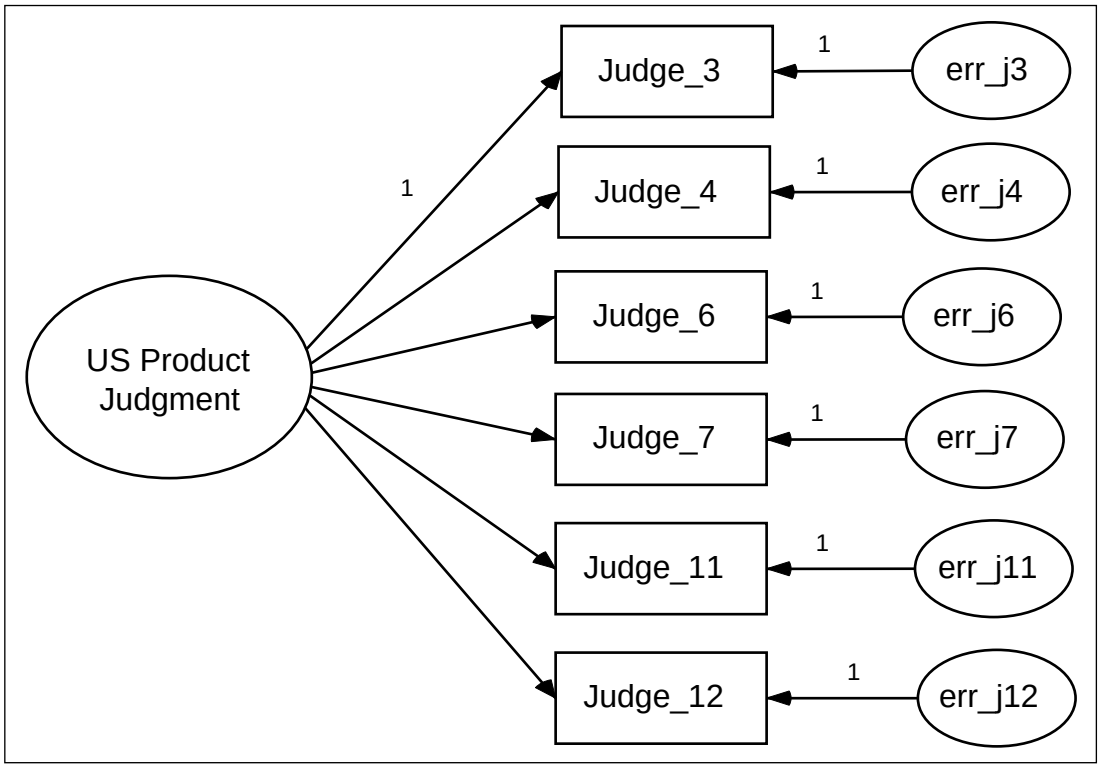
CFI	GFI	AGFI	TLI	RMSEA
0.952	0.987	0.960	0.903	0.073

After assessing the model based on the modification indices and standardized residual, it was found that no modification is needed for the patriotism measurement model. Based on the value of the CFI, GFI, AGFI and TLI as well as the RMSEA, it was suggested that no items need to be dropped to get the model fit. The values for CFI, GFI, AGFI and TLI were above 0.9 and the value for RMSEA was below 0.08 as recommended. Therefore, all the items extracted from the EFA will be retained for further analysis.

g) Measurement Model for US Product Judgment Construct

The US product judgment construct was also analysed using the measurement model. This construct consists of six items extracted from the EFA. The result of the measurement model for economic animosity construct is presented in Figure 4.7 and no items were dropped to get the model fit. Based on the values of CFI, GFI, AGFI, TLI and RMSEA, it showed that no modification needed for patriotism construct as all the values were well within the recommended value.

Figure 4.7
Measurement Model for US Product Judgment Construct

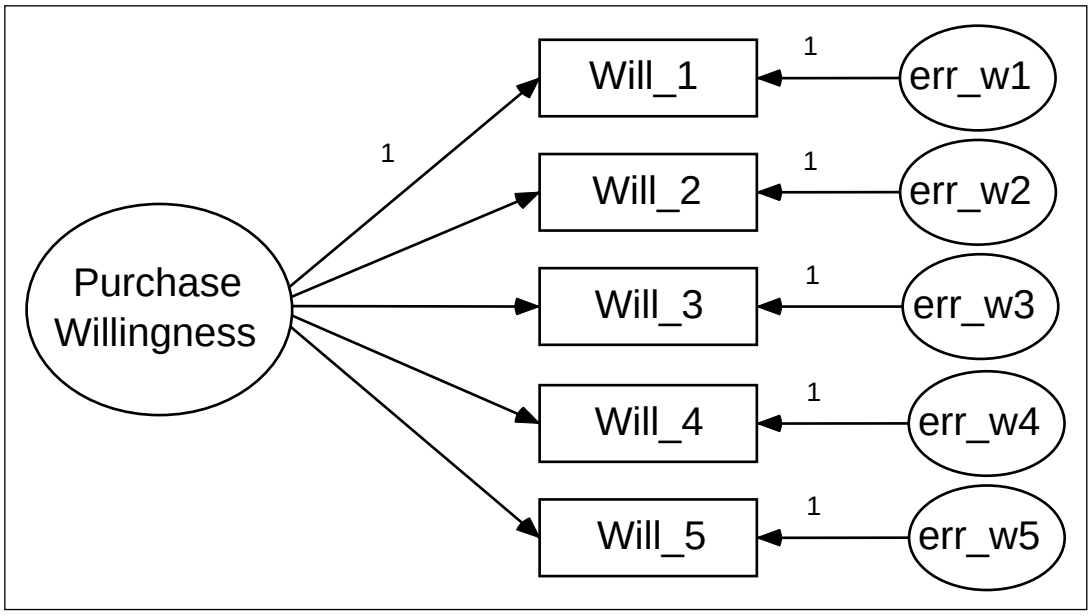


CFI	GFI	AGFI	TLI	RMSEA
0.974	0.985	0.969	0.962	0.052

h) Measurement Model for Purchase Willingness Construct

There were six items for the purchase willingness construct. No item was dropped during the EFA and all the items were then assessed using the measurement model for purchase willingness construct. The measurement model result for purchase willingness is presented in Figure 4.8. One item (Will_6) was dropped to get the model fit. No further modification was needed to improve the model fit. Before dropping this item, all the fit indices indicated the satisfactory model fit except for RMSEA value of 0.098, which was well above the recommended value of 0.08. Based on the modification indices, it was suggested that this item (Will_6) need to be dropped to improve the RMSEA value. After the item was dropped, all the fit indices values show a high level of fitness.

Figure 4.8
Measurement Model for Purchase Willingness Construct

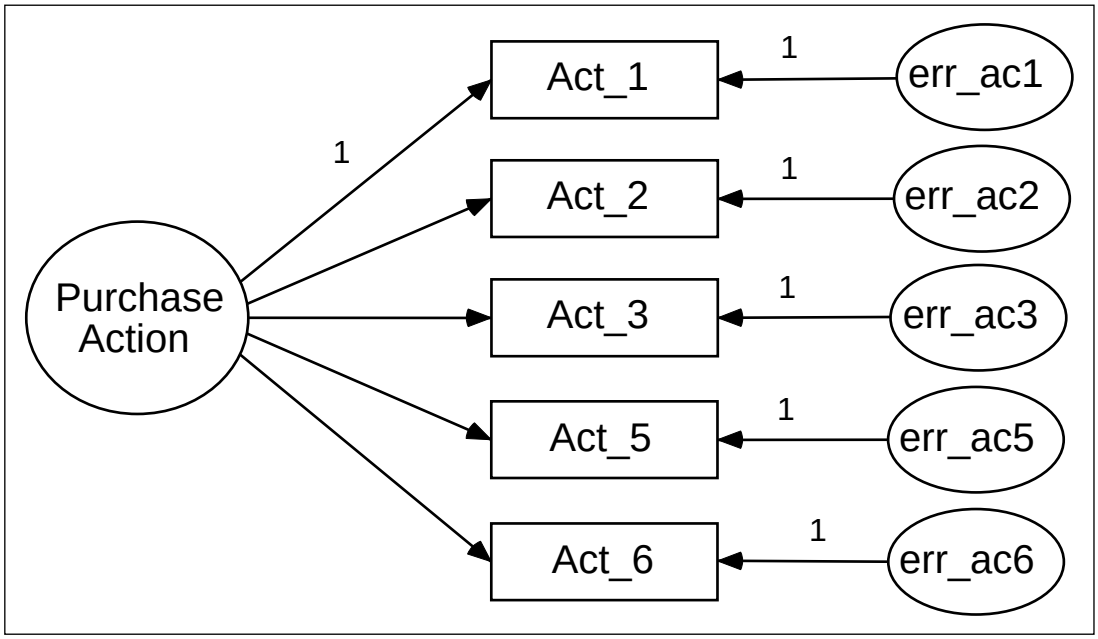


CFI	GFI	AGFI	TLI	RMSEA
0.997	0.995	0.984	0.994	0.034

i) Measurement Model for Purchase Action Construct

The last construct for this study is the purchase action construct. Using the same procedures, this construct was assessed for the model fit. During the EFA, five items were loaded into this factor. The model fit index values suggest that no item needs to be dropped to improve the measurement model for this construct. Figure 4.9 summarises the CFA results for purchase action construct.

Figure 4.9
Measurement Model for Purchase Action Construct



CFI	GFI	AGFI	TLI	RMSEA
0.998	0.996	0.989	0.996	0.017

As suggested by Garver and Mentzer (1999); and Medsker et al. (1994), the process of refining and testing for unidimensionality should be conducted independently with each latent variable and once each construct in the measurement model is

deemed acceptable, the overall measurement model should be assessed and each construct should be evaluated in the presence of other constructs.

Therefore, all nine factors extracted from EFA were submitted to a measurement model analysis to check for the model fit indexes for each sub-construct. The initial model fit indexes for the measurement model consist of CFI = 0.907, GFI = 0.887, AGFI = 0.875 TLI = 0.900 and RMSEA = 0.032. These indexes indicate that the model still does not have a reasonable fit. As such, a further model modification was attempted based on the modification indices and standardized residuals as explained earlier. As explained in the earlier part of this chapter, modification index represents both measurement error correlations and item correlations (multicollinearity). The modification indices value shows evidence of misfit between the default model and the hypothesized model. High value represents error covariances meaning that one item might share variance explained with another item (commonality) and, thus, they are redundant. The remedial action for error covariances is to delete such an item that has high error variance (Hair et al., 2006).

Based on the modification indices and standardized residuals, eight items or indicators were dropped. The items were:

i) Reli_21 – I cover my *aurat* properly.
ii) Ethno_3 – Buy Malaysian-made products. Keep Malaysians working.
iii) Ethno_9 – It is always best to purchase Malaysian products.
iv) Ethno_12 – Curbs should be put on all imports.
v) Ethno_13 – It may cost me in the long run but I prefer to support Malaysian products.

vi) Patrio_9 – It is not constructive for one to develop an emotional attachment to one's country.

vii) Patrio_11 – It bothers me to see children made to pledge allegiance to the flag or sing the national anthem or otherwise induced to adopt such strong patriotic attitudes.

