

# Critical Factors in Electronic Marketing in Saudi Arabia

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**Abstract:** As Saudi Arabia is a country with a large consumer market, the transition of this market base gradually to e-Commerce is a potential opportunity for entrepreneurs and businesspersons to capture. However, the unavailability of comprehensive research investigating the environment makes it an area of perceived risk, causing many businesspersons to prefer investing in the traditional markets, such as property or manufacturing. This paper will adapt a comprehensive model to analyze the most relevant factors that are under the control of the businessperson and entrepreneur to have a better competitive edge to capture the growth potential of e-Commerce in Saudi Arabia.

**Keywords:** large consumer market, e-Commerce, businesspersons, Electronic Marketing.

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## 1. INTRODUCTION

Electronic Marketing, also referred to as e-Commerce, had emerged in the early 1990s as a byproduct of the internet revolution. As the internet connected more and more users, e-Commerce quickly developed as a trading medium between businesses and consumers. This platform had grown to serve more than one and a quarter billion users involved in trading transactions (Statista, 2015), and is continuously growing to include more.

Similar to all technological breakthroughs, many factors affect the adoption and dissemination of this new service to the public. Factors such as the ease of use, the infrastructure availability, and the security of trading transactions are examples of antecedents that affect the consumer decision of adopting internet shopping. Many scholars have established models that relate different factors to predict the consumer decision of online purchase, and some of them will be overviewed in this paper.

It is important to notice that the adoption of e-Commerce had not grown at a similar rate in every country. Many factors play a role in this dissimilarity. For example, developed countries had established very effective and well-integrated supply chains to serve the growing numbers of e-shoppers. Perhaps having advanced infrastructure and high level of education also play roles in adopting new technologies. Less developed countries on the other hand, could have issues related to the trust level in such services, or the unavailability of stable online connectivity that slow down the adopting of such feature. These differences, if analyzed well, could reveal opportunities to be captured.

In Saudi Arabia, many e-Commerce businesses are becoming leaders in retail services, such as Souq.com, founded in 2005, or Namshi.com, founded in 2011. Saudi Arabia is a country with a significant consumers buying power, with a GDP per Capita of around 25,961.81 USD (2013 World Bank), and an e-Commerce spending estimated to reach 10,864 Million USD in 2020 from 5,894 Million USD in 2015.

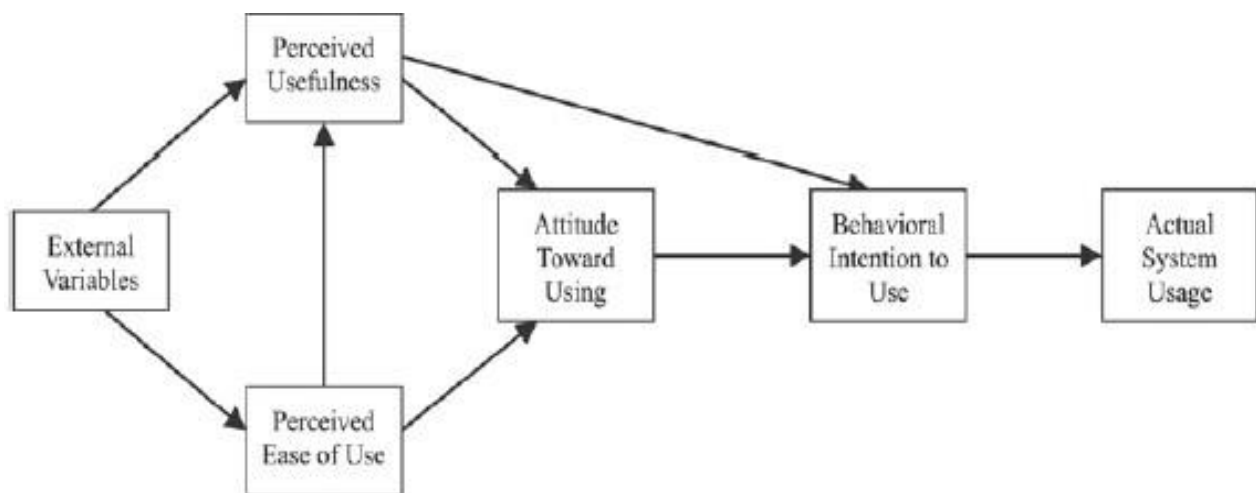
Until today however, the e-Commerce had not reached its potential in Saudi Arabia. The perception of prospect customers, the communication and courier services infrastructure growth, and the market size are all topics that had not been thoroughly investigated through an integrated approach to explore the e-Commerce marketing opportunities in this promising market.

In this paper, we aim to adopt a model to study the factors that are mostly under the control of the service provider, and investigate their contribution to a behavioral intention of internet shopping, for the Saudi consumer. The analysis will also lead to data based recommendations to businessmen and entrepreneurs to take advantage of.

## 2. THEORETICAL BACKGROUND

Many theories and models had been developed to predict the acceptance of a new technology. One of the oldest theories is the Cognitive Dissonance Theory (CDT), which was formulated in 1957 by Festinger. The CDT models the technology acceptance as a sequence of steps starting with the belief, or pre-usage expectation, and going through the experience of its use overtime to form a post-usage perception about the technology which will then determine the adoption.

A simpler theory was later formulated by Fishbein and Ajzen in 1975 which bases the technology acceptance on the associated outcome or benefit of the technology, called the Theory of Reasoned Action (TRA). The TRA later contributed into establishing a more complex Technology Acceptance Model formulated by Davis in 1989. The Technology Acceptance Model considers the psychological factors that affect technology acceptance, and looks at the Behavioral Intention to Use (BI) as a function of Perceived Usefulness (PU) and Perceived Ease of Use (PEoU).



Source: Davis *et al.* (1989, p. 985)

## 3. LITERATURE REVIEW AND RESEARCH HYPOTHESIS DEVELOPMENT

In 2011, Dr. Almousa profiled the Saudi e-buyers on demographics, experience, and attitude. Her analysis depicts that the trend of internet shopping is increasing, especially in the age group 18-25 years old. As this population had grown, it now represents the young working professionals, who have incomes and modern day necessities and interests. Her study also showed that the level of education is related to the person's adoption of online shopping, and that having a prior experience with online shopping increases the possibility of future use.

Dr. Mustafa Eid had developed a model relating four independent variables; User Interface Quality, Information Quality, Perceived Security, and Perceived Privacy, to Consumer Loyalty, Trust, and Satisfaction in e-Commerce. The statistical research showed that the most supported correlations are between User Interface and Information Quality with e-Commerce Satisfaction. Also, it showed that e-Commerce Satisfaction affects e-Commerce Loyalty, which translates to the e-Commerce Adoption.

Dr. Faqih (2016) established a model that relates 11 factors to predict the decision of online purchase. Some of these factors are derived from the TAM, which are Perceived Ease of Use, Perceived Usefulness. He also adds Perceived Compatibility, Social Influence, Trust, Perceived Risk, Privacy, Security, Internet Shopping Anxiety, Internet Self-Efficacy, and Price. Faqih conducted an empirical study to conclude that 8 of the 11 factors have an influence on the behavioral intention to adopt internet shopping technology. These are Perceived Ease of Use, Perceived Usefulness, Perceived Compatibility, Social Influence, Trust, Internet Shopping Anxiety, Internet Self-Efficacy, and Price.

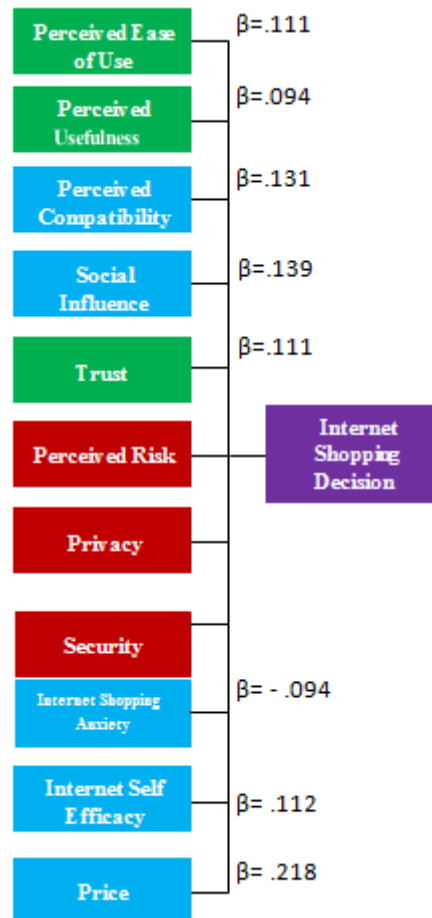
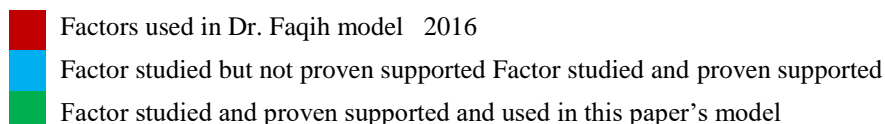


FIGURE 1



The eight (8) factors studied by Faqih are not equally under the control of the seller. For example, the internet shopping website service provider have little influence on the internet shopping anxiety, or the internet self-efficacy as they are mostly influenced by the available infrastructure and support services. However, other studied factors are areas where the seller has more influence and are the interest of study in this paper.

Perceived Ease Of Use (PEoU) is defined in the Technology Acceptance Model as the degree to which a person believes that using a particular system would be free of effort, while Perceived Usefulness (PU) is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. Perceived Ease of Use can be controlled by different means under the sellers control, such as enhancing user-friendliness, or having a mobile application. Similarly, Perceived Usefulness can be raised by offering more reviews and comparisons which are not available in traditional shopping. In addition, some other factors can also be influenced by the seller, even though they are not fully under his control. For example, Trust (TR) level can be heightened by providing more security certifications and offering more professional communication and customer support.

The study will formulate hypotheses to investigate how different priorities can be considered by the e-Commerce seller to influence the 3 supported factors, studied by Faqih.

### 3.1 Perceived Ease of Use

Many factors can be considered to have an effect on the perceived ease of use of a new technology. In 2015 Cho had studied different factors that affect the perceived ease of use in the online environment. He considered convenience,

quality, and the individuality of the internet shopping experience as factors that affect perceived ease of use.

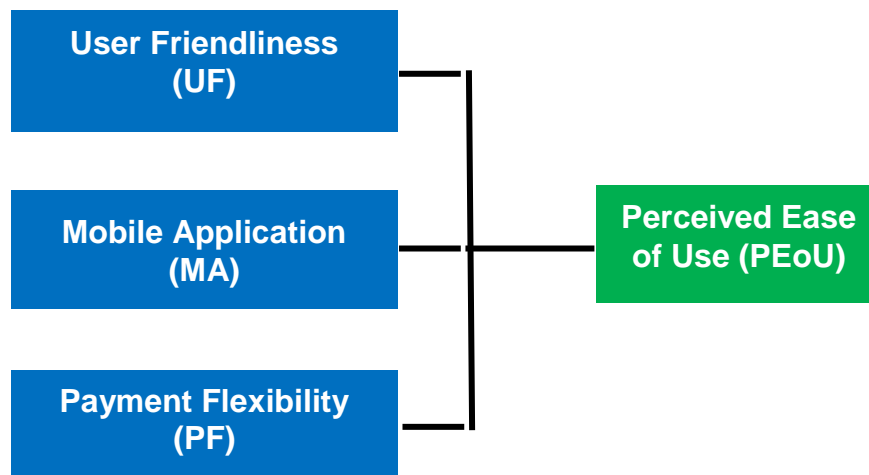
As this study is targeting the Saudi consumer, whom level of sophistication in the use of computers varies drastically, we will study the effect of User Friendliness (UF) of the e-commerce website in attracting the perception of ease of use. Further, as the number of smart phone users is growing in Saudi Arabia and expected to reach 23 million in 2017 (Statista 2016), the flexibility of accessing the online store from a smart phone Mobile Application (MA) is an area to study.

