Relationship between e-service quality and e-satisfaction and its impact on customer's online repurchase intention

A Review of the Literature and Statistical Conclusion

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Abstract

With the advancement of technology, E-commerce is likely to become the largest market in the future. Recent researches have shown that e- service quality contributes a crucial role in forming the customer's purchase intention to buy online. The present research studies the relationship between e- service quality and e-satisfaction and its impact on online purchase intention of customer. The resulting impact of e-service quality on purchase intention is studied with e-satisfaction acting as mediating variable between e-quality and purchase intention. Data collected from 84 professionals was subjected to multivariate data analysis. The results established that e-service quality is statistically significant predictor of online purchase intention and customer satisfaction from these e-services is an in important mediator in transmitting the influence of the predictor variables to the criterion variables.

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A Review of the Literature

The 21st century has been revolutionized by the advent of the Internet. Internet has completely changed the way people do various things. The communication channel has been completely changed. Similarly shopping patterns have been changing in previous some years and people have started to buy products online. Even if not purchasing online, people tend to check the bargain prices online before purchasing a product so that they can negotiate with the shopkeeper to give them more discount. The tendency to purchase online from a e-commerce website depends upon the quality of service that website provides. Also, customer satisfaction plays a mediating role in establishing this relation. As mentioned by Hsien-Tung Tsai et al (2007), customer satisfaction clearly motivates people to buy the product.

This paper seeks to empirically examine these theoretical suggestions in the context of Indian Organizations. The rest of the paper is organized as follows: the next section reviews the literature and generates a number of hypotheses on the relationship between the constructs studied. The third section describes the methodology used in the study and the fourth section presents the results of the analysis. The discussion and conclusion are presented in the fifth section.

The purpose of this research study is to establish the relationship between e-quality and esatisfaction and its impact on online purchase intention of customer. The resulting impact of esatisfaction on purchase intention is studied with e-satisfaction acting as mediating variable between e- service quality and purchase intention. Data collected from 84 professionals was subjected to multivariate data analysis

Independent Variable: E-Service Quality

Parasuraman et al. (1988) defined service quality as the measurement of effective service delivery outcome and have five attributes – SERVQUAL- tangibility, reliability, responsiveness, assurance and empathy. But with the advent of internet and popularity of online websites definition of service quality evolved as the characteristics of e-commerce system differ significantly from that of traditional retail stores due to the inclusion of virtual environment in former. In traditional retail stores the service quality majorly pertains to store image and face to face interaction. Zeithaml et al. (2002) analyzed the major differences between the service quality that attribute to brick and mortar store and e-service quality offered by online retail websites and stated that online environment require additional parameters such as ease of navigation, flexibility, efficiency and security besides the traditional measures of retail stores such as SERVQUAL.

Parasuraman et al. (2005) defines E-Service Quality as '...the extent to which a web site facilitates efficient and effective shopping, purchasing and delivery'. With this perspective eservice quality includes both pre and post purchase services. The pre purchase services pertain to the product information, ease of browsing on websites, confidentiality of personal information and ease of ordering. The post purchase services cater to glitch free delivery of products, after sales support and return policy. Cristobel et al. (2007) refers to broader view of e-service quality

by citing that e-service quality could be classified into two major areas i.e. online retailing services and website design and quality.

Previous studies (Zeithaml et al. 2002, Wolfinbarger and Gilly, 2003) have emphasized a lot on the website quality as the major contributor of e-service quality that has a direct impact on customer satisfaction. In this study, e-service quality is a function of ease of use, information quality, assurance, efficiency and delivery services. Ease of use dimension of e-service quality includes website designing, structure, ease of browsing and ordering. Information quality dimension is a significant contributor to the e-service quality and includes quality of information, its structure and availability of customized information to customers. Assurance offers the confidentiality of personal information and payment information such as card, net banking. Efficiency and delivery services dimension of e-service quality compares the convenience of online shopping and traditional retail store shopping. It includes shipping cost, cash on delivery, and return policies, shopping time, availability of products.

