

# FACTORS AFFECT FOR TECHNOLOGY USAGE ON INFORMATION SEARCHING

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## Abstract

Information technology has appeared as emerging technology in today's business, the technology is used to make decisions of day to day life easy and accurate manner. Different areas of these technologies have affected for office automation, new technology application, changing of business process rationally. Researches of Technology impact investigates, measures, find consequences of technology on business, society and find problems, propose solutions for enrich human life. This research focuses attention on Information asymmetry and factors effect for technology using which is vital for decision making of business and community. Research evidences prove that the technology reduces the information asymmetry among different decision makers. The source of such technologies that help, enhance information flow: internet and world wide web, mobile technology etc. At present there exists a trend among Most of the product producers, suppliers to use these technologies as a technique for customer relation handling and increasing sales. Even though information such as price, different design and facilities are available people seems reluctant to use those resources before meet the supplier, this was identified in initial survey. This issue is important and interesting to study further. This study investigates the factors effect to impact underutilize of information resource for buying behavior. For studying the above problem, the domain or area of interest were considered as internet users in Central and North central provinces in Sri Lanka, random sampling method were used and on sample size is 36 and 50 questionnaires were distributed 36 were collected and descriptive mean standard deviation, inferential statics correlation were used to analyze and inference about the research. SPSS tool was used as supportive tool to analyze, present with data collected. Results show that Degree Applying technology is affected with factors: "Importance" and "Barriers and Challenges". Also marketing programs about information sources and more human friendly information sources help to enhance the usage of information sources more effectively. Improving technology usage will enhance the economy of customers and producers and end entire society.

**Keywords:** *Information Asymmetry, Information Flow, Blogs, Social Networks, Knowledge Sharing.*

## 1. INTRODUCTION

Information is vital resource for any kind of decision making process. Availability of accurate, timely and relevant information helps to make better decision. Characteristics of different persons, value of

goods or services strictly bound with purchasing process. Getting information from different sources and making decision based on such information prevent blind decision making. Even though vast number of information sources available still people

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do not aware how to use this information for better decision making. Investigating factors impact for under consumption of information resource and consequences of such a behavior is important. I Shei and A Terrell pointed out the impact of social networks for information flow, their research reveals that availability of information does not strictly affect for seen different information. Further it reveals that no substantial evidence to support the information or context that accompanies a link in email influences whether or not a receiver chooses to click on a link. However, this may be refuted with a larger, more diverse study or by an analysis of user sending and receiving behavior in a more natural setting. Also it provides surprising results such as the role that medium that the sender had found our link in had played in correlating with whether or not the receiver chose to click on the link [1]. Above research points out availability of different sources like face book blogs etc. rapid fusion of information from different sources and directing them to customers as they queried and requested is worth to note.

According to the past research done in these areas it can be identified that the source of information has impact on selecting and reading information. Also researches reveal that the existence of poor usage of information sources. For addressing this issues and find the factors behind these further researches are needed. This research tries to fill that gap. Why people not aware of available information resources and what factors, they considers as high valued. To test and evaluate the hypothesis of the research, a formal

research design is used. Data were gathered from randomly selected sample using questionnaire. Statistical techniques were used to analysis and inference regarding the research, SPSS software tool is used as supportive tool for this. As this research measure the impact of information flow in local context, research domain is considered as Sri Lanka. Behave towards production purchasing is highly relative with number of factors and their relative importance also are important to investigate. Factors such as unable to use technology, unaware of such information, language barriers, and customers' values towards product are impact for such behavior.

Based on the research findings, suppliers can identify weaknesses of their services and enhance the user friendliness of information service. Also customer can increase the bargaining power of purchasing. The research helps to discover the hidden behavioral pattern, characteristic that restrict the harvesting advantages of technology. Next section uncovers the theoretical foundation, contributions and important achievements behind the research area.

## 2. RELATED WORK

### A. *Information behavior*

Ingwersen and Järvelin define information behaviour as the “human behaviour dealing with generation, communication, use and other activities concerned with information, such as, information-seeking behaviour and interactive IR [information retrieval].” According to this definition, information

behavior will include all aspects of human behavior (such as work roles and tasks) that require users to generate, communicate and seek information that is relevant to their information needs [4]. This term also embraces information retrieval activities.