H1: User friendliness of a website positively affect Perceived Ease of Use of Internet Shopping in Saudi Arabia

H2: Having a mobile application positively affect perceived Ease of Use of Internet Shopping in Saudi Arabia

Moreover, many Saudi consumers do not utilize credit cards and have to go through some arrangements in order to acquire a card that can be utilized for internet payments. Therefore, having the Flexibility in Payment method (PF), such as accepting cash on delivery, or having a SADAD (the Saudi monetary system for paying bills through bank accounts) is an area of concern.

H3: Flexibility in the payment method positively affect perceived Ease of Use of Internet Shopping in Saudi Arabia



**FIGURE 2**

Potential Factors Affecting Perceived Ease of Use

### 3.2 Perceived Usefulness

Cho (2015) had also considered several factors that could affect Perceived Usefulness. One of those is product information, which relates to the amount of information on the product provided during the shopping activity. Further, he considered the Price Perception to be of effect on Perceived Usefulness. Finally, he also included Convenience and Product & Service Quality as factors affecting Perceived Usefulness in his model. His model had supported correlations, and an R2 of .632. In this study, we will consider similar factors that Cho considered, but we will provide more relevant terminologies and expectations related to the Saudi consumer for the priority behind the factors considered by Cho.

Convenience with internet shopping in Saudi Arabia is mostly related to the delivery method. So, it is of our interest in this study to investigate whether investing in a good product delivery infrastructure, or tapping into the best courier services is a critical consideration for e-Sellers. Further, when shopping online, Product Information can offer reviews, and comparisons which could further attract the customers. Finally, Price Perception will be reflected as Expected Discounts, in order to assess the importance of setting lower prices than the traditional shops.

H4: Having an effective delivery method positively affect Perceived Usefulness of Internet Shopping in Saudi Arabia

H5: Expecting discounts positively affect Perceived Usefulness of Internet Shopping in Saudi Arabia

H6: More comprehensive review and compare capabilities positively affect Perceived Usefulness of Internet Shopping in Saudi Arabia

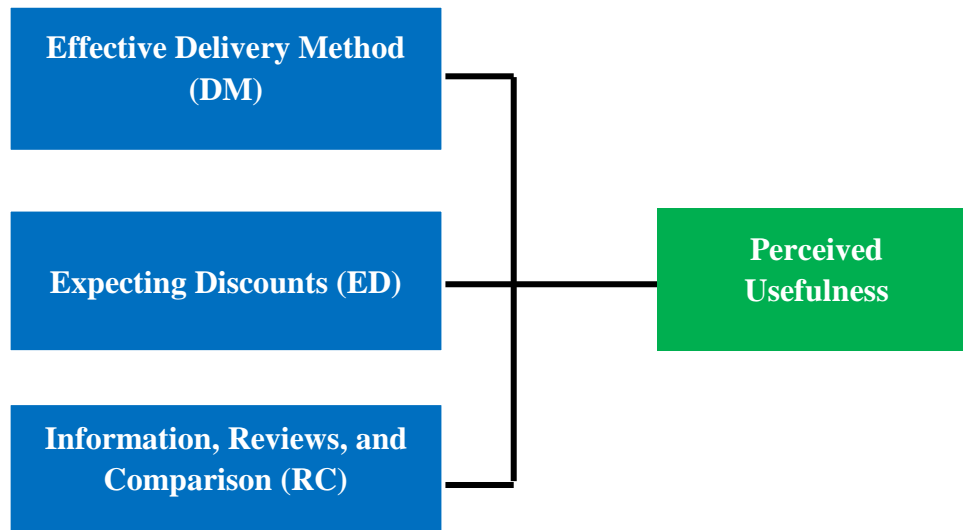


FIGURE 3

Potential Factors Affecting Perceived Usefulness

### 3.3 Trust

Trust in internet shopping can be enhanced by different methods. Having official, Certified Seals (CR) and Secure Sockets Layer (SSL) are important for internet sellers to consider. Further, the internet shoppers, and especially in Saudi Arabia tend to have less distrust in website, had they known that good customer support is available if anything went wrong during the purchase.

H7: Having Secure Sockets Layer (SSL) and security Certified Seals (CR) positively influence the Trust level in Internet Shopping in Saudi Arabia

H8: Having excellent customer support positively influence the Trust level in Internet Shopping in Saudi Arabia

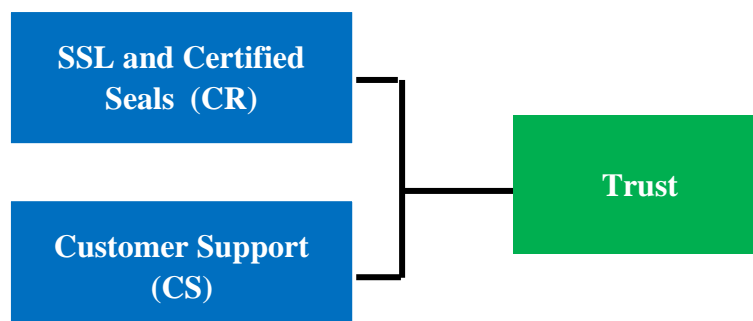


FIGURE 4

Potential Factors Affecting Trust

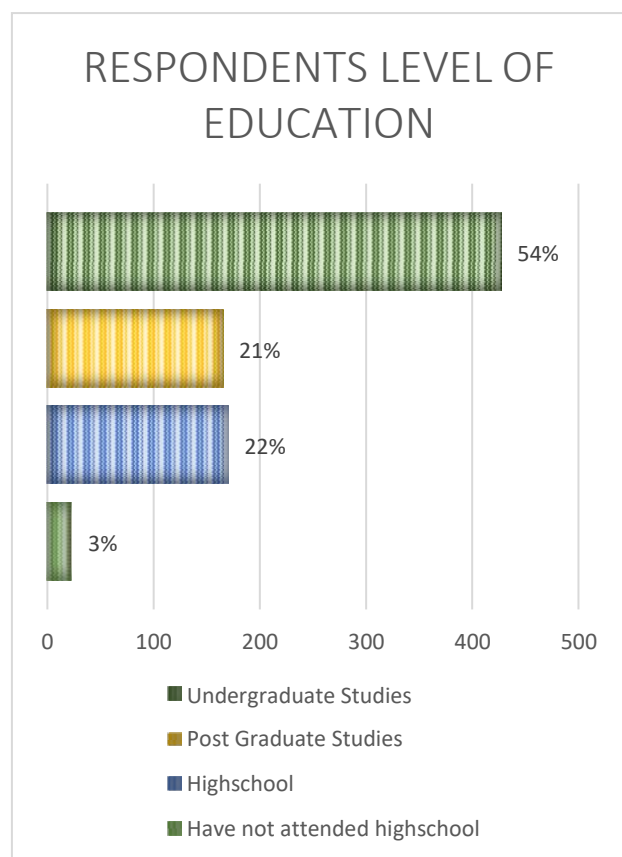
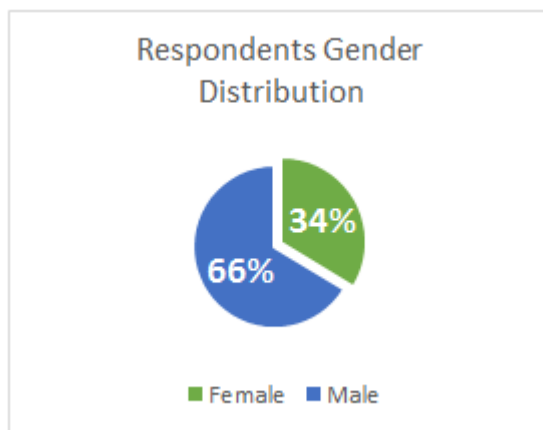
#### 4. RESEARCH METHODOLOGY

The conducted research study aims to investigate the influence of some variables that are mostly under the control of the internet seller on factors that were proven in previous literature to have a positive supported correlation with the behavioral intention to adopt internet shopping. Further, the study aims to investigate any differences in these variables importance for different demographical groups, based on Gender and Level of Education in Saudi Arabia.

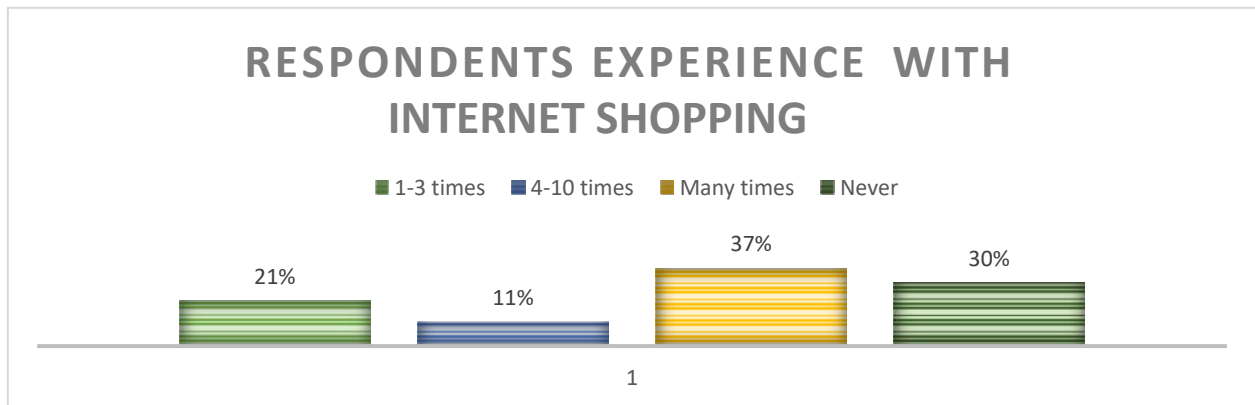
To achieve the above objectives, a quantitative approach was taken in the study. The needed data were collected by a questionnaire published online in December 2016 utilizing a structure of questions that had taken Davis 1989 constructs on PEOU and PU, and Trust into consideration. The questions were amended with the factors under the consideration of this study, and will record the responses of the consumers in Saudi Arabia on a 5-points Likert scale from Strongly Disagree to Strongly Agree. Further, the demographics of the respondents, and a few key factors were also asked in order to do further analysis on issues such as gender, and education level.

##### Respondents Demographics

A total of 785 responses were collected with a 66% to 34% Male to Female ratio. 54% of the respondents had a bachelor's degree, and 21% of them were with higher degrees. Making a total of college educated representation of 75% in the sample. 92% of the respondents were between 18 and 60 years old, with 72% between 26 and 40.



As for the respondents experience in online purchasing in Saudi Arabia, 30% of the respondents had never purchases online, and 37% had done it more than ten times. It is interesting to see that 70% of the survey respondents had purchased online once or more, revealing the movement towards that platform.



## 5. ANALYSIS AND RESULTS

The analysis and results for this research study had been conducted by several statistical tests, and the narrative general feedback of respondents regarding their thoughts on internet shopping in Saudi Arabia was also taken into consideration in the results and discussion to inform the reader of the target market perceptions.

