

## **5. Research findings and Results**

### **5.1. Introduction**

In this section the results and finding of the study are presented. In order to better understand and visualize the findings of the study, the data is presented in two main sections in this chapter. Section one consists of the descriptive analyses of demographic and some descriptive elaboration on diner's awareness towards CSR activities in restaurant industry which has been gathered through survey questionnaire. The second section includes the statistical analyses which are conducted in order to support or reject the hypotheses. This section begins by presenting the results of the Reliability Test which was conducted to ensure that the items which have been previously chosen for specific construct are all measuring the same construct (Sekaran, 2003).

The first test that has been conducted on the data and is presented in this section is Normality Test. Normality test has been conducted in order to ensure that the gathered data through the questionnaire is normally distributed (Coakes et. al, 2010; Pallant, 2007).

The third test that was conducted on the data is the Factor Analysis which is considered to be a reduction technique. This test has been done in order to ensure that the minimal numbers of factors are chosen to summarize the essential information about a specific variable (Coakes et. al, 2010). The last step of analysis was conducted in order to test the proposed hypotheses, and this has been done through Pearson's Correlation and Multiple Regression Tests. Based on the results yield from these test the hypotheses are then rejected or accepted.

## **5.2. Descriptive Analysis**

The data used in this study has been gathered through 284 questionnaires that have been received from participants in different countries. However, due to the nature and method of distribution (snowballing and social networking), it is not possible to give an exact number as response rate since it is difficult to determine the exact number of people who were exposed to the questionnaire over the facebook and emails. However, the approximate response rate is approximately between twenty five and thirty percent. The participants' demographic profile which consists of gender, age, marital status, highest education level, monthly income, country of residence, nationality, ethnicity, number of time they dine in restaurants and the average amount they spend on the food have been analyzed and are presented in the following section.

### **5.2.1. Demographics**

#### **5.2.1.1. Gender**

In terms of gender distribution, the overall distribution is approximately even. Out of the 284 respondents 49.6 percent of respondents are female as opposed to 50.4 percent of male respondents. However, the distribution is not as even for countries which different level of economic development. As mentioned in chapter four, the respondents are categorized into three groups based on the economic level of development of their country of residence.

The gender distribution for 121 respondents from developed countries is 57.0 percent female as opposed to only 43.0 percent male. On the other hand the gender distribution for 103 participants from emerging markets is 41.7 percent and 58.3 percent for female and males respectively. This distribution for 60 respondents from developing countries is 48.3 percent female to 51.7 percent male.

#### **5.2.1.2. Age**

43.3 percent of 284 respondents are of age 20 to 30; this is followed by the age group of 30 to 40 with 25.7 percent. The rest of the age groups comprise 31 percent of the total percentage. As for the breakdown of the age groups based on the economic development level of country of residence, the following results have been gathered. For developed countries, 57 percent of 121 respondents are between ages of 20 to 40; this percentage is 68.3 percent of 60 respondents from developing countries, and 83.5 percent of 103 respondents from emerging markets.

#### **5.2.1.3. Marital status**

Out of the 284 respondents, the number of single and married respondents is almost equal. Based on the findings 47.5 percent are single, 48.6 percent are married and only 3.9 percent are either divorced or widowed.

The breakdown of the marital status shows that developed countries has more single respondents with 49.6 percent and higher number of divorced or widowed respondents with 7.9 percent. On the other hand the demographic data for emerging markets shows that the majority of respondents, 54.4 percent, are married and only 1 percent is either divorced or widowed. The marital status distribution for developing countries is almost even with 48.3 percent single respondents as opposed to 50 percent married respondents.

#### **5.2.1.4. Nationality**

In terms of the nationality of participants, the majority of respondents are either Iranians with 34.5 percent, and Malaysian national with 29.6 percent. These are followed by respondents from other nationalities consisting of 15 percent American, 8.8 percent Australian, 4.4 percent Britons and 7 percent from other nationalities.

#### **5.2.1.5. Country of residence**

In today's globalized world many people live in countries different from the place they have been born in. These people are usually influenced by the norms, values and culture of the country they live. Therefore, it is important for this study to know the country of residence in addition to the nationality of participants. The demographic profile shows that out of 284 participants, 35.2 percent are residents of Malaysia, 21.1 percent live in Iran, 18.7 percent live in America, 16.9 are residents of Australia and 4.6 are currently in Britain and 3.5 percent live in other countries like Sweden and Canada.

#### **5.2.1.6. Ethnicity**

Since the question for ethnicity is not compulsory and respondents had the ability to skip this question, some people preferred not to answer the question which resulted in 27 missing variables. However, out of respondents to this question the majority are White/Caucasian with 30 percent, Middle Eastern with 26.5 percent, Chinese with 17.9 percent and Malay with 14 percent. Other ethnicities that have represented in this study are Indian, Hispanic and African American

#### **5.2.1.7. Educational Level**

In terms of education level of respondents, 46.8 percent hold undergraduate degree, 38.7 percent with master or PhD degrees and 11.6 percent are diploma holders and 2.9 percent have education level less than diploma.

As for the breakdown based on the country of residence's economic development level, in developing countries 55 percent are undergraduates 26.7 percent postgraduates and the rest are diploma holders or less. In emerging markets, 45.6 percent are postgraduates, 44.7 percent undergraduates and the rest are diploma holders or less. It should be noted that the reason for the

high number of postgraduates in emerging markets such as Malaysia is because many of the responders are university students as opposed to other countries. As for the developed countries, the majority of respondents are undergraduates, 44.6 percent, and postgraduates with 38.8 percent.

#### **5.2.1.8. Monthly Income**

Participants were offered multiple wage intervals and were requested to choose the one that best represented their situation. It should be noted that the participants were guided not to convert their salaries and just consider the intervals in currency of their country of residence, except for those who lived in Iran. The reason why they were not requested to convert their salaries to common currency was due to the fact that this study does not attempt to compare the salaries of different countries and at the same it attempts to understand the average percentage of the salary that people are willing to spend on the restaurant food.