At that phase, the model showed a satisfactory model fit. Table 4.20 presents the final items used for the structural model and Figure 4.10 presents the overall measurement model of this study.

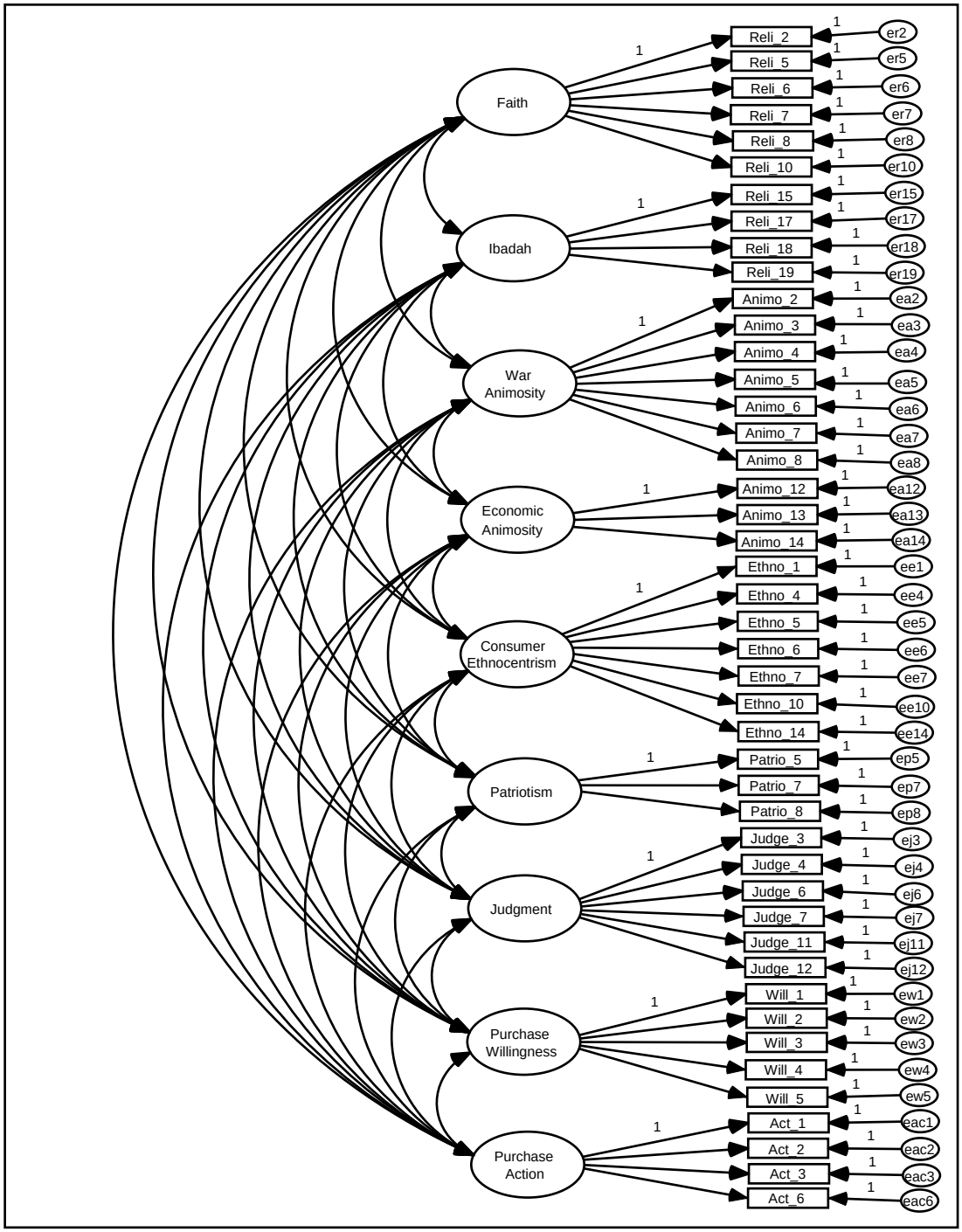
Table 4.20
Final Items used in Measurement Model

Items Code	Items
Reli_2	I believe that Allah helps me.
Reli_5	I will continuously seek to learn about Allah.
Reli_6	I believe that Allah helps people.
Reli_7	The five prayers help me a lot.
Reli_8	The supplication (*dua'*) helps me.
Reli_10	I believe that Allah listens to prayers.
Reli_15	I read the Quran every day.
Reli_17	I perform my daily prayers in the mosque / Muslim praying room regularly.
Reli_18	I always perform other optional prayer (i.e. *sunnat* prayer such as *Isra', Dhuha* and others)
Reli_19	I do the optional fasting on Monday and Thursday regularly.
Animo_2	I feel angry towards US involvement in the war against several Muslim countries.
Animo_3	I can still get angry over US role in the war in Iraq and Afghanistan.
Animo_4	I will never forgive the US for occupying Muslim countries and killing the civilians in those countries.
Animo_5	US are liable for the damage caused by the bombardment of Muslim countries.
Animo_6	US should pay for what it did during the occupation of Muslim countries.

Table 4.20 (Continued)

Animo_7	US actions against Muslim prisoners in Guantanamo detention centre annoy me.
Animo_8	I will never forgive the US for bombing Muslim countries.
Animo_12	US want to gain economic power over the Muslim countries.
Animo_13	US companies often outsmart Muslim companies in business deals.
Animo_14	US have too much influence on the Muslims and their countries' economy.
Ethno_1	Malaysian people should always buy Malaysian-made products instead of imports.
Ethno_4	Malaysian products, first, last and foremost.
Ethno_5	Purchasing foreign-made products is un-Malaysian.
Ethno_6	It is not right to purchase foreign products.
Ethno_7	A real Malaysian should always buy Malaysian-made products.
Ethno_10	There should be very little trading or purchasing of goods from other countries unless out of necessity.
Ethno_14	Foreigners should not be allowed to put their products on our markets.
Patrio_5	I feel a great pride in that land that is our Malaysia.
Patrio_7	When I see the Malaysian flag flying, I feel great.
Patrio_8	The fact that I am a Malaysian is an important part of my identity.
Judge_3	Products made in US occupy very strong competitive position in comparison to the products of other countries.
Judge_4	Products made in US are carefully produced and have a fine workmanship.
Judge_6	Over the past several years, the quality of most products made in US seems to have improved.
Judge_7	Products made in US show a very high degree of technological advancement.
Judge_11	Products made in US usually show a very clever use of colour and design.
Judge_12	Products made in US are usually quite reliable and seem to last the desired length of time.
Will_1	I would feel guilty if I would buy a US product.
Will_2	I would never buy a US product.
Will_3	Whenever possible, I avoid buying US products.
Will_4	Whenever available, I would prefer to buy products made in US.
Will_5	I do not like the idea of owning US products.
Act_1	I chose US made products when similar products from other countries were available.
Act_2	I bought products made in US when better quality items from other countries were available.
Act_3	I bought US made products even though cheaper items made from other countries were available.
Act_6	I left a store because I was mad that they sold too many products made in the US.

Figure 4.10
Final Measurement Model for All Constructs



$\chi^2 = 1409.958$; $df = 909$; p = 0.000; $\chi^2/df = 1.551$;
GFI = 0.913; AGFI = 0.900; CFI = 0.936; TLI = 0.931; RMSEA = 0.029

After dropping eight items based on the modification indices and standardized residuals as well as after some careful considerations, a total of 45 items were left to

measure nine latent variables. According to Nijssen and Douglas (2003), dropping items from a previously validated scale should be carried out judiciously. However, in this case, dropping items was considered legitimate for greater parsimony and fitness as suggested by Klien et al. (2006). The final indicators used to measure all the factors are shown in Table 4.20, and the full results for the measurement model are presented in Appendix 5.

As the results show that the value of CFI, GFI, AGFI and TLI are above 0.90 and RMSEA is below 0.08, it could be concluded that unidimensionality exists for the constructs of this study. Additionally, the results of the measurement model for all the constructs shows that all the criteria, for the incremental and comparative, yield results of above 0.90, indicating a good fit model. GFI, AGFI, TLI and CFI yield results of more than 0.90. The values of χ^2/df are between 1 and 3, with all the RMSEA values of below 0.08, which are good indicators of absolute fit of the model. Therefore, this suggests that convergent validity in this instance is established. Table 4.21 summarized the results of measurement model for all the construct use in the current study.

Table 4.21
The Results of Measurement Model for all Constructs

	CFI	GFI	AGFI	TLI	RMSEA
***Ibadah* (Worship)**	0.989	0.991	0.973	0.978	0.056
Faith (*Iman*)	0.982	0.989	0.974	0.971	0.048
War Animosity	0.986	0.988	0.976	0.979	0.040
Economic Animosity	0.980	0.996	0.977	0.940	0.066
Consumer Ethnocentrism	0.951	0.956	0.947	0.939	0.054
Patriotism	0.952	0.987	0.960	0.903	0.073
US Product Judgment	0.974	0.985	0.969	0.962	0.052
Purchase Willingness	0.997	0.995	0.984	0.994	0.034
Purchase Action	0.998	0.996	0.989	0.996	0.017
Overall	0.936	0.913	0.900	0.931	0.029

After achieving the desired model fitness requirements and the unidimensionality of each latent construct was established (as shown in the previous discussion), the construct reliability (CR) and variance extracted (VE) were then calculated (Garver and Mentzer, 1999; Hair et al., 2006). For a latent construct to possess construct validity, it must first be unidimensional and reliable (Mentzer and Kahn, 1995). Unidimensionality is actually an assumption for the scale reliability, therefore, before we proceed with the reliability, the establishment of unidimensionality must be fulfilled (Mentzer and Flint, 1997). However, they are distinct concepts, and reliability does not indicate unidimensionality. Consequently, the next important step in CFA is to calculate CR and VE for all factors or latent constructs.

Traditionally, researchers used coefficient alpha as an index of scale reliability. However, this measure has three limitations; a) the accuracy of reliability estimation, it tends to underestimate scale reliability and inflate if the scale has a large number of items; b) definition of reliability is consistency, which is actually very hard to test and operationalize; and c) coefficient alpha assumes that all items have equal reliabilities (Bollen, 1989). In SEM, the value associated with each latent variable-to-item equation measures the reliability of that individual item (Garver and Mentzer, 1999). The stronger the correlation of the systematic component, the higher the reliability associated with the indicator to its latent variable. Furthermore, SEM construct reliability values do not assume that the individual items have equal reliabilities (Bollen, 1989).

The AMOS programme does not provide the construct's scale reliability and variance extracted value automatically, so manual calculation is required by using the formula given in Figure 4.11 (Garver and Mentzer, 1999).

Figure 4.11
Formulas for Variance Extracted and Construct Reliability

$$\textbf{Construct Reliability (CR)} = (\sum\lambda)^2 / [(\sum\lambda)^2 + \sum (1 - \lambda j^2)]$$

$$\textbf{Variance Extracted (VE)} = \sum\lambda^2 / [\sum\lambda^2 + \sum (1 - \lambda j^2)]$$

Where:
λ = Standardized regression weight
$1 - \lambda j^2$ = Measurement error for each indicator/item

As we can see from Figure 4.11, the λ represents the standardized factor loadings and j is the indicator/item. For the construct reliability, the formula specifies that the numerator equals the standardized parameter estimates (in AMOS, standardized regression weights) between a latent variable and its indicators summed, and then the summation is squared. The denominator equals the numerator plus the summed measurement error for each indicator (Garver and Mentzer, 1999). For the variance extracted, the formula is similar to that of construct reliability, except that the numerator equals the standardized regression weight (λ) between the latent variable and its indicators squared, then summed (Garver and Mentzer, 1999).

