Usability Evaluation of E-Commerce Website

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Abstract

Shopping is one of the fundamental part in our everyday life. These days, individual's way of life is extraordinary. Individuals feel awkward and set aside a long effort to go to swarmed markets. So e-shopping is a gift as it spares a ton of time. Online buys are a procedure by which shoppers purchase merchandise straightforwardly to a dealer without a web business administration. Purchasers can visit online stores from the online websites. Online stores are accessible twenty-four hours per day and mostly buyers have internet get to both at work and at home. So it is helpful for them to purchase on the web. We have to know blemishes of interface which client confronted. Compelling plan of interface increment trust of clients. This study endeavors the convenience assessment of homeshopping.pk sites. In this study used user testing and questionnaire which is best strategy.

Keywords*: Evaluation method, usability testing, user testing, questionnaire, quick and dirty.*

1. Introduction

With the development of the web and its broad application, more consideration has been paid to the examination on site ease of use. As indicated by IS09241-11 standard, "ease of use" is defined as "the dimension of adequacy, productivity and client fulfillment when a given item is utilized to accomplish a particular point by a particular client in a particular use circumstance". Site ease of use alludes to how simple it is for a guest to utilize the site. Can he precisely get the required data or complete the planned errands on the web? How productive would it be able to be? Furthermore, does it make a charming sentiment of fulfillment? (Huang L, et al., 2010). E-commerce website is a one stop internet business site to peruse, seek, get item subtleties, read surveys and buy a huge number of items accessible and different dealers. The developing reach and accessibility of web administrations. Various issues additionally result from clients don't completely comprehend the protection practices of a site or don't utilize the security includes in a way reliable with their objectives. These ease of use deficiencies regularly have an effect practically identical or more regrettable clients than backend security ruptures, as reflected in the sentences and objections of clients (Mohammed B, et al., 2014).

There is different usability metrics like effectiveness, efficiency and satisfaction. Trust is also important for e-commerce websites. If people don't follow usability standards, then their websites not looks good. In this study 20 participants which performs different task.

2. Literature Review

An easy to use website is more effective and preferable when it has high usability (Donaire, X. S, 2009). Human computer interaction and interactive design are considered among the most significant parts of any intuitive framework. Clients ought to be fulfilled while cooperating with these frameworks and not confront any snags or challenges. It is significant in intelligent plan that creators get a thought of how successful, proficient, and easy to understand the framework has moved toward becoming. internet shopping sites give results dependent on their choices, and their

costs don't generally coordinate a customer's spending plan. At the point when a customer is keen on buying another item, the individual in question may get to the web to discover it. they would prefer not to confront troubles, when obtaining an item or sit around idly looking through sites (Goh K, et al., 2013). The security and privacy are the main factors which effect trust of customer (Gustavsson M, et al., 2006). Different surveys on e-commerce websites shows that the without actually purchasing a product or a service usability and the usefulness of a website can be determined (Gefen, et al., 2003). At the point when a client is keen on purchasing another item, the individual in question can get to the Internet to discover it. Not with standing, some web based shopping locales offer that clients of new items are dangerous. Customer and shoppers may feel annoyed or disappointed with sites. They are difficult to utilize. Truth be told, they would prefer not to confront challenges. When you purchase an item or you sit idle looking sites. Organizations may not understand this is noteworthy issue when creating sites or purchasing on the web. Frameworks/sites that are difficult to utilize (Huang L, et al., 2010). The impact of appearance of website and usability on customer trust of online company (Hampton-Sosa W, et al., 2005). Web usability can be measured trust and attitude. It increases the trust and web experience of users on the websites (Jones K, et al., 2009). Indeed, even the choices of some site offers don't really compare to inclinations or client prerequisites. Once in a while the choices gave to the client are not adequate to express their assessment.