### ***B. Information needs***

An information need arises when an individual senses a problematic situation or information gap, in which his or her internal knowledge and beliefs, and model of the environment fail to suggest a path towards the satisfaction of his or her goals. Such an identified information need may lead to information seeking and the formulation of requests for information [4]. The term "information need" therefore does not necessarily imply that people are "in need of" information as such but that the use of information can lead to the satisfaction of a more basic need [5]. When considered from a task performance point of view, information needs are the requirements for information as they are necessary to fulfill a task.

### ***C. Information-seeking***

An information need may lead to a decision to seek information. Information seeking is a form of human behaviour that involves seeking for information by means of the active examination of information sources or information retrieval systems to satisfy the information need, or to solve a problem [4]. In order to acquire information the user has to select information from a particular source, system, channel or service. According to Ellis the information-seeking process involves the activities of starting, chaining, browsing, differentiating, monitoring [6].

### ***D. Use and choice of information sources***

People are a more frequently consulted information source than secondary documents. There are differences in the choice of information sources in each situation and auditors switched from one source to another, and their persistence in using one source was extremely low. If the corporate library is not "visible" at this stage of the process, auditors will not hesitate to use alternative sources. However, in "ideas confirming" and "ideas rejecting" situations, people turned to use specific and authoritative information sources [7].

### ***E. Other approaches***

Girish Punj points out that how the number of available alternatives and the amount of time available may have an effect on search and evaluation in a web-based store. The findings relating to search when many alternatives are available show that while consumers conduct fewer search iterations, they do not actually examine fewer alternatives for information. In contrast, the findings relating to search when more time is available show that the number of search iterations conducted increases but so does the number of alternatives examined. Thus, an increase in the time available has the predicted effect on search, while an increase in the number of alternatives does not [3].

Close a reveal in his research, beyond current purchase intentions, the investigated reasons for why consumers place items in their carts include: securing online price promotions, obtaining more information on certain products, organizing shopping items, and entertainment [2].

Above research pointed out importance of information for purchasing and revealed the different behavioral aspect of information searching, seeking behavior, information need etc. Above research investigates and propose different models to describe and understand information searching behavior. In this research major problem was why people unaware about searching information for particular product based on technology. Further research need to investigate whether problem bound with values towards information sources, customer value towards product, technology and other limitations etc. Next section of this research represents about the research methodology.

### 3. METHODOLOGY

The population of study contained all internet users Central and North central provinces in Sri Lanka. To determine the sampling frame, thirty six users were selected randomly, these users represent different academic background, working environment, most important thing they engage in purchasing activities. Internet users were determined as the most appropriate respondents because they are most familiar with technology to search information for day today activity. Data used in the study were gathered from two sources: The secondary data were collected from books, periodicals, scientific articles, and web sites that were related to the research. The primary data were collected interviewing users and standard questionnaires were used for this. These interviews depended on questionnaires prepared by the researcher in the form of face to face interview (semi-structured

interviews). The pilot study was performed before the interview questions were conducted. In order to test the survey instrument, five internet users and some academics were involved. Their responses and data were not included in the analysis because the major role of the pilot phase was to complete the survey. Research hypothesis can be stated as the technology usages for information searching for purchasing are affected with factors; "Importance" and "Barriers-Challenges".

The data were analyzed using the SPSS (Statistical Package for Social Science) version 16.00, (2009) for windows. Descriptive, inferential statics methods were used to analyze and give inference about the collected data. The independent variables of the research are identified as "Importance" and "Barriers and Challenges". The dependent variable is technology usage for information searching and purchasing. Mean and standard deviation are used as descriptive statistics and inferential statistic: correlation analysis is used for identify relationship among factors.

### 4. ANALYSIS

The research used Alpha Scale to realize the steadiness and reliability of the phrases used in the interview questions to ensure the measurements accuracy. According to the reliability analysis results indicated all the coefficient alphas were greater than 0.70 so study measurement is acceptable and reliable.

According the analysis there exist correlations among the variables: Degree of Applying, Importance and Barriers and

Challenges. Table 1.1 shows that Degree of Applying technology among users is 3.12 and Standards deviation is 1.02. The independent variables importance and Barriers-Challenges to use technology have 3.0505 and 3.1875 Mean values, 0.68 and 0.57 Standard deviations.