The construct reliability value is also an indicator of convergent validity. The rule of thumb for the reliability estimate is that 0.7 or higher suggests good reliability and

between 0.6 – 0.7 may be acceptable. High construct reliability value indicates that internal consistency exists, meaning that the measures are all consistently representing the same latent construct (Hair et al., 2006; Garver and Mentzer, 1999). Kline (1998), meanwhile, suggests that alpha values below 0.5 show that at least half of the observed variance may be due to random error and the measures are considered unreliable.

Table 4.22 provides the construct reliability and variance extracted values for all the latent constructs in this study.

Table 4.22
Variance Extracted and Construct Reliability Values

Construct	Variance Extracted	Construct Reliability
Faith	0.38	0.77
Ibadah (Worship)	0.50	0.80
War Animosity	0.40	0.79
Economic Animosity	0.33	0.60
Consumer Ethnocentrism	0.37	0.76
Patriotism	0.41	0.65
US Product Judgment	0.36	0.75
Purchase Willingness	0.53	0.84
Purchase Action	0.37	0.68

From the table, the construct reliability value for all the latent variables or factors in this study are above 0.6 as suggested by previous researchers (Hatcher, 1994). This shows a good reliability and that the measures are all consistently representing the same latent construct. As for the variance extracted, some of the value estimates of

the constructs are below 0.5. However, Hatcher (1994) posits that this situation does not cause concern since it is quite frequent from the previous studies to find an estimate below 0.50, even when the construct reliability is acceptable (e.g., Klein et al., 1998; Sood and Nasu, 1995; Kim et al., 1999; and Bontis, 1998). As a comparison, a study conducted by Klein et al. (1998) reported that the variance extracted for war animosity was 0.54, economic animosity was 0.38, consumer ethnocentrism was 0.46, product judgment was 0.32 and purchase willingness was 0.39. Similarly, Nijssen and Douglas (2004) also reported low variance extracted value of economic animosity (0.34), consumer ethnocentrism (0.50) and product judgment (0.35). As argued by Hatcher (1994), this does not cause concern since it is not uncommon to get the variance extracted values of below 0.5. Once the unidimensionality and scale reliability are deemed acceptable, the next step in the measurement model is to assess and test the convergent and discriminant validity.

a. Assessing Convergent Validity

As explained earlier, the measurement model results suggest that convergent validity is established. Further analysis is needed to prove the establishment of convergent validity. Convergent validity refers to the degree to which different methods used to measure the same construct produce similar results (Anderson and Gerbing, 1988). The items that are indicators for specific construct should converge or share a high proportion of variance in common (Hair et al., 2006). It is a test in determining whether the items in a scale converge or load together on a single construct in the measurement model (Steenkamp and van Trijp, 1991; Garver and Mentzer, 1999). In other words, convergent validity is the extent to which the measurement items

converge into a theoretical construct and it is based on the correlation between responses obtained by maximally different methods of measuring the same construct.

According to Dunn et al. (1994), if factor loadings are statistically significant, then convergent validity exists. Furthermore, if analysis of the path coefficients from latent constructs to their corresponding indicators show a significant value ($p< 0.001$), it provides evidence of convergent validity (Sujan et al., 1994). Due to the fact that sample size and statistical power have a large effect on the significance test, Garver and Mentzer (1999) suggest further clarification is needed to assess the convergent validity. To assess convergent validity, besides the statistical significance, the researcher should also assess the overall fit of the measurement model (reported in earlier subsection), direction, and magnitude of the estimated standardized regression weights between the items and their latent variables (Steenkamp and van Trijp, 1991). The squared multiple correlation value is the measure of the strength of the linear relationship between the latent variable and the item; that is, the latent variable is considered to cause variation in the item. The higher the correlation, the stronger the systematic component of variance associated with the item, offering strong support for the assumption of unidimensionality.

Table 4.23 exhibits the results of the magnitude, direction, and statistical significance of the estimated parameters between latent variables and their indicators. The results show that all the criteria for the GFI, AGFI, CFI, and TLI generated a value of above 0.90, indicating a good fit model, with RMSEA of 0.029. This might indicate the evidence of convergent validity.

Table 4.23
The Magnitude, Direction, and Statistical Significance of the Estimated Parameters between Latent Variables and Their Indicators

Latent		Indicator	Standardized Reg. Weight	Standard Error (S.E)	Critical Ratio (C.R)	P
Faith	→	Reli_2	0.588			
	→	Reli_5	0.619	0.072	12.279	***
	→	Reli_6	0.679	0.163	12.440	***
	→	Reli_7	0.532	0.075	10.743	***
	→	Reli_8	0.642	0.069	12.231	***
	→	Reli_10	0.489	0.074	10.079	***
Ibadah	→	Reli_15	0.706			
	→	Reli_17	0.662	0.065	14.627	***
	→	Reli_18	0.752	0.079	15.650	***
	→	Reli_19	0.696	0.076	15.309	***
War Animosity	→	Animo_2	0.584			
	→	Animo_3	0.424	0.094	9.194	***
	→	Animo_4	0.639	0.089	12.462	***
	→	Animo_5	0.670	0.097	12.890	***
	→	Animo_6	0.686	0.087	13.028	***
	→	Animo_7	0.536	0.097	10.740	***
	→	Animo_8	0.626	0.103	12.234	***
Economic Animosity	→	Animo_12	0.572			
	→	Animo_13	0.526	0.138	6.792	***
	→	Animo_14	0.508	0.134	6.813	***
Consumer Ethnocentrism	→	Ethno_1	0.563			
	→	Ethno_4	0.620	0.098	11.825	***
	→	Ethno_5	0.534	0.107	10.683	***
	→	Ethno_6	0.561	0.101	11.305	***
	→	Ethno_7	0.657	0.093	12.420	***
	→	Ethno_10	0.501	0.092	10.127	***
	→	Ethno_14	0.498	0.098	9.967	***
Patriotism	→	Patrio_5	0.609			
	→	Patrio_7	0.753	0.318	9.753	***
	→	Patrio_8	0.436	0.215	8.236	***

Table 4.23 (Continued)

US Products Judgment	→	Judge_3	0.484			
	→	Judge_4	0.697	0.126	10.739	***
	→	Judge_6	0.525	0.092	9.263	***
	→	Judge_7	0.553	0.117	9.457	***
	→	Judge_11	0.458	0.099	8.490	***
	→	Judge_12	0.709	0.144	10.536	***
Purchase Willingness	→	Will_1	0.805			
	→	Will_2	0.814	0.044	22.448	***
	→	Will_3	0.708	0.045	18.943	***
	→	Will_4	0.609	0.047	15.775	***
	→	Will_5	0.653	0.045	17.279	***
Purchase Action	→	Act_1	0.671			
	→	Act_2	0.540	0.076	10.722	***
	→	Act_3	0.566	0.079	10.759	***
	→	Act_6	0.580	0.078	10.385	***

In Table 4.23, it shows the summary of the analysis of the magnitude, direction and statistical significance of the measurement model. All 45 item loadings were statistically significant. With regards to the magnitude, direction, and statistical significance of the estimated parameters between latent variables and their indicators, the results also found that the magnitude for all the variables and their indicators were above the reasonable benchmark of 0.40 (Hatcher, 1994).

In confirmatory factor analysis context, the critical ratio (t-test) for the factor loading is often used to assess convergent validity. Moreover, to prove that the convergent validity did exist for the studied variables of the measurement models, the direction for all the estimated parameters were also in the same direction as the researcher wanted them to be (based on the previous research). In other words, all the

directions of parameters in the current study were consistent with the direction suggested by previous research. In addition, the critical ratio (C.R.) for all the estimated parameters exceeded the benchmark of $\pm$ 1.96, which was also found to be statistically significant. In addition, the standard errors (S.E.) are not excessively large or small as suggested by Bryne (2001). After assessing all the suggested indicators, i.e., all the critical ratios are above the suggested value, the direction was parallel with previous studies and the value of the standard error was not too large or small. In conclusion, it can be said that convergent validity does exist in this model.

b. Assessing Discriminant Validity

The next step is to assess the discriminant validity for the measurement model. Discriminant validity refers to the independence of the dimensions (Bagozzi, 1980). Meanwhile, Garver and Mentzer (1999) argue that discriminant validity is to test the degree of dissimilarities between constructs that are hypothesised to differ. It means that in testing for discriminant validity, the researcher needs to verify that the scales developed to measure different constructs are indeed measuring different constructs.

In essence, items from one scale should not load or converge too closely with items from a different scale and different latent variables that correlate too highly may indeed be measuring the same construct rather than different constructs (Garver and Mentzer, 1999). Relatively low correlations between variables (constructs) indicate the presence of discriminant validity (Dabholkar et al, 1997). Meanwhile, Hair et al. (2006) define discriminant validity as the extent to which a construct is truly distinct

from other constructs. High discriminant validity provides evidence that a construct is unique and captures some phenomena other measures do not capture.

Discriminant validity can be assessed using structural equation modelling methodology. It can be done by taking two constructs at a time. The constructs are considered to be distinct if the hypothesis that the two constructs together form a single construct is rejected. To test this hypothesis, a pair-wise comparison of models was performed by comparing the model with correlation constrained to one with an unconstrained model. A difference between the χ^2 value (df = 1) of the two models that is significant at $p < 0.05$ level would indicate support for the discriminant validity criterion (Joreskog and Sorbom, 1989).

According to Dunn et al. (1994), to test the discriminant validity, the correlations among latent variables of the measurement model can be compared to a theoretical model and the chi-square test can be utilised to assess these differences. The theoretical model is one where all the correlations between latent variables are fixed to 1. If the χ^2 difference test is significant, then the construct possesses discriminant validity and latent variables are said to be distinct. Anderson and Gerbing (1988) suggest that to assess discriminant validity for the measurement model, one can conduct the χ^2 difference test, rather than setting the correlations to 1 for each construct in a measurement model. In general, a lower χ^2 value for the model will signify discriminant validity.

Prior to conducting the test, to measure the discriminant validity in this study, the χ^2 difference tests used in this study were performed for the proposed 9-factor model as

derived from the exploratory factor analysis, i.e., the measurement model, and this model compared with a 7-factor model, 6-factor model, 5-factor model, 4-factor model 3-factor model and 1-factor model. A summary of the results are presented in Table 4.24.

Table 4.24
Test for Discriminant Validity

Models	χ^2	***df***	**GFI**	**AGFI**	**CFI**	**TLI**	**RMSEA**
9-Factor Model	1409.958	909	0.913	0.900	0.936	0.931	0.029
7-Factor Model	1898.755	924	0.871	0.856	0.874	0.865	0.038
5-Factor Model	2950.800	935	0.772	0.747	0.740	0.725	0.057
4-Factor Model	3452.359	939	0.746	0.721	0.676	0.659	0.064
3-Factor Model	3807.584	942	0.727	0.700	0.631	0.612	0.068
1-Factor Model	5202.339	945	0.613	0.576	0.452	0.425	0.082

The procedures to assess the construct discriminant validity for this study were adapted from Chen, Aryee, and Lee (2005). The 9-factor model, as proposed in this study, consisted of nine factors. For the 7-factor model, the factors consisted of seven factors including, (a) combining two religiosity factors into a single factor called Muslim religiosity; (b) combining the war and economic animosity to become a single factor (consumer animosity); (c) consumer ethnocentrism; (d) patriotism; (e) US products judgment; (f) purchase willingness; and (g) purchase action.