Web based business site is an exchanging stage and web clients are essentially occupied with exchanging exercises (Miller B, et al., 2012). The consistently expanding reach and accessibility of web administrations with customized or social perspectives makes new security and protection dangers for clients. Numerous issues result from clients either not completely understanding the security practices of a site or neglecting to utilize the protection includes in a way predictable with their objectives. These convenience deficiencies frequently affect clients similar to or more regrettable than back-end security ruptures, as reflected in claims and client protests (Mohammed B, et al., 2014). The significance of usability testing to assess internet business has been all around characterized. UI of PC applications influences how individuals connect with the site and furthermore their recognition towards the site. The general objective of usability from a client point of view is to quantify and improve adequacy, proficiency and fulfillment. The ease of use of an online business site is to give clients tasteful exchange successfully and productively. It gets a total comprehension of client's needs and to improve item advancement so as to give a superior client experience. To be sure, the ease of use of an internet business site is of most extreme significance as it will influence customer's trust towards the site and thusly their buy goal. Trust and fulfillment are the principles for effective business connections in business to customer electronic trade (Shehzad R, et al., 2017).

3. Methodology

This section can justify the analysis methodology used for the analysis of the study. The general style or procedure that accomplishes the targets and objectives required by the examination is introduced as an investigation strategy. It is essentially an affirmation that the issue under the investigation has been examined and tended to totally. This gives effectiveness and completion to the analysis. The analysis methodology includes research style, assortment of information, responsibility and validity, information analysis and moral problems involved in the analysis method. The following two evaluation methods are used for comparison of websites interface evaluation.

- Usability testing
    a. User testing
    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.

    b. Questionnaire
        A set of questions with answers choices for the purpose of survey.

- Quick and dirty
    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.

Table 1. Online Shopping Website

Online Shopping	Male	Female	Total
Homeshopping.pk	10	10	20

There are 10 males and 10 females who did answers of questions for survey.
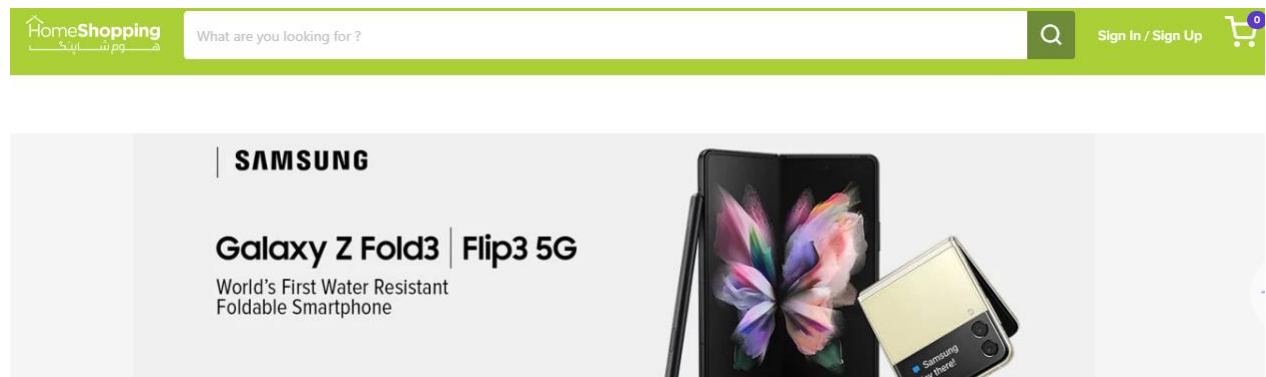
4. Homeshopping.Pk

Figure 1. Homeshopping.pk

Homeshopping.pk is an online shopping portal. It provides all gadgets and fashion related products to its customers. Everything is available at reasonable prices. Task is to apply some usability evaluation methods and get some results according to user feedback. We will make a questionnaire with some tasks and fill through different type of users. Customers fill the questionnaire and then we conduct a ratio result according to user feedback.

4.1. Usability Evaluation of E-Commerce Website

Usability Evaluation is focuses how user interact with system and how user use the product to achieve the goals. In usability evaluation we also identify the weak points of website or our product. we conduct a survey of some e-commerce website and identify some weakness of regarding website. The aim of our survey is to maximize the satisfaction of user by using the e-commerce websites.

