Comparison of Usability Level of E-Commerce Websites of Pakistan

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Abstract

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

Keywords: Usability, User Testing, Quick and Dirty Method, daraz.pk, Homeshopping.pk

1. Introduction

(1) The simplicity of knowing the development of a site, its capacities, boundary and substance that client has access to see; (2) 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 the 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 (Belanche D, et al., 2012). Usability of the website can be characterized by considering the following perspectives (Casalo L, et al., 2008). Moreover, usability makes the website data straightforward, favors 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 (Corritore C. L, et al., 2003). This statistic shows the great business opportunity in Pakistan. The majority population of Pakistan is young and lies in 20 to 30 age groups and performs shopping using online websites. So, it was important to evaluate the usability problems in online shopping stores in Pakistan. E-commerce websites are the way to conduct an online business using the internet. Usability means to 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 (Iskandar M. S, et al., 2018).

According to the state bank of Pakistan, the size of the e-commerce market in Pakistan was RS 99.3 Billion in 2018. State bank also claimed that the growth rate of the 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 (Lee S, et al., 2010). It was found that e-commerce website which has higher usability level get more re-accessed probability (Majid R. A, et al., 2014). Both Daraz.pk and Homeshopping.pk are the

free classified websites that do not take any service charges from users to buy and sell your products. Today, the internet is accessible in every country and almost half of the world population uses internet. So, it becomes a powerful tool for online business. User testing and the quick and dirty methods are mostly used to classify the problems of usability in websites. Expert evaluation approach is also used to classify the problems of usability in websites. In this approach expert person discover the ease of use issues in websites. Purpose of this study was to compare daraz.pk with the Homeshopping.pk in term of usability attributes, efficiency, satisfaction and effectiveness

Section 2 describes the related work done on e-commerce website and through online shopping. Section 3 summaries the methods and materials use in investigation. In Section 4, 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 5. At end we give suggestion and recommendation to improve the web usability of both websites. This article related work portion presented the past work, used methods and justification about these methods and main conclusion.

2. Literature Review

Usability is defined in different ways across literature. According to Mentees, usability is defined as the capacity of interactive systems to solve a specific task using a specific way for a specific user. According to Nielsen, usability is consisted of five attributes e.g. Learnability, Efficiency, Effectiveness, Errors and Satisfaction. The degree to which an item can be utilized by determined clients to accomplish indicated objectives with viability, effectiveness and fulfillment in a predetermined setting of utilization.

Ease of use turns into an essential factor in the appropriation of computerized internet business, as the individuals who need to utilize them may have issues when utilizing internet shopping sites.

Shackle and Richardson proposed four-dimensional attributes of usability in 1991. These qualities affect acceptable of merchandise in term of 'learnability', 'effectiveness', 'flexibility' and 'attitude'. There are few benefits of usability proposed by Udall-Espersen in 2005.
1. Users are satisfied with having usability websites.
2. Websites having higher usability consist of fewer errors.
3. Websites having higher usability helps users to find out the proper information on it.
4. Websites having higher usability achieved their goals with high effectiveness and efficiency (Ekşioğlu M, et al., 2015).

2.1. Daraz.pk
Daraz.pk is undoubtedly leading the e-commerce market. Over the years, it is settled on the precise showcasing of online shopping. Furthermore, affiliation decisions empowering it to amplify its reach plus improve brand name affirmation. Today it is the most notable online retailer, and, 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.
Daraz was hatched by Rocket Internet (RI), an organization situated in Berlin, which gave the underlying holy messenger speculation and regulated the business execution. RI, the world's

biggest hatchery of web organizations, put resources into web new companies in recently rising and quickly developing business sectors and moved demonstrated plans of action there. Daraz.pk, the main internet business shopping entrance in Pakistan, was dispatched by RI in 2012 with only five workers. RI and its two essential hatchery speculators, Oredoo.com and CDC Global (a UK government venture Bank), had equivalent rate responsibility for. It began as an online design retailer selling attire (garments, footwear, and frill) from the stock it claimed.