Based on the findings of this study, 26.4 percent of the respondents from developed countries including, America, Canada and England earned less than 2000 currency of their country of residence, 22.3 percent earned between 2000 to 3500, 19.8 percent earned more than 8000 and 14.9 percent earned between 3500 to 5000. As for respondents from Malaysia which were representative of emerging markets, 23,3 percent earned between RM 2000 to RM 3500, 22.3 percent earned RM 3500 to RM 5000, 21.4 percent earned more than RM 8000 and 16.5 earned less than RM 2000. However, this was not case for Iranians which were representative of developing countries. Based on the findings of this study, 60 percent of Iranians earned less than 2,000,000 Toman (Less than 2000 USD) and 26.7 percent earned between 2,000,000 Toman to 3,500,000 Toman (between 2000 to 3500 USD).

### **5.2.1.9. Number of visits to each type of restaurants**

Based on the findings of this study the majority of 284 respondents visit different types of restaurants less than four times a month. In other words, 74.7 percent do not eat or eat less four times in fast food restaurants. This number is 60.5 percent for casual dining and 90.2 percent for fine dining. It is observed, interestingly that people prefer to have casual dining experiences more than fine dining or eating in fast food restaurants. The reason could be the expensive nature of fine dining and health concerns when it comes to fast food. Based on the findings, in developed countries 76 percent do not eat or eat less than four times in fast food restaurants, 64.5 percent do not visit or visit casual dining restaurants less than four times a month. Similarly, 92.6 percent of respondents in developed countries have stated that they do not eat or eat less than four times in fine dining establishments. In comparison, 72.8 percent, 45.7 percent and 89.4 percent of respondents from emerging markets do not eat or eat less than four times fast food, casual dining and fine dining restaurants respectively.

As for the developing countries, 75 percent, 78.4 percent and 86.6 percent of respondents do not visit or visit fast food, casual dining and fine dining restaurants less than four times per month. It is worth noting that, according to the findings of this study, respondents from the developing countries (i.e. Iran) are the most likely ones (13.3 percent) to dine in fine dining restaurants that is more than four times a month and respondents from emerging markets (i.e. Malaysia) are the most likely ones (27.1 percent and 54.4 percent) to eat in fast food and casual dining restaurants that is more than four times a month. This could be due to the fact that Iranians are more selective about their food and considered dining as something more than just eating and therefore they are willing to spend more money for it.

### 5.2.1.10. Average weekly amount spent in restaurants

It should be noted that the amounts presented here are in different currencies. In other words, Americans have responded in dollars, Britons in Pound and Malaysian in Ringgit. Based on the finding of this study, around 60 percent of respondents spent less than 60 on the food in restaurants. This means that Americans spend less than 60 US Dollars on food and Malaysians spend less than 60 Ringgits. To break it down, 16.2 percent spent less than 20, 23.6 percent spent between 20 and 40, and 15.5 percent spent between 40 and 60 in restaurants. The percentage of people who spend less than 60 on food in developed countries is 63.6 percent; this number is 73.3 percent in developing countries and 35 percent in emerging markets.

### 5.2.1.11. Demographics summary table

In this section the above mentioned demographics are presented and summarized in a table for ease of understanding.

Variable	Category	Frequency	Percent
Gender	Male	143	50.4
	Female	141	49.6
Marital Status	Single	135	47.5
	Married	138	48.6
	Divorced	11	3.9
Age Group	< 20	19	6.7
	20 -30	123	43.3
	31 - 40	73	25.7
	41 - 50	32	11.3
	> 50	37	13.0
Nationality	American	44	15.5
	Australian	25	8.8
	British	13	4.6
	Malaysia	84	29.6
	Iranian	98	34.5
	Others	20	7.0
County of residence	USA	53	18.7
	Australia	48	16.9

	United Kingdom	13	4.6
	Malaysia	100	35.2
	Iran	60	21.1
	Others	10	3.5
Level of Economic Development	Developed countries	121	42.6
	Emerging Markets	103	36.3
	Developing Countries	60	21.1
Education level	Diploma	33	11.6
	Undergraduate Degree	133	46.8
	Postgraduate level	110	38.7
	Others	8	2.8
Ethnicity	White/Caucasian	77	30
	Hispanic	5	1.9
	Black	1	0.4
	Chinese	46	17.9
	Malay	36	14.0
	Indian	12	4.7
	Middle Eastern	68	26.5
	Other	12	4.7
Eat in fast food	None	51	18.0
	< 4	161	56.7
	4 - 8	54	19.0
	>8	18	6.3
Eat in casual dining	None	16	5.6
	< 4	156	54.9
	4 - 8	80	28.2
	>8	32	11.3
Eat in Fine Dining	None	72	25.4
	< 4	184	64.8
	4 - 8	20	7.0
	>8	8	2.8

## 5.2.2. Respondents and CSR

### 5.2.2.1. Understanding and perceptions on CSR

Participants have been requested to select one or more options that come to their mind when they hear the word CSR. These options have been chosen based on different CSR concepts such as environment, charity and public relation. According to the results, 49 percent thought about

environment when they heard the word CSR, 40 percent on public relation, 36 percent on charity, 22 percent on fair employment, 10 percent on marketing scam and 17 percent of respondents did not respond to this question, implying that they may not know about CSR.

#### **5.2.2.2. Expectations of socially responsible restaurants**

When participants were requested to suggest what a social responsible restaurant must do, 61 percent said it should be involved in eco-friendly practices such as lowering the wastage and resource consumption, 51 percent responded that it should provide good quality of food and services, 38 percent mentioned that it should give back to society and 28 percent thought it should be involved in sponsoring charity events.

#### **5.2.2.3. Level of awareness of restaurants CSR initiatives**

When participants were asked about the extent of their awareness of restaurants CSR initiatives, 48.4 percent of 281 who responded to this question responded that they were not aware, 46.3 percent said slightly aware and only 5.3 percent responded that they were fully aware. To break this down, 58.7 percent of participants from developed countries were unaware of this, 38 percent slightly aware and 3.3 was not aware. These percentages are respectively 40.2 percent, 50 percent and 9.8 percent for the respondents from emerging markets and 41.4 percent, 56.9 percent and 1.7 percent for participants from developing countries.

#### **5.2.2.4. Exposure to CSR initiatives**

One of the most important concepts in CSR that has been covered in the literature review has been the significance of exposure to CSR activities and the methods of exposure. That is why this study raises the question to understand whether the participants are usually exposed to restaurants CSR activities through the advertisement or not.