### I. T-TEST ON EQUALLY SPLIT GROUPS OF THE RESPONDENTS SAMPLE TO TEST RESULTS RELIABILITY OF RESULTS BEING GENERALIZED ON THE TOTAL POPULATION:

To test the reliability of our sample survey results and our capability of drawing conclusion in regards to the total population, the 785 respondents were split into two groups of 392, disregarding the response of one respondent to bring them to equality. T-Test was conducted between the group's rounded average of the responses to the 3 items concerning each hypotheses, and rated on a 5-point Likert Scale from Strongly Disagree to Strongly Agree.

The result of the t-test can be beneficial to conclude whether our sample can be generalized to the total population, had there been no significant difference between the two equally split, and random groups (i.e. H0 Null Hypothesis), or cannot be generalized as our two groups themselves are significantly different, not capturing the wide spectrum of the population.

<b>H0</b>	There's no significant difference between the two groups in the sample; they are representative of general population
<b>H1</b>	There's is significant difference between the two groups in the sample; they are not representative of general population

Correlation Tested	t-Test (P Value) Between Group 1 and 2	Critical Value on P = .05	H0 Null Hypothesis	Remark
UF --> PEoU	0.02	< .05	Supported	Can be generalized
MA --> PEoU	0.45	> .05	Rejected	Require different sample
PF --> PEoU	0.76	> .05	Rejected	Require different sample
DM --> PU	0.05	=	Supported	Can be generalized
ED --> PU	0.04	< .05	Supported	Can be generalized
RC --> PU	0.14	> .05	Rejected	Require different sample
CR --> TR	0.00	< .05	Supported	Can be generalized
CS --> TR	0.00	< .05	Supported	Can be generalized

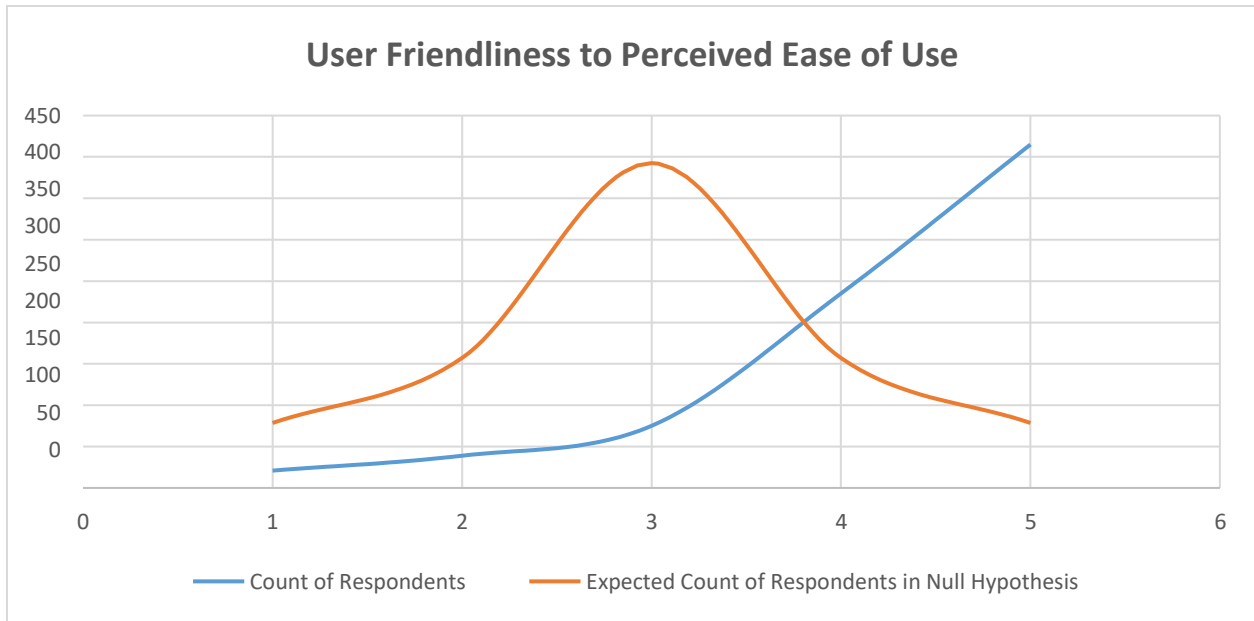
These results tell us that we can generalize our findings on the supported correlation, and be more cautious in generalizing the correlations that were not similar in the two samples to the whole population of shoppers in Saudi Arabia.

**II. CHI SQUARE TEST ON THE HYPOTHESIS AGAINST THE NULL HYPOTHESIS OF DIFFERENT CORRELATIONS HAVING NO SIGNIFICANCE:**

**A. User Friendliness to Perceived Ease of Use (UF  $\square$  PEOU):**

H1: User-friendliness of a website positively affect Perceived Ease of Use of Internet Shopping in Saudi Arabia

H0 – Null Hypothesis: User-friendliness of a website affect Perceived Ease of Use of Internet Shopping in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)



Chi Square Probability = .00001 (i.e. <.05)

From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards website and interface user- friendliness, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H1) is supported.

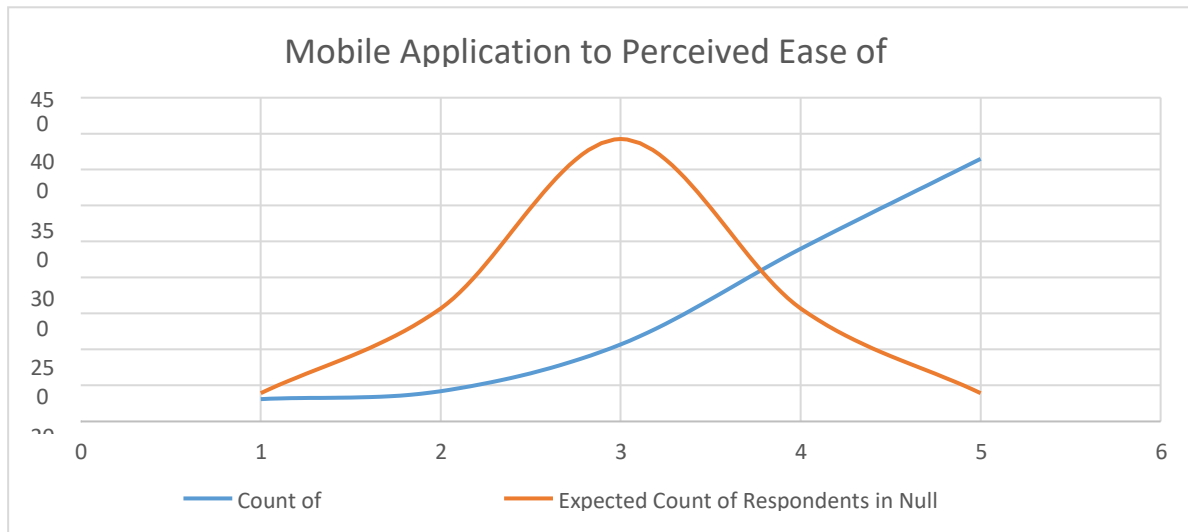
Actual responses	
Strongly Disagree and Disagree	7.64%
Neutral	9.55%
Strongly Agree and Agree	82.80%

**B. Mobile Application to Perceived Ease of Use (MA  $\square$  PEOU):**

H2: Having a mobile application positively affect perceived Ease of Use of Internet Shopping in Saudi Arabia

H0 – Null Hypothesis: Having a mobile application affect Perceived Ease of Use of Internet Shopping in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)





Chi Square Probability = .00001 (i.e. <.05)

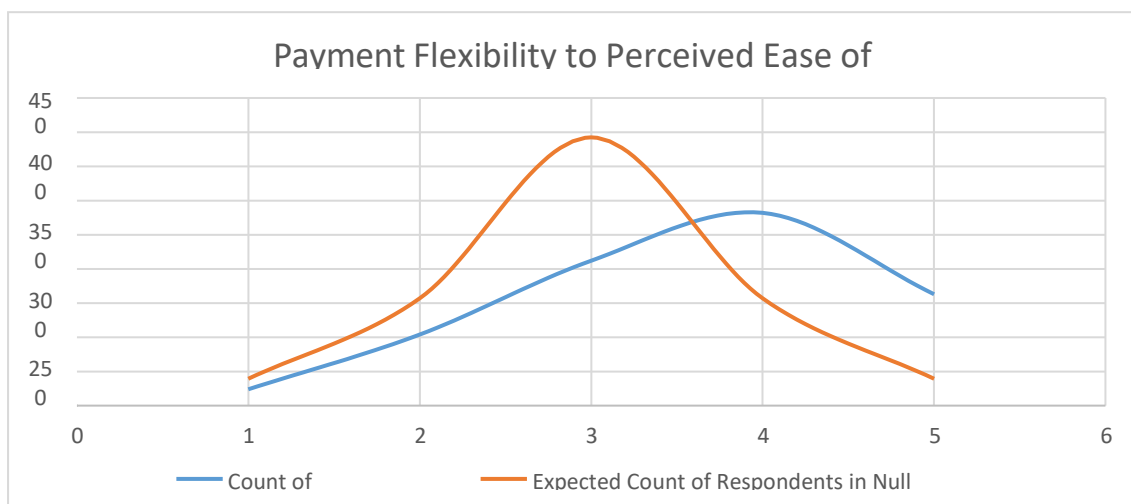
From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards website and interface user- friendliness, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H2) is supported.

Actual responses	
Strongly Disagree and Disagree	9.30%
Neutral	13.63%
Strongly Agree and Agree	77.07%

C. Payment Flexibility to Perceived Ease of Use (PF □ PEOU):

H3: Lack of flexibility in the payment method negatively affect perceived Ease of Use of Internet Shopping in Saudi Arabia

H0 – Null Hypothesis: Lack of Payment Flexibility affect Perceived Ease of Use of Internet Shopping in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)



Chi Square Probability = .00001 (i.e. <.05)

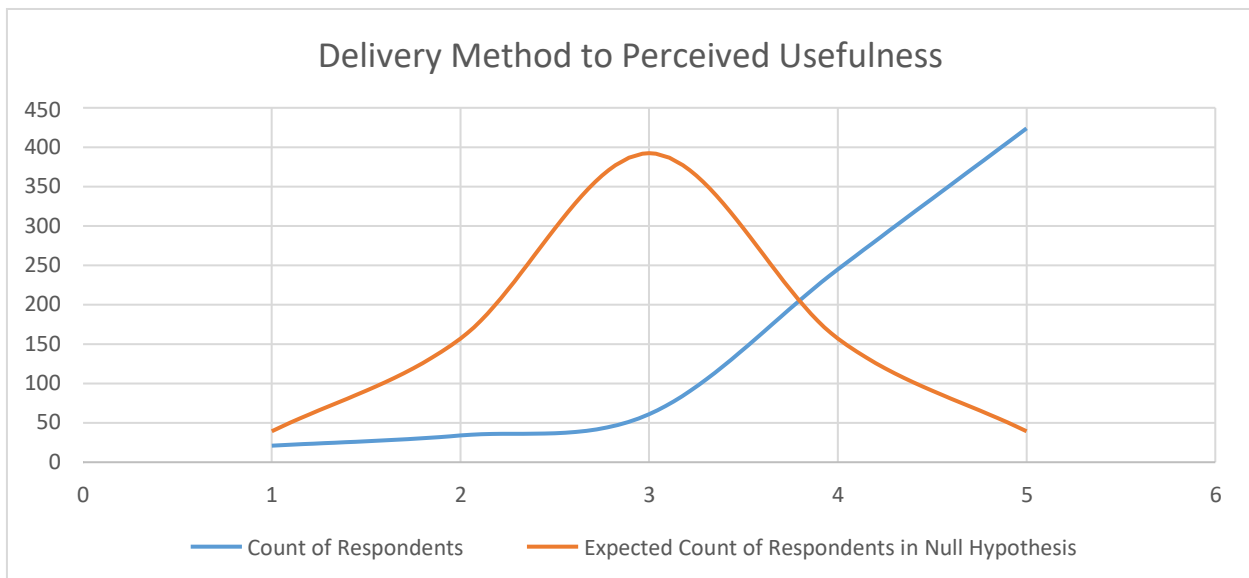
From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards payment flexibility, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H3) is supported. However, we realize that 43% are either Neutral, Disagree, or Strongly Disagree with the positive correlation of payment flexibility with the perceived ease of use.