Daraz made sure about a re-capital in 2014 dependent on its KPI execution, however with a condition to develop its market. It in this manner changed the online stage to include General Merchandize (GM), generally comprising of higher worth gadgets. The hardware stock; however, had a high danger of devaluation and was costly to keep up. To moderate against the money related weight of possessing the stock, Daraz rebuilt its plan of action to work as a 'commercial center' where venders could set up virtual stores at Daraz.pk by posting their items and setting costs. This permitted Daraz to charge a commission for each deal made through its site without claiming the stock.

In 2016, with a prime spotlight on client infiltration, there were around 500 individuals utilized at Daraz. Its deals expanded fivefold inside 2 years. Daraz had a wide client base with about 245,000 visits on the site each day, converting into 1,500 or so day by day deals in excess of 200 urban areas. Simultaneously, Daraz confronted increased rivalry from different new contestants into the online business industry, including one of Daraz's outsider coordination's (3PL) accomplices. Daraz's drawn out vision was to turn into the objective for item search in the nation dependent on the online substance and trust with the end goal that a client could get quality data in regards to any item.

Each visitor, overall, sees 4.49 product 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 an unobtrusive 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 the site of Daraz connect. In Figure-1 show the landing of daraz.pk website.
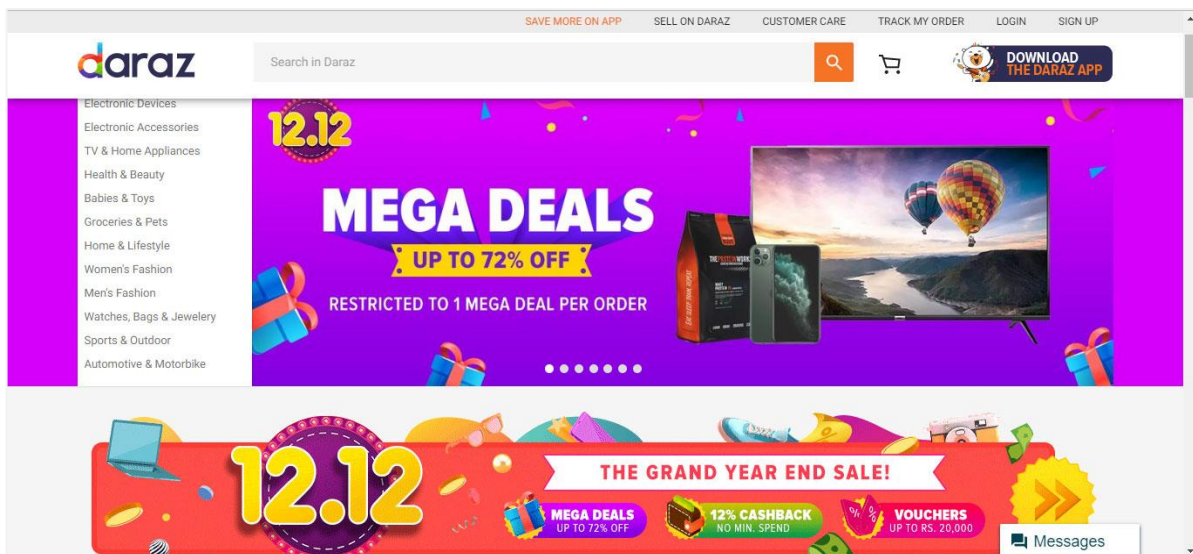

Figure 1. Daraz.pk landing page, 2019

2.2. Homeshopping.pk

A well developed and old performer in e-commerce advertise is Homeshopping.pk which encounter a tough competition right now. It just arrives in a far off third in the rankings with

886,670 perspectives for each month. With its long involvement in 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 34 seconds while pages saw by a normal client are 3.34.