The findings show that 76 percent of participants have never seen any advertisement with regards to CSR activities of restaurants. This amount is 74.4 percent for developing countries, 68.9 percent for emerging markets and 91.5 percent for developing countries. One can realize that the highest percentage is for developing countries such as Iran. This might be due to the fact that organization in general and restaurants in particular are not as involved in CSR initiatives in developing countries even if they are spending big budget in order to expose customers to such activities.

### **5.3. Statistical Analysis**

#### **5.3.1. Normality Test**

The first statistical test that has been conducted on the data is Normality Test. This is conducted in order to check whether the results have been normally distributed or not. Normality Test is considered to be the prerequisite for many of other statistical tests and that is why it has been conducted in the first place (Coakes et. al, 2010). It has been argued by some scholars that the data gathered for large samples which target social science are in many cases not normally distributed (Pallant, 2007). The reason for this is that many of participants in the surveys targeting social science issues have the tendency to respond to the questions on extreme edges of the scale. This was also the case for the data gathered from the 284 participant in this study. Most of respondents have shown tendency to respond to the questions on extreme sides which forced the data to skew to the left or right. Thus, the data have not been normally distributed and there was a need for data transformation techniques in order to normalize the data.

In the majority of the variables the data had a negative skewness which meant that the data skewed to the right. In these cases, the first step of the transformation was to reflect the data and then obtain the square root of the reflected data. In cases of positive skewness however, only the

square root of the data was obtained. In doing this, the researcher was able to normalize the data for all the proposed variables including CSR awareness, diners' perception, buying behavior and the type of the restaurants.

It should be noted that there are variety of methods in order to check and see whether the data is normally distributed or not such as observing the Histogram, Box Plot and Stem-and-Leaf as well as observing the Skewness and Kurtosis values. In order to make sure that the data was normally distributed after the transformation, all of the above mentioned tests were conducted and results were observed.

Although the transferred data is not perfectly distributed and has some skewness to the left or right for different variables, the skewness does not exceed the accepted -2 to +2 range proposed by Hair et al. (1996). As for the rest of the test, all three including Histogram, Stem-and-Leaf and Box Plot pointed to a relatively normal distribution for all variables (Appendix A).

The following table presents the detailed values of normalized variables.

**Statistics**

	CSRAwarness	DinersPerception	RestaurantType	BuyingBehaviour
N Valid	281	277	277	281
N Missing	3	7	7	3
Mean	1.551	1.488	1.535	1.553
Median	1.528	1.483	1.581	1.549
Mode	1.4	1.4	1.4	1.4
Std. Deviation	.2463	.2210	.2763	.2817
Skewness	.204	-.150	-.114	-.048
Std. Error of Skewness	.145	.146	.146	.145
Kurtosis	-.364	-.326	-.409	-.644
Std. Error of Kurtosis	.290	.292	.292	.290
Range	1.1	1.0	1.2	1.1
Minimum	1.0	1.0	1.0	1.0
Maximum	2.1	2.0	2.2	2.1

### 5.3.2. Factor Analysis

After normalizing the data, factor analysis which is a reduction technique was conducted in order to check whether the proposed dimensions are properly defined and proposed items are properly placed in the right dimension. However, there are some prerequisites for this test to be conducted one of which is to have a KMO value of more than 0.6 and the other is having a large size preferably more than 200 (Coakes et. al, 2010). In order to conduct this test, first the items for all dependant variables (diners' perception and buying behavior), the items for all independent variables (CSR awareness, diners' perception), and items for moderating variable (type of restaurant) were grouped together. It should be noted that diners' perception is in both dependant and independent variables as it is a mediating variable. After the first step, the KMO value was calculated and observed an in case it was more than 0.6 the factor analysis was conducted on that groups to check whether there is a need for repositioning of items into new variable or not.

#### 5.3.2.1. Independent Variables

A total of nine items from two variables have been grouped together as independent variables. The KMO value for independent variables was calculated and presented in the following table which is 0.817 that is considered to be a great value by Kaiser-Meyer-Olkin (1970) to conduct a factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.817
Bartlett's Test of Approx. Chi-Square	760.703
Sphericity df	36
Sig.	.000

Furthermore, the Maximum likelihood extraction method and Varimax rotation methods were used to obtain the Rotated Factor Matrix that consists of two factors which explain 80.75 percent

of total variance. The results shown in the following table suggest that the previous proposed grouping of items in variables were proper. However, the factor analysis suggested that the importance of CSR item is better to be moved under first factor (diners' perception variable). However, the change was not conducted as this would have resulted in reducing the number of items for factor number two (CSR awareness) to two items, which would have reduced the strength of this variable. Therefore, this change has been ignored and although this item has lower value in comparison with the other two it has been kept in this variable.

**Rotated Factor Matrix<sup>a</sup>**

	Factor	
	1	2
Better service	.817	
Higher food quality	.722	
More value for money	.682	
Do well in market	.651	
CSR restaurants stand out	.569	
Greater profits	.516	
Extent of familiarity with restaurant CSR		.996
Extent of familiarity with CSR		.554
Importance of CSR		.220

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

### 5.3.2.2. Dependant Variables

A total of eleven items from two variables were grouped together as dependant variables. Then, the KMO value was calculated and presented in the following table. In this case the value is 0.908 which is considered to be good for conducting the factor analysis test (Kaiser-Meyer-Olkin, 1970)

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.908
Bartlett's Test of Approx. Chi-Square		1390.801
Sphericity	df	55
	Sig.	.000

Furthermore, the Principle Component Analysis extraction method and Varimax rotation method were used to obtain the Rotated Component Matrix which is presented below and consist of two factors that explain 93.3 percent of total variance. It should be noted that the “absolute value below” option has been chosen as 0.5 which means the values below 0.5 are not shown in the table.

**Rotated Component Matrix<sup>a</sup>**

	Component	
	1	2
Care for CSR reputation	.818	
Go far for CSR restaurant	.803	
Encourage friends	.754	
Pay more money	.733	
Choose Restaurants with CSR	.686	
Do well in market		.779
Greater profits		.690
CSR restaurants stand out		.686
Better service		.639
Higher food quality		.545
More value for money		.541

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.

