

# Comparison of Usability Level of E-Commerce Websites: Daraz and Homeshopping

Adnan Ali, Irshad Ahmed Sumra, Ayesha Afzal, and Zaima Ilyas

Department of Information Technology, Lahore Garrison University, Lahore, Pakistan

Corresponding author: Adnan Ali (e-mail: [adnan.ali001@gmail.com](mailto:adnan.ali001@gmail.com)).

Received: 15/05/2022, Revised: 30/08/2022, Accepted: 10/09/2022

**Abstract-** Usability denotes approaches for refining the ease-of-use application design. Online free classified shopping websites "daraz.pk" and "Homeshopping.pk" were most often used and top five online stores in Pakistan. It is important for the realization of online business is that the structure of online shopping websites should be effective and efficient. The study aimed to compare the usability level of both shopping websites in the form of Efficiency, Satisfaction and Effectiveness. It was found that e-commerce websites with higher usability have a more re-accessed probability. Two different evaluation methods were used: User testing and quick and dirty. Total 10 users were used in this study and participated in filling out the questionnaires for satisfaction using the quick and dirty method. Then eight users were randomly taken to check both websites' efficiency and effectiveness using user testing. This user testing of daraz.pk and Homeshopping.pk established that daraz.pk has greater efficiency compared to Homeshopping.pk, but Homeshopping.pk has higher usability in terms of effectiveness.

**Index Terms--** Usability, User Testing, Quick and Dirty Method, daraz.pk, Homeshopping.pk

## I. INTRODUCTION

Usability of the website can be characterized by thinking about the following perspectives [1]: (1) the simplicity of knowing the development of a site, its capacities, boundary and substance that client have access to seen; (2) the effortlessness of utilization of site in underlying phases; (3) the accuracy with which the users can discover whatever they are searching (4) apparent simplicity of spot route as far as time required and activity essential to get the ideal outcomes; and (5) the capacity of the client to control what they are doing, and where they are, at some random minute [2]. Moreover, usability makes the website data straightforward, favours correspondence and cooperation between the gatherings, disentangles the exchange procedure, and enables clients to discover what they are searching for at some random minute in a basic way [3]. According to state bank of Pakistan the size of e-commerce market in Pakistan was RS 99.3 Billion in 2018. State bank was also claim that growth rate of e-commerce market in Pakistan is 92% year-on-year in 2018. The study aimed to compare the level of usability of both shopping websites according to Efficiency, satisfaction and Effectiveness [4]. It was found that e-commerce websites with higher usability level get more re-accessed probability [5]. This statistic shows the great business opportunity in Pakistan.

Majority population of Pakistan is young and lies in 20 to 30 age groups and performs shopping using online websites. So, it was importance to evaluate the usability problems in online shopping stores in Pakistan. E-commerce websites are the way to conduct an online business using internet. Usability means measure how we can easily interact with user objects interface. Usability can also be defined as: how much easily products can be utilized to accomplish the craving objectives with efficiency, satisfaction and effectiveness. Web usability means how a user easily used website interface and perform your desired tasks [6]. Both Daraz.pk and Homeshopping.pk are the free classified websites that is not take any service charges from users to buy and sell your products. Today, internet is present in every country of world and almost internet is accessible by everyone in the world. So, it is become a power tool for online business. User testing and quick and dirty methods are mostly used to classify the problems of usability in websites. Expert evaluation approach is also used to classify the usability problems in websites. In this approach expert person discover the ease of use issues in websites. Purpose of this study was to compare daraz.pk and Homeshopping.pk in terms of usability attributes, efficiency, satisfaction and effectiveness. At end we give suggestions and recommendations to improve both websites' web usability. This article related work portion presented the



This work is licensed under a Creative Commons Attribution 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

past work, used methods, justification about these methods, and main conclusion.

Section II describes the related work done on e-commerce website and through online shopping. Section III summaries the methods and materials use in investigation. In Section IV, we describe results and discussion. This application will collect information on past natural disasters, and how they relate to the operation of the online hoping in question, discusses the Discussions of our experimental evaluation. The conclusion of the research describes in Section V.

## II. RELATED WORK

Human-computer interaction is a field in which we study on an interactive system. Many authors define usability in different ways. According to Mentees [2-3], usability is defined as the capacity of interactive systems to solve a specific task in a specific way for a specific user. According to Nielsen, [4-6] usability has five attributes e.g. Learnability, Efficiency, Effectiveness, Errors and Satisfaction. Shackle and Richardson proposed four-dimensional attributes of usability in 1991. These qualities affect the acceptable of merchandise in term of 'learnability', 'effectiveness', 'flexibility' and 'attitude'. There are few benefits of usability proposed by Udall-Espersen in 2005.