In the 5-factor model, the model contained the factors of (a) Muslim religiosity; (b) combining the independent factors (consumer animosity, consumer ethnocentrism

and patriotism) into a single factor; (c) US products judgment; and (d) two dependent variables, same as the 7-factor model. In the 4-factor model, the model consisted of (a) single independent variable; (b) single mediating variable; and c) two dependent factors (purchase willingness and purchase action). Meanwhile, in the 3-factor model, it includes a) one factor for independent variable; b) one factor for mediating variable; and c) one factor for dependent variable (combination of purchase willingness and purchase action). Lastly for the 1-factor model, all the variables studied were loaded on one factor.

As seen in Table 4.24, the fit indices revealed support for the proposed 9-factor model suggesting support for the distinctiveness of the constructs used in this study. Therefore, it could be considered that discriminant validity existed for all the constructs used in this study and the constructs were supposed to be truly distinct from the other constructs of the study.

c. Distinctiveness of Factors Derived from the Same Variables

During the EFA, some of the variables studied in this research were split into two different factors. The factors were Muslim religiosity (Faith and *Ibadah*) and consumer animosity (war animosity and economic animosity). In order to ensure the distinctiveness of the factors derived from the same variables, the method applied by Min and Mentzer (2004) was replicated in this study. According to the researchers, a comparison model test was performed to ensure that two different concepts are in fact closely related but different. In Model A, the factors were separated among them. In Model B, on the other hand, all the items in all the factors within the same

variables were converged. Then, a comparison was made to assess the best fitness between the two models. Table 4.25 shows a summary of the results of the test and Appendix 6 shows the complete results.

Table 4.25
Distinctiveness between Extracted Factors in EFA

Variable	Model	χ^2	d*f*	GFI	AGFI	CFI	TLI	RMSEA
Muslim Religiosity	Model A	99.367	34	0.970	0.952	0.963	0.951	0.054
	Model B	402.493	35	0.851	0.766	0.791	0.731	0.126
Consumer Animosity	Model A	51.314	34	0.985	0.975	0.986	0.982	0.028
	Model B	157.989	35	0.950	0.922	0.901	0.873	0.073

From Table 4.25, first, refer to the Muslim religiosity construct. The distinction between Model A and B are very obvious. From the results, there were huge χ^2 differences between Model A and Model B. The separated factors [faith (*iman*) and *ibadah* (worship)], i.e., Model A also exhibited better model fit compared to Model B (combining both factors into single factor). This indicated that both factors were related but yet, different. Consequently, for the subsequent analysis, both factors should be considered as two different latent variables.

For the consumer animosity construct, it clearly shows that the two-factor model (Model A) exhibited a better fit compared to a single factor model (Model B), especially on the χ^2 value. This indicates that the two factors extracted from the EFA were related but yet, a distinct concept. The values of model fit indices, i.e., GFI,

AGFI, CFI, TLI and RMSEA suggested that Model A (two-factor model) was a better model to use for the subsequent analysis.

For the consumer animosity construct, even though the two-factor model (Model A) exhibited higher fitness, the single factor model (Model B) also exhibited an acceptable level of fit for most of the fit indices. However, for Model B, only one model fit index, i.e., TLI showed low fit value. Therefore, both factors (war animosity and economic animosity) were considered as a distinct construct. From the results, it could be said that based on the empirical test both variables were deemed to comprise related but distinctive concepts.

4.6.2 Structural Model

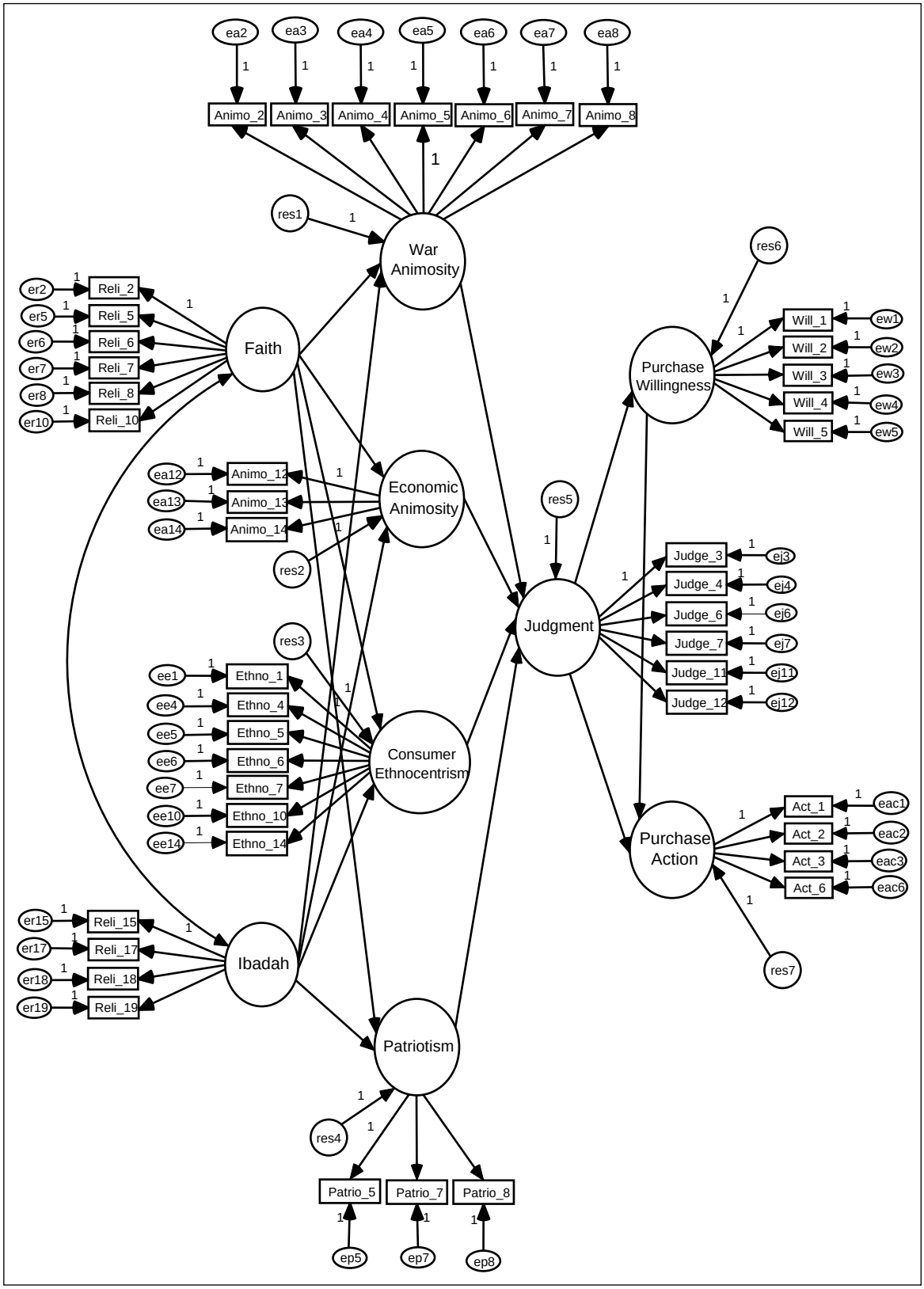
After all the requirements from the measurement model have been fulfilled and the measurement model has been tested to see how well the indicator variables of the constructs were related to one another, the second analytic step was to assess the structural model. It is a conceptual representation of the relationship between constructs. It can also be referred as the theoretical model and causal model (Hair et al., 2006). In other words structural models are to analyse the relationships between the latent variables. It is the set of exogenous and endogenous variables in the model, together with the direct effects (straight arrows) connecting them, and the disturbance terms for these variables (reflecting the effects of unmeasured variables not in the model).

Furthermore, SEM allows the simultaneous estimation of multiple equations (Hair et al., 2006). Meanwhile, Bryne (2001) defines the structural model as relations among the unobserved variables. Accordingly, it specifies the pattern by which particular latent variables, directly or indirectly, influence changes in the values of certain other latent variables in the model.

The diagram in Figure 4.12 shows the relationship proposed between the variables in the study. The structural model shows the effects between the latent constructs. The direct effect measures the relationship between two constructs with a single arrow between the two. The indirect effects involved the sequence of the relationship with at least one intervening construct, which is a sequence of two or more direct effects represented visually by multiple arrows between constructs.

For the current study, the direct relationships were studied between: (i) Muslim religiosity and war animosity, economic animosity, consumer ethnocentrism as well as patriotism; (ii) war animosity, economic animosity, consumer ethnocentrism and patriotism on product judgment; (iii) product judgment on purchase willingness and purchase action; and (iv) purchase willingness on purchase action. Meanwhile, the indirect effects would be from war animosity, economic animosity, consumer ethnocentrism and patriotism on purchase willingness and purchase action through product judgment as well as from product judgment to purchase action through purchase willingness.

Figure 4.12
The Proposed Structural Model of the Study



$\chi^2 = 1598.802$; d*f* = 928; cmin (χ^2) / *df* = 1.723; p = 0.000;
GFI = 0.901; CFI = 0.915; TLI = 0.909; RMSEA = 0.033

a. Specifying the Structural Model

Before the study proceeded with the hypotheses testing using AMOS, it needed to specify the model first. In specifying the structural model, the researcher used the results obtained from the measurement models to build the relationship between the independent, mediating and dependent variables based on the proposed theoretical model mentioned earlier (please refer to Section 3.11, Figure 3.1, page 264).

Figure 4.12 shows the relationship between the independent, intervening and dependent variables. The structural model was formed to test the hypotheses of this study. The hypotheses were between the independent variables (war animosity, economic animosity, consumer ethnocentrism and patriotism), mediating variable (US products judgment) as well as the dependent variables (purchase willingness and purchase action). In addition, the hypotheses also tested Muslim religiosity [Faith and *Ibadah* (worship)] as a predictor to consumer animosity, consumer ethnocentrism and patriotism.

The structural model then assessed for the validity of the relationship. The results of the model fit indices shown below the diagram (see again Figure 4.12) revealed that the model has a reasonable model fit (χ^2 = 1598.802; d*f* = 928; cmin (χ^2) / d*f* = 1.723; p = 0.000; GFI = 0.901; CFI = 0. 915; TLI = 0. 909; RMSEA = 0.033). Basically, all the values indicate that the model demonstrates a reasonable fit. Therefore, the results from this structural model can be used for subsequent analysis. This study involves the mediation effect, i.e., US products judgment as a mediating variable.

Therefore, the next step should be testing the effect of mediation before proceeding to the other step as suggested by Kelloway (1995).