Actual responses	
Strongly Disagree and Disagree	16.31%
Neutral	27.01%
Strongly Agree and Agree	56.69%

D. Delivery Method to Perceived Usefulness (DM □ PU):

H4: Having an effective delivery method positively affect Perceived Usefulness of Internet Shopping in Saudi Arabia

H0 – Null Hypothesis: Effectiveness of Delivery Method affect Perceived Usefulness of Internet Shopping in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)



Chi Square Probability = .00001 (i.e. <.05)

From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards delivery method effectiveness, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H4) is supported. Further, we see that 85% Agree or Strongly Agree with the delivery method effectiveness importance to the behavioral intention of purchasing online.

Actual responses	
Strongly Disagree and Disagree	7.01%
Neutral	7.77%
Strongly Agree and Agree	85.22%

E. Expected Discounts to Perceived Usefulness (DM □ PU):

H5: Expecting discounts positively affect Perceived Usefulness of Internet Shopping in Saudi Arabia

H0 – Null Hypothesis: Expecting discounts in internet shopping affect its Perceived Usefulness in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)



Chi Square Probability = .00001 (i.e. <.05)

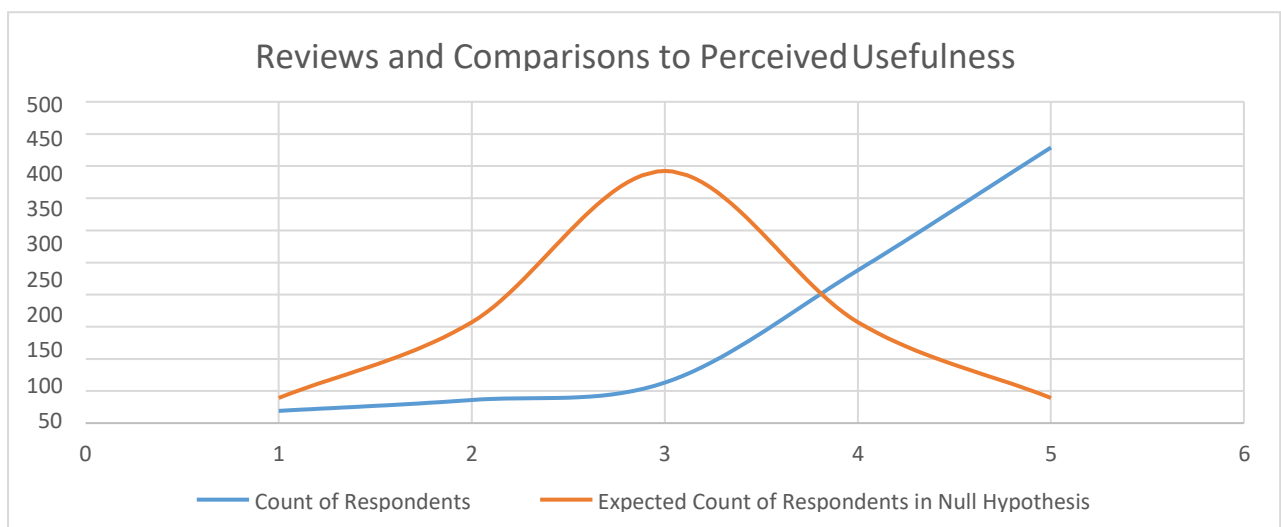
From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards expected discounts, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H5) is supported. Further, we see that 73.5% Agree or Strongly Agree with the expected discounts importance to the behavioral intention of purchasing online.

Actual responses	
Strongly Disagree and Disagree	8.54%
Neutral	17.96%
Strongly Agree and Agree	73.50%

F. Reviews and Comparison Capability to Perceived Usefulness (RC □ PU):

H6: More comprehensive review and compare capabilities positively affect Perceived Usefulness of Internet Shopping in Saudi Arabia

H0 – Null Hypothesis: More comprehensive review and compare capabilities in internet shopping affect its Perceived Usefulness in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)



Chi Square Probability = .00001 (i.e. <.05)

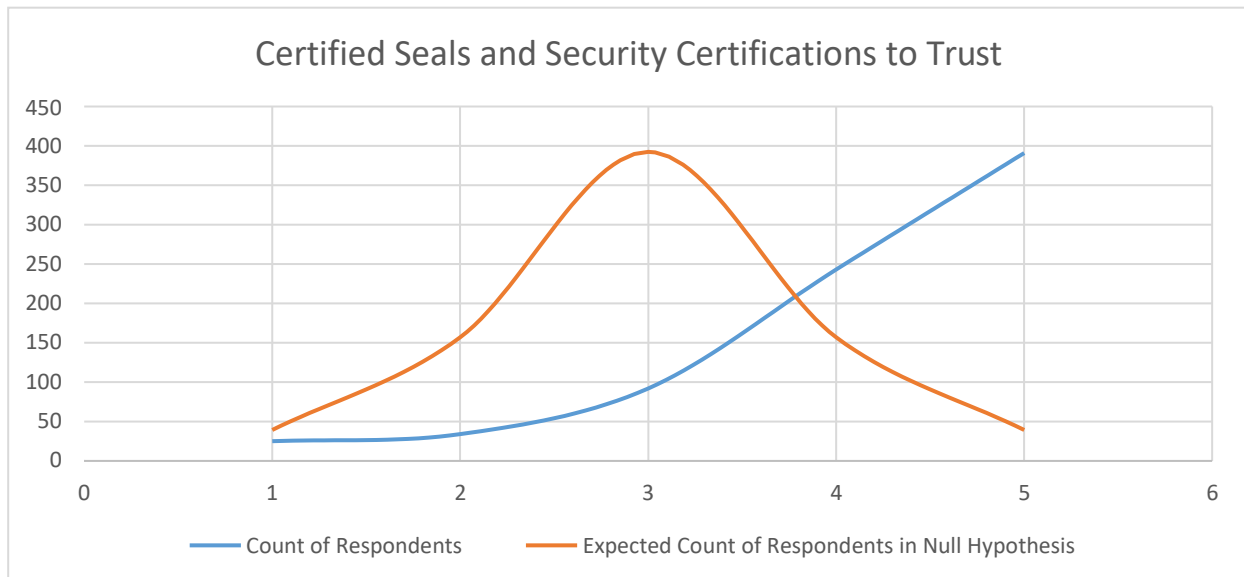
From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards reviews and comparisons and product information, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H6) is supported. Further, we see that 84.97% Agree or Strongly Agree with the expected discounts importance to the behavioral intention of purchasing online.

Actual responses	
Strongly Disagree and Disagree	7.01%
Neutral	8.03%
Strongly Agree and Agree	84.97%

**G. Certified Seals and Security Certifications to Trust (CR □ TR):**

**H7: Having Secure Sockets Layer (SSL) and security Certified Seals (CR) positively influence the Trust level in Internet Shopping in Saudi Arabia**

**H0 – Null Hypothesis: Having Secure Sockets Layer (SSL) and security Certified Seals (CR) affect Trust in internet shopping in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)**



Chi Square Probability = .00001 (i.e. <.05)

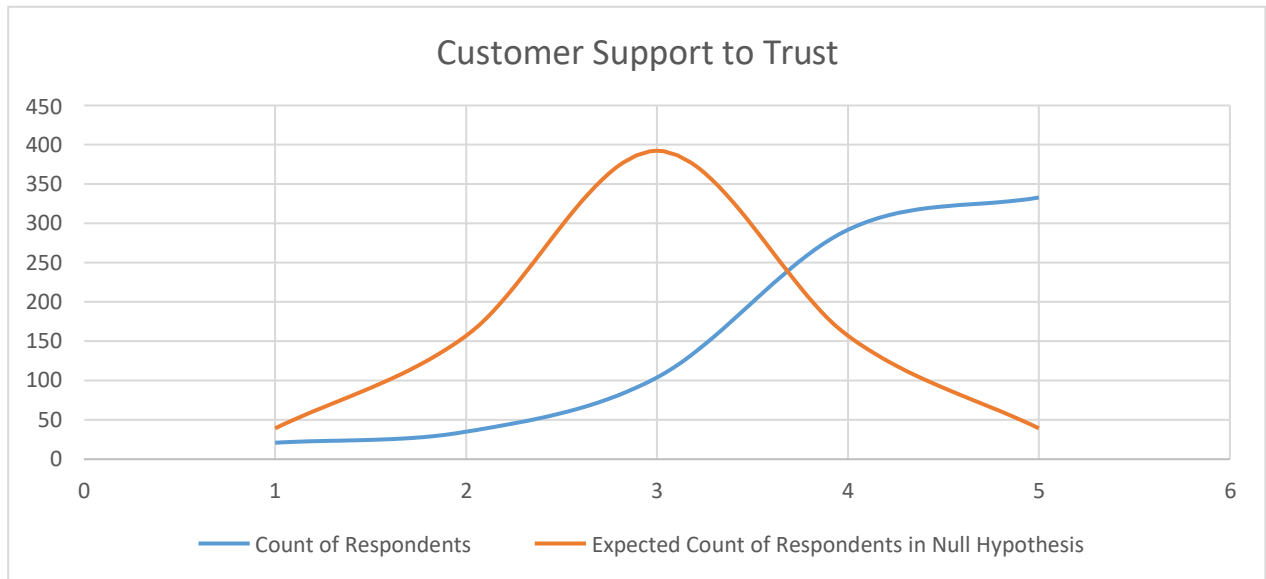
From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards websites having security certifications and certified seals, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H7) is supported. Further, we see that 80.76% Agree or Strongly Agree with the expected discounts importance to the behavioral intention of purchasing online.