Mediating Variable: Customer Satisfaction

Gilbert Churchill and Carol Surprenant (1982) studied a path model for customer satisfaction. The need to translate the philosophical statement of the marketing concept into pragmatic operational guidelines has directed attention to the development and measurement of consumer satisfaction. The U.S. Department of Agriculture's Index of Consumer Satisfaction (Pfaff 1972) was the first study to report direct information on consumer satisfaction to policy makers. Satisfaction is an outcome of purchase and use resulting from the buyer's comparison of the rewards and costs of the purchase in relation to the anticipated consequences. Gilbert Churchill and Surprenant concluded that satisfaction could be increased only by increasing performance, not by minimizing negative disconfirmation.

Eugene Anderson et al. (1994) identified two different conceptualizations of customer satisfaction: transaction-specific and cumulative. According to Hunt 1977; Oliver 1977, 1980, 1993, from a transaction-specific perspective, customer satisfaction is viewed as a post-choice evaluative judgment of a specific purchase occasion. According to Fornell 1992; Johnson and Forell 1991, cumulative customer satisfaction is an overall evaluation based on the total purchase and consumption experience with a good or service over time. Transaction-specific satisfaction may provide specific diagnostic information about a particular product or service encounter, whereas cumulative satisfaction is a more fundamental indicator of the firm's past, current, and future performance. Cumulative satisfaction motivates a firm's investment in customer satisfaction. They concluded that a long run perspective is needed to improve quality and customer satisfaction.

Joseph Cronin et al. (2000) studied the effect of quality, value and customer satisfaction on consumer behavioral intentions in service environment. However, evaluation of past literature shows a myriad of conflicting results on the relative influence of these variables in the end result. Hallowell, 1996, claims that customer satisfaction is the result of customer's perceived value, where value equals perceived service quality relative to price. According to Fornell et al., 1996, the first determinant of customer satisfaction is perceived quality and the second determinant is perceived value. Athanassopoulos, 2000, claims that customer satisfaction is highly associated with value and that it is conceptually based on an amalgamation of service quality attributes such as price.

Claes Fornell (1992) defined a Customer Satisfaction Barometer (CSB) based on annual survey data from customers of about 100 leading companies in 30 industries. Customer satisfaction directly impacts the primary sources of future revenues for the company. According

to Business International (1990), customer satisfaction is one of the determining factors of profitability. Both customer satisfaction and productivity are factors which measure economic progress. Productivity is a measure of output quantity, whereas customer satisfaction is a measure of quality. CSB is therefore a measure of future orientation. CSB also provides information on industry comparisons, comparison of individual firms with the industry average, comparison over time, predictions of long term performance, answer to specific questions such as sensitivity of various industries to customer satisfaction, effects of price and quality, quality increase needed to retain dissatisfied customers, impact of customer expectations, price sensitivity, customer complaints, effects of word of mouth and switching patterns. A measure such as a national index of customer satisfaction complements productivity as a macro level indicator. CSB demonstrates a high level of reliability and validity. Fornell also concludes that quality is measured in terms of its effect on customer satisfaction.

Claes Fornell et al. (1996) define American Consumer Satisfaction Index (ACSI) to measure the quality of services and goods as experienced by customers. ACSI measures a cumulative evaluation of a firm's offering rather than transaction-specific evaluation. It uses multiple indicators to measure overall consumer satisfaction as a latent variable. It should be measured as an index for consumer satisfaction as well as for forward looking. Fornell et al. claimed that customer expectations, perceived quality, perceived value and overall satisfaction lead to customer loyalty. 1994 ACSI became the benchmark for measuring customer satisfaction and has helped in gauging how customer satisfaction has changed over the years. Also, ACSI measure of a company can be compared with the industry average to gauge how the customers will react to the company in the future. Hence, ACSI serves both as longitudinal and cross sectional signal in micro and macro level.

David Szymanski et al. (2000) discussed about cognitive computing for insights into eretail. Cognitive computing is a consumer-oriented approach to site design and management.

Research in cognitive computing is in its initial stages. No systematic research had been
conducted in e-satisfaction before 2000. E-satisfaction is a result of perception of online
convenience, site design, merchandising and financial security. Based on focus group interviews,
David Szymanski et al. found that there is a positive relationship between convenience and esatisfaction. They defined merchandising as factors associated with selling offerings online
separate from site design and shopping convenience. As expected, they found a positive
relationship between merchandizing and e-satisfaction. According to Pastrick (1997), fast,
uncluttered and easy-to-navigate e-commerce websites lead to higher levels of e-satisfaction.