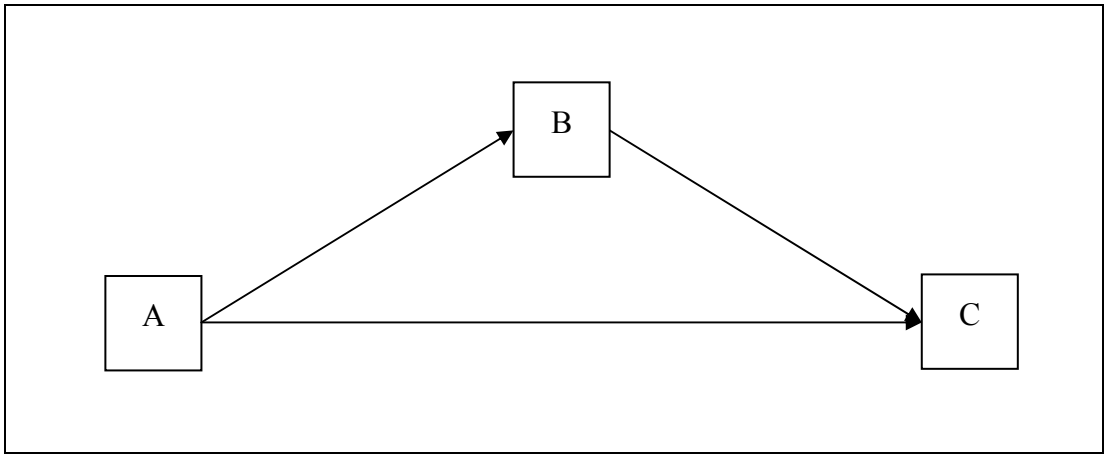
b. Testing for the Mediating Effect of US Product Judgment

SEM is employed to run the analysis on the mediation effect of the study variables. Kelloway (1995) suggests that the model involving an intervening variable should be tested for the mediation effect and SEM is superior in testing for mediation. According to Kline (1998), variables which have a dual role, i.e., as a predictor and as a criterion variable, are described in the SEM as an indirect effect or mediator effect, which involves one or more intervening variables that "transmit" some of the causal effects of prior variables onto subsequent variables. Additionally, Hair et al. (2006) explain the mediating effect as the effect of a third variable or construct intervening between two other related constructs. They added that the mediation effect is consistent with the indirect effect. To understand more on the mediation concept, we need to understand the difference between direct and indirect relationships.

As explained by Hair et al. (2006), the indirect effect is a sequence of relationships with at least one intervening construct involved, which is a sequence of two or more direct effects represented visually by multiple arrows between constructs. Moreover, Hair et al. (2006) also explain that in the direct effect there is no mediating or intervening construct involved in showing the relationship between two other constructs.

Figure 4.13 shows the relationship between independent, mediating and dependent variables to illustrate the mediating effect. In this example, the construct B mediates the relationship between A and C. Direct effects represent the direct effect of one variable on another variable. It shows a direct link between independent variable to dependent variable. In this example, the direct effect should be from A to C. Meanwhile, indirect effects are those relationships that involve a sequence of relationships with at least one intervening construct involved. In this case, the indirect should be from A to C involving B as an intervening construct.

Figure 4.13
Illustration of Mediating Effect



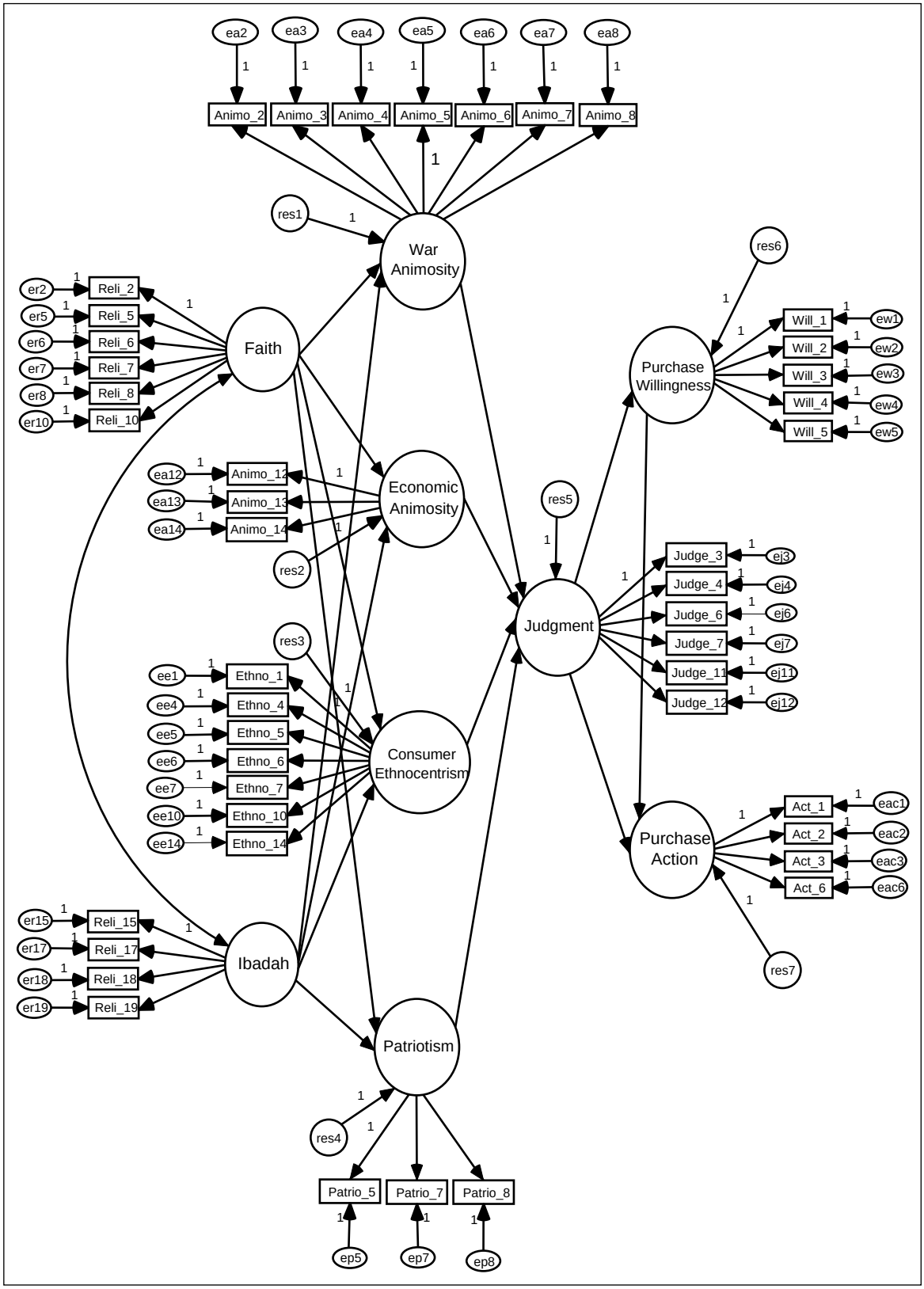
According to Baron and Kenny (1986) and Kelloway (1995), any model that includes a mediated relationship of the form A → B → C, should be tested against the partial mediated model, which also includes from path A to C. Full mediation occurs if the independent variable has no significant effect when the mediator is in the equation and partial mediation occurs if the effect of the independent variable is smaller but significant when the mediator is in the equation (Baron and Kenny, 1986). Additionally, in testing the mediation, the focus should be on the chi-square

differences test, and then the indices of the fit statistics as well as the statistical significance of the paths will also be examined (Baron and Kenny, 1986).

Furthermore, Bagozzi and Dholokia (2006) suggest that to perform the mediation test, the full mediation model of the proposed model is compared to a partially mediated model where direct paths from the independent variables are added to the dependent variable. The comparison is done with a chi-square difference test to conclude whether the relationship is fully or partially mediated.

For the current study, the test for mediation is conducted on US products judgment in the relationship between independent variables (war animosity, economic animosity, consumer ethnocentrism and patriotism) and the dependent variables (purchase willingness and purchase action). In this case, the mediating effect of US products evaluation is tested on the relationship between war animosity and purchase willingness followed by economic animosity, consumer ethnocentrism and patriotism. After that, the mediating effect of US products judgment was tested on the relationship between war animosity, economic animosity, consumer ethnocentrism and patriotism with the purchase action. Figure 4.14 shows the full mediation model of this study. The results exhibit that the full mediation model has a good fit. The ratio of chi-square and degree of freedom was less than three (χ^2 / *df* = 1.723), chi-square = 1598.802; *df* = 928; GFI = 0.901; CFI = 0.915; TLI = 0.909; RMSEA = 0.033 indicating a good fit model.

Figure 4.14
Full Mediation Model



$\chi^2 = 1598.802$; d*f* = 928; cmin (χ^2) / *df* = 1.723; p = 0.000;
GFI = 0.901; CFI = 0.915; TLI = 0.909; RMSEA = 0.033

In order to compare with a model with a direct relationship between independent variables and dependent variable, a new structural model called a partial mediation model was generated. Figure 4.15 shows the partial mediation model of the study.

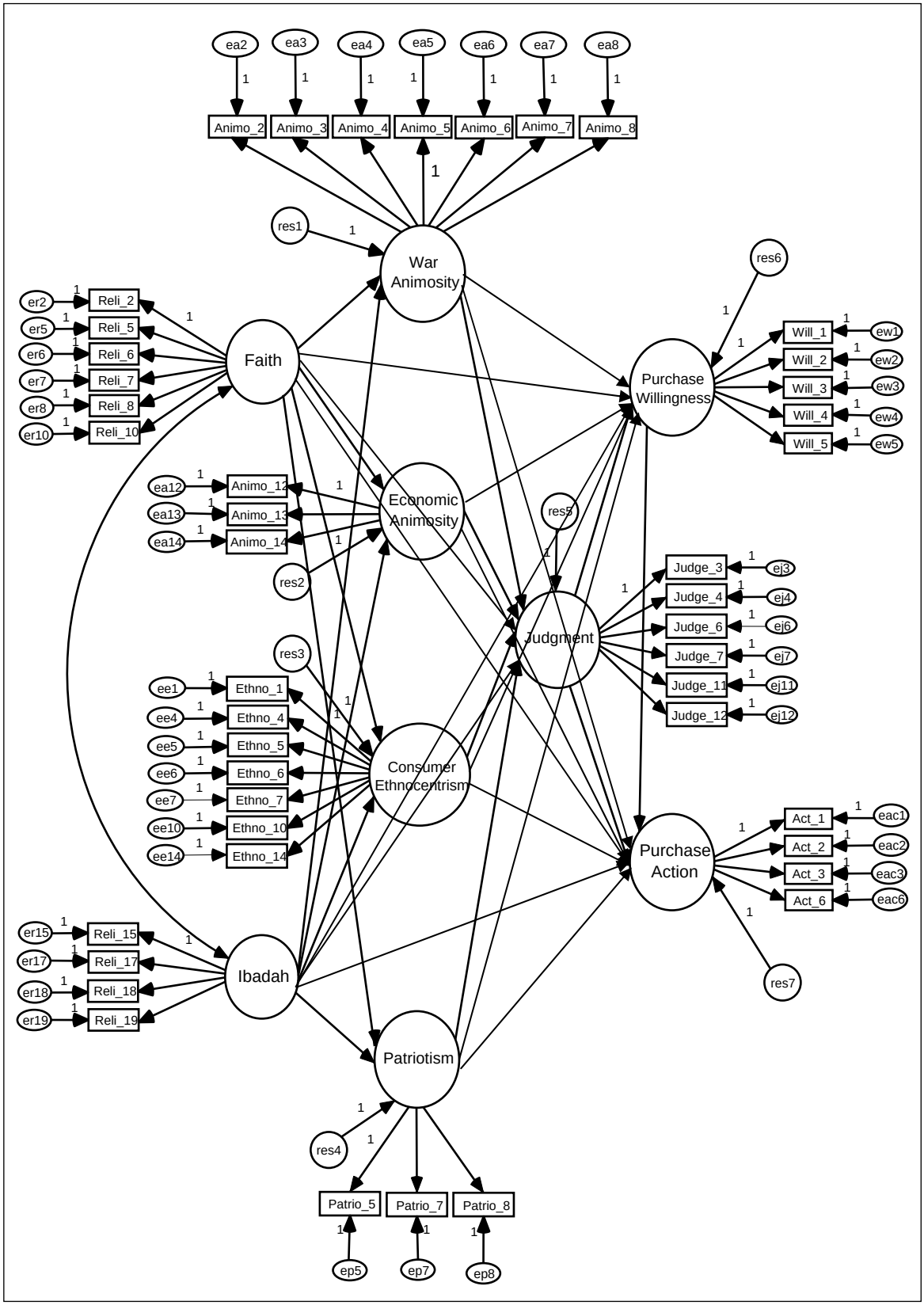
The overall fit model generated by the partial mediation model was then compared with the overall fit of the full mediation model (Figure 4.14). The results of the partially mediated model show that the ratio of chi-square and degrees of freedom was less than three, $\chi^2/df = 1.624$, $\chi^2 = 1485.663$; $df = 915$; p = 0.000; GFI = 0.907; CFI = 0.927; TLI = 0.922; and RMSEA = 0.031 indicating a good model fit. The results show that both models (full and partial mediation model) provided a good model fit. Comparison between the models is needed to select the better model.

