

ANALYSING EFFECTS OF INFORMATION OVERLOAD ON DECISION QUALITY IN AN ONLINE ENVIRONMENT

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ABSTRACT

As internet is empowering customers with rich information about product attributes, experiences of others, dot-com retailers and manufacturers are also struggling to provide ever-increasing amount of product information to customers. Companies often believe that their long-term profitability may be determined by how much their product information is presented to and processed by the consumers. But people shopping online often face difficulty in processing large combinations of product attributes within a limited cognitive capacity. This increase in amount of information cannot facilitate decision making and the decision maker experiences 'Information overload' which may result in dysfunctional consequences such as cognitive fatigue and confusion which in turn effect decision quality. Searching for product information on the Internet is the most important predictor of online buying behavior. Differences in customers search procedure for search and experience products online may result in differences in their online shopping behavior. These differences have important implications on marketing practices. The present research focuses on explaining the effects of 'information overload' on the choice and purchase decisions for different search and experience product online. The findings of research has implications for information providers, retailers and researchers interested in improving quality of human decision making.

Keywords: search and experience product, information-overload, decision-quality

PROLOGUE

In present age of *Network Intelligence*, advancements in human communication, computing (computers, software and services) and content (publishing, entertainment and information providers) has created an interactive multimedia and the information highway (Don Tapscott, 1996). It focuses on tapping the huge resources of human capital, storage of knowledge in digital form and conversion of tangible things into virtual. It creates pressure to all the players –suppliers, customers and competitors to interact and integrate for survival. This rapid growth of digital economy is driven by advances in information technology and e-commerce and this technology diffusion is possible due to convenience provided by internet to customers. They search, evaluate, purchase and use products from tangible goods to intangible services.

With reduced cost of collection of information, consumer can easily access consumption related information; reviews and experience enhance learning environment by combination of sound, image, text and other visual tools.

Internet empowers the customer to learn from other experiences, search information about product attributes which are often difficult to obtain offline. While making purchase decisions online, customer is typically presented with a large amount of rich information. In this context both quality and quantity of information plays an important role in online decision making process. As an important step of decision making, searching for product information on the Internet is the most important predictor of online buying behavior. Moreover this search procedure differs for search and experience products online. Search goods are those whose

quality, attributes and suitability can be determined prior to purchase whereas experience goods are those whose quality cannot be resolved prior to purchase. As customers seek different information for search and experience goods, their purchase behavior may be different for these types of products. These differences in consumer behavior have important implications for marketing practices.

With the growth of internet population, web sites emerged as the key carrier of information for business and marketing communication. To take advantage of this new channel, marketers provide an ever-increasing amount of product categories and information on web. People shop online to save time and effort but often face difficulty in processing large combinations of product attributes. Information is presented on a number of alternatives, attributes and attributes level distribution across alternatives. For the past several years, it has been of great concern for marketers and researchers to determine an optimal amount of information that consumers can process effectively within a limited cognitive capacity. Majority of information research on e-commerce focus on more information to customer, but providing more and more information does not always guarantee customer satisfaction. With the limited processing capacity of human beings, increased amount of information cannot facilitate decision making. In such a situation, decision makers experience 'Information overload' which may result in dysfunctional consequences such as cognitive fatigue and confusion.

Recent empirical data on online shopping suggests that consumers have the potential to make better quality decisions while shopping on the web (Punj, 2012). Consumer online shopping behavior and e-commerce adoption still remains a conceptual domain that demands attention. Despite the growth of online shopping few studies examine the impact of information overload on consumer decision quality. The present research focuses on explaining effects of 'information overload' on the choice and purchase decision for different search and experience products. Research indicates that variations in the amount of information will impact the decision quality. The findings of research has implications for information providers, retailers

and researchers interested in improving quality of human decision making. It will also assist marketers to better organize information and design an effective website. Following this introductory section, subsequent sections provide an extensive review of literature on information overload concept in an online environment. The following sections presents details of research model used, hypothesis formation, data collection method followed by data analysis and results.