- A. Users are satisfied with having usability websites.
- B. Websites having higher usability consist of fewer errors.
- C. Websites with higher usability help users find the proper information on it.
- D. Websites having higher usability achieved their goals with high effectiveness and efficiency [7].

### A. DARAZ.PK

Daraz.pk is undoubtedly the head of market. Over the years, it requires settled on the precise showcasing and affiliation decisions empowering it to amplify her reach and improve brand name affirmation. Today not solely is it the most notable online retailer yet, furthermore, an ordinarily perceived name. Numbers never lie and with 9.1 million interesting people reliably, Daraz.pk proceeds the best position in our rankings. Due to a straightforward and connect with website composition, Daraz.pk rights a typical visit length of 5 minutes 6 seconds. Each visitor, overall, sees 4.49 thing pages on the electronic business store. Daraz.pk makes sense of how to get over 34% of its customers through direct admittance to its site, another affirmation of brand care. Only a discreet amount of its customer base starts from Social media and filed records. The greater part of the individuals is also unfocused from promotions or on the other hand referrals from various locales. The dominant part of visitors, who go to the site through an internet searcher, are searching for site of Daraz connect. In Fig. 1 show the landing of daraz.pk website.

### B. HOMESHOPPING.PK

A develop and old performer in e-commerce advertising, Homeshopping.pk needs in the competition for long, be that as it may, it just arrives in a far off third in the rankings with 886,670 perspectives each month. With its long involvement with the market and a not-too-bad client base, Homeshopping.pk could have improved some showcasing and brand advancement. As it's

obvious in the rush hour gridlock breakdown above, Homeshopping.pk gets a large portion of its one-of-a-kind guests from web crawlers. The normal visit span is 3 minutes and 34 seconds, while the pages a normal client sees are 3.34.



FIGURE 1. Daraz.pk landing page 2019

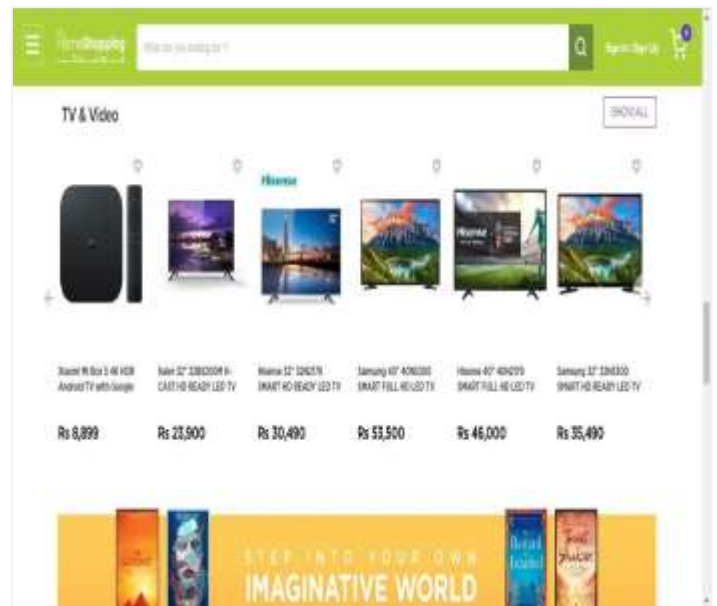


FIGURE 2. Homeshopping.pk landing page, 2019

On the off chance that HomeShopping plans to develop, it must exploit its wide cluster of items by promoting its image forcefully. Web composition likewise needs improvement as the present one isn't sufficiently natural to hold clients for long. In Fig. 2 show the landing of Homeshopping.pk website.

## III. USER TESTING USED AND JUSTIFICATION

. It is a standard method which is used to identify the usability problems in websites. In these testing users is performing pre-

defined typical tasks. These tasks consist of main functionality of system. Users of system carry out these tasks and observe the behavior of users. To perform the user testing a well-known method "Think-aloud" is used for it. This protocol records the users' time used to carry out tasks and calculates the efficiency. This protocol is also used for calculate the effectiveness of both websites. In these protocol users is allowed to express your opinion and feeling with evaluator. In this protocol user is constantly verbalize the opinion about system. Tools are used in this research laptop with Camtasia studio [8].

#### IV. QUICK AND DIRTY USED JUSTIFICATION FOR THEM

In this technique, the evaluator gets feedback from users informally and confirms their ideas fill the user's needs and likeness. To perform quick and dirty testing, System Usability Scale (SUS) is used to calculate system usability. It contains 8 queries and five reply choices.