The idea of social business is important for the Pakistani customer as there is an incredible increment in the quantity of individual's adaption to long range informal communication sites, Thus, giving the business people an extraordinary chance to sell their products on the web (Talat A, et al., 2013).
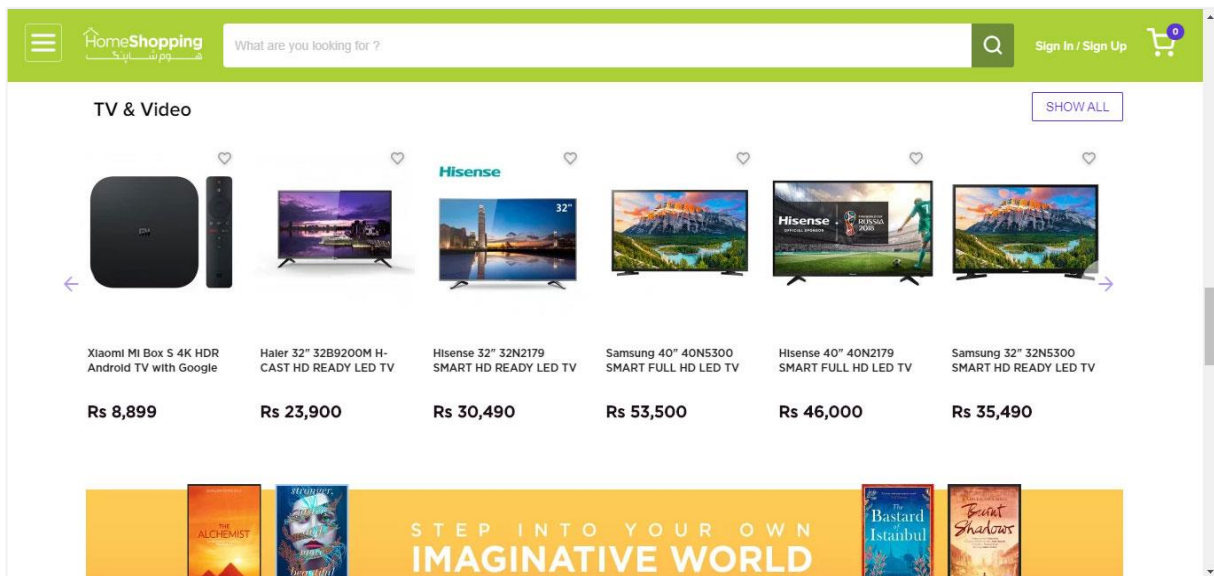

Figure 2. Homeshopping.pk landing page, 2019

HomeShopping.pk needs to develop itself with a new look and requires to exploit its wide cluster of items by promoting its image in a better manner. Web composition also needs improvement as the present one isn't sufficiently natural to hold clients for long. In Figure-2 the landing of Homeshopping.pk website is shown.

2.3. User Testing Method

User Testing is a standard method which is used to identify the usability problems in websites. In this technique, users are performing pre-defined typical tasks consisting of the main functionality of the system. Users of the system carry out these tasks and observe the behavior of users. A well-known method "Think-aloud" is used to perform the user testing. This protocol records the users' time consumed to carry out tasks and then efficiency is calculated. This protocol is also used to calculate the effectiveness of both websites. In this protocol, users are allowed to express their opinion and feeling with the evaluator. In this protocol, the user is constantly verbalizing the opinion about the system. Camtasia studio tools is used in this research (Goh K, et al., 2013).

2.4. Quick and dirty Method

In this technique, evaluator gets the feedback from the users informally and confirms their ideas to fulfill user's needs and likeness. System Usability Scale (SUS) tool is used for calculating the system usability for performing the quick and dirty technique. It contains 8 queries and five reply choices. Strongly Agree, Agree, Neutral, Disagree & Strongly Disagree. This method is very easy to calculate the usability in term of satisfaction of the system.

3. Methodology

Users were taken into consideration for the usability testing methods: i.e., user testing and quick & dirty testing. Total 10 users were selected for quick and dirty testing and 8 users were selected randomly from them. All users were students from of different universities and colleges of Pakistan and were regular users of e-commerce websites. Demographic information is also collected through a questionnaire.

3.1. User Testing

10 users were randomly selected for user testing. Camtasia Studio 7 Software Tools was used in this research. User testing is performed through a well-known method "Think-aloud". This protocol records the users' time used to carry out tasks and then efficiency is calculated using it. This protocol is also used to calculate the effectiveness of both websites (Hasan L, et al., 2012).