Bruskin/Goldberg Research states that 75% of internet shoppers emphasize on credit-card
security as a major consideration before purchasing online. Hence, they concluded that positive
perception on security of online financial transaction has positive effect on e-satisfaction.

Heiner Evanschitzky et al. (2004) re-examined the factors which lead to e-satisfaction. Deutsche Welle claimed that German online sales grew at the rate of 60% in 2003-04. Satisfaction, according to Oliver (1997, p. 13) is the "consumer's fulfillment response." Further, according to Oliver (1997, p. 14), "a fulfillment, and hence a satisfaction judgment, involves at the minimum two stimuli—an outcome and a comparison referent". Anderson and Srinivasan (2003) found that impact of e-satisfaction on e-loyalty is greatest in presence of consumer-level moderators, like convenience, motivation, purchase size and business level factors such as trust and perceived value. Burke (2002) found that online shoppers were most satisfied with convenience, product quality, value provided and product selection offered by online shops.

Harvir Bansal et al. (2004) conducted an empirical study to relate e-satisfaction to behavioral outcomes. Reichheld and Sasser (1990) proposed the customer satisfaction – retention – profit model. E-satisfaction is primarily driven by website design characteristics and service features. According to Agrawal et al. (2001), high customer acquisition costs and low switching costs are some of the major challenges for online marketers. It is relatively more difficult to retain online customers because of non-personal service encounters. Harvir et al. proposed that website attributes lead to overall website satisfaction which in turn leads to behavioral outcomes. They concluded that some of the significant website attributes are ease of use, information available, product selection, price, transaction duration, customer service, shipping and handling. Behavioral outcomes were referral, retention, online conversation, visits per person, pages per person and hours per person.

Byoungho Jin et al. (2007) empirically compared the impact of firm reputation on consumer evaluation of e-tailer market response outcomes such as satisfaction, trust and loyalty. The scope of the project was limited to two cultures – USA and South Korea. USA is characterized by individualism, low uncertainty avoidance, high trust and low context society. South Korea is characterized by collectivism, high uncertainty, low trust and high context. They concluded that firm reputation contributes to customer loyalty by increasing customer satisfaction. This effect is stronger in Korea than in USA. However, no cultural differences were found in trust-loyalty and reputation-trust links. This directly implies that firm reputation leads to customer loyalty through trust and that the impacts are the same across these cultures.

Jiyoung Kim et al. (2008) studied the antecedents of online loyalty development process. They hypothesized that e-tail quality, e-satisfaction and e-trust play important roles in building e-retention. Srinivasan et al. (2002) stated that e-loyalty is widely defined as customer's favorable

attitude and commitment towards the online retailer that results in repeat purchase behavior. Jiyoung Kim et al. hypothesized that e-trust has a positive effect on e-loyalty, e-trust has a positive effect on e-satisfaction, e-satisfaction has a positive effect on e-loyalty, fulfillment/reliability has a positive effect on e-trust, responsiveness has a positive effect on e-trust, responsiveness has a positive effect on e-satisfaction, website design has a positive effect on e-satisfaction and security/privacy has a positive effect on e-trust. They concluded that the four dimensions of e-tail quality have differing effects on e-satisfaction and e-trust. Fulfillment/Reliability was found to have the strongest impact.

Dependent variable: Repurchase Intention

Hsien-Tung Tsai et al. (2007) studied the determinants of e-repurchase intentions. They realized that only limited attempts had been made towards understanding online customer loyalty. They identified few gaps such as: theoretical validity and empirical applicability of TAM in an online repurchase scenario. Researchers have suggested that customer-focused consumption community, customization, and overall satisfaction were important in maintaining long-term online buyer–seller relationships. Perceived ease of use and perceived usefulness offer limited explanations for why customers remain with a particular e-retailer. Lack of knowledge about the interrelationships between the determinants of repurchase intentions is another gap.

After performing confirmatory factor analysis and using partial least squares method, they concluded that community-based drivers had greatest impact on repurchase intentions. It was followed by overall satisfaction, switching barriers and customizations.