5. Result and Discussion

Task Analysis

1. Sign up.
2. Sign in.
3. Use search bar to find the product you want to purchase such as cell phones, laptops etc.
4. Check all the categories of the products available in these E-commerce websites.
5. Browse and find electronics products details, price, material and warranty.
6. Add to cart.
7. Check website is safe for online shopping.
8. Confirmation after product selection.
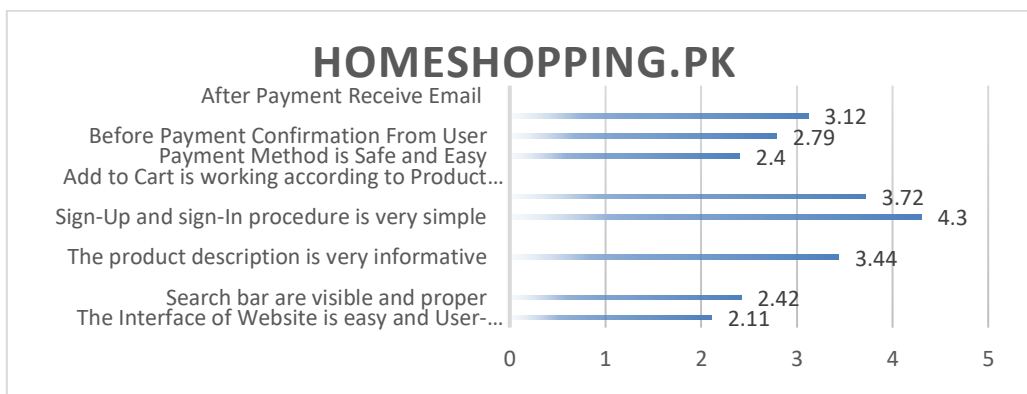9. Pay for the items in your shopping cart.
10. Check inbox.

HOMESHOPPING.PK

Category	Value
After Payment Receive Email	3.12
Before Payment Confirmation From User	2.79
Payment Method is Safe and Easy	2.4
Add to Cart is working according to Product…	3.72
Sign-Up and sign-In procedure is very simple	4.3
The product description is very informative	3.44
Search bar are visible and proper	2.42
The Interface of Website is easy and User-…	2.11

Figure 2. Task Analysis

Table 2. Task Analysis

Tasks	Results
	HS
The Interface of Website is easy and User-friendly	2.11
Search bar are visible and proper	2.42
The product description is very informative	3.44
Sign-Up and sign-In procedure is very simple	4.30
Add to Cart is working according to Product selection	3.72
Payment Method is Safe and Easy	2.40
Before Payment Confirmation From User	2.79
After Payment Receive Email	3.12

According to geometric mean above are the results of 20 participants.

The interface of website is easy and user-friendly result of geometric mean is 2.11, search bar is visible and proper result is 2.42, the product description is very informative result is 3.44, sign-in, sign-up procedure is simple result is 4.30, add to cart is working according to product selection result is 3.72, payment method is safe and easy result is 2.40, before payment confirmation from user result is 2.79 and after payment receive email result is 3.12
Some screenshots of website are given below.

Figure 3. Sign In

Figure 4. Sign Up

Figure 5. Mobile Products
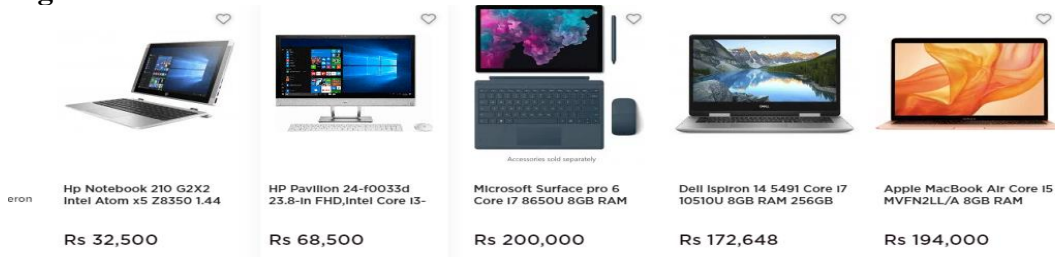
Figure 6. Laptop Products
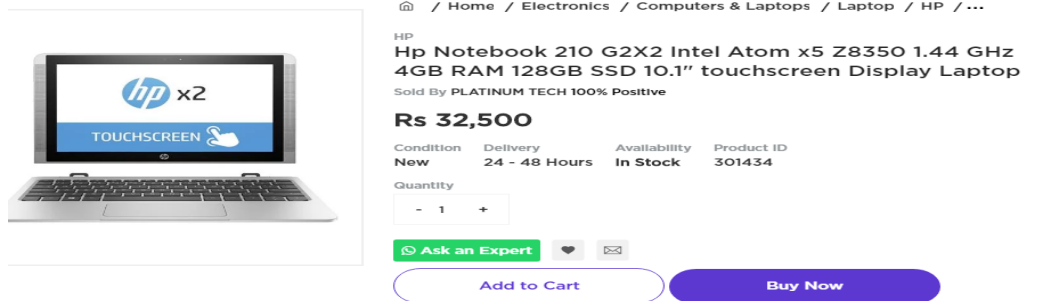
Figure 7. Specification