Intensely Agree, Agree, Neutral, Disagree Strongly Disagree. This method is very easy to calculate the usability in terms of satisfaction of the system.

#### V. METHODS AND MATERAIL

For the examination, ten users were recruited for the usability testing methods user testing and quick & dirty testing. Total 10 users were selected for quick and dirty testing, and 8 were selected randomly from them. All users were students and studies at different university and colleges of Pakistan. All users were regular users of e-commerce websites. Demographic questionnaire was delivered to all users to get details about them.

##### A) USER TESTING

The 10 users were randomly selected for user testing. Tools were used in this personal research laptop with software Camtasia studio 7. To perform the user testing a well-known method "Think- aloud" is used for it. These protocol records the users' time that is used to carry out tasks and used to calculate the efficiency. This protocol is also used to calculate both websites' effectiveness [9].

TABLE I  
THE TASKS GIVEN TO USERS

No	Tasks
1.	Create the account
2.	Update your profile
3.	Sell your cell phone on the website
4.	Checkout Procedure Payment Method
5.	Find the term of use policy of the website
6.	Send a new message to a newly advertised product for purchasing purpose
7.	Read the description of newly advertisement products
8.	Logout the account

##### B) QUICK AND DIRTY TESTING

In this technique, the evaluator gets the feedback from users informally and confirms their ideas fill the user's needs and likeness. To perform quick and dirty testing, System Usability Scale (SUS) is used to calculate system usability (see Table-I). It contains 8 queries and five reply choices. Intensely Agree, Agree, Neutral, Distress Strongly Disagree. This method is very easy to calculate the usability in term of satisfaction of system

1. I found buttons were visible in Homeshopping.pk.
2. I found Homeshopping.pk Provides easy exploration of norms inside the website.
3. I found Homeshopping.pk gives a better appreciation of content inside the website.
4. I think Homeshopping.pk has a good layout.
5. You recommended it to a friend.
6. It is pleasant to use.
7. I envision the vast majority figuring out how to utilize the site rapidly.
8. The same questions are also used for daraz.pk to calculate the satisfaction level [10].

#### VI. RESULTS AND DISCUSSIONS

This section shown the characteristics of users that involve in research. This section also shown the results about from user testing and quick and dirty methods.

##### A) CHARACTERISTICS OF USERF

The Table II showed the characteristics of users that used in this research.

TABLE II. CHARACTERISTICS OF USERS

Variables		Percentage%
Gender	Male	80
	Female	10
Age	20-22 years	70
	22-25 years	30
Internet Access (Weekly)	Every days of week	90
	5 to 6 days of weekly	10
Online Shopping Access (Weekly)	1 to 3 times a weekly	85%
	>3 times a weekly	15%

#### VII. RESULTS OF USER TESTING

By user testing, we obtained the efficiency and effectiveness of system. Efficiency means how much time required by system to perform the tasks.

TABLE 3. SHOWS THAT REGULAR TIME OCCUPIED

No. Tasks	Daraz.pk	Homeshopping
Create the account	52 sec	114 sec
Update your profile	68 sec	69.8 sec
Sell your cell phone onwebsite	125 sec	159 sec

Find the term of usepolicy of website	27.5 sec	25 sec
Send a new message tonewly advertisement product for purchasingpurpose	42 sec	91.5 sec
Read description of newlyadvertisement products	35 sec	42 sec
Logout the account	6 sec	9 sec

Table III shows that the average time taken by daraz.pk at every task was less than Homeshopping.pk. We can analyze that daraz.pk is more efficient as compared to Homeshopping.pk. Effectiveness means how many tasks successfully carried by the user. We can calculate the effectiveness of system by using below formula:

Rate of Success = (completed tasks + (partially completed tasks) \* 0.5) \ Total Number of tasks

TABLE IV: SHOWS THAT REGULAR TIME OCCUPIED

No. Tasks	Daraz.pk	Home shopping .pk
Create the account	100 %	100%
Update your profile	100%	100%
Sell your cell phoneon website	100%	100%
Find the term of usepolicy of website	85%	100%
Send a new messageto newly advertisement product for purchasing purpose	100%	100%
Read description of newly advertisementproducts	100%	100%
Logout the account	100%	100%

This Table IV data shows that Homeshopping.pk have higher level of effectiveness as compared to daraz.pk at task 4. So, we can analyze that Homeshopping.pk have higher effectiveness as compared to daraz.pk.