Thus as we can see above consumer satisfaction has been linked as an important concept to the financial performance parameters in addition to it being a strong decisive parameter in

consumer loyalty towards a brand and product. Consumer satisfaction links the service quality of a brand or product with the loyalty towards that product and we try explore this link in our study. In addition to this we also try to explore the linkage between switching costs in terms of time, money and effort with consumer satisfaction and its possible implications on brand loyalty. DTH services deals with both the definitions of customer satisfaction provided above i.e. the evaluation of service with regard to their needs and expectations and also the services desired outcomes during their post purchase occurrences. So considering consumer satisfaction as a mediator variable for independent variables switching costs & service quality and dependent variable brand loyalty.

Method

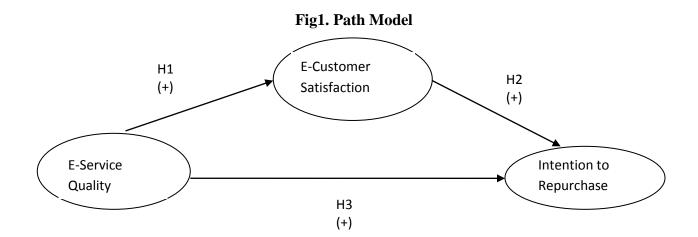
This section describes the method used in this study.

Hypotheses Development

H1: E-service Quality has a significant positive influence on E-customer satisfaction i.e. better the E-service quality, more satisfied the customers are.

H2: Customer Satisfaction has a significant positive influence on Intention to purchase i.e. more satisfied the customers are, more chances arise that they will buy a product.

H3: E-Service quality is positively related to Repurchase Intention



Participants

For this study, 84 individuals were surveyed. The participants are primarily the people enrolled in various courses at MDI, Gurgaon. Some of the participants are also our personal contact. Out of the 84 respondents, 51 were males and 33 were females.

Procedure

The primary methodology chosen will be Quantitative research based on the following grounds:

- 1. Quantitative methodologies are apt for measuring brand loyalty.
- 2. No pre-tasking required so as to avoid participant biasing.
- 3. Survey mostly to be done online.
- 4. Large Sample size.

Data Collection Procedure

Data collection from primary sources. The primary data is based on the objectives of the study, through the survey method that is questionnaire development and responses will be obtained by floating the questionnaire developed using Google form to social networking websites and sending it to email ids.

Data collection from secondary sources. While preparing this project report, two types of secondary data were collected.

- Internal Data from websites and press releases of companies.
- External Data generated from general library research sources, textbooks, trade journals, articles from newspapers, and internet websites

Measures

The survey consisted of 9 questions related to the variables under consideration measured on a 5 point unforced and balanced Likert scale. The reason for study was disclosed to the participants but no additional information was given on the questionnaire or otherwise that would possibly bias the responses.

A random sample of people from different places and different preferences was chosen.

Control variables

E-Service quality. The survey items for this parameter have been drawn from Bruner, Hensel & James (2005). It is measured using seven point Likert scale 1 - 5(strongly disagree to strongly agree) containing 5 questions which are in <u>Appendix A</u>.

Customer satisfaction. The survey items for this parameter have been drawn from Bruner, Hensel & James (2005). It is measured using seven point Likert scale 1-5 (strongly disagree to strongly agree) containing 2 questions which are in <u>Appendix A</u>.

Repurchase Intention. The survey items for this parameter have been drawn from Bruner, Hensel & James (2005). It is measured using seven point Likert scale 1-5 (strongly disagree to strongly agree) containing 2 questions which are in Appendix A.

Data Analysis

The Statistical Package for Social Science version 18.0 (SPSS 18.0) has been used to analyze the data. The path model based on the hypotheses drawn out from the review of literature has been subjected to tests. We have done statistical analysis like Factor Analysis, Frequency Distribution, Regression, Reliability tests.

Results

Reliability

In SPSS, we perform reliability test by running reliability analysis and we check the Cronback's Alpha value and it should be >0.7

Reliability Statistics						
Cronbach's Alpha	N of Items					
.800	09					

For the entire items reliability is checked and the value is 0.826. This proves that the questionnaire is reliable.

Frequency distribution

We performed frequency distribution analysis to determine the skewness of the items used in the questionnaire. The skewness values should range between -1 to +1.