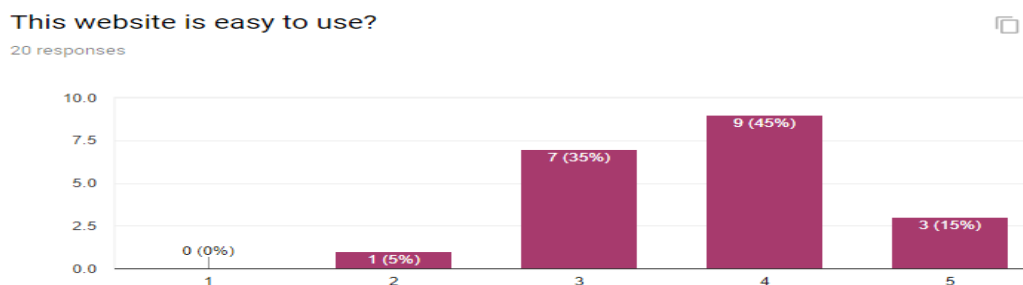There are some questionnaire's screenshots are given below of 20 participants.

Figure 8. Ease of Use
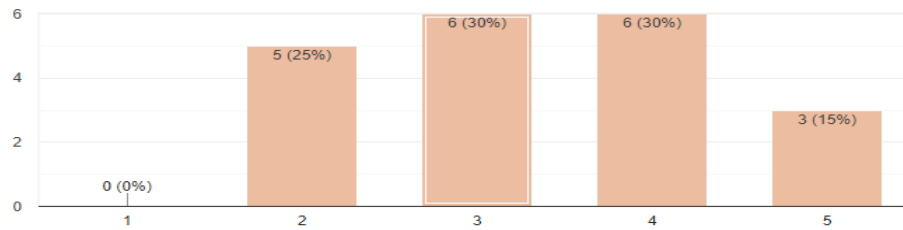
Figure 9. Attractive Website
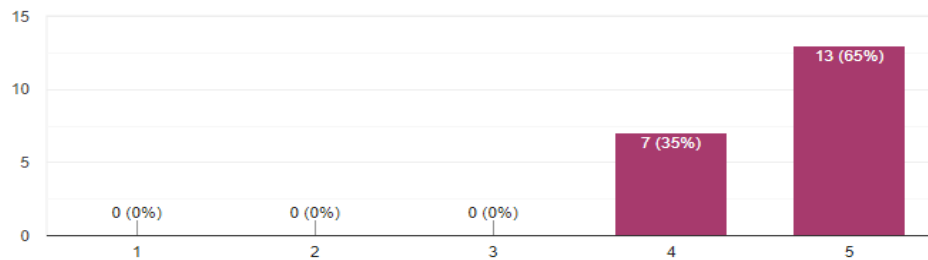
Figure 10. Importance of Website
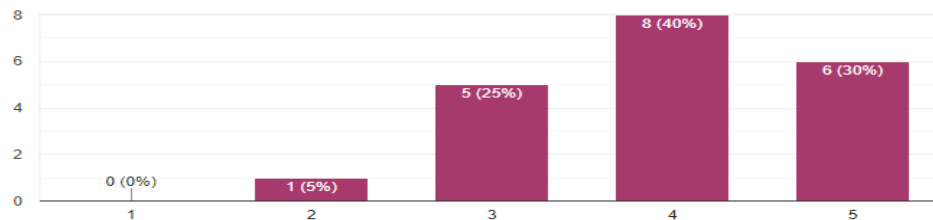
Figure 11. Presentation
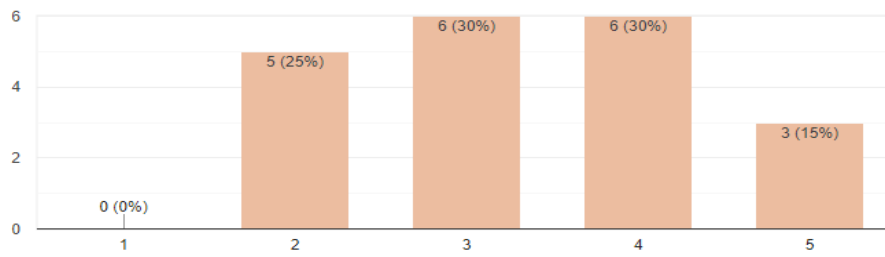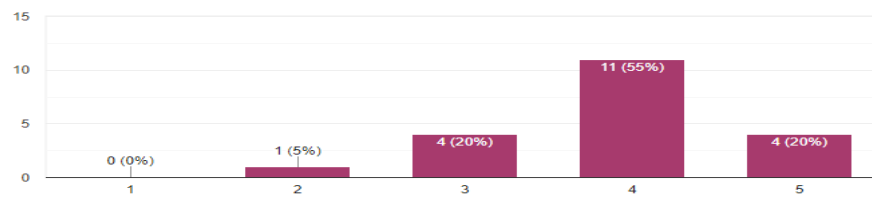
Figure 12. Enjoy Using Website