BACKGROUND

Based on differentiation in information search pattern, Nelson (1970, 1974) classified goods as search and experience products. Nelson defined search goods as those whose full information on major product attributes can be determined before purchase and experience goods, as those whose dominant product attributes cannot be known without experience (after using) and even their information search is difficult and expensive (Wright and Lynch, 1995; Kline, 1998). Attributes related to experience product like cloths, movies and music are inherently subjective, uncertain and difficult to evaluate as compared to attributes for search products (like books, laptops and shoes) like price, color, shape, weight, which are objective, diagnostic, easy to compare and require less time to obtain and process (Lee et al., 2010). Researchers found that consumers conduct minimal pre-purchase information search for experience product in contrast with search product (Nelson, 1974; Huang et al, 2009). But a customer has to combine information as well as product experiences from different sources to determine the overall value of experience product (Coupey, 1994). It is likely that buyers of search product are less willing to spend time in multimedia content or on lengthy reviews, whereas consumers of experience goods are likely to spend more time on high quality websites (Chevalier and Mayzlin, 2006; Riedl et al., 2013). These differences affect the amount of time spent per page of information, the number of pages searched. This also effect the influence of product reviews and multimedia on consumer purchase behavior, product adoption and other internet related shopping attributes (Kilne, 1998; Lynch and Arieli 2000).

In the decision-making literature, it is commonly understood that better purchasing decisions lead to

greater customer satisfaction (Chan et al, 2010). When consumer makes decision online or offline, they must go through three broad decision making steps: intelligence, design and choice (Simon, 1955). In design phase various alternatives are identified based on predefined criteria (Cook G., 1993). As the volume of available information increases, individuals and organisations become overwhelmed by the plethora of information. This can reduce productivity and performance, hinder learning and innovation, affect decision making (Jackson et al., 2012). Results of study by Chen et al (2009) found that rich information leads to a perception of high information overload and Novice consumers may face a more serious information overload problem. With the limited human information processing capacity, past researches show that complex tasks cause confusion and restrain the ability to process, respond and perceive information (Miller, 1956; Schick, 1990). Most information processing theories concluded that people are systematic information processors and unable to deal with complex tasks. Many choice possibilities associated with large choice sets represents an opportunity as well challenge for customers and retailers online (Häubl and Murray, 2003; Fitzsimon and Lehmann, 2004).

Besides several researches on methods for improving interpretation, there is still an absence of research concerning integration of user needs with given information. Past studies (Miller, 1956; Schroder et al., 1967; Jacoby et al., 1974; Reutskaja et al., 2009) presented a model that relates the information load to decision making. The model predict that instead of initial increase in information processing capability, when the information load exceeds the human processing capacity, decision maker experience 'information overload' which decrease the information processing capability and adversely affect the quality of consumer decision performance. This relationship also depicted in inverted U shape curve. Researchers used several measures to capture information load as a function of choice set which is affected by the number of alternatives, number of attributes, as well as the distribution of attribute levels across the alternatives (Jacoby et al, 1974; Malhotra, 1982; Lee and Lee, 2004). According to Iselin (1988) the 'information

diversity' (number of different dimensions) and 'information repetitiveness' (number of repeated dimension) are closely correlated with decision quality.

Quality of information is also a long-established issue and has got greater significance in recent technology advancements. Information quality is defined as the usefulness of the available information about an attribute of a product helping a decision maker.

The internet advantage also include to provide volume of content from a variety of sources but this vast amount of information available online sometime arise difficulties in respect of unknown quality and trustworthiness of the information (Nurse et al., 2013). The information processing literature also concludes that information quality and information quantity are among the most important factors that affect decision quality (Keller et al., 1987; Iselin, 1993; Gorla et al., 2010; Price and Shanks, 2011; Gao et al., 2012). Once the information processing becomes overwhelming, buyers tend to adopt strategies that reduce or limit the information to reduce the number of alternatives to evaluate (Brown et al., 2012). Researcher found a positive impact of using a recommendation agent on choice quality increases with information overload, and consumers become more confident in their choices and perceive higher e-store interactivity when they conform to product recommendations (Aljukhadar A et al., 2012).

During the process of decision making, people systematically analyze attributes of product but due to 'information overload' a consumer most likely give focus on unimportant information, which can lead to unreasonable expectations. Thus this inconsistency between expectations and the actual product also results in low satisfaction. This state of 'consumer confusion' (Walsh & Hennig-Thurau, 2002; Walsh et al., 2004) can be observed in most online decision making processes where the internet is an important source of information and products are intended to be bought online. Mitchell et al. (1999) give two dimensional construct of online confusion: similarity confusion, and overload confusion. 'Similarity' e-confusion may be caused by look-alike websites and domain names while 'overload' e-confusion can be largely attributed to

an exponential increase in websites, unwanted mail, vast assortments of online retailers, and excessive online advertisements.