Table 4.26 demonstrates the comparison of model fit value between the full mediation and partial mediation model. The results indicate the model fit of the full and partial mediation model and it indicates that the partial mediation model demonstrates changes in all model fit indices.

Table 4.26
The Overall Fit of the Full Mediation and Partial Mediation Model

Model	χ^2	df	χ^2/df	GFI	CFI	TLI	RMSEA
Full Mediation	1598.802	928	1.723	0.901	0.915	0.909	0.033
Partial Mediation	1485.663	915	1.624	0.907	0.927	0.922	0.031
Difference	113.139	13	0.099	0.006	0.012	0.013	0.002

Figure 4.15
Partial Mediation Model



$\chi^2 = 1485.663$; $df = 915$; cmin (χ^2) / $df = 1.624$; p = 0.000;
GFI = 0.907; CFI = 0.927; TLI = 0.922; RMSEA = 0.031

To determine the significance of change between these two models, a comparison was done with the chi-square difference. The chi-square difference value of 113.139 and the degree of freedom difference value of 13, and the difference value was significant at the 0.001 level. The significance value indicated that there is a significant difference between these two models. If there is no significant difference, the proposed model is accepted but if there is a significant difference, the partial model is accepted. In this case, it shows that the inclusion of arrows directly from war animosity, economic animosity, consumer ethnocentrism and patriotism to purchase willingness and purchase action will reduce the chi-value value from 1598.802 to 1485.663 and it was significant ($p \leq 0.001$). In other words, the additional paths created within the full mediation model will significantly change the overall fit of the proposed model.

The result of the chi-square difference test, together with the model fits of the partial mediation model show that it is a better model compared to the full mediation model; therefore, the partial mediation model was accepted in this study. Perhaps, the partial mediation model was accepted due to the fact that the relationship between war animosity, economic animosity, consumer ethnocentrism and patriotism and purchase willingness and purchase action were not only intervened by the US products judgment, but other variables can also mediate the relationship between them.

The next step is to analyze the mediating effect of each of the variables of the proposed model. This is explained in the next section.

4.6.3 Hypotheses Testing

As explained earlier, the SEM method greatly expanded the researchers' capability to study a set of interrelated relationships simultaneously. Once the model has been specified, the model estimation and evaluation are performed. Furthermore, after the model achieved the required goodness of fit, then it is time to do the analysis of the hypotheses testing to examine the possible relationships among constructs.

The development of the study proposition, as well as the establishment of the research hypotheses in this study, has been mentioned and discussed in earlier chapters. In this chapter, the testing of the proposed hypotheses mentioned in Chapter 3 represents the causal relationships among the variables in the model. The causal relationships are between the independent variables towards the dependent variables through the intervening variable. Before the study proceeds with the hypotheses testing, another step is needed, i.e., restating of the hypotheses based on the 9 factors extracted from EFA. The new directions of the hypotheses based on the 9 factors are:

Hypothesis 1a (i) – The higher the faith of Malaysian Muslims, the higher will be the war animosity towards the US.

Hypothesis 1a (ii) – The higher the faith of Malaysian Muslims, the higher will be the economic animosity towards the US.

Hypothesis 1b (i) – The higher the *ibadah* (worship) of Malaysian Muslims, the higher will be the war animosity towards the US.

Hypothesis 1b (ii) – The higher the *ibadah* (worship) of Malaysian Muslims, the higher will be the economic animosity towards the US.

Hypothesis 2a – The higher the faith of Malaysian Muslims, the higher will be the consumer ethnocentrism.

Hypothesis 2b – The higher the *ibadah* (worship) of Malaysian Muslims, the higher will be the consumer ethnocentrism.

Hypothesis 3a – The higher the faith of Malaysian Muslims, the higher will be the patriotism.

Hypothesis 3b – The higher the *ibadah* (worship) of Malaysian Muslims, the higher will be the patriotism.

Hypotheses 4a – There is a negative relationship between war animosity and US products judgment.

Hypotheses 4b – There is a negative relationship between economic animosity and US products judgment.

Hypotheses 5 – There is a negative relationship between consumer ethnocentrism and US products judgment.

Hypothesis 6 – There is a negative relationship between patriotism and US products judgment.

Hypothesis 7 – There is a positive relationship between US products judgment and purchase willingness of US made products.

Hypothesis 8 – There is a positive relationship between US products judgment and purchase action of US made products.

Hypothesis 9 – There is a positive relationship between purchase willingness and purchase action of US made products.

Hypothesis 10a (i) – US products judgment mediates the relationship between war animosity and purchase willingness of US made products.

Hypothesis 10a (ii) – US products judgment mediates the relationship between economic animosity and purchase willingness of US made products.

Hypothesis 10b – US products judgment mediates the relationship between consumer ethnocentrism and purchase willingness of US made products.

Hypothesis 10c – US products judgment mediates the relationship between patriotism and purchase willingness of US made products.

Hypothesis 11a (i) – US products judgment mediates the relationship between war animosity and purchase action of US made products.

Hypothesis 11a (ii) – US products judgment mediates the relationship between economic animosity and purchase action of US made products.

Hypothesis 11b – US products judgment mediates the relationship between consumer ethnocentrism and purchase action of US made products.

Hypothesis 11c – US products judgment mediates the relationship between patriotism and purchase action of US made products.

Hypothesis 12 – Purchase willingness mediates the relationship between US products judgment and purchase action of US made products.

Table 4.27 presents a summary of the AMOS output results to test the hypotheses of this study. All the hypotheses will be tested using the partial mediation model, which proved to have a better model fit than the full mediation model. Thus, the partial mediation model was selected as the final output model for this study.

Table 4.27
Results of Hypotheses Testing

Hypothesis	**SE**	**β**	**Support**
H1a (i) – faith and war animosity	0.135	0.665***	Yes
H1a (ii) – faith and economic animosity	0.164	0.406***	Yes
H1b (i) – *ibadah* and war animosity	0.056	0.036	No
H1b (ii) – *ibadah* and economic animosity	0.075	-0.147	No
H2a – faith and consumer ethnocentrism	0.102	0.088	No
H2b – *ibadah* and consumer ethnocentrism	0.058	0.327***	Yes
H3a – faith and patriotism	0.051	0.219**	Yes
H3b – *ibadah* and patriotism	0.028	0.198**	Yes
H4a – war animosity and US products judgment	0.065	-0.004	No
H4b – economic animosity and US products judgment	0.076	0.363***	No
H5 – consumer ethnocentrism and US products judgment	0.059	-0.274***	Yes
H6 – patriotism and US products judgment	0.121	0.036	No
H7 – US products judgment to purchase willingness	0.080	0.215***	Yes
H8 – US products judgment to purchase action	0.104	0.521***	Yes
H9 – purchase willingness to purchase action	0.099	0.538***	Yes

SE = standard error; β = standardized regression weights
Significance level: * - $p \leq 0.05$; ** - $p \leq 0.01$; *** - $p \leq 0.001$

In Table 4.27, it explains the summary of the hypotheses between the constructs. This section performs the tests of the hypotheses using the AMOS programme. Based on the restated hypotheses, we will first look at the effects of the Muslim religiosity among Malaysian consumers and consumer animosity. The first dimension in Muslim religiosity construct is faith. For Hypothesis 1a (i) and Hypothesis 1a (ii), it will focus on the relationship between faith and war and economic animosity. It was hypothesized that there is a significant positive relationship between the constructs. From the results, Hypothesis 1a (i) and Hypothesis 1a (ii) were significant at the 0.001 level. This shows that the faith of Muslim consumers in Malaysia will significantly influence both consumer animosity components, i.e., war animosity and economic animosity. Higher faith consumers will indicate higher war and economic animosity towards the US. The results suggest that this Muslim religiosity dimension (faith) has a significant positive relationship with the level of animosity among Malaysian Muslim consumers.

For the second dimension in Muslim religiosity, it will focus on the relationship between *"ibadah"* and war and economic animosity. Consistent with the first Muslim religiosity component, it was suspected that higher *"ibadah"* will reflect higher war and economic animosity towards the US. However, for the *"ibadah"* dimension, the results indicate that it does not influence the war and economic animosity. The more *"ibadah"* performed by them will not influence their attitude towards the US in the form of consumer animosity. Thus, Hypothesis 1a (i) and Hypothesis 1a (ii) were accepted but Hypothesis 1b (i) and Hypothesis 1b (ii) were rejected. Unfortunately, the results of these hypotheses could not be compared with past studies because no previous research has studied the effect of religiosity on

consumer animosity. Generally, it can be concluded that the religiosity of the consumers partially influenced their consumer animosity attitude towards the US. However, as the studies of the religiosity effect on consumer animosity are yet to be done, the results of this study could not be compared with past studies. In practical, a possible reason why faith (*iman*) had a significant effect on war and economic animosity but *ibadah* (worship) had no significant effect on war and economic animosity is because *ibadah* is only rituals perform by Muslims to show that they are good Muslims (for examples, performing the optional fasting on Monday and Thursday; and performing optional prayers) and faith is more on the confession in their heart that they are belong to Allah and Islam is the way of their life. Those who have higher faith tend to be more attached with Islam and all their brothers. Thus, the results showed that higher faith consumers have significant relationship with war and economic animosity but not significant for higher *ibadah* respondents.