Actual responses	
Strongly Disagree and Disagree	7.52%
Neutral	11.72%
Strongly Agree and Agree	80.76%

**H. Customer Support to Trust (CR □ TR):**

**H8: Having excellent customer support positively influence the Trust level in Internet Shopping in Saudi Arabia**

**H0 – Null Hypothesis: Having excellent customer support affect Trust in internet shopping in Saudi Arabia as normal distribution between Strongly Disagree and Strongly Agree (5% Strongly Disagree, 20% Disagree, 50% Neutral, 20% Agree, 5% Strongly Agree)**



Chi Square Probability = .00001 (i.e. <.05)

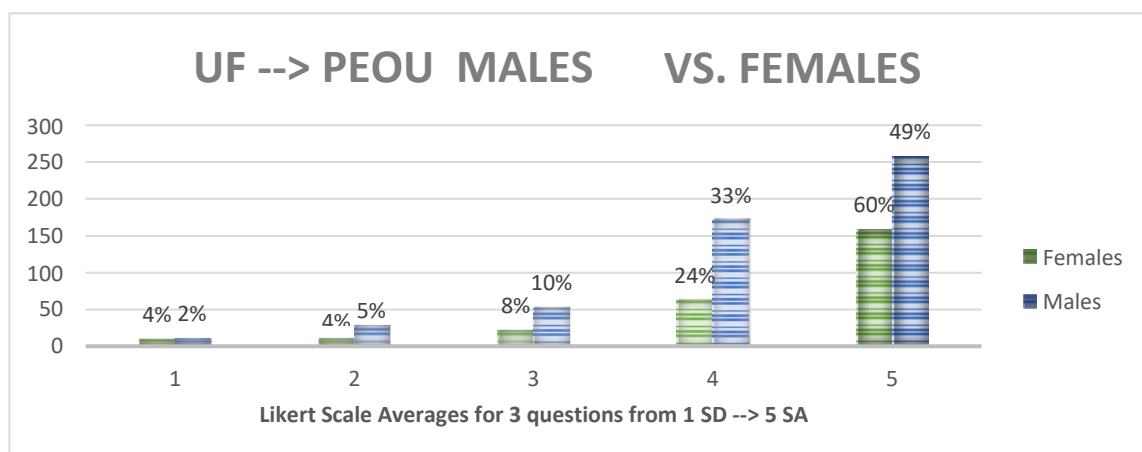
From the above graph and the Chi Square analysis against what we would expect the respondents counts to be had they been indifferent towards excellent customers support, we can conclude that the Null Hypothesis (H0) is rejected and that our Hypothesis (H8) is supported. Further, we see that 79.62% Agree or Strongly Agree with the expected discounts importance to the behavioral intention of purchasing online.

Actual responses	
Strongly Disagree and Disagree	7.13%
Neutral	13.25%
Strongly Agree and Agree	79.62%

### III. CHI SQUARE TEST ON GENDER DIFFERENCES AND EDUCATIONAL LEVEL DIFFERENCES FOR DIFFERENT TESTED CORRELATIONS:

#### A. User Friendliness to Perceived Ease of Use (UF ↔ PEOU):

Male and Female Differences



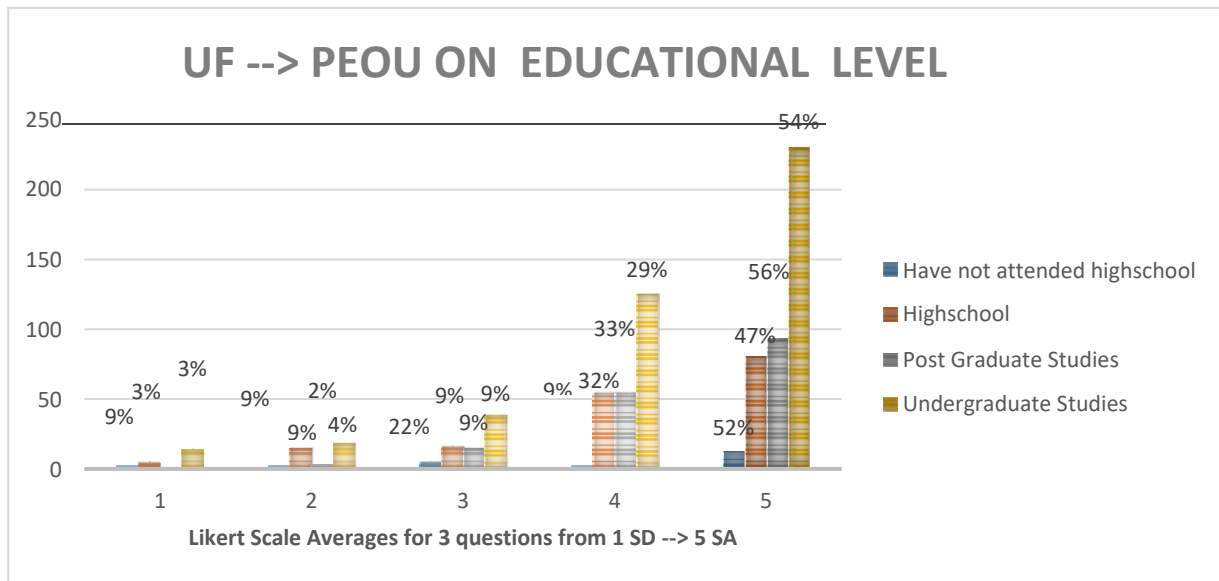
Chi Square Probability = .017 (i.e. <.05)

**Chi Square Proving Statistical Difference is Significant**

From the graph above, and from the Chi Square analysis of the Males and Females responses to questions relating User Friendliness of the internet shopping website to the Perceived Ease of Use, we notice that Females tend to Strongly Agree,

more than Men who tend to only Agree putting a slightly less emphasis on the absolute need of high user friendliness. Variations due to gender differences are supported.

Level of Education Differences



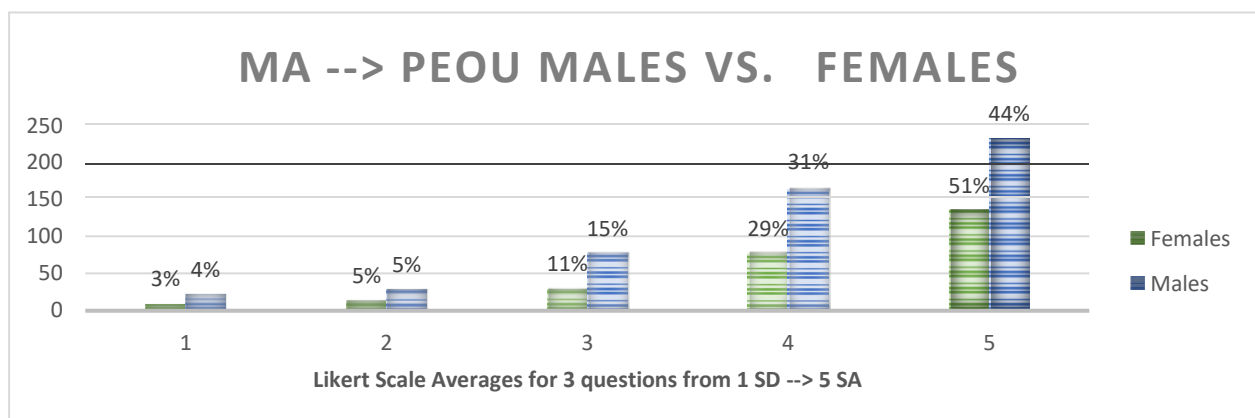
Chi Square Probability = .033 (i.e. <.05)

Chi Square Proving Statistical Difference is Significant

From the above graph, and from the Chi Square analysis of the different educational levels groups responses to questions assessing the relationship between User Friendliness of the internet shopping website to the Perceived Ease of Use, we notice that different educational levels have similar distribution leaning towards agreeing and strongly agreeing, with the exception of those who had not attended highschool, where we see more lenience being indifferent towards website user-friendliness. Variations due to level of education differences are supported.

B. Mobile Application to Perceived Ease of Use (MA □ PEOU):

Male and Female Differences

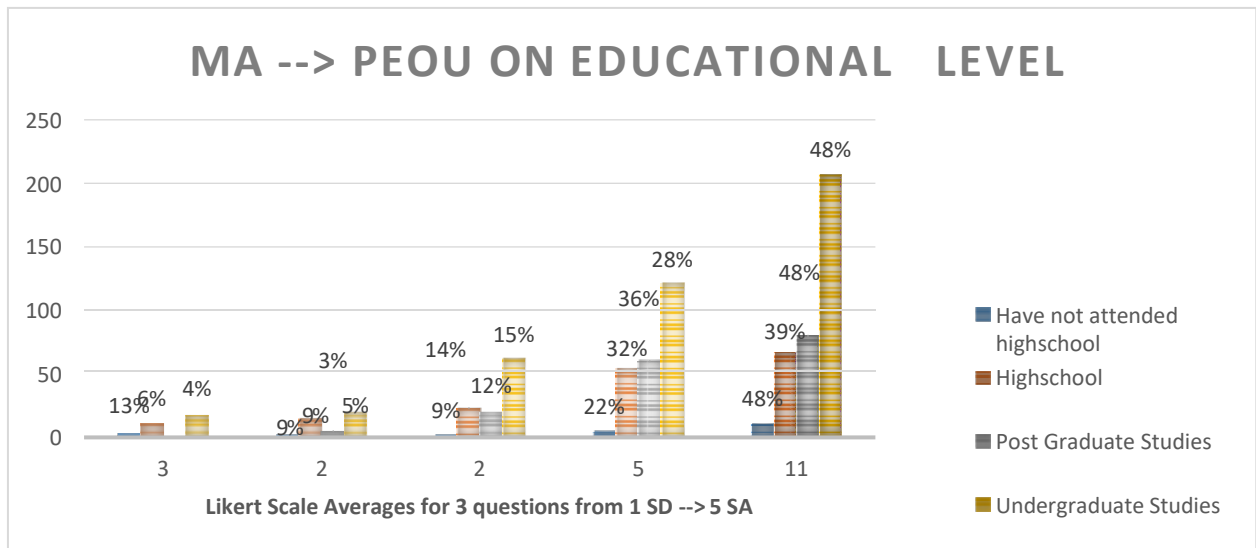


Chi Square Probability = .329 (i.e. >.05)

Chi Square Proving Statistical Difference is Not Significant

The above graph shows that both genders almost equally interested in the websites that have a Mobile Application for internet shopping as they strongly relate it to Perceived Ease of Use. Further, the Chi Square analysis shows that any observed difference between males and females is not significant.

Level of Education Differences



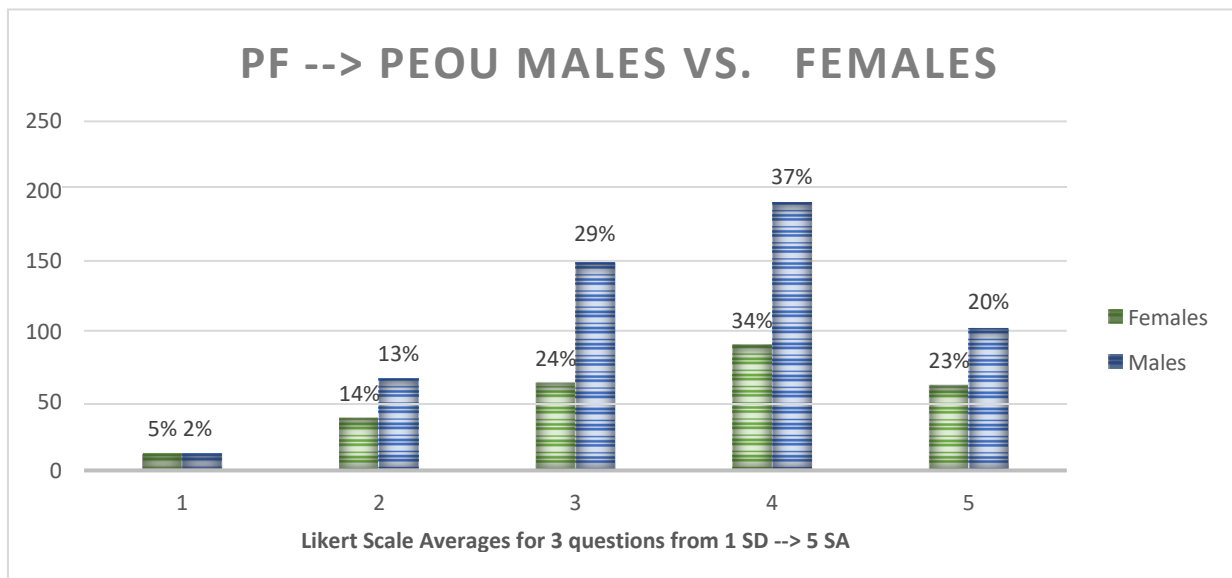
Chi Square Probability = .061 (i.e. >.05)

**Chi Square Proving Statistical Difference is Not Significant**

Even though we see some slight differences between agreeing and disagreeing with mobile application implication of ease of use, the Chi Square analysis conveys that this difference is not significant.