It is evident from the literature review that there are studies on e-commerce adoption and information

RESEARCH MODEL

This section discusses a phase-wise development of comprehensive methodology which chiefly involves selection of variables, development of hypotheses, identification of survey pool, designing questionnaire and pretesting of data.

a. Selection of attributes and hypothesis development

After review of existing literature a conceptual research framework was developed (figure 1).

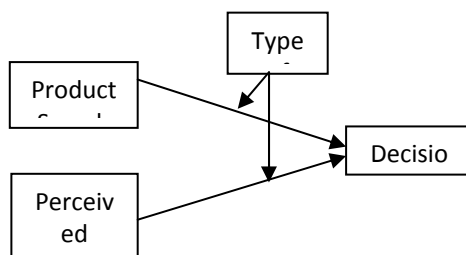


Figure 1: Research Model

The current research uses Nelson's classification as a starting point because it is the most widely used classification of search and experience goods. The model follows a general assumption that search pattern is different for each product type where experience goods involve greater depth (time per page) and lower breadth (total number of pages) of search than search goods. Moreover, product reviews have greater influence on consumer search and purchase behavior for experience than for search products. The following hypothesis has been developed to test the relationship:

H1: Information search pattern is same for experience and search products

The study attempts to measure the effect of 'information overload' on each product type and its influences on decision quality online. The perceived 'information overload' has been measured on dimensions of number of alternatives,

load, but there are limited studies analyzing effects of 'information overload' on online purchase decision quality. The following section presents facts about research model used, hypothesis formation and method of data collection followed by data analysis and results.

level of alternatives and quality of information. Hypothesis proposed below check for the effect of 'overload' on both search and experience products.

H2: 'Perceived Information overload' is same for experience and search product

The customer decision quality was determined on consumer choice confidence, electronic confusion due to similarity or overload confusion and post satisfaction associated with the decision taken. In order to test the relationship between information load, information search pattern and decision quality, the following hypothesis has been developed:

H3: The variables configuring consumer information search pattern and perceived information overload significantly explain consumers' decision quality

In order to increase the reliability and ease of comparison with previous work in this area, we operationalised each construct with multiple items. The scale items appear on the survey is shown in Table-1 where the searching information pattern for each product type, measures for information overload and decision quality was measured on a five point Likert scale where 1 indicate 'strongly disagree' to 5 denote 'strongly agree'. Scales for identifying search pattern has been adopted from the study of Huang et al. (2009). Study re-specified scales of Muhammad Aljukhadar et al. (2010) and Schwan et al. (2002) for measuring perceived level of 'information overload'. Decision quality has been measured on scale items from literature of choice quality, decision confidence and post satisfaction (Muhammad Aljukhadar et al., 2010; Walsh & Hennig-Thurau, 2002; Mitchell et al., 2004; Malhotra, 1982).

b. Data Collection

In order to examine these hypotheses a final questionnaire was developed and pre-tested for reliability. To test the reliability, the prepared questionnaire was demonstrated to 15 respondents consisting of students pursuing higher education, and faculty members of the university. The reliability of the developed questionnaire was tested by deploying the statistical test 'Cronbach's alpha' to the responses received from 15 respondents selected randomly. The Cronbach's alpha covering the overall responses has come out to be 0.705, which is considered a good sign of reliability of the questionnaire. Table-2 describes the reliability analysis of the scale corresponding to each variable. Before application of statistical tools for analysis the normality of data is tested by Shapiro-Wilk test and the results are tabulated in table 3.

The pre-tested questionnaire was further, advanced to conduct survey from the identified survey pool. A survey pool comprising of students pursuing higher education which includes undergraduate and postgraduate students of selected higher educational institutions in Udaipur city of Rajasthan state (table 4). Participants are asked to imagine that they were shopping on the Internet and requested to indicate their ability before purchase to access product information and its quality for each of the product type on a five-point scale ranging from "strongly dissatisfied" (1) to "strongly satisfied" (5). Initially, a sample size of one hundred was selected by applying convenience and judgmental sampling technique, and data was collected through internet. Through an email invitation, respondents received hypertext link of an online survey. Finally, eighty of them had responded which gives a response rate of 80 percent.

