Implications for Improving Accessibility to E-Commerce Websites in Developing Countries: A Study of Hotel Websites

Arunasalam Sambhanthan, University of Portsmouth, UK
Alice Good, University of Portsmouth, UK

ABSTRACT

This research explores the accessibility issues with regard to the e-commerce websites in developing countries, through a study of Sri Lankan hotel websites. A web survey and a web content analysis were conducted as the methods to elicit data on web accessibility. Factors preventing accessibility were hypothesized as an initial experiment. Affecting design elements are identified through web content analysis, the results of which are utilized to develop specific implications for improving web accessibility. The hypothesis tests show that there is no significant correlation between accessibility and geographical or economic factors. However, physical impairments of users have a considerable influence on the accessibility of web page user interface if it has been designed without full consideration of the needs of all users. Poor readability and less navigable page designs are two observable issues, which pose threats to accessibility. The lack of conformance to W3C accessibility guidelines and the poor design process are the specific shortcomings which reduce the overall accessibility. Further enhancements are suggested with adherence to principles, user – centered design and developing customizable web portals compatible for connections with differing speeds. Re-ordering search results has been suggested as one of the finest step towards making the web content accessible for users with differing needs.

Keywords: Accessibility, Developing Countries, e-Commerce, Hotel Websites, Impaired Users, Web Interfaces

1. INTRODUCTION

Accessibility is a critical factor for e-commerce success. Particularly, the accessibility of e-commerce websites for users with impairments is an evolving research area in the contemporary academia. Apart from this, the accessibility of e-commerce websites in developing countries could be influenced by several other factors such as economic background and geographical location of users. Therefore, it is a vital requirement for web concept designers in the
developing countries to consider the factors in order to ensure the successful dissemination of business information through e-commerce sites. However, the means of designing accessible web interfaces is still remaining as an open question with regard to developing countries. By not adhering to accessibility guidelines, e-commerce businesses are inadvertently excluding a potentially large demographic. According to a report released by United States Census Bureau on year 2005, 6.8% of the population age 15 years and older records sight and hearing impairments. This amount increases to 21.3% when considering the population above age 65 years. 8.2% of the same population records having difficulty in grasping objects – which affect the use of mouse (Americans with Disabilities, 2005). This clearly shows the significance and gravity of this research. According to Australian Bureau of Statistics the 35.9% of the Australian population is subjected to hearing impairments in year 1993. The United Nations Statistics Division reports that most of the population of above 40 years age has subjected to some form of disabilities. This shows the emerging need for considering disabled population during e-commerce website design process.

This paper aims to formulate implications for improving accessibility to e-commerce websites in developing countries through a study of Sri Lankan hotel websites. Specifically, formulating implications for web designers would be a vital contribution to the body of knowledge. Also, the restricting factors on reaching potential customer base could be effectively tackled through implementing these implications. The specificity of this research has been focused to Sri Lankan hotel websites considering the contextual relevance. Arguably, Sri Lankan hotel websites have a greater need for accessibility due to the reservations made by tourists from different physical, economic and geographic backgrounds. The current economic boom, opened by the post war scenario of the island further signifies the emerging need for designing accessible e-commerce sites, for effective web based promotion.

2. LITERATURE REVIEW

Webster’s dictionary defines accessibility as “the quality of being accessible, or of admitting approach.” (Webster’s Dictionary - Revised Unabridged Dictionary, 1996, 1998 MIRCA, Inc) This definition serves as an introductory note for the term, but insufficient to explicit the innate meaning of accessibility in its practical form. On the contrary, W3C providing a more contextual definition for the term, states “Web Accessibility is a term used to identify the extent to which information on Web pages can be successfully accessed by persons with disabilities including the aging” (W3C, 2000). However, this definition only includes the physical disabilities, but fails to include some other important dimensions of this multi-faceted word. Particularly, accessibility could means a lot in the context of developing countries which are far behind developed countries in terms of economic condition. Consequently, Good (2008, p. 16) defines accessibility in a more versatile manner which and encompasses the contextual requirements of developing countries. The definition goes as, “A website is said to be accessible when anyone, regardless of economic, geographic or physical circumstances, is able to access it.” This means, the ease with which, people from different economic backgrounds, people living in different geographic regions and people having different internet connections could access the web’. Hence, for this particular study, accessibility could be defined as ‘the ease with which people with disabilities, people from different geographic regions and people having different internet connections could access the websites.’

2.1. Economic Factors

The economical aspect of accessibility could be looked in two ways, (1) the category of internet connection - which depends on the economic background and usage frequency of customer, and (2) the time spent on information search which mostly depends on the time availability of consumer. Both these factors could have an interrelationship and will have a direct effect
A Mobile Portal Solution for Knowledge Management
[www.igi-global.com/chapter/mobile-portal-solution-knowledge-management/25127?camid=4v1a](www.igi-global.com/chapter/mobile-portal-solution-knowledge-management/25127?camid=4v1a)

A Framework for Understanding the Complementary Roles of Information Systems and Knowledge Management Systems
[www.igi-global.com/article/a-framework-for-understanding-the-complementary-roles-of-information-systems-and-knowledge-management-systems/117733?camid=4v1a](www.igi-global.com/article/a-framework-for-understanding-the-complementary-roles-of-information-systems-and-knowledge-management-systems/117733?camid=4v1a)