

Evaluation of usability and accessibility of online shopping websites in Sri Lanka

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Introduction

Online shopping web sites provide variety of goods and services to consumers and provide increased competition on a global scale and allowing them to access wider market place. Consumers are rapidly adopting online shopping over the conventional retail shopping because of their busy life style and ease of access. However, as the importance of and competition among online shopping sites increases, the quality of the sites will become important for survival and success. As online shopping moves rapidly from novelty to a routing way of shopping, the usability and accessibility of the sites will play an important role in differentiating sites. Powell (2000) defines the web site usability as "the extent to which a site can be used by a specified group of users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use". Web accessibility refers to the degree to which web information is accessible to all human beings and automatic tools. In addition, the quality of a web site usually measures based on the loading speed and the size of web page. High quality sites may attract more browsers and shoppers than competing low quality sites because quality builds sustainable competitive assets (Mullaney, 2000). In the Sri Lankan context, literature on online shopping web sites is very limited and unclear. Thus, this study aims to evaluate the usability and accessibility of online shopping websites in Sri Lanka.

Methodology

In this study, search strings were used to find the most popular online shopping websites in Sri Lanka using different search engines such as Google and Yahoo. The study used search strings such as "Major Online Shopping web sites in Sri Lanka", "Online Shopping + Sri Lanka". According to the search queries and a simple poll done in the Facebook, wow.lk, mystore.lk, choice.lk, takas.lk, daraz.lk and wasi.lk sites were identified as the most popular online shopping websites in Sri Lanka for the study.

The methodology of this research comprises of two approaches. Firstly, the survey method which is similar to the methodology used in Thiam and Siti's

(2003) study was used in the study. The study selected 54 respondents using a random sampling to conduct online survey among them and a descriptive research design was chosen. In the questionnaire, critical aspects of the usability and accessibility were classified into four categories according to ISO 9241-11 components: 1. Content, organization, and readability, 2. Navigation and links, 3. User interface design, 4. Performance and effectiveness. Secondly; the systematic evaluation was done by using three automated tools such as readability test (juicystudio.com), web page speed and performance GTmatrix (gtmetrix.com) and Dead Link checker (www.deadlinkchecker.com).

Results and discussion

A total number of 54 respondents participated in the study were 57 percent are male and 43 percent were female. Among them, 31 percent were Advanced Level students, 22 percent were undergraduate students, 35 percent were graduates and 10 percent were postgraduate holders. It was revealed that, in average, 9 percent of the respondents spent less than 30 minutes, 50 percent spent 30 – 60 minutes, and 33 percent spent 1 – 3 hours, 7 percent spent more than 3 hours on the internet.

The level of usability and accessibility of the specific online shopping websites were determined by using the corresponding merit values from 0.00 to 1.00 in terms of reliability. The greater the value shows greater participant satisfaction, whereas the lower the value shows lower participant satisfaction. Each of the online shopping websites achieved its usability levels based on the corresponding usability point gained from the participants. The wow.lk website (Owned by Dialog Axiata PLC) achieved the highest score among the five online shopping websites in most categories. The mystore.lk (Owned by Mobitel PLC), daraz.lk and choice.lk had a good usability level in the category of content, organization, readability, navigation, links, user interface design and performance and effectiveness. However, takas.lk and wasi.lk achieved moderate scores in all the categories.

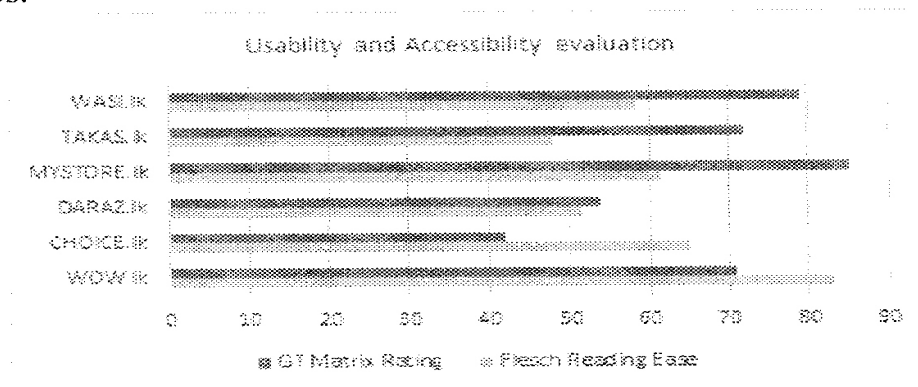


Figure 1 GT Matrix rating and Flesch Reading

According to the automated tools, data were analyzed based from Nielsen usability guidelines for (i) ideal size of web pages, (ii) number of broken links and the (iii) webpage loading speed. The result of this study shows that the online shopping websites in Sri Lanka had few usability and accessibility issues. Figure 1 shows the percentages obtained from each websites with reference to the GT Matrix rating and Readability test. According to the given percentages of loading speed and page sizes by the GT Matrix automated tool, wow.lk and mystore.lk acquired B grade, daraz.lk, takas.lk, wasi.lk acquired C and only choice.lk acquired F grade respectively.

Conclusion

The main aim of this study was to evaluate the usability and accessibility of online shopping websites in Sri Lanka. Few usability issues and some accessibility issues were discovered after both of the participant's survey and systematic review done by using automated tools in this study. It also shows that there is a crystal clear relationship between the usability and accessibility of a website and the consumer preferences specially, when it comes to online shopping. The findings of this study provide owners, strategic partners, web developers of online shopping websites in Sri Lanka to give more emphasis on specific accessibility and usability features which are fairly being neglected. In reality, the challenges of studying the usability and accessibility of websites are greater due to the fact that the web is growing fast and new technical resolutions are continuously developing, as well as new practices.

Keywords: *Accessibility, automated tools, online shopping, Sri Lanka, usability.*

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