FrequencyStatistics

]	N		_
-	Valid	Missing	Skewness	Std. Error of Skewness
HowOftenIbuy	84	0	274	.263
usethewebtosearchforbargainprice s	84	0	561	. 263
moreeaseof browsing	84	0	819	. 263
lesstimerelativetoshoppingfrom	84	0	392	. 263
buyonlineevenifthedeliverytime	84	0	.059	. 263
buyonlineifCashonDelivery	84	0	.099	. 263
worriedaboutthesecurity	84	0	.023	. 263
happywiththequalityofproducts	84	0	673	. 263

enjoytheconvenienceofshopping	84	0	595	. 263	

All the factors associated with service quality, switching cost, customer satisfaction and brand loyalty lie within the range of -1 to +1, we use parametric tests for the analysis of the data.

Factor Analysis

Rotated Component Matrix^a

Items	Component1	Component 2	Component 3	
HowOftenIbuy	.807	054	.053	
usethewebtosearchforbargainpri ces	.832	.050	.248	
moreeaseof browsing	.630	.350	.255	
lesstimerelativetoshoppingfrom	.495	.402	.236	
buyonlineevenifthedeliverytime	.306	.660	.006	
buyonlineifCashonDelivery	091	.746	.188	
worriedaboutthesecurity	.071	.808	.040	
happywiththequalityofproducts	.131	.080	.920	
enjoytheconvenienceofshoppin g	.333	.152	.842	

From the factor analysis we can deduce that these items have been clustered in three groups. First three items (HowOftenIbuy, usethewebtosearchforbargainprices, moreeaseof browsing) are part of one construct since the difference between matrix value of component 1 is far more than values of component2 and 3. Similarly, item 5-7 (buyonlineevenifthedeliverytime, buyonlineifCashonDelivery, worriedaboutthesecurity) belongs to same construct and item 8,9 to same. Factor analysis clustered the items in to 3 construct as per our assumption. Component 1 is repurchase intention, Component 2 corresponds to e-service quality and component 3 belongs to e-satisfaction.

Regression

We conducted regression analysis of the observed data for our hypothesis:

H1: E-Service quality is positively related to e-satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
dimensi 1 on0	.508 ^a	.258	.248	.758

Coefficients^a

		Unstandardized Coefficients		Standardized		
	Model			Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	1.923	.350		5.500	.000
	e-ServiceQuality	.372	.095	.398	3.928	.000

Here the dependent variable is E-satisfaction and by looking at the value of R square which is around 24.8 %, we can say that E-satisfaction is impacted by E-Service quality upto a considerable extent.

H2: E- satisfaction is positively related to repurchase intention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
dimensi	.362 ^a	.131	.120	.71708
on0		t) E Catisfact		

a. Predictors: (Constant), E-Satisfaction

Coefficients^a

	Model		dardized ficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta	•	, and the second
1	(Constant)	2.457	.322		7.634	.000
	E-Satisfaction	.337	.096	.362	3.513	.001

	$Coefficients^a$					
		Unstar	ndardized	Standardized		
	Model	Coef	Coefficients		t	Sig.
		В	Std. Error	Beta		
1	(Constant)	2.457	.322		7.634	.000
	E-Satisfaction	.337	.096	.362	3.513	.001

a. Dependent Variable: Repurchase intention

As we can see from the value of R square that around 12% of the impact on repurchase intention can be explained through e-satisfaction. Hence we can say that e- satisfaction has an impact on repurchase intention

H3: E-Service quality is positively related to Repurchase Intention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate					
dimensi 1	.402 a	.161	.151	.70431					
on0									
a. Predictors:	a. Predictors: (Constant),E- ServiceQuality								

Coefficients^a

	Model		ndardized ficients	Standardized Coefficients		
	-	В	Std. Error	Beta	t	Sig.
1	(Constant)	2.299	.325		7.077	.000
	ServiceQuality	.350	.088	.402	3.974	.000
a. D	ependent Variable: Re					

We can see that R square value is around .161, hence we can say that E-Service quality has an impact on repurchase intention

Mediator Analysis.

We performed mediator analysis to check whether the mediator variable is significant in the path model that we have proposed or not. Mediation Diagram of e- Satisfaction with Service Quality and repurchase intention is provided.



Let
$$\beta 1 = 0.350$$
, $\beta 2 = 0.508$, $\beta 3 = 0.337$

Since $\beta 2 * \beta 3 < \beta 1$

So customer satisfaction is not a significant mediator variable between e- service quality and repurchase intention. The direct path between e-service quality and repurchase intention is more significant.