Similar to previous Rotated Component Matrix for independent variables, the items were placed in similar factors (variables) as they have been already proposed by the researcher. However, it should be noted that item “higher food quality” was placed in both factors but the researcher

chose to keep it as it was since it had relatively higher value under its current variable (diners' perception).

### 5.3.2.3. Moderating Variables

As for the moderating factors, only four items from one variable have been grouped together and the KMO was calculated. This value was 0.787 which is considered good when it comes to factor analysis (Kaiser-Meyer-Olkin, 1970).

**. KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.787
Bartlett's Test	of Approx. Chi-Square	566.020
Sphericity	df	6
	Sig.	.000

After using the Principle Component Analysis extraction method and Varimax rotation method, no visible change to already proposed variable has been suggested.

**Component Matrix<sup>a</sup>**

	Component
	1
Casual dining influence	.916
Fine dining influence	.884
Fast food influence	.846
Decision influenced by type	.687

To summarize, there was no significant suggestions for changing the proposed variables and/or replacement of items into those variables by factor analysis.

### 5.3.3. Reliability Test

After conducting the factor analysis the reliability test was conducted for items of each variable to ensure that items which have been chosen for specific construct or variable are all measuring the same construct. The result of the reliability test are presented in the following tables.

#### 5.3.3.1. CSR Awareness

Although the value of Cronbach's Alpha is not as strong as it should be for this variable, its value is 0.569 which is extremely close to the acceptable 0.6 value of Cronbach's Alpha for explanatory works (Nunnally, 1978; Laroche et al, 2001). Thus, this value is considered to be adequate. In addition, the acceptance could be justified by the fact that the instrument for this variable has been developed by the researcher and some items of the questionnaires are considered to be un-established and new. Furthermore, the cross country nature of the study and differences in responses of participants from different countries could have played a role in this.

**Reliability Statistics**

	Corrected Item-Total Correlation	Cronbach's Alpha	N of Items
Extent of familiarity with CSR	.453	.569	3
Extent of familiarity with restaurant CSR	.537		
Importance of CSR	.189		

#### 5.3.3.2. Diners' Perception

Unlike the first variable, the value of Cronbach's Alpha for this variable is 0.824 which exceeds the minimum value of 0.6 and is considered to be relatively strong. This shows that the items in this variable are closely related and consistent.

**Reliability Statistics**

	Corrected Item-Total Correlation	Cronbach's Alpha	N of Items
CSR restaurants stand out	.538	.824	6
Greater profits	.476		
Do well in market	.622		
Higher food quality	.617		
Better service	.704		
More value for money	.605		

**5.3.3.3. Buying Behavior**

Similar to the Diners' Perception variable, the value of Cronbach's Alpha for the Buying Behavior variable is also 0.860 which is considered to be a good and strong value.

**Reliability Statistics**

	Corrected Item-Total Correlation	Cronbach's Alpha	N of Items
Go far for CSR restaurant	.717	.860	5
Pay more money	.659		
Care for CSR reputation	.740		
Choose Restaurants with CSR	.586		
Encourage friends	.697		

**5.3.3.4. Type of Restaurants**

The value of Cronbach's Alpha for the Type of Restaurants is 0.859 and as mentioned before this is considered to be a strong value. Having such a high value for Cronbach's Alpha shows that the items grouped in this variable are closely related and consistently measuring the same underlying variable or constructs.

### Reliability Statistics

	Corrected Item-Total Correlation	Cronbach's Alpha	N of Items
Decision influenced by type	.519	.859	4
Fine dining influence	.770		
Casual dining influence	.833		
Fast food influence	.709		

To summarize, now that the preliminary test such as Normality Test, Factor analysis and Reliability Test have been conducted and the data has been normalized and passed the reliability test, the main analyses is conducted in order to test the validity of the hypotheses. This is conducted through Pearson's Correlation and Multiple Regression Tests.

#### 5.4. Hypotheses Testing

At this point all the hypotheses are tested against Pearson's Correlation and Multiple Regression Tests and based on those results they will be either accepted or rejected.

##### 5.4.1. Pearson Correlation

Pearson's Correlation analysis looks at the linear relationship between two variables and the strength of this relationship. It could be both in positive and negative forms; negative correlation suggest that increment in one variable would result in decrement in the other variable and positive correlation suggest that increment in one variable will result in increment in the other variable. The value of Pearson's Correlation could be between -1 to +1 and these two extreme ends are considered to be the perfect correlations. Therefore, it shows that the higher the coefficient the stronger the relationship between the two variables. The results of Pearson's Correlation analysis are presented in the following table.

### Correlations

		CSRAwareness	DinersPerception	RestaurantType	BuyingBehaviour
CSRAwareness	Pearson Correlation	1	-.374**	-.366**	-.371**
	Sig. (2-tailed)		.000	.000	.000
	N	281	274	274	278
DinersPerception	Pearson Correlation	-.374**	1	.571**	.635**
	Sig. (2-tailed)	.000		.000	.000
	N	274	277	272	277
RestaurantType	Pearson Correlation	-.366**	.571**	1	.761**
	Sig. (2-tailed)	.000	.000		.000
	N	274	272	277	276
BuyingBehaviour	Pearson Correlation	-.371**	.635**	.761**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	278	277	276	281

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

### 5.4.2. Multiple Regressions

Another analysis which is used in parallel to Pearson's Correlation analysis in order to accept or reject a hypothesis is the multiple regressions. Multiple Regressions analysis is used to analyze the relationship between one dependant variables and number of independent variables.