The second hypothesis examined the relationship between the Muslim religiosity construct and the level of consumer ethnocentrism among Malaysian Muslim consumers. For Hypothesis 2, it was hypothesized that the religiosity of the respondents will have a positive relationship with consumer ethnocentrism. Higher religiosity indicates higher consumer ethnocentric tendencies. From the restated hypotheses, Hypothesis 2a examined the relationship between faith and consumer ethnocentrism, and Hypothesis 2b examined the relationship between *"ibadah"* and consumer ethnocentrism. Both Hypotheses 2a and 2b were expected to have a positive relationship with consumer ethnocentrism among Malaysian Muslim consumers.

The results indicate that only the second dimension of Muslim religiosity, i.e., the *"ibadah"* has a significant positive relationship with the consumer ethnocentrism. The results show that faith does not have an influence on Malaysian Muslim consumers' ethnocentric tendencies. Therefore, Hypothesis 2b was supported and significant at $p \leq 0.001$, but Hypothesis 2a was rejected ($p > 0.05$). The result shows that Muslim religiosity can play a partial role in determining the consumer ethnocentric tendencies. The more religious the consumer, the greater the possibility of them showing their consumer ethnocentrism towards foreign made products.

As a comparison, Kaynak and Kara (2002) found that the devoutness of Muslims in Turkey has an influence on their ethnocentric tendencies. The more religious the respondents, the higher will be their ethnocentric tendencies. Similarly, for the current study, religiosity could be an indicator of consumer ethnocentrism. However, in Abdul Razak et al (2002) and Safiek, Abdul Razak and Md Nor (2001), to compare between Malaysian Muslims and non-Muslims in terms of their consumer ethnocentric tendencies, no significant relationships were found. This indicates that among Malaysian consumers, religiosity may have an influence on consumer ethnocentrism. Contrastingly, religion does not have any significant effect on consumer ethnocentrism.

Hypothesis 3 assesses the relationship between Muslim religiosity and patriotism. Historically, most of the highly patriotic people were leaders in the community and leaders were normally selected from those who are devout and respected. Consequently, in this case, it is suspected that religiosity will positively influence and be positively related to their patriotic level. Devout consumers will tend to be

more patriotic than their counterparts. Hypothesis 3a will investigate the effect of faith and patriotism, Hypothesis 3b will investigate the effect of *"ibadah"* on patriotism. If the relationship between the construct is significant, it will prove this statement.

From the results, H3a (between faith and patriotism) and H3b (between *"ibadah"* and patriotism) were both significant at the 0.01 level. Therefore, Hypothesis 3 is accepted. Thus, it can be concluded that the religiosity of the consumers positively influences the level of patriotism. The higher the faith of the Muslims and the more *"ibadah"* performed by them, the higher the level of patriotism they have. The results demonstrate that people will become more patriotic when they are more religious. However, to compare the influence of religiosity on the level of patriotism with previous studies in this area, to date, no study has focused on this issue. Therefore, a comparison cannot be made on the results of this study.

Hypothesis 4 focused on the effects of consumer animosity on the US products judgment. It was hypothesized that consumer animosity will be negatively related to the judgment of US made products. If the consumers exhibit high animosity towards the US, they will also tend to negatively evaluate products made in the US. For Hypothesis 4a, war animosity will be negatively related with the US products judgment and for Hypothesis 4b, economic animosity will also be negatively related to the US products judgment. From the results it was found that war animosity was not significant, therefore, Hypothesis 4a is rejected. For economic animosity (Hypothesis 4b), the relationship was significant at the 0.001 level, but with a different direction. Therefore, the Hypothesis 4b also rejected.

The finding of Hypothesis 4a was not consistent with the study conducted by Ettenson and Klein (2005) and Shoham et al. (2006) who found that consumer animosity will negatively affect foreign product judgment. However, the studies conducted by Klein et al. (1998), Shin (2001), Klein (2002), Nijssen and Douglas (2004), and Hinck (2005) found that consumer animosity will not affect the product judgment of the "enemy nation", meaning that the animosity feelings will not denigrate the quality of goods produced from that particular country. Therefore, as a comparison, the results for the current study show a similar outcome with studies conducted by Klein et al. (1998), Shin (2001), Klein (2002), Nijssen and Douglas (2004), and Hinck (2005).

For economic animosity, surprisingly, it has a significant positive effect on the US products judgment. It shows that the economic issue between the Muslim world and the US does not influence the attitude of Muslim consumers in Malaysia. Perhaps, availability of substitute products for certain product categories may influence the results. Furthermore, the economic issues are complex; therefore, it is possible that it will influence the results. Additionally, the reputation of the US as one of the most developed countries in the world and the biggest economic power might demolish the negative effect of animosity towards them. Even though the consumers perceived that the US was unfair towards Muslim countries in terms of economic issues, they still positively valued products from the US.

Between consumer ethnocentrism and the US products evaluations, it was hypothesized that there will be a negative relationship between them. From the result, it was found that Hypothesis 5 was significant at the 0.001 level. It shows that

the level of consumer ethnocentric tendencies among Malaysian Muslim consumers will have a negative relationship with the judgment of US made products. Generally, it can be said that the higher the consumer ethnocentrism, the lower the judgment on attributes of US made products. Many studies have investigated the relationship between this construct.

For example, studies conducted by several researchers in the developed and developing countries, i.e., Shimp and Sharma (1987) in the US; Hung (1989) in Canada; Javalgi et al. (2005) in France; Balabanis and Diamantopoulos (2004) in the UK; Sharma et al. (1995) in Korea; Hamin and Elliott (2006) in Indonesia and Abdul Razak et al. (2002) in Malaysia, have illustrated that consumers with ethnocentric tendencies tend to negatively judge foreign made products. They found that the more ethnocentric a consumer is, the more they will have less favourable judgment of foreign made products. Consistent with previous literature, the current study also found that highly ethnocentric Muslim consumers in Malaysia will negatively affect their judgment of US made products.

Thus, the result supported the hypothesis that stated that there is a negative relationship between consumer ethnocentrism and US products judgment, and it can be concluded that among Malaysian Muslim consumers, their ethnocentric tendencies will affect and influence their evaluations of foreign made products. Even though past studies suggested that consumer ethnocentrism is an issue of consumers in developed countries (e.g., Durvasula et al., 1997; and Vida and Fairhurst, 1999), the results of this study found that highly ethnocentric Malaysian Muslim consumers also devalued foreign made products.

Hypothesis 6 suggested that patriotism will also have a negative relationship with the judgment of products made in the US. The rationale behind this hypothesis is that those who are highly patriotic will tend to support locally made products and will reflect positively on the buy national products campaign such as *"Belilah Barangan Buatan Malaysia"* campaign. Highly patriotic consumers were suspected to have a negative judgment of US made products.

However the results show that patriotism does not negatively influence the consumers' judgment on products since $p > 0.05$. This hypothesis was rejected. As such it can be concluded that patriotism among Malaysian Muslim consumers does not affect their judgment of US made products. Possibly, highly patriotic consumers might love their country very much, but at the same time they do not reject products from foreign countries. Because of that, they do not devalue products from foreign countries and rate the product based on the attributes of the product and are not biased towards products produced by local manufacturers.

This argument can be supported by the studies conducted by Daser and Meric (1987), Lim and Darley (1997), Han and Terpstra (1988) and Wang and Chen (2004), where they argued that consumers might love their country but it will not negatively influence their attitude towards foreign made products. They found that consumers will prefer locally made products if it provides at least the same quality as the imported one. In this case, possibly the consumers perceived the quality of Malaysian made products as still not as good as the US made products, and so patriotism has no significant effect on the US product judgment.

Hypothesis 7 was developed primarily to see the effects of the judgment on US made products by respondents towards the purchase willingness of such products. Practically, if consumers judge or evaluate one product positively, their willingness to purchase will also be high. It was hypothesized that there is a positive relation between the US products judgment and the willingness to purchase products made in the US. If the consumers perceive US made products are good, their willingness to purchase the products will be high.

The result shows that a significant positive relationship was found between US products judgment and the willingness to purchase products made in the US from the perspective of Malaysian Muslim consumers. It was significant at the 0.001 level. As such, Hypothesis 7 was accepted. As expected, the result suggests that consumers who have high expectations of the products from the US will also have a higher willingness to purchase such products.

For comparison, previous studies, for example, Kim and Pysarchik (2000); Shin (2001); Javalgi et al. (2005); Klein et al. (1998); Nijssen and Douglas (2004); and Nakos and Hajidimitriou (2007) found that product judgment is a strong indicator of purchase willingness. Positive judgment of foreign made products will directly influence their willingness to purchase foreign made products. Therefore, the current study result is consistent with previous studies. In Malaysia, if consumers positively judge the products, their purchase willingness will also be high. Thus it can be concluded that the hypothesis that stated that product judgment will positively influence purchase willingness is supported.

Hypotheses 8 focused on how the consumers actually behave on the purchase action of US made products. Consistent with the purchase willingness, Hypothesis 8 also hypothesized that there will be a positive relationship between US products judgment and the purchase action of US made products. Those who positively evaluated the products will possibly buy such products. If consumers valued a product they actually purchased such products.

From the result, it indicates that when consumers positively evaluated US made products in terms of their attributes, actual purchase of the US made products is also likely. The hypothesis was significant at the 0.001 level and Hypothesis 8 is accepted. In other words, a significant positive relationship between US products judgment and the purchase action of US made products does exist. It demonstrates that when consumers judge the product positively, they actually bought that product. This result is consistent with the results found by Ulgado and Lee (1998), Yu and Albaum (2002), Klein et al. (1998) and Shin (2001). All these studies examined the affect of product judgment on actual purchase behaviour. These past studies found that product judgment significantly influences the consumers purchase behaviour or purchase action. It can be concluded that the result of the current study supported the hypothesis that stated that product judgment will positively influence the purchase action of Malaysian Muslim consumers.

Hypothesis 9, examined the relationship between the purchase willingness of Malaysian Muslim consumers on US made products and their purchase action of US made products. It was hypothesized that when the willingness to purchase is high, then their actual purchase behaviour will also be high. From the result, the value

indicates a positive significant relationship between willingness and actual purchase at the 0.001 level, so Hypothesis 9 is accepted. This result shows that willingness to purchase is a good indicator in predicting the consumers' actual purchase behaviour. Practically, when the willingness to purchase is high, the consumer purchase action will also be high. In other words, purchase willingness will lead to the actual purchase action.

This result is consistent with the findings of previous research, which found that purchase willingness will statistically influence the consumers' purchase action in a positive direction (Klein et al., 1998; and Shin, 2001). If purchase willingness is high, actual purchase and product ownership will also be high. Thus, it can be concluded that the results support the hypothesis that stated that there is a positive relationship between purchase willingness and purchase action of US made products.

Table 4.28 summarises the results of direct effect of war animosity, economic animosity, consumer ethnocentrism and patriotism and purchase willingness and purchase action. It also shows the direct effect between US products judgment and purchase action. The results of the direct effect between these variables are used to examine Hypothesis 10, Hypothesis 11 and Hypothesis 12 of this study regarding the mediating effect of product judgment and purchase willingness.