Discussion and Conclusion

The results of the regression and the SEM procedures justify the acceptance of the first hypothesis that is e-service quality has a significant positive influence on customer satisfaction i.e. more the e-service quality, more satisfied the customers are, and lesser the e-service quality, lower the customer satisfaction. Since customer satisfaction is very important in business today, the importance of service quality has increased manifold.

From a practical point of view, the result of the study suggest that e-service quality should be encouraged by organizations as it has a significant influence in satisfying the customers who are the most important part of any organization. Hence it is necessary that more initiatives like providing discount coupons, very fast shipment delivery, easy to use website, good bargain prices, etc be taken up by e-commerce organizations to attract customers.

Many e-commerce companies provide some special discounts on special days like Christmas, Diwali, etc to attract customers. Also some companies give their customers the option of various types of delivery services and charge them accordingly.

From an operations manager point of view, this study provides various inputs. This study clearly signifies that the website should be properly structured. The complexity of the websites should be very low and the process design issue should be taken into consideration.

The second hypothesis that customer satisfaction has a significant positive influence on purchase intention, is important to understand in today's business world. It is very important that organizations take care of customer satisfaction if they want them to repurchase their products.

Managers have to be aware of the fact that though they are forcing employees to sell more and more and expecting customers to buy it, they should not forget the fact that customers are the first priority and should never be avoided. It should be taken care of that customer is fully satisfied.

Since repeat customers are five times more profitable than new customers, it is important for online sellers to understand why buyers are willing to engage in repeat purchases through some online stores. In the past, trust has been regarded as a critical factor in governing online shopping behavior. But even a more important factor, as found out by our study, is satisfaction. Although online repeat purchase intention is influenced by the rational analysis of trust in the online seller, customer satisfaction is an even more important driving force. In conclusion, our study highlights the importance of the role of the online shopping habit and its antecedents in the achievement of online customer retention. A more refined knowledge about the proposed

variables and relationships may ultimately benefit online sellers and buyers alike in their attempts to cope successfully with the challenges posed by the ever more exciting and versatile e-commerce applications.

Limitations of Study

The sample size could have been larger and a longitudinal study would have provided a more accurate picture than the present cross-sectional study. Providing clarity on the questionnaire in case the respondents had any doubts while filling was not considered. The age group and the time considered to collect the sample size could have been larger and varied. We have considered only 3 variables for our study. We could have covered more number of organizational behavior variables to have a better understanding of the working culture, if we have more time.

Future Scope of Research

The present study considered the impact of e-service quality on intention to repurchase a product online. Although it was tried to maximize the number of variables to be taken into consideration, the team was not able to do that. Due to this the R value for the model came a bit low. So for future, more items can be added to obtain a better R value.

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Appendix A

* Required							
I often buy p	produc	ts onl	ine *				
	Extrem Quite of Moder Slightl Not at	often ately o y ofte all oft	often n ten	uet Lu	use the	a weh	to search for bargain prices *
when I wan	t to bu				use une 4		to search for bargain prices "
		1	2	3	4	5	
Strongle dis	agree	0	0	0	\circ	0	Strongly agree
Online webs	sites pi	ovide	me n	nore e	ase of	brow	sing than retail stores *
		1	2	3	4	5	
Strongly dis	agree	0	0	0	0	0	Strongly agree
Online shop	ping ta	akes le	ess tin	ne rela	ative t	o shop	oping from retail stores *
		1	2	3	4	5	
Strongly dis	agree	0	0	0	0	0	Strongly agree
I buy online	even i	if the	delive	ry tim	ne is h	igh *	

	1	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
I buy online only when there is an payment option of Cash on Delivery. *						
	1	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
I am worried about the security of financial transactions on the web *						
	1	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
I am happy with the quality of products purchased online *						
	1	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
I enjoy the convenience of shopping on the web *						
	1	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
Gender *						
• Female						
• Male	5					
Witare						
Age *						
• 18-23						
23-28						
• 23-28 • 28-33						
• 28-33						
• 33+						
Education Level *						
O Hadaw	rro du c	to				
_	Undergraduate Graduate					
• Gradua • Post G		- Δ				
• Post G		.0				
• Doctor	ale					