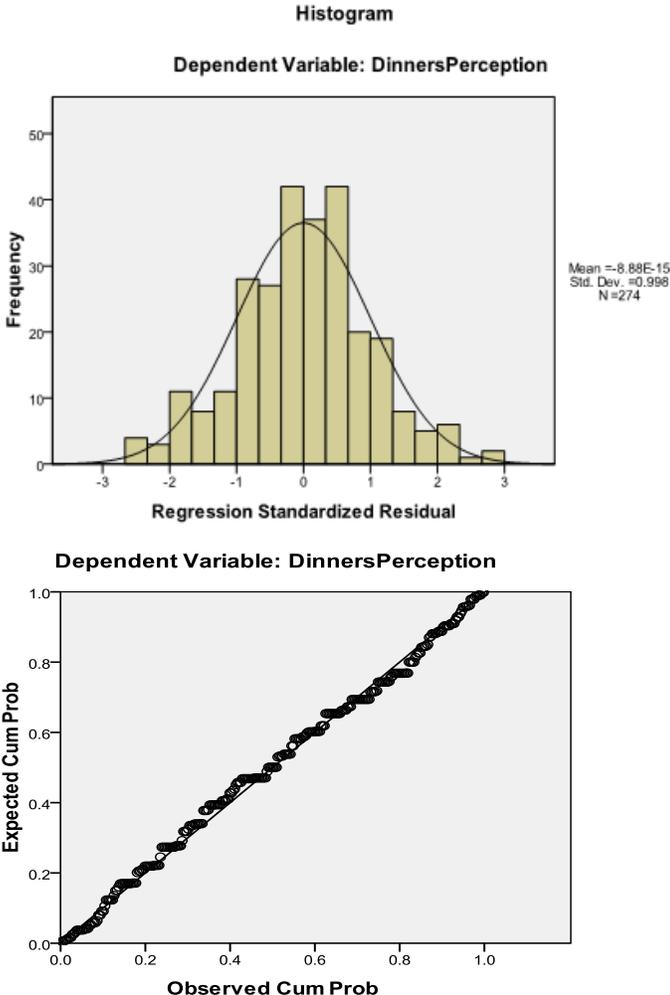
In order to conduct this analysis, some prerequisites must be first met such as normality, outliers, heterogeneity, Multicollinearity, Linearity and Independence of Residuals (Tabachnick and Fidell, 2001). These tests have been conducted and met before continuing with the Multiple Regressions analysis. The testing process is presented below for one of the variables; however, the results of the tests for the other variables are presented in Appendix B.

#### 5.4.2.1. Testing assumptions for CSR Awareness and Diners' Perception variables

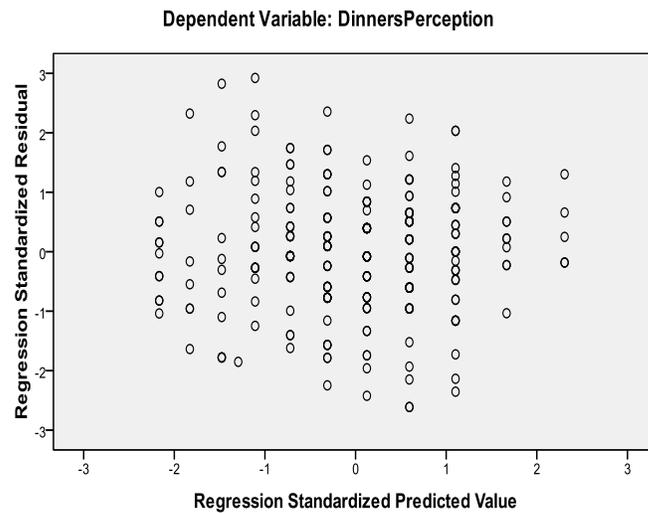
Multicollinearity only exists if variables have a correlation of more than 0.9 and this could be checked from the correlation table in the previous page. In this case none of the variables have a

correlation of more than 0.8 which shows that there is no multicollinearity. The normality assumptions can be checked through the histogram and in this case it is observed that the data is normality distributed which means that it does not heavily skewed to the left or right. This shows that the normality assumption is met.

As for the other assumptions of heterogeneity, Linearity and Independence of Residuals, they can be checked through Scatter Plot and Normal P-P plot of Regression Standardized Residual both presented in the next page. If the dots in P-P plot are roughly located on the line and the dots in Scatter Plot are concentrated on the center, this will be a good sign that the data meets these assumptions. In addition, outliers can be spotted based on these plots.



Scatterplot



Now that the assumptions have been met, each and every hypothesis against Pearson’s Correlation and Multiple Regression analyses is tested.

**5.4.3. Testing the hypotheses**

In this section all the hypotheses are tested based on correlation and regression in order to check whether they are supported or rejected. However, the elaboration and analysis are presented in the next section of this chapter.

H1: Restaurants involvement in CSR activities and customers’ awareness of those initiatives positively influences Diners’ perception.

**Correlations**

		CSRAwarness	DinersPerception
CSRAwarness	Pearson Correlation	1	-.374**
	Sig. (2-tailed)		.000
	N	281	274
DinersPerception	Pearson Correlation	-.374**	1
	Sig. (2-tailed)	.000	
	N	274	277

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

Surprisingly it is found that diners' familiarity with CSR concepts and their awareness of restaurants CSR initiatives has a negative correlation with their perception. This correlation is significant as  $p < 0.01$ . However, this does not necessary mean that the customers who have prior knowledge about CSR and are aware of restaurant CSR initiative do not have positive perception about those restaurants. This could mean that their perception is not as positive as the perception of those who just learn about CSR or become aware of restaurants CSR initiatives. This could be due to the fact that people who are familiar with CSR concepts sometimes associate it with publicity and a mean of gaining profit rather than helping others and environment.

ANOVA<sup>b</sup>

Model	R Square	Sum of Squares	df	Mean Square	F	Sig.
CSRAwareness	.140	1.863	1	1.863	44.189	.000 <sup>a</sup>

a. Predictors: (Constant), CSRAwareness

b. Dependent Variable: DinersPerception

The regression analysis verifies that there is a significant relationship between CSR awareness variable and diners' perception value as  $P < 0.05$ . Based on this findings diner's familiarity with CSR concepts and their awareness of restaurants involvement in CSR activates would account for 14 percent variability of their perception.

To summarize, the significant values of both correlation analysis and multiple regression analysis verify that the diners' familiarity with CSR concepts and their awareness of restaurants involvement in such activities indeed influences their perception. However, the negative correlation suggests that this relationship is not positive as suggested by the first hypothesis.

*Therefore, the first hypothesis is rejected.*

H2: The country's level of economic development moderates the diners' perception of socially responsible restaurants.