C. Payment Flexibility to Perceived Ease of Use (PF □ PEOU)

Male and Female Differences

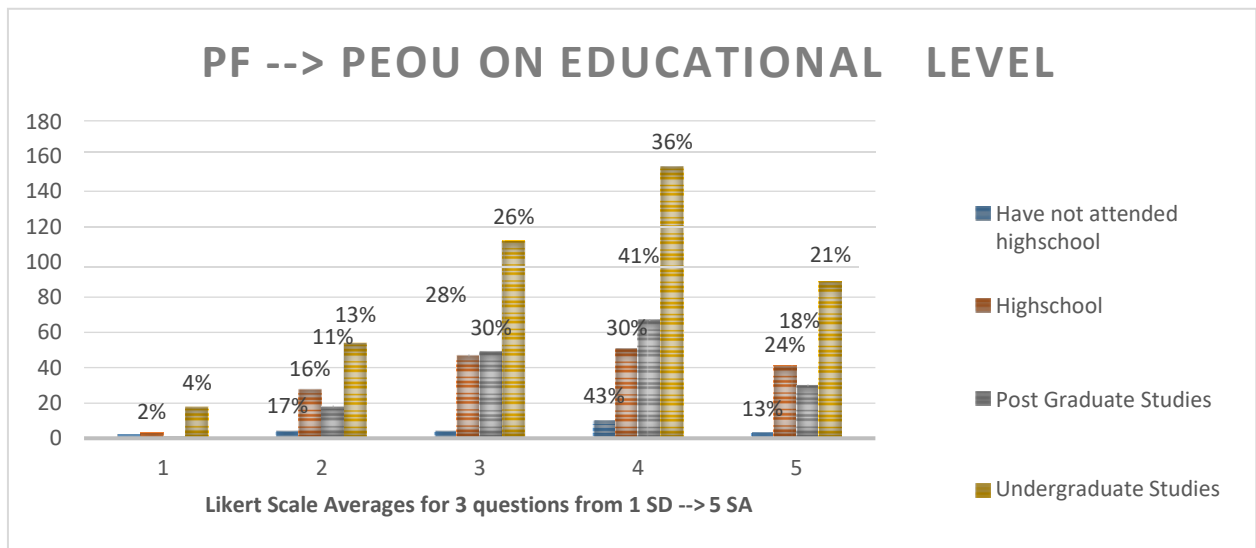


Chi Square Probability = .056 (i.e. >.05)

**Chi Square Proving Statistical Difference is Not Significant**

The above graph shows that both genders almost equally interested in the websites have flexible payment methods. 57% of Males and Females Strongly Agree and Agree with the correlation. It is interesting however that 43% do not consider the flexibility of payment method as important of a capability. This is compared to less than 25% in both User Friendliness and having a Mobile Application.

Level of Education Differences



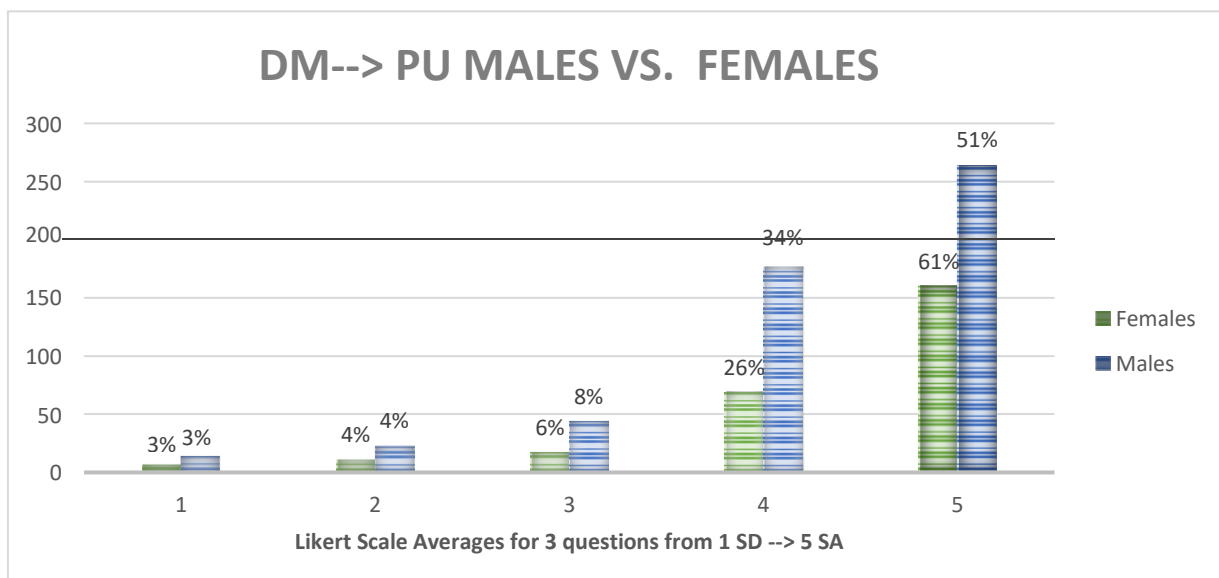
Chi Square Probability = .115 (i.e. >.05)

**Chi Square Proving Statistical Difference is Not Significant**

Even though we see some slight differences between agreeing and disagreeing with mobile application implication of ease of use, the Chi Square analysis conveys that this difference is not significant.

D. Delivery Method to Perceived Usefulness (DM □ PU)

Male and Female Differences



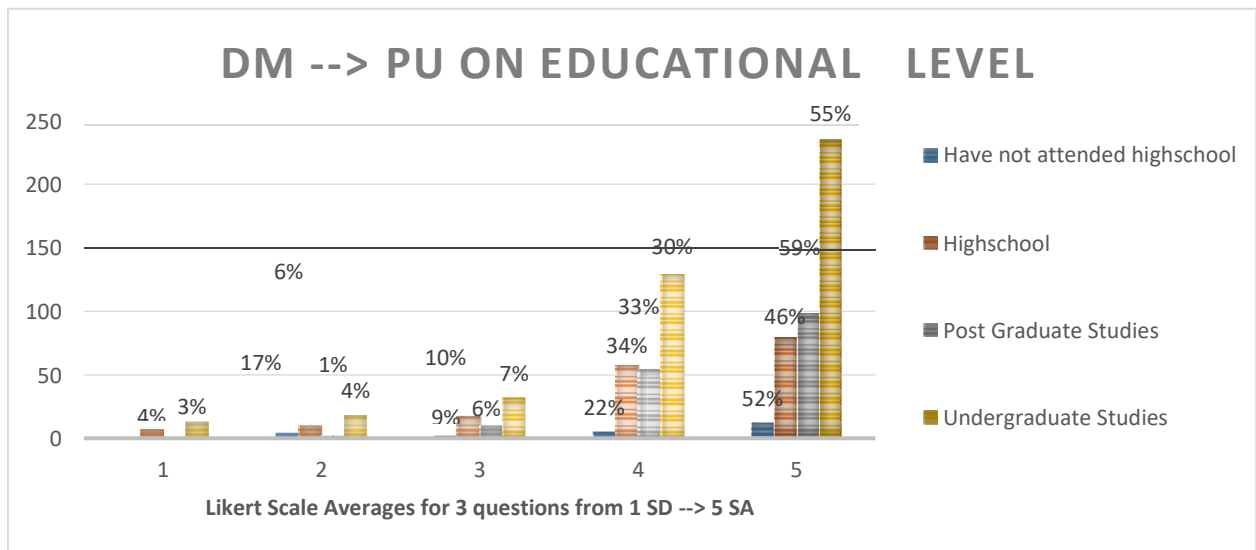
Chi Square Probability = .115 (i.e. >.05)

**Chi Square Proving Statistical Difference is Not Significant**

Even though we would expect females to put more emphasis on the effectiveness of the delivery method, the Chi Square analysis concludes that there's no observed difference between male and females in this aspect, and any variations in percentages observed are not significant.



Level of Education Differences



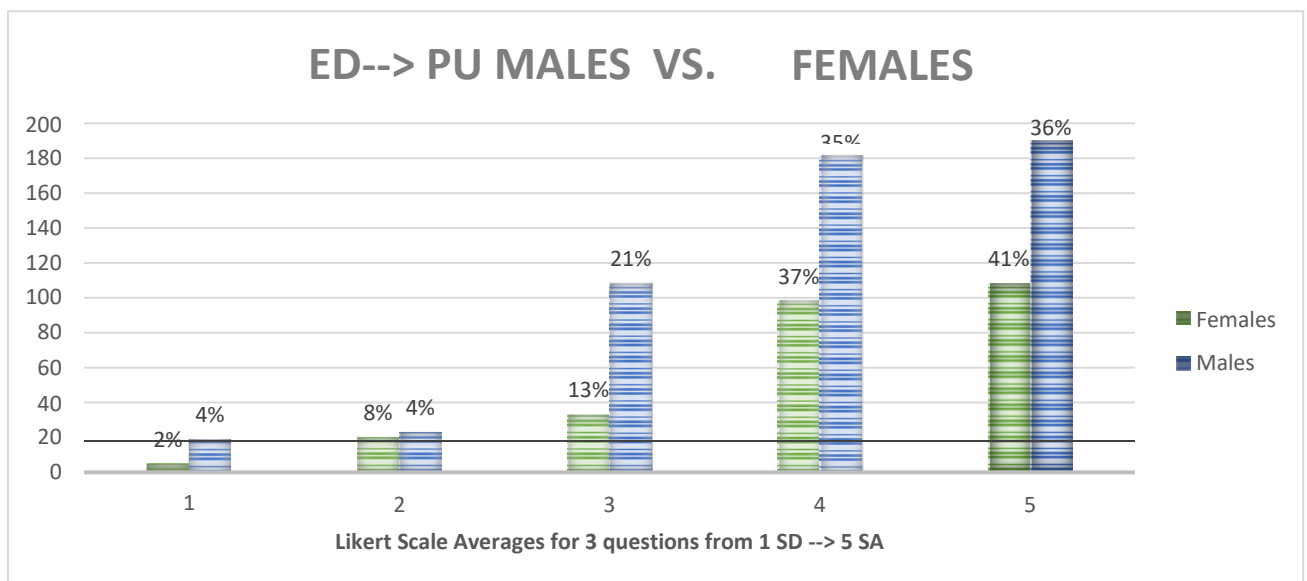
Chi Square Probability = .023 (i.e. <.05)

**Chi Square Proving Statistical Difference is Significant**

From the above graph, and from the Chi Square analysis of the different educational levels groups responses to questions assessing the relationship between the effectiveness of the Delivery Method of the internet shopping website to the Perceived Usefulness, we notice that different educational levels have similar distribution leaning majorly towards agreeing and strongly agreeing, with the slight exception of those who had not attended highschool, where we see 17% disagreeing with its importance. Variations due to level of education differences are supported.