For the direct effect between war animosity and purchase willingness, the results suggest that there is a significant and negative direct relationship between them ($p \leq 0.05$). Consumer ethnocentrism also has a significant negative relationship with

purchase willingness and it was significant at the 0.001 level. However, for economic animosity and patriotism, there were no significant direct relationships with purchase willingness ($p > 0.05$)

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Table 4.28
The Direct Effects of Variables

Path			**β**	**SE**
War Animosity	→	Purchase Willingness	-0.129*	0.080
Economic Animosity	→	Purchase Willingness	-0.094	0.078
Consumer Ethnocentrism	→	Purchase Willingness	-0.733***	0.108
Patriotism	→	Purchase Willingness	0.033	0.144
War Animosity	→	Purchase Action	-0.122	0.084
Economic Animosity	→	Purchase Action	-0.088	0.082
Consumer Ethnocentrism	→	Purchase Action	-0.480***	0.160
Patriotism	→	Purchase Action	-0.209***	0.160
US Products Judgment	→	Purchase Action	0.521***	0.104

SE = standard error; β = standardized regression weights
Significance level: * - $p \leq 0.05$; ** - $p \leq 0.01$; *** - $p \leq 0.001$

For the relationship of war animosity, economic animosity, consumer ethnocentrism and patriotism and purchase action, it was found that there was no significant relationship between war animosity and purchase action as well as between economic animosity and purchase action. The relationship between consumer ethnocentrism and purchase action was found to be significant at the 0.01 level. Additionally, the result also revealed that patriotism does also have a significant relationship with purchase action ($p \leq 0.001$). Finally, from the table, we can also see that US products judgment has a direct positive relationship with the purchase action of US made products.

Table 4.29 summarises the results of the hypotheses that involved the mediating variable. In this study, it will examine the mediating role of US product judgment between war animosity, economic animosity, consumer ethnocentrism and patriotism and purchase willingness as well as purchase action. Additionally, this study will also study the mediating role of purchase willingness in the relationship between US products judgment and purchase action.

Table 4.29
Results of Mediation Hypotheses Testing

Indirect Effects	**β**	**Support**
H10a (i) – War animosity through US products judgment to purchase willingness	-0.001	No
H10a (ii) – Economic animosity through US products judgment to purchase willingness	0.078*	Yes
H10b – Consumer Ethnocentrism through US products judgment to purchase willingness	-0.059*	Yes
H10c – Patriotism through US products judgment to purchase willingness	0.008	No
H11a (i) – War animosity through US products judgment to purchase action	-0.002	No
H11a (ii) – Economic animosity through US products judgment to purchase action	0.189**	Yes
H11b – Consumer ethnocentrism through US products judgment to purchase action	-0.143**	Yes
H11c – Patriotism through US products judgment to purchase action	0.019	No
H12 – US products judgment through purchase willingness to purchase action	0.116*	Yes

β = standardized regression weights
Significance level: * - $p \leq 0.05$; ** - $p \leq 0.01$

From the table, the results of Hypothesis 10a (i) show that the relationship between war animosity and purchase willingness of US made products among Malaysian Muslim consumers through the US products judgment is not significant ($p > 0.05$). It

was hypothesized that US products judgment mediates the relationship between war animosity and purchase willingness of US made products. However, the insignificant value indicated that US products judgment does not mediate the relationship between war animosity and purchase willingness. Thus, the hypothesis that stated that US products judgment mediates the relationship between war animosity and purchase willingness is rejected. However, no comparison could be made regarding this outcome due to the fact that no past studies have examined the issue.

On the other hand, Hypothesis 10a (ii) intended to examine the relationship between economic animosity and purchase willingness through the US products judgment. Directly, no significant relationship was found between economic animosity and purchase willingness. As explained earlier, this hypothesis believed that US products judgment will mediate the relationship between economic animosity and purchase willingness of US made products among Malaysian Muslim consumers. The results found that there was a significant mediating effect of US products judgment on the relationship between economic animosity and purchase willingness. It was significant at the 0.05 level. Therefore, it can be concluded that US products judgment is the mediator between economic animosity and purchase willingness. With regard to product judgment as a mediator between economic animosity and purchase willingness, no comparison could be made because no past studies had examined this issue.

Hypothesis 10b tries to find the role of US products judgment as a mediator of the relationship between consumer ethnocentrism and purchase willingness. Directly,

consumer ethnocentrism has a significant negative effect towards purchase willingness of US made products. Hypothesis 10b hypothesized that US products judgment will mediate the relationship between consumer ethnocentrism and purchase willingness of US made products. The results revealed that US products judgment was a mediator in this relationship. In other words, US products judgment was found to have a mediation effect between the relationship of consumer ethnocentrism and purchase willingness and it is significant at the 0.05 level ($p \leq 0.05$). Therefore Hypothesis 10b is accepted. This result suggests that highly ethnocentric consumers tend to mediate the negative effect of ethnocentric tendencies towards foreign made products using the judgment on the products attributes. This finding is consistent with past studies, which found that positive judgment of foreign made products will mediate the negative effect of consumer ethnocentrism (Olsen et al., 1993; Yu and Albaum, 2002; and Wang and Chen, 2004).

Hypothesis 10c attempts to examine the mediating role of US products judgment on the relationship between patriotism and purchase willingness. The result shows that US products judgment does not mediate the relationship between patriotism and purchase willingness ($p > 0.05$). Thus, Hypothesis 10c is rejected. It can be concluded that US product judgment is not a mediator between patriotism and purchase willingness. However, not much comparison could be made regarding this issue because so far, no past studies have highlighted or examined this issue.

Hypothesis 11 assesses the relationship between (a) war animosity; (b) economic animosity; (c) consumer ethnocentrism; and (d) patriotism and purchase action with

US products judgment as a mediator. Hypothesis 10 focused on the purchase willingness while Hypotheses 11 focuses on how the consumers actually behave on the purchase action of US made products. It was hypothesized that US products judgment will mediate the relationships. Hypothesis 11a (i) intended to study the relationship between war animosity and purchase action with US products judgment as a mediator. The hypothesis mentioned that US products judgment mediates the relationship between war animosity and purchase action of US made products. However, from the results, it clearly shows that US products judgment does not play a mediating role in the relationship between war animosity and purchase action ($p > 0.05$). This result suggests that the hypothesis that stated US products judgment mediates the relationship between these two constructs is not supported. The result of this study could not be compared with past studies since none of them had examined this relationship.

Table 4.29 also presented the results of the relationship between economic animosity and purchase action through the US products judgment. The results show that the relationship was significant at the 0.01 level ($p \leq 0.01$). Therefore, Hypothesis 11a (ii) was supported. It indicates that US products judgment will mediate the relationship between economic animosity and purchase action of US made products by Malaysian Muslim consumers. This result is consistent with the result of saying that US products judgment will mediate the relationship between economic animosity and purchase willingness of US made products [H10a (ii)]. It shows that US products judgment will mediate the effects of economic animosity on purchase willingness and purchase action of US made products. Similar to the war animosity,

no comparison with previous studies could be made because no studies have been conducted to examine the issues.

In the case of the relationship between consumer ethnocentrism and purchase action, Hypothesis 11b hypothesized that US products judgment will mediate this relationship. The results demonstrate that US products judgment play a role in mediating the relationship between consumer ethnocentrism and purchase action and it was significant at the 0.01 level ($p \leq 0.01$). Hypothesis 11b is supported and suggests that highly ethnocentric consumers will use the attributes judgment on US made products to mediate the relationship between these two constructs. Perhaps, positive judgment on attributes of products made in the US will offset the negative attitudes among Malaysian consumers to make US made products their choice. Directly, highly ethnocentric consumers might reject foreign made products (in this case, US made products), but with the intervening variable, the effects might be reduced or removed. This result is consistent with previous research. For example, Moon and Jain (2001) and Wang and Chen (2004) found the judgment of foreign made products will mediate the negative attitudes towards foreign made products. Thus, the hypothesis that stated that product judgment mediates this relationship is supported.

Hypothesis 11c focused on the relationship between patriotism and purchase action of US made products by Malaysian Muslim consumers with US products judgment as a mediator. The result produced an insignificant value ($p > 0.05$) and thus Hypothesis 11c was rejected. This finding indicates that US products judgment is not a mediating variable in the relationship between patriotism and purchase action.

However, these results could not be compared with past research in terms of US products judgment as the mediator between patriotism and purchase action. This is because no past studies have examined these relationships and no past studies have focused on this issue. To compare this result and the result of Hypothesis 10c (relationship between patriotism and purchase willingness), it was found that US products judgment do not play any mediating role on the relationship between patriotism and purchase willingness of US made products as well as purchase action of US made products among Malaysian Muslim consumers.

Finally, Hypothesis 12 tries to examine the relationship between US products judgment and purchase action of US made products through the purchase willingness of US made products. It was hypothesized that purchase willingness mediates the relationship between US products judgment and purchase action of US made products. The results from the table reveal that purchase willingness is a mediator in this relationship. It was significant at the 0.05 level ($p \leq 0.05$) and, therefore, the hypothesis was accepted. The study concludes that purchase willingness will mediate the relationship between US products judgment and purchase action. This is consistent with the findings of studies conducted by Granzin and Olsen (1998) and Ulgado and Lee (1998) who found that purchase willingness will mediate the relationship of the actual purchase action.

Based on the findings and discussions on the hypotheses related to the mediating role, the current study found that in general, out of nine hypotheses, four were not supported and five were supported. The mediating role of US products judgment is supported for the relationships between (a) economic animosity; (b) consumer

ethnocentrism; and (a) purchase willingness; (b) purchase action. However, it is not a mediator for war animosity and patriotism. Additionally, purchase willingness is found to be a mediator in the relationship between US products judgment and the purchase action of US made products by Malaysian Muslim consumers.

4.7 Conclusion

This chapter presents the results of the data analysis using univariate and multivariate techniques. The first section describes the descriptive statistics including the demographic profile of the respondents. This was followed by the test of mean differences (independent sample T-Test and ANOVA). In this analysis, it focused on the mean differences of the subgroups in their demographic profile (e.g. the difference between male and female in terms of their Muslim religiosity, consumer animosity, consumer ethnocentrism and patriotism). An exploratory factor analysis was also performed and a correlational analysis was conducted between the factors extracted.

In the multivariate analysis, first, before the study proceeded with the analysis using the structural equation modelling (SEM) technique, the assumptions of multivariate analysis were assessed. This consisted of testing for multicollinearity, normality, linearity and homoscedasticity of the data. The assumptions were fulfilled. There were no signs that the multivariate requirements were violated. Subsequently, multivariate analysis using SEM was used. Two steps were involved in the SEM, first, the measurement model was assessed and next the structural model was used to test all the hypotheses. In the measurement model, basically, the relationship

between the indicators and the latent variables was inspected. The measurement of all the latent variables must be unidimensional. Furthermore, the model was examined in terms of their convergent and discriminant validity. The completion of this stage indicated that the study could proceed with the second stage of the SEM, i.e., the structural model.

The analysis basically examined the effects of the independent variables on the dependent variables. Specifically, Hypothesis 1 to Hypothesis 9 focused on the direct relationship between the variables and Hypothesis 10 to Hypothesis 11 focused on the mediating effect of US products judgment. In addition, Hypothesis 12 focused on the mediating effect of purchase willingness in a relationship between US product judgment and purchase action. This chapter concluded with the partial mediated model to examine the relationship of the proposed hypotheses.