In order to analyze whether a variable has a moderating effect between two other variables, a hierarchal regression is conducted. The first step would be to eliminate the potential multicollinearity effect by centering the independent variables as well as the moderating variable. This is called centering and it is done through subtracting the mean of specific variable from each and every line of the data for that variable. In the second step, the interaction term between independent variable and moderating variable is computed into a new variable through multiplying the two variables together. In the last step, a hierarchal regression is conducted where the main effect of CSR awareness is entered first, the main effect of the economic development of the country second and the interaction term between CSR awareness and the economic development is entered third. The result for this hierarchal regression is presented in the following table.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.492	.012		119.680	.000
	CSRcentered	-.343	.052	-.374	-6.647	.000
2	(Constant)	1.492	.012		119.660	.000
	CSRcentered	-.337	.052	-.368	-6.493	.000
	EDcentered	-.016	.016	-.054	-.952	.342
3	(Constant)	1.493	.013		118.890	.000
	CSRcentered	-.333	.052	-.362	-6.362	.000
	EDcentered	-.015	.016	-.053	-.941	.347
	CSRCXEDC	-.060	.070	-.048	-.855	.393

a. Dependent Variable: DinersPerception

Based on the data presented in the above table the p-value is 0.393 which is higher than 0.05 and not significant. This means when new variables were added they did not significantly added new

variance. Hence, it can be concluded that the economic development of a country does not moderate the relationship between CSR awareness and diners' perception. This is also consistent with the results yield from conducting Chi Square test, presented in the next section, which again shows no significance.

**Chi-Square Tests**

Level of Development		Value	df	Asymp. Sig. (2-sided)
Developed Countries	Pearson Chi-Square	213.079 <sup>a</sup>	198	.220
	Likelihood Ratio	149.998	198	.995
	Linear-by-Linear Association	16.143	1	.000
	N of Valid Cases	115		
Emerging Markets	Pearson Chi-Square	176.991 <sup>b</sup>	170	.341
	Likelihood Ratio	153.659	170	.811
	Linear-by-Linear Association	9.475	1	.002
	N of Valid Cases	102		
Developing Countries	Pearson Chi-Square	156.939 <sup>c</sup>	144	.218
	Likelihood Ratio	104.808	144	.994
	Linear-by-Linear Association	15.378	1	.000
	N of Valid Cases	57		

a. 228 cells (100.0%) have expected count less than 5. The minimum expected count is .01.

b. 198 cells (100.0%) have expected count less than 5. The minimum expected count is .02.

c. 170 cells (100.0%) have expected count less than 5. The minimum expected count is .02.

Therefore, based on the findings of both tests *the second hypothesis is rejected.*

H3: Diners with more positive perception toward socially responsible restaurants are more likely to dine in those restaurants.

**Correlations**

		DinersPerception	BuyingBehaviour
DinersPerception	Pearson Correlation	1	.635**
	Sig. (2-tailed)		.000
	N	277	277
BuyingBehaviour	Pearson Correlation	.635**	1
	Sig. (2-tailed)	.000	
	N	277	281

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

The results of correlation analysis show that there is a strong positive correlation between diners' perception and their buying intention. This correlation is significant as  $p < 0.01$  and shows that diners with better perception about some restaurants are more likely to dine in those restaurants.

ANOVA<sup>b</sup>

Model	R Square	Sum of Squares	df	Mean Square	F	Sig.
DinersPerception	.403	8.822	1	8.822	185.566	.000 <sup>a</sup>

a. Predictors: (Constant), DinersPerception

b. Dependent Variable: BuyingBehaviour

Additionally, the findings of regression analysis suggest that there is a significant relationship between diners' perception and their buying behavior as  $p < 0.05$ . Based on the findings, diners' perception of restaurants accounts for almost 40 percent variability of their buying behavior which is considerably high.

To summarize, referring to the findings of both correlation and regression analysis, diners who have more positive perception of specific restaurants are more likely to dine in those restaurants which is consistent with the second hypothesis.

*Therefore, the third hypothesis is accepted.*

H.4: Diner's perception of socially responsible restaurants mediates the relationship between their awareness of restaurant CSR initiatives and their buying behavior.

According to Baron and Kenny (1986) and Judd and Kenny (1981), in order to understand if a variable mediates between two other variables, first it should be established that initial variable correlates with the outcome. The second steps would be to establish the correlation between the initial variable and the mediating variable. Lastly, it should be established that the mediator affect the outcome variable and the effect of initial variable on outcome variable controlling for mediator should be zero. This can be archived through multiple regressions and correlation.

In the first step the correlation between independent, dependant and mediating variable is calculated and presented in the following table.

**Correlations<sup>a</sup>**

		DinersPerception	BuyingBehaviour	CSRAwareness
DinersPerception	Pearson Correlation	1	.634**	-.374**
	Sig. (2-tailed)		.000	.000
BuyingBehaviour	Pearson Correlation	.634**	1	-.375**
	Sig. (2-tailed)	.000		.000
CSRAwareness	Pearson Correlation	-.374**	-.375**	1
	Sig. (2-tailed)	.000	.000	

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

a. Listwise N=274

In the second step the liner regression between independent variable (CSR awareness) and mediating variable (diners' perception) is calculated and presented in the following two tables.

**ANOVA<sup>a</sup>**

Model		R Square	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.140	1.879	1	1.879	44.189	.000 <sup>a</sup>

a. Predictors: (Constant), CSRAwareness

b. Dependent Variable: DinersPerception

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.024	.081		24.877	.000
	CSRAwareness	-.343	.052	-.374	-6.647	.000

a. Dependent Variable: DinersPerception

The third step involves calculating the liner regression between diners' perception and CSR awareness as independent variables and buying behavior as dependant variable. The results of this analysis are presented in the following two tables.