To perform quick and dirty testing, System Usability Scale (SUS) tool is used for calculating the system usability. It contains 8 queries and five reply options. Intensely Agree, Agree, Neutral, Disagree Strongly Disagree.

TABLE V. SHOWS THE RESULTS OF QUICK AND DIRTY

Usability Level	Daraz.pk	Homeshopping.pk
Satisfaction	82	74

This Table V data shows that daraz.pk have higher level of satisfaction as compared to Homeshopping.pk. According to SUS if average value is greater than 80 then SUS gives excellent

ranking this website. If value is between 68 to 80 then SUS gives good ranking this website.

System usability scales are used to find out the results on small sample data. In this technique evaluator gets the feedback from users informally and confirm their ideas fill full user's needs and likeness. To perform quick and dirty testing, the SUS tool was used to estimate the system usability.

## VIII. CONCLUSION

Based on the user testing method, we can show that daraz.pk is better than Homeshopping.pk in terms of efficiency. Table 3 shows the ordinary time occupied by every task by daraz.pk is smaller than Homeshopping.pk. But Homeshopping.pk is better in terms of effectiveness than daraz.pk. Table 4 shows the effectiveness of both websites and 85% value of effectiveness at task 4 of ol.com.pk, but at this same task Homeshopping.pk have 100% value of effectiveness. Based on the quick and dirty method, we can show that daraz.pk have more satisfaction than Homeshopping.pk. According to SUS, if the average value is greater than 80 then SUS ranks this website in terms of satisfaction. If the value is between 68 to 80 then SUS give a good ranking of this website in term of satisfaction.

## FUNDING STATEMENT

The authors received no specific funding for this study.

## CONFLICTS OF INTEREST

The authors declare they have no conflicts of interest to report regarding the present study.

## REFERENCES

- [1] L. Casalo, C. Flavian, and M. Guinaliu, "The role of usability and satisfaction in the consumer's commitment to a financial services website," *Int. J. Electron. Financ.*, vol. 2, no. 1, p. 31, 2008.
- [2] D. Belanche, L. V. Casalo, and M. Guinaliu, "Website usability, consumer satisfaction and the intention to use a website: The moderating effect of perceived risk," *J. Retail. Consum. Serv.*, vol. 19, no. 1, pp. 124–132, 2012.
- [3] C. L. Corritore, B. Kracher, and S. Wiedenbeck, "Online trust: Concepts, evolving themes, a model," *Int. J. Hum. Comput. Stud.*, vol. 58, no. 6, pp. 737–758, 2003.
- [4] S. Lee and R. J. Koubek, "The effects of usability and web design attributes on user preference for e-commerce web sites," *Comput. Ind.*, vol. 61, no. 4, pp. 329–341, 2010.
- [5] R. A. Majid, M. Hashim, and N. A. syid. A. Jaabar, "An evaluation on the usability of E- commerce website using think aloud method," *Adv. Intell. Syst. Comput.*, vol. 276 VOLUME, pp. 289–296, 2014.
- [6] A. D. Sari, H. Purnomo, M. R. Suryoputro, M. I. Januar, and J. Sidhatama, "Analysis of Usability Level of Online Store Website for 'olx . co . id ' and ' berniaga . com ,'" 2014.
- [7] M. Ekşioğlu, S. Varol, and Y. Duman, "An Investigation of User-Experience Design of E- Commerce Websites," *Proceeding World Congr. Electr. Eng. Comput. Syst. Sci.*, no. 316, pp. 316.1-316.8, 2015.
- [8] K. N. Goh, Y. Y. Chen, F. W. Lai, S. C. Daud, A. Sivaji, and S. T. Soo, "A comparison of usability testing methods for an e-commerce website: A case study on a Malaysia online gift shop," *Proc. 2013 10th Int. Conf. Inf. Technol. New Gener. ITNG 2013*, vol. 1, pp. 143–150, 2013.
- [9] L. Hasan, A. Morris, and S. Probets, "A comparison of usability evaluation methods for evaluating e-commerce websites," *Behav. Inf. Technol.*, vol. 31, no. 7, pp. 707–737, 2012.
- [10] A. Al-Badi, O. Michelle, R. Al Roobaea, and P. Mayhew, "Improving Usability of Social Networking Systems: A Case Study of LinkedIn," *J.*

Internet Soc. Netw. Virtual Communities, no. October 2017, pp. 1–23, 2013.

- [11] M. Maguire and P. Isherwood, Design, User Experience, and Usability: Theory and Practice, vol. 10918. Springer International Publishing, 2018.
- [12] S. Pokki, "Web usability in e-commerce Usability evaluation of four web shops," 2016.