RESULTS

Testing of Hypothesis

H1: Information search pattern is same for experience and search product

H2: 'Perceived Information overload' is same for experience and search product

To test these hypothesizes, responses corresponding to the factors explaining search pattern and Perceived Information overload

through a structured questionnaire are collected on five points Likert rating scale. The respondents were asked to display their degree of agreement/disagreement on the scale items ranging from 1 (strongly disagree) to 5 (strongly agree). Questionnaire gathered responses for various dimensions for search and experience products. Forty responses are considered for analysis corresponding to each product type. Mathematical statement of null hypothesis for both these products is as follows:

$$H_0: \mu_S = \mu_E$$

$$H_1: \mu_S \neq \mu_E$$

Where, μ_S and μ_E are the hypothesized mean for search and experience products on the given dimensions respectively.

The statistical significance of the data has been tested using Student's Independent sample "t" test at 95% confidence level. Table 5 provides results for two tests- Levene's test for Equality of Variances and t-test for Equality of Means. Levene's test check for null hypothesis that the two groups have equal variances. If this null hypothesis is rejected at 5% significance level, then test statistics for 'no equal variance' is considered for the t-test for Equality of Means. It was found that gap is statistically significant only for 'time spend' and 'inf_repetitive' dimensions of search pattern and information overload respectively for both search and experience products ($t_{\text{time_spend}} = 2.564$, $p = .013 < .05$; $t_{\text{inf_repetitive}} = 2.308$, $p = .025 < .05$). Online customers spend more time and found repetitive information more for search products than experience goods. The difference is not significant for remaining dimensions, which reveals that internet is vanishing the discord between the search and purchase patterns between both the product types in an online environment.

H3: The variables configuring consumer information search pattern and perceived information overload significantly explain consumers' decision quality

In order to examine the influence and importance of various dimensions of search patterns and perceived information overload in explaining variations in decision quality in an online marketplace, a multiple regression analysis (DROP technique) has been employed to investigate the

explanatory power of constructs. Since the results of previous test examined no significant difference between values measuring information overload and search pattern on majority of dimensions for both product types. Therefore, regression analysis is conducted with dimensions composing search pattern and online perceived information overload as independent variable except 'time_spend' and 'information repetitiveness' constructs and 'decision quality' as dependent variable. Values for 'decision quality' is calculated by average score for 'e-confusion' and 'choice quality' dimension. The multicollinearity among the independent variables was assessed through computations of tolerance and VIF statistics. Both these values indicate the absence of multicollinearity among the independent variables. Durbin –Watson Statistics also shows an absence of autocorrelation. As shown in table 6, the final regression model with three independent variables (too much categories, feedback preference and no clear information) explains 52.2% of the variance of customers' decision quality (Adjusted $R^2 = .522$, $F = 11.728$, $p = .000 < .05$). Also, the standard error of the estimate has been reduced to 0.58752. The ANOVA analysis provides the statistical test for the overall model fit in terms of the F ratio which is also statistically significant with $F = 11.728$ ($p = .000 < .05$). The three regression coefficients, are all significant at the 95 percent significance level ($B_{\text{prefer_feedback}} = 0.244$, $t = -2.575$, $p = .013 < .05$; $B_{\text{tooMuch_catg}} = 0.236$, $t = 3.054$, $p = .000 < .05$; $B_{\text{inf_notClear}} = 0.220$, $t = 2.768$, $p = .008 < .05$).

CONCLUSION

The present study aims to assess the significance and relative importance of various information overload factors and different online search pattern that have been identified from review of literature to determine the key determinants of purchase decision quality in an online environment. With the objective to capture variation between search and experience products responses has been captured from online consumers by survey method. The study found that online customers spend more time and found repetitive information more for search products, but there is no statistically significant difference in information search pattern and perceive overload on majority of dimensions for both search and experience products. It can be concluded that with growing technology

improvements and involvement of consumer online has leveled the consumer purchase behavior for both type of products. Results from multiple regressions reveal three independent variables like too much product categories, customer preference to feedbacks or reviews and ambiguous information online together explain about 52 percent of the variation in consumer decision quality.

Managerial Implications

Finding of the study gives an inference that companies doing online businesses have to give more importance to better presentation of product categories, more clear and classified view of product reviews. To help customers in reducing the cognitive effort while enhancing their decision, retailers should incorporate their e-stores agents that filter, optimize, and organize product information. Retailer should arrange products and product information on their web pages in ways that permit customers to compare. Thus, shoppers compare products side-by-side either through the display format or by choosing certain products to compare in a comparison chart before making a purchasing decision. Product recommendations are decision-aid tools that support rather than replace consumer decision-making. With advances in web analytics techniques like click-stream, mouse-tracking, or eye-tracking technologies marketer can capture data on information accessed by online shoppers to enhance their purchase experience. It is important from both a managerial and public policy standpoint because the ability of shoppers to make better quality decisions while shopping online is directly related to improving market efficiency and enhancing consumer welfare in electronic markets.