**ANOVA<sup>D</sup>**

Model	R Square	Sum of Squares	df	Mean Square	F	Sig.
Regression	.424	9.196	2	4.598	99.874	.000 <sup>a</sup>

a. Predictors: (Constant), DinersPerception, CSRAwareness

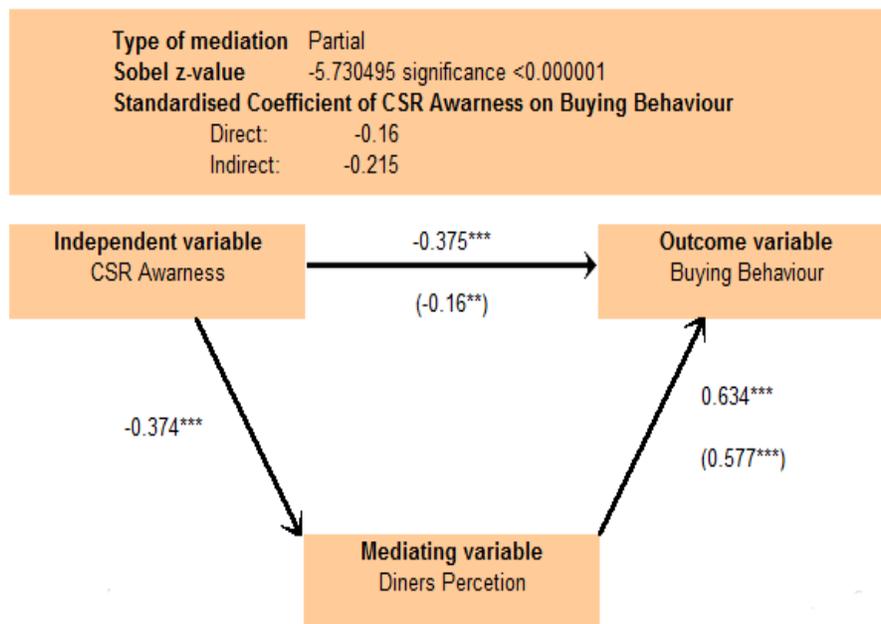
b. Dependent Variable: BuyingBehaviour

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.755	.153		4.927	.000
	CSRAwareness	-.187	.058	-.160	-3.223	.001
	DinersPerception	.729	.063	.577	11.558	.000

a. Dependent Variable: BuyingBehaviour

The last step of this process involves in transferring the retrieved data to the program developed by the Victoria University of Wellington called MedGraph . Through this program the following chart has been created that visually presents whether the proposed diners' perception variable mediates between the other two variables which are CSR awareness and buying behavior.



Source: Jose (2003)

Based on the visual presentation of the above graph the diners' perception plays a partial mediation role between diners' awareness of restaurants CSR initiatives and their buying behavior. In other words, based on the findings around 57 percent of the effect of diners' awareness of CSR initiatives on their buying behavior goes through their perception and 43 percent is direct. It should be noted that this value is calculated by dividing the indirect effect (-0.215) by the total effect (-0.375). The results suggested are consistent with the fourth hypothesis.

*Therefore, the fourth hypothesis would be accepted.*

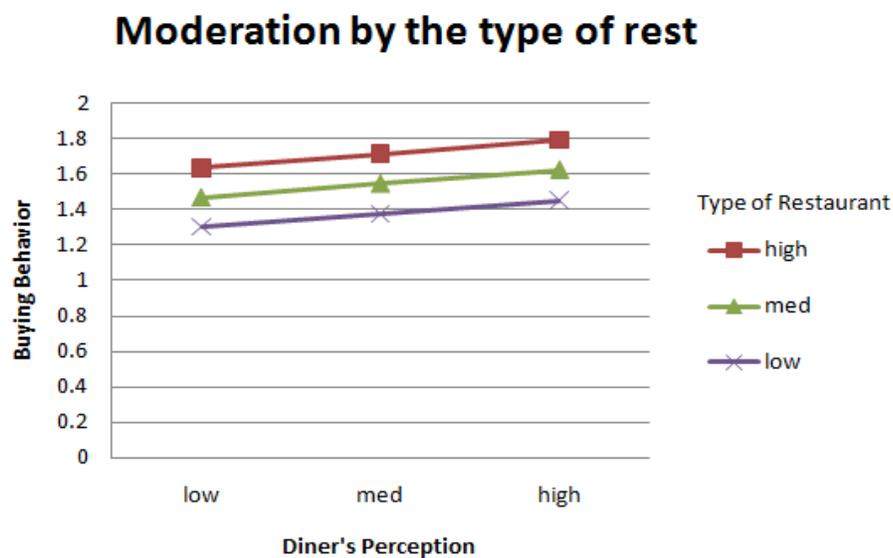
H.5: The type of restaurant moderates the relationship between brand perception and buying behavior.

Similar to hypothesis two, in order to understand if the type of the restaurant moderates the relationship between diners' perception and their buying behavior several steps have been taken. The first step was to eliminate the potential multicollinearity effect by centering the independent variables as well as the moderating variable. In the second step, the interaction term between independent variable and moderating variable was computed into a new variable through multiplying the two variables together. In the last step, a hierarchical regression was conducted. The result of the hierarchical regression is presented in the following table.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.544	.013		117.551	.000
	DPCentered	.782	.061	.617	12.893	.000
2	(Constant)	1.547	.010		150.236	.000
	DPCentered	.350	.058	.276	6.037	.000
	RTcentered	.609	.047	.597	13.059	.000
3	(Constant)	1.546	.012		133.314	.000
	DPCentered	.350	.058	.277	6.032	.000
	RTcentered	.610	.047	.598	13.012	.000
	DPCxRTC	.043	.160	.010	.267	.789

In order for moderation effect to be proved the p-value of the last model, model 3, should be significant. In this case however, the p-value of the interaction term between diners' perception and the type of restaurant is 0.789 which is not significant. This is also shown in the following chart that has been created using the ModGraph program. The parallel nature of the lines presents that there is not a statistically significant interaction between the type of the restaurant, diners' perception and buying behavior (Jose, 2003).



Source: Jose (2003)

Therefore, it could be concluded that the type of restaurant does not moderate between diners' perception and their buying behavior which is not consistent with the fifth hypothesis.

*Therefore, the fifth hypothesis is rejected.*

### 5.5. Analysis and interpretation of the results

In this section the research questions, hypotheses related to those questions, the prediction and the finding for each hypothesis are elaborated.

## **Q1. What are the perceptions of diners towards CSR initiatives of restaurants?**

### **H.1: Restaurants involvement in CSR activities positively influences Diners' perception.**

The first question of this study was raised to explore diners' perception of socially responsible restaurants. It was predicted that diners who are familiar with CSR concepts and are aware of the restaurants involvement in such initiative will have more positive perception about that restaurant. In order to check the validity of this prediction, hypothesis one was developed and tested through correlation and regression analyses. However, although the value yield from correlation analysis was significant it was a negative one. The first impression might be that people who are familiar with CSR do not have positive perception and those who do not know about CSR have better perception. However, it might be possible to look at this from another angle. It might be possible to conclude that people who are not familiar with CSR concepts and restaurant involvement in such activities, react stronger and generate an emotionally positive perception toward that restaurant when they first learn about them. However, this positive perception might be reduced over time due to some external factors. One of which could be the negative notions that are associated with CSR initiative such as being a tool for publicity and marketing.