E. Expected Discounts to Perceived Usefulness (DM □ PU):

Male and Female Differences

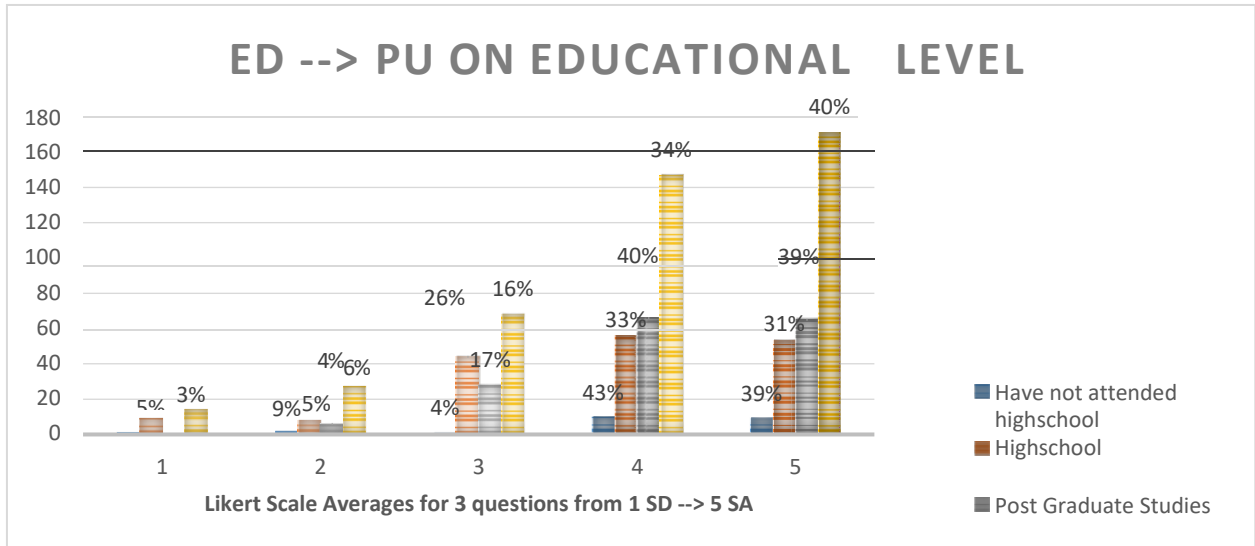


Chi Square Probability = .013 (i.e. <.05)

**Chi Square Proving Statistical Difference is Significant**

From the above chart showing the percentages of each gender answering on whether expected discounts in online shopping affects its perceived usefulness, we see a general agreement between both genders towards agreeing, with a 21% of Males considering it neutral.

Level of Education Differences



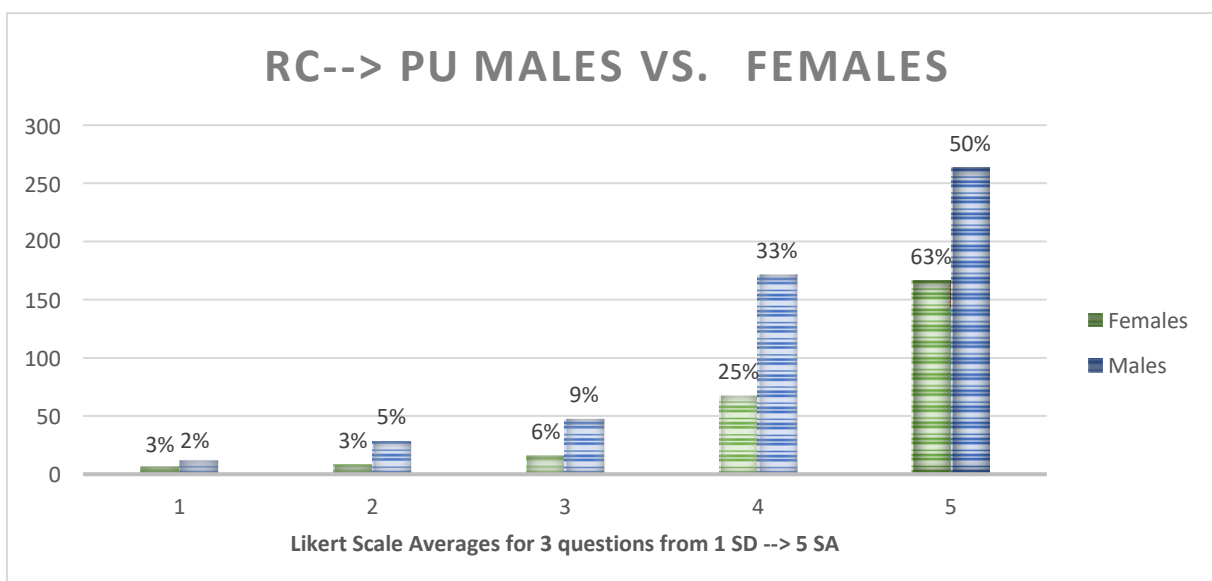
Chi Square Probability = .088 (i.e. >.05)

**Chi Square Proving Statistical Difference is Not Significant**

From the above chart showing the percentages of each educational level group we see no significant differences on the importance of discounts.

F. Reviews and Comparison Capability to Perceived Usefulness (RC □ PU):

Male and Female Differences

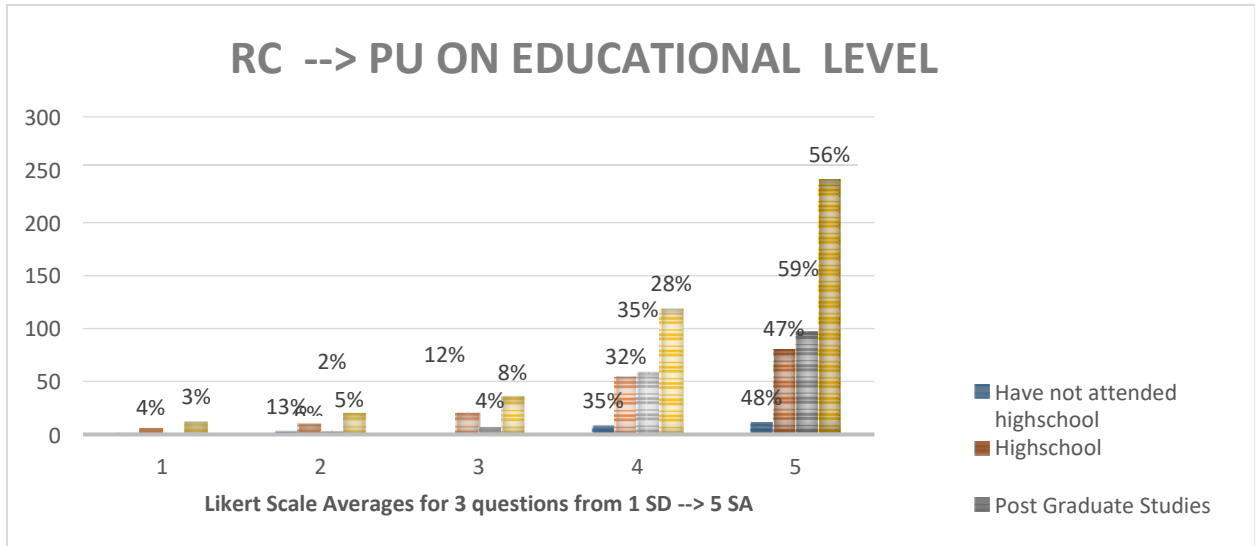


Chi Square Probability = .016 (i.e. <.05)

**Chi Square Proving Statistical Difference is Significant**

From the above chart showing the percentages of each gender answering on whether expected having more product information, and the reviews and comparisons capability in online shopping affects its perceived usefulness, we see a general consensus between both genders towards agreeing and strongly agreeing.

Level of Education Differences



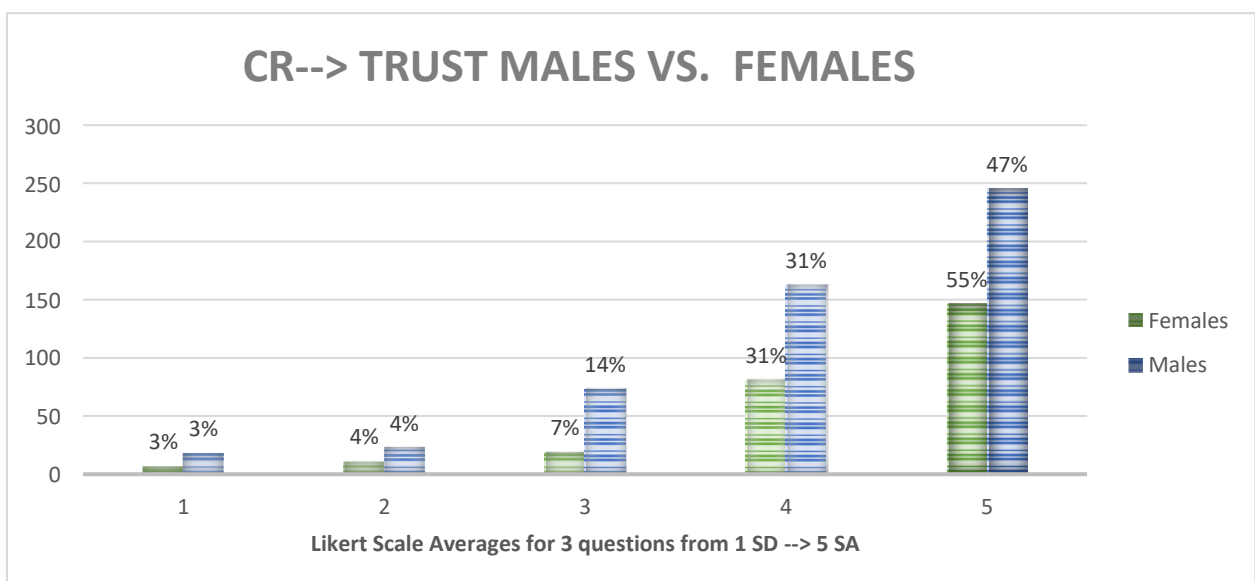
Chi Square Probability = .072 (i.e. >.05)

**Chi Square Proving Statistical Difference is Not Significant**

From the above chart showing the percentages of each educational level group we see no significant differences on the importance of discounts.