Limitations and future research directions

The present research is (NOT based) on certain assumptions which limits the scope of the study. The study restricted by generalisability of findings because of small sample size and the assumption that they adequately represents typical Indian customer. Further, this research did not investigate the effects of information overload and product recommendations on shopping enjoyment and long term performance measures such as consumer loyalty and retention. These topics are potential extensions to this line of research.

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Table-1
Construct Table

	Dimension	Scale Item	References
Search Pattern	Search depth	I spent more time in examining information for above products online	Huang et al. (2009)
	Search breadth	I visit more number of web pages to search information on features for these products	
	Consumer recommendation	I give preference to consumer feedback before purchase of given products	
Perceived Information overload	Number of alternatives	There are too much product categories or alternatives present online	Muhammad Aljukhadar et. al (2010), Sweller (1994); Schwan et al. (2002)
	Level of attributes	There are too much information on product features presented for the given products	
	Information quality	<ul style="list-style-type: none"> - Information is difficult to understand - Information provided is not clear - Information is often repetitive 	
Decision Quality	e-confusion	<ul style="list-style-type: none"> - I feel confused between number of similar / lookalike sites - Unwanted mail, vast assortments and excessive online advertisements create confusion in purchase process 	Muhammad Aljukhadar et. al (2010), Walsh & HennigThurau (2002); Mitchell et al. (2004); Malhotra (1982)
	Choice quality	I feel confident that I made the best possible choice online	
	Post satisfaction	I am satisfied with my past online purchases	

Table-2
Reliability Statistics

Item-Total Statistics, N of Items =12				
Measuring constructs	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Time_spend	38.8571	28.440	.713	.627
webPage_visit	38.2143	36.027	.143	.708
Prefer_feedback	38.8571	32.132	.413	.676
tooMuch_catg	38.7143	29.604	.482	.662
tooMuch_inf	38.5714	32.110	.674	.657
diff_undstnd	39.6429	27.786	.640	.632
inf_notClear	39.5000	34.423	.204	.705
inf_repetitive	39.2143	36.643	.053	.719
lookalike_confusion	39.0000	26.769	.770	.609
ads_confusion	38.4286	37.648	-.072	.746
choice_confidence	38.6429	35.478	.181	.705
Past_satisfaction	38.2857	35.758	.038	.737
Cronbach's Alpha = .705				

**Table 3:
Test of Normality**

Measuring constructs	Shapiro-Wilk		
	Statistic	df	Sig.
Time_spend	.864	60	.051
webPage_visit	.772	60	.063
Prefer_feedback	.877	60	.052
tooMuch_catg	.849	60	.060
tooMuch_inf	.867	60	.063
diff_undstnd	.737	60	.055
inf_notClear	.913	60	.071
inf_repetitive	.896	60	.054
lookalike_confusion	.910	60	.053
ads_confusion	.855	60	.062
choice_confidence	.886	60	.059
Past_satisfaction	.800	60	.064

**Table 4:
Respondent Profile (% of respondent)**

Gender		Age (years)		Education		Financial Status	
Male	Female	20-25	25 and above	Upto Graduate	Post Graduate and above	Dependent	Independent
48	52	49	51	61	39	76	24