Figure 13. Task Analysis

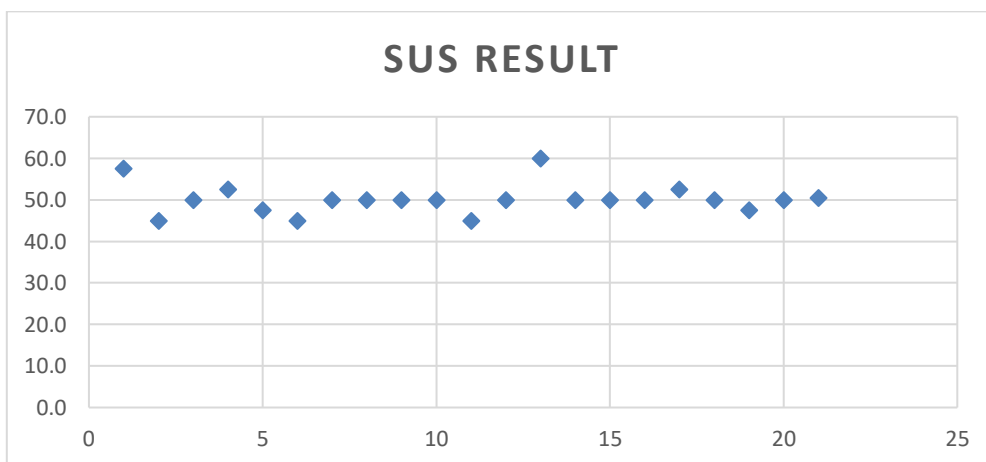According to above data SUS result are given below.

Figure 14. SUS Result

5.1 Discussion

    According to study, homeshopping.pk is good interface website. The result of current research shows that there is some interface issue etc. Most of the people agree on homeshopping.pk website has appealing interface. By questionnaire and SUS method result shows, system usability is good. Usability and interface of websites should be appealing and easy to use that new customer can easily do shopping. Online shopping is necessary now a day to save time. Everyone can easily buy anything from home. According to survey /questionnaire homeshopping.pk is easy to use and attractive website.

6. Conclusion

    Online shopping websites plays a vital role in human life because its availability is 24/7, save time and energy and if the website interface is user friendly, appealing and secure then it is easy for new user to buy easily each and everything which they need. Website interface should be appealing and user friendly. In this study using usability evaluation and quick and dirty method and according to these methods it is good website at its own place according to their respective features.

    Now suggest that to improve the interface to design an organized interface for the participants. New participants easily use it that interface and give the helpline and suggestion for the new participants how to use it.

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