In summary, based on the finding it was proven that there is a significant negative relationship between the CSR awareness and diners' perception which is not consistent with the hypothesis which stated that this relationship is positive. In other words, diners who just learn about restaurant CSR activities are more likely to generate more positive perception toward that restaurant than who have known this for long time.

**Q2. What is the moderating effect of the economic development towards the relationship between diners' perceptions of socially responsible restaurants and their buying behavior?**

**H.2: The country's level of development moderates the diners' perception of socially responsible restaurants.**

The second question was raised to explore the influence of economic development of diners' country of residence on their perception. It was predicted that people in developed countries will have a better perception of socially responsible restaurants than those in emerging markets of developing countries. This was formed based on the prior research which suggested that companies in developed countries are more involved in such initiatives and customers are more responsive to CSR (Ethisphere Magazine, 2010; The Reputation Institute, 2010; Environics International, 2001). To determine the validity of the predication the second hypothesis was proposed and tested through hierarchy regression and chi square analyses.

However, the value yield from both analyses was insignificant which shows that the economic development of diners' country of residence, in fact does not influence their perception of socially responsible restaurants. However, one can argue that this could be explained by the same phenomenon as question number one. In other words, people from developed countries have been exposed to CSR for longer period than people from emerging markets and developing countries. Therefore, diners' from developing countries might generate a more positive perception toward socially responsible restaurants than those in developed countries.

In summary the findings were consistent with the hypotheses which led to the rejection of the second hypothesis.

**Q.3.What is the relationship between diner’s perception of socially responsible restaurants and their buying behavior.**

The third question was raised to explore the relationship between diner’s perception and their buying behavior. In other word, the researcher desired to explore whether diner’s perception toward a socially responsible restaurants might influence their buying behavior. It was assumed that diners who develop positive perception toward a restaurant are more likely to dine in that restaurant. This is consistent with the findings of prior research in other industries where customers’ perception is positively linked to their buying behavior (Ferreria et al., 2010; Galbreath, 2009; Wigley, 2008; Sen and Bhattacharya, 2001Osterhus, 1997). In addition, it was predicted that diners’ perception mediates between their awareness of restaurant’s CSR activities and their buying behavior. In other words, when diners realize that a restaurant is involved in CSR initiatives they develop a positive perception toward that restaurant and consequently prefer to dine in that restaurant. To test these assumptions two hypotheses were developed and analyzed base on correlation, multiple regression, hieratical regression and MedGraph.

**H3: Diners with positive perception toward socially responsible restaurants are more likely to dine in those restaurants.**

In order to test the first assumption the third hypothesis was developed. This hypothesis then was tested against correlation analysis and regression analysis and not surprisingly strong and significant values for both analyses were yield. The findings presented that there is a significant positive relationship (0.635) between diners’ perception and their buying behavior and their perception can predict approximately 40 percent of their buying behavior which is considerably a high number in this case.

Based on these findings the third hypothesis was accepted which is also consistent with the finding of prior studies in which it was argued that perception positively influences the buying behavior (Ferreria et al., 2010; Galbreath, 2009; Wigley, 2008; Sen and Bhattacharya, 2001; Osterhus, 1997).

**H.4: Diner's perception of socially responsible restaurants mediates the relationship between their awareness of restaurant CSR initiatives and their buying behavior.**

The second hypothesis that was developed for the third research question intended to explore the mediating affect of perception on the relationship between CSR awareness and buying behavior. Then, the hypothesis was tested using correlation and hierarchal regression analysis and MedGraph was drawn to visually observe the mediation.

The values of both correlation and regression analysis were significant and the graph showed that there is a partial mediation effect. Based on these findings around 57 percent of the effect of diners' awareness of CSR initiatives on their buying behavior goes through their perception. Therefore, the fourth hypothesis was accepted.

**Q.4. What is the moderating effect of the type of restaurants towards the relationship of Diners' buying behavior and socially responsible restaurants.**

**H.5: The type of restaurant moderates the relationship between brand perception and buying behavior.**

The forth and the last question that was raised in this study intended to explore the moderating effect of the type of restaurant on the dinning buying behavior. It was assumed that diners are more likely to base their decision at least partially on the awareness of restaurants CSR initiatives when they are dealing with more expensive restaurants. In other words, if they want to

choose between two fast food restaurants they will not based their decision on the restaurant social responsibility; however, the prediction was that this will not be the case for the casual dining and fine dining experiences.

In order to check the validity of this assumption the fifth hypothesis was developed and tested against correlation, hierarchal regression and ModGraph.

Although the result of correlation presented that there is a positive relationship between all three variables the data in coefficient table shows that the p-value is 0.789 which is bigger that 0.05 and therefore not significant. In addition, the transformation of the data to ModGraph showed that the lines are parallel which means that there is no statistically significant interaction. Based on these findings, the fifth hypothesis was rejected which means that type of restaurants does not moderate the relationship between diner's perception and their buying behavior. In other words, diners are not more likely to base their decision on restaurants CSR activities when they are dealing with upper scale restaurants.

## **5.6. Summary**

After presenting the demographic in description section in this chapter, the preliminary tests such as normality, factor analysis and reliability tests were conducted on the data to check whether the data met the prerequisite assumptions for main analyses. Afterwards, the hypotheses were analyzed through Pearson's correlation and multiple regressions and based on the results they have been either rejected or accepted. This presented in the following table.

H.1: Restaurants involvement in CSR activities positively influences Diners' perception.	Rejected
H.2: The country's level of development moderates the diners' perception of socially responsible restaurants.	Rejected
H3: Diners with positive perception toward socially responsible restaurants are more likely to dine in those restaurants.	Accepted
H4: Diner's perception of socially responsible restaurants mediates the relationship between their awareness of restaurant CSR initiatives and their buying behavior.	Accepted
H5: The type of restaurant moderates the relationship between brand perception and buying behavior.	Rejected