G. Certified Seals and Security Certifications to Trust (CR □ TR):

Male and Female Differences

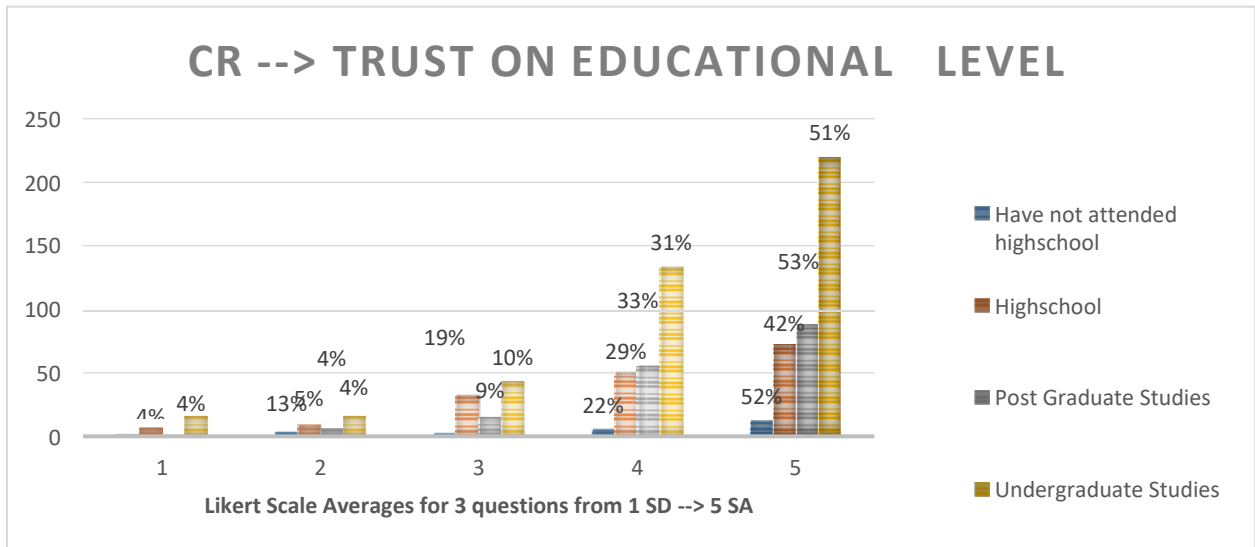


Chi Square Probability = .045 (i.e. <.05)

**Chi Square Proving Statistical Difference is Significant**

From the Chi Square analysis and the above graph we see that both genders are almost equally affected by the certifications and security seals. Both genders agree that having more of security related certifications raises their trust in internet shopping.

Level of Education Differences



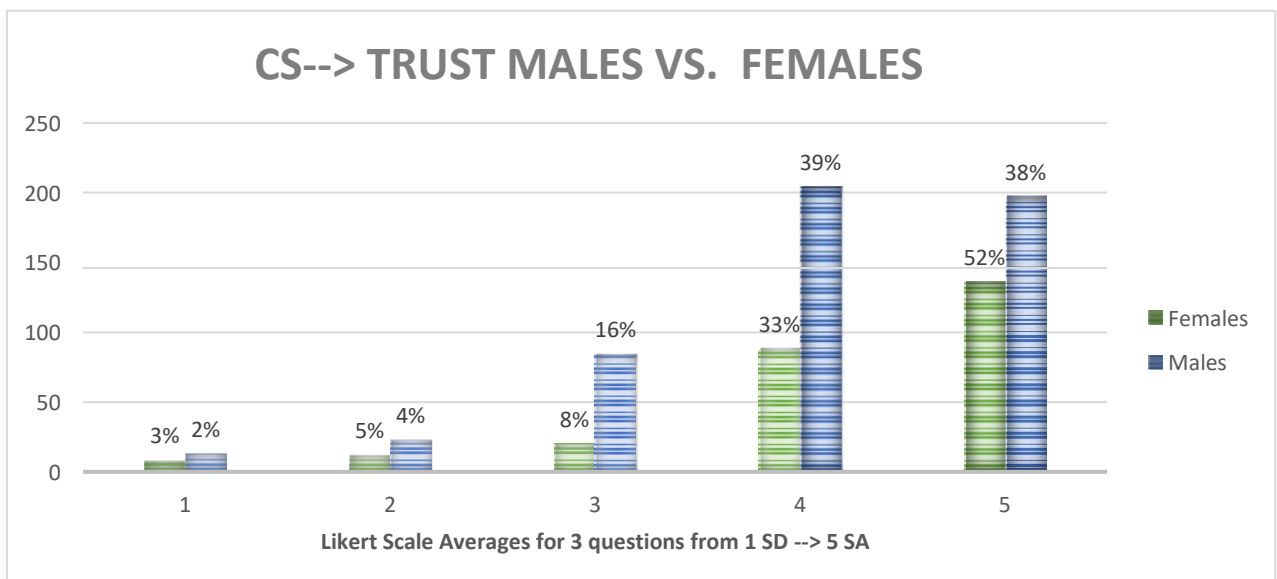
Chi Square Probability = .033 (i.e. <.05)

Chi Square Proving Statistical Difference is Significant

From the above chart and the Chi Square analysis we notice that the college level educated people put slightly more emphasis on security related certifications than the High school level and below.

H. Customer Support to Trust (CS □ TR):

Male and Female Differences

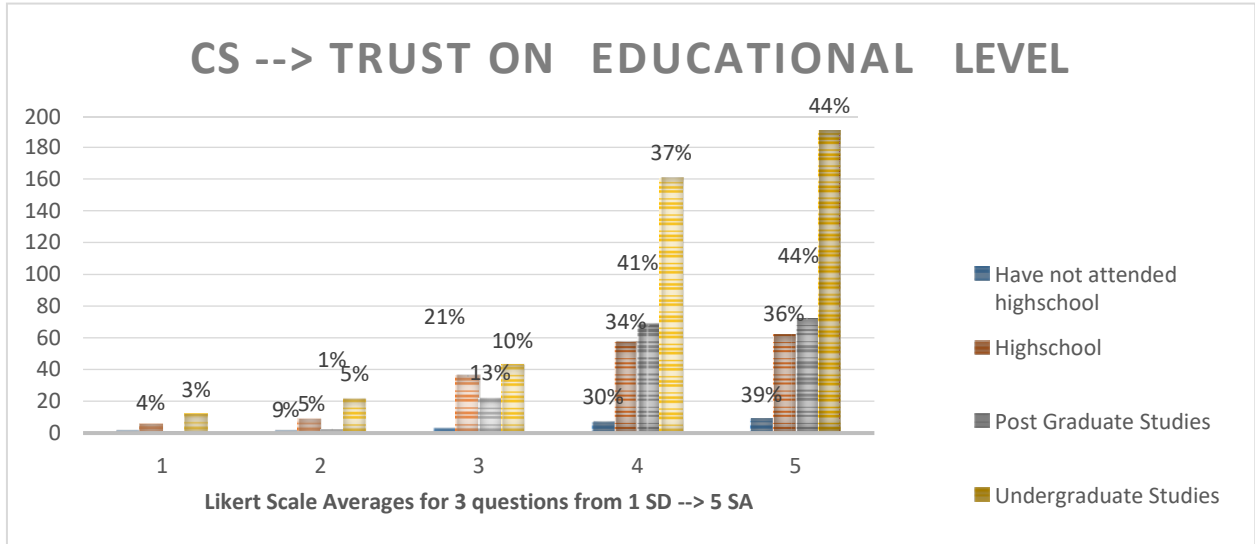


Chi Square Probability = .001 (i.e. <.05)

Chi Square Proving Statistical Difference is Significant

From the above chart and the Chi Square analysis we can conclude that there's a significant difference between Females and Males in the importance of effective and responsive customer support to raise the trust, consequently raising the behavioral intention of online purchase.

Level of Education Differences



Chi Square Probability = .008 ( i.e. <.05)

Chi Square Proving Statistical Difference is Significant

From the above chart and the Chi Square analysis we see that the more educated the online shopper is the more importance is put on effective customer support.

Correlations Rankings as per the Agree and Strongly Agree counts:

Correlation Tested	Percentage of Agree and Strongly Agree
Delivery Method to Perceived Usefulness (DM --> PU)	85.22%
Product Information, Reviews, and Comparisons to Perceived Usefulness (RC --> PU)	84.97%
Website and Interface User Friendliness to Perceived Ease of Use (UF --> PEoU)	82.80%
Certified Seals and Security Certifications to Trust (CR --> TR)	80.76%
Good Customer Support to Trust (CS --> TR)	79.62%
Having a Mobile Application to Perceived Ease of Use (MA --> PEoU)	77.07%
Expected Discounts to Perceived Usefulness (ED --> PU)	73.50%
Payment Flexibility to Perceived Ease of Use (PF --> PEoU)	56.69%

Summary of Analysis:

Correlation	Evidence to Generalize (split sample t- test)	Significance of Correlation against Null Hypothesis of Normal Distribution (Chi Square Test)	Observed Gender Difference (Chi Square Test)	Observed Level of Education Difference (Chi Square Test)
UF --> PEoU	Supported	Supported	Supported	Supported
MA --> PEoU	Rejected	Supported	Rejected	Rejected
PF --> PEoU	Rejected	Supported	Rejected	Rejected

DM --> PU	Supported	Supported	Rejected	Supported
ED --> PU	Supported	Supported	Supported	Rejected
RC --> PU	Rejected	Supported	Supported	Rejected
CR --> TR	Supported	Supported	Supported	Supported
CS --> TR	Supported	Supported	Supported	Supported

## 6. DISCUSSION

The research study had arrived at many interesting findings that concerns the internet seller in Saudi Arabia. The fact that 37% out of the 785 respondents had purchased online in Saudi Arabia more than 10 times is a proof that shoppers in this region are quickly adapting the online shopping solutions.

Further, 43% had purchased online more than once, representing a potential entrance for full adoption if the needs in shopping were met by the internet service was provided. From these figures, it is expected that regular internet shoppers in Saudi Arabia might reach 70% of the population sometime in the coming few years.

The study had shown that all factors we had considered are important, and the tested sample showed significant evidence to generalize this finding on five (5) of the factors. The factors are listed as per their rank of importance to the respondents sample:

- Effectiveness of Delivery Method
- Website and Interface User Friendliness
- Evidence of Security Certifications and Seals
- Effectiveness of Customer Support
- Expected Discounts Value

Further, our study had shown critical differences that can be capitalized on for the internet sellers catering for specific genders. For example:

- Both genders almost equally agree on the User Friendliness aspect of the internet shopping website driving Ease of Use
- Females attribute Perceived Usefulness to Expected Discounts slightly more than Males
- Both genders almost equally agree on the availability of more Product Information, Reviews and Comparisons driving Usefulness of internet shopping
- Females attribute Trust in internet shopping with significantly higher level to effective Customer Support

Finally, our study had shown some differences that can be considered in accordance of the educational level of the target market. Those are:

- Different educational levels have similar distribution leaning majorly towards agreeing and strongly agreeing, with User Friendliness driving Ease of Use
- Different educational levels have similar distribution leaning majorly towards agreeing and strongly agreeing with Delivery Method affecting usefulness, with more agreement on the college educated population.
- College level educated people put slightly more emphasis on Security related Certifications driving Trust than the High school level and below educated population.
- College level educated people also put more importance on effective Customer Support driving more Trust in internet shopping.

## 7. CONTRIBUTIONS AND CONCLUSIONS

This empirical research study contributes to the literature of e-Commerce use and analysis in Saudi Arabia. It had covered a relatively large sample, of wide levels of education and previous online shopping experience. It is evident from the statistics seen that internet shopping is becoming more mainstream with 70% having purchased online in Saudi Arabia

before.

The most agreed with aspect that drives the behavioral intention of internet shopping in Saudi Arabia is the delivery method. Therefore, internet sellers should establish service level agreements to ensure effective delivery of their sold products. The expected discounts on the other hand, even though generally agreed with, was of less importance than all the other supported factors such as user friendliness and good customer support. And from this we can recommend that internet sellers focus more on aspects of ease of use than the price, which will allow them to make more return on the sale.

Further, the attention of higher level of education population is giving more importance to issues such as certified security and good customer support. Therefore, we recommend that internet sellers catering to the general population of Saudi Arabia, where a lot of the new generation is mostly college educated, to pay attention to such issues.

In conclusion, the empirical study had proven that internet shopping in Saudi Arabia is affected by some factors that are greatly influenced and controlled by the seller. The seller can invest to enhance its delivery method, user friendliness, security perception, and customer support to gain more of the market share. The competition in this field is growing and it is of great importance to pay attention on the factors that would drive a competitive edge against competition.

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