Table (1): Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
DegreeApplying	3.1296	1.02336	36
Importance	3.0505	.68770	36
BarriersChallenges	3.1875	.57516	36

The analysis shows that there exist correlations among all variables. According to the table 2, the degree of applying technology for purchasing has correlation of 0.788 and -0.839 (negative) relationships with “importance” and “barriers-challenges”, t value is less than 0. 01 so the results are significant. There exists a -0.948 correlation between “importance” and “barriers and challenges.

Correlations				
		DegreeA pplying	Import ance	Barriers Challeng es
DegreeApplying	Pearson Correlation	1	.788**	-.839**
	Sig. (2- tailed)		.000	.000
	N	36	36	36
Importance	Pearson Correlation	.788**	1	-.948**
	Sig. (2- tailed)	.000		.000
	N	36	36	36
BarriersChallenges	Pearson Correlation	-.839**	-.948**	1
	Sig. (2- tailed)	.000	.000	
	N	36	36	36

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

## 5. CONCLUSION

Data presented above uncovered very important findings the relationships between variables, major finding was the answer for the question why people reluctant to use technology for their day to day activities, business activities and other important purposes in selected area. The “technology usage”, “importance” and “barriers-challenges” recorded a mean value around 3.0 this indicate there is moderate likeness or response for each variable.

The correlation between “degree of applying technology” and “importance” is positive 0.788 this means we can improve the technology application by improving awareness, informing achievable benefits and available advantages of technology for purchasing and information searching through internet. There exist a negative -0.83 correlations between “degree of applying technology and “Barriers and Challenges for using technology” this infers that enhancing technology learning, technological facility and enhanced perceived security will increase the technology usage.

According to above findings the marketers and sellers can enhance their information systems so that customers can find information easily and anytime this will increase commercial benefits of the organization. From the customer side they will be strong as they have information about products before going to purchase. The technology usages will give advantages for customers and producers both altogether this will contributes to the society by reducing wastages of resources.

Decision makers should consider the research findings to enhance technology usage; the barriers should be reduced and perceived benefits should be increased. Research hypothesis can be concluded as the technology usages for information searching are related with factors “Importance” and “Barriers-Challenges” for such technology.

The research did not consider demographic related data of respondents, the sample consists with randomly selected people from central province and north central province those factors can be listed out as limitations of this research. Next research reveals future work of this research.

## 6. FURTHERWORK

The research conducted in a selected area it is interesting to investigate whether there is a difference among various areas, educational levels, and professions. This research identified two factors relate with technology usage, there may exist multiple factors that effect for such behavior, identification of such factors also very important for further development of the research area. Relationship between "importance" and "barriers-challenges" may have psychological relationship; this will be another research area that can be done further studies.

## REFERENCE :

- Shei, I., & Terrell, A. The Impact of Social Networks on Information Flow.  
[http://pages.cs.wisc.edu/~aterrell/wp-content/uploads/2011/02/21/hci\\_paper.pdf](http://pages.cs.wisc.edu/~aterrell/wp-content/uploads/2011/02/21/hci_paper.pdf)
- Close, A. G., & Kukar-Kinney, M. (2010). Beyond buying: Motivations behind consumers' online shopping cart use. *Journal of Business Research*, 63(9), 986-992.
- Punj, G., & Moore, R. (2009). Information search and consideration set formation in a web-based store environment. *Journal of Business Research*, 62(6), 644-650.
- Ingwersen, P & Järvelin, K. 2005. The turn: integration of information seeking and retrieval in context. Dordrecht: Springer.
- Wilson, TD. 2005. Evolution in information behavior modelling: Wilson's Model, in *Theories of information behavior*, edited by KE. Fisher, S. Erdelez and L. McKechnie. Medford: Published for the American Society for Information Science and Technology by Information Today:31-36.
- Ellis, D. 2005. Ellis's model of information-seeking behavior, in *Theories of information behavior*, edited by KE. Fisher, S Erdelez and L McKechnie. Medford: Published for the American Society for Information Science and Technology by Information Today:138-142.
- Cheuk Wai-Yi, B. 1998. An information seeking and using process model in the workplace : a constructivist approach. *Asian Libraries*, 7(12):375-390.