Table 1. List of 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 newly advertisement product for purchasing purpose
7.	Read the description of newly advertisement products
8.	Logout the account

3.2. Quick and Dirty Testing

In this technique, evaluator gets the feedback from users informally and confirm their ideas fill full user's needs and likeness. System Usability Scale (SUS) tool is used for calculating the system usability for performing the quick and dirty testing. It contains 7 queries and 5 responses. Strongly Agree, Agree, Neutral, Distress Strongly Disagree (Hasan L, et al., 2012). This method is very easy to calculate the usability in term of satisfaction of the system. Questions are as follows:

1. I found buttons were visible in this ecommerce website.
2. It provides an easy exploration of norms inside the website.
3. It gives better appreciative of content inside the website.
4. It has a good layout.

5. I will recommend it to a friend.
6. It is pleasant to use.
7. I would envision that the vast majority would figure out how to utilize the site rapidly.

4. Result

User's characteristics and results of user testing and quick and dirty methods are presented below.

4.1. Users' Characteristics

Users' characteristics are given in table 2.

Table 2. Summary of Users' characteristics

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

4.2. Results of User Testing

The efficiency and effectiveness of the system was obtained through user testing. Efficiency means time duration required by the system to perform the tasks.

Table 3. Comparison of regular time consumption during different tasks daraz and homeshopping

No. Tasks	Daraz	Homeshopping
Create the account	52 sec	114 sec
Update your profile	68 sec	69.8 sec
Sell your cell phone on the website	125 sec	159 sec
Find the term of use policy of the website	27.5 sec	25 sec
Send a new message to newly advertisement product for purchasing purpose	42 sec	91.5 sec
Read the description of newly advertisement products	35 sec	42 sec
Logout the account	6 sec	9 sec

Table 3 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 were successfully carried out by the user. We can calculate the effectiveness of the system by using the below formula (Al-Badi A, et al., 2013).

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

Table 4. Comparison of success rate of daraz and homeshopping

Tasks	Daraz	Homeshopping
Create the account	100 %	100%
Update your profile	100%	100%
Sell your cell phone on the website	100%	100%
Find the term of use policy of the website	85%	100%
Send a new message to newly advertisement product for purchasing purpose	100%	100%
Read the description of newly advertisement products	100%	100%
Logout the account	100%	100%

This table 4 data shows that Homeshopping.pk have a 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.

System Usability Scale (SUS) tool is used for calculating the system usability by performing the quick and dirty testing. It contains 8 queries and five reply options. Intensely Agree, Agree, Neutral, Disagree Strongly Disagree (M. Maguire, et al., 2018).

Table 5. Shows the Results of Quick and Dirty

Usability Level	Daraz	Homeshopping
SUS score	82	74
Satisfaction level	Excellent	Good

According to the data given in table 5, daraz have a higher level of satisfaction as compared to Homeshopping. According to SUS if the average value is greater than 80 then website is considered as excellent. If a value is between 68 to 80 then it is considered as good.

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 to fulfill user's needs and likeness (Pokki, S, 2016).

5. Discussion:

With the advancement in technology, people are moving towards online shopping and the importance of assessment of the usability of e-commerce websites is well recognized because end-user satisfaction and cost-effectiveness is important for daily business. As the main purpose of online shopping is to save time and energy, In this research daraz.pk is achieved an 82 SUS

Score as compared to homeshopping.pk using the quick and dirty method. Daraz.pk is the best E-commerce platform for both Sellers and Buyers with a User-Friendly Interface.

6. Conclusion

Based on user testing methods it is concluded that daraz.pk is better than Homeshopping.pk in term of efficiency. The ordinary time consumed every task by daraz.pk is smaller than Homeshopping.pk. However, Homeshopping.pk is better in term of effectiveness as compared to daraz.pk. According to the quick and dirty method it is shown that daraz.pk have more satisfaction level as compared to Homeshopping.pk.

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