Table 5: Independent sample “t” test

Product Category: Search Goods (SG), N=40 and Experience Goods (EG), N=40

Group Statistics				Levene's Test for Equality of Variances			t-test for Equality of Mean				
Dimension	Product Category	Mean	Std. Dev.		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Diff.
	EG	3.267	1.081	No Equal var			2.564	57.884	0.013	0.700	0.273
webPage_visit	SG	3.800	1.215	Equal var	9.527	0.003	-1.582	58.000	0.119	-0.400	0.253
	EG	4.200	0.664	No Equal var			-1.582	44.922	0.121	-0.400	0.253
Prefer_feedback	SG	3.633	1.129	Equal var	0.659	0.420	0.859	58.000	0.394	0.233	0.272
	EG	3.400	0.968	No Equal var			0.859	56.687	0.394	0.233	0.272
tooMuch_catg	SG	4.133	1.074	Equal var	2.590	0.113	1.730	58.000	0.089	0.533	0.308
	EG	3.600	1.303	No Equal var			1.730	55.973	0.089	0.533	0.308
tooMuch_inf	SG	3.667	1.124	Equal var	3.574	0.064	0.137	58.000	0.892	0.033	0.244
	EG	3.633	0.718	No Equal var			0.137	49.293	0.892	0.033	0.244
diff_undstnd	SG	2.633	1.129	Equal var	0.582	0.449	1.060	58.000	0.293	0.300	0.283
	EG	2.333	1.061	No Equal var			1.060	57.780	0.293	0.300	0.283
inf_notClear	SG	2.867	1.224	Equal var	1.282	0.262	0.472	58.000	0.638	0.133	0.282
	EG	2.733	0.944	No Equal var			0.472	54.489	0.639	0.133	0.282
inf_repetitive	SG	3.700	0.988	Equal var	1.305	0.258	2.308	58.000	0.025	0.533	0.231
	EG	3.167	0.791	No Equal var			2.308	55.367	0.025	0.533	0.231
lookalike_confusion	SG	3.033	1.189	Equal var	0.466	0.498	-0.756	58.000	0.453	-0.233	0.309
	EG	3.267	1.202	No Equal var			-0.756	57.993	0.453	-0.233	0.309
ads_confusion	SG	3.500	1.137	Equal var	0.444	0.508	-0.987	58.000	0.328	-0.300	0.304
	EG	3.800	1.215	No Equal var			-0.987	57.748	0.328	-0.300	0.304

choice_ confidence	SG	3.733	1.258	Equal var	7.376	0.009	0.488	58.000	0.628	0.133	0.273
	EG	3.600	0.814	No Equal var			0.488	49.659	0.628	0.133	0.273
Past_ satisfaction	SG	3.867	1.106	Equal var	5.735	0.020	-0.210	58.000	0.834	-0.067	0.317
	EG	3.933	1.337	No Equal var.			-0.210	56.024	0.834	-0.067	0.317

**Table 6
Multiple Regression Analysis**

Model Summary											
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson statistics	
					R Square Change	F Change	df1	df2	Sig. F Change		
1	.755 ^a	.570	.522	.58752	.570	11.728	8	71	.000	2.021	

a. Predictors: (Constant), inf_notClear, webPage_visit, tooMuch_catg, diff_undstnd, Prefer_feedback, tooMuch_inf

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.289	8	4.048	11.728	.000 ^a
	Residual	18.294	71	.345		
	Total	42.583	79			

a. Predictors: (Constant), inf_notClear, webPage_visit, tooMuch_catg, diff_undstnd, Prefer_feedback, tooMuch_inf
b. Dependent Variable: Decision_Quality

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.504	.442		1.139	.260		
	webPage_visit	-.004	.082	-.004	-.044	.965	.879	1.138
	Prefer_feedback	.244	.095	.301	2.575	.013	.593	1.685
	tooMuch_catg	.236	.077	.337	3.054	.004	.667	1.498
	tooMuch_inf	.140	.118	.154	1.183	.242	.479	2.086
	diff_undstnd	.013	.079	.017	.166	.869	.770	1.299
	inf_notClear	.220	.080	.282	2.768	.008	.782	1.278

a. Dependent Variable: Decision_Quality

Questionnaire

Thank you for agreeing to participate in our study. The study is designed to investigate effect of information overload over the Web on consumer decision making. Answering the questions below should not take you more than five or six minutes. All information will be held confidential.

Name: _____ Age: _____ Gender: _____

Qualification: PG Prof. Degree Up to Graduation

Please select any one product category you prefer to purchase or search for information online.

SG: Mobile& accessories Laptops Music Players Home appliance Books

EG: Clothing Camera destination ies

Please display your degree of agreement on the following statements for the above selected product(s). Tick (√) in the appropriate box

	Strongly Disagree	Disagree	No Idea	Agree	Strongly agree
I spent more time in examining information for above products online					
I visit more number of web pages to search information on features for these products					
I give preference to consumer feedback before purchase of given products					
There are too much product categories or alternatives available online					
There are too much information on features presented for given products					
Information presented online is easy to understand					
Many time information provided is not clear					
Online Information is often repetitive					
While searching online, I feel confused between number of similar / lookalike sites					
Unwanted mail, large variety and excessive online advertisements create confusion in purchase process					
I feel confident that I made the best possible choice online					
I am satisfied with my past online purchases					

Any additional information/suggestion you would like to provide which will add value to this exercise.

Thank you again for your response