

Chapter 6

UX (User Experience)–Driven Website Design Utilizing Analytic Hierarchy Process (AHP) Multi–Attribute Decision Modeling

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ABSTRACT

The success of an organization's website is determined by the user's experience (UX). Yet many organizations continue to struggle to find tools to strategically analyze the UX's satisfaction with their websites and overall online presence. While there have been numerous studies offering "best practices" for website design, most of these are dated and do not take into consideration UX's experience and social media tools that come into the market. In this chapter, over 900 surveys were conducted on Inc. Magazine's Top 500 list (2011-13) of fastest growing companies in the United States. The analysis of these surveys resulted in a list of shared elements (best practices) common to the websites surveyed. Through the use of the analytic hierarchy process (AHP) multi-attribute decision model, the authors developed a measure by which companies can assess their customer's experience and compare it to these best practices model. This model provides an internally consistent, robust model against which to measure an organization's website based on the user's experience (UX).

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INTRODUCTION

Organizations are continually challenged to develop websites that successfully meet the expectations of the User's Experience (UX). Wikipedia.org explains

“User Experience (UX) refers to a person's emotions and attitudes about using a particular product, system, or service. It includes the practical, experiential, affective, meaningful and valuable aspects of human-computer interaction. User experience is dynamic as it is constantly modified over time due to changing usage circumstances and changes to individual systems as well as the wider usage context in which they can be found.”

Through the use of the Analytic Hierarchy Process (AHP) Multi-attribute Decision Model, we developed a measure by which companies can assess the UX of their web presence in comparison to this best practices model. This model provides an internally consistent, robust model against which to measure the UX of an organization's website. Author Steve Krug in his book “Don't Make Me Think” offers a guide to help web designers understand the principles of intuitive navigation and information design. As a usability consultant for Apple, AOL, Lexus and others he explains the problems occur when organizations build websites based on technical components rather than being focused on the UX.

The impact and importance of website design on organizations of all sizes continues to dramatically increase. In 2001, Michal Porter rationalized that the World Wide Web (WWW or W3) would have a dramatic impact on organizational business practices and strategies. Indeed, websites provide a way for customers, potential customers, employees, and other visitors to interact with the organization without time barriers and across geographic distances. The question for many organizations is, “How do they measure their websites compared to others both inside and outside their industries? What are the ‘good components’ in the design of a website?” Perhaps most importantly what do Users desire in the design of a website.

Limited academic research has been done in the area of strategic website design specifically focused on UX (Wani et al 2017; Frederick et al 2015). The purpose of this research was the development of a measurement instrument that could be used by organizations to produce an internally consistent, robust measure of their website design that takes into consideration the UX. In our research, 900 surveys were conducted from Inc. Magazine's Top 500 list (2011-13) of fastest growing companies in the United States. The analysis of these surveys resulted in a list of shared elements (best practices) common to the websites surveyed. Through the use of the Analytic Hierarchy Process (AHP) Multi-attribute Decision Model, we developed a measure by which companies can assess their web presence in comparison to this best practices model. This model provides an internally consistent, robust model against which to measure an organization's website.

Although much work has been done on the individual components of websites design, little work has looked at the overall look and functional design of a website from the User's perspective. These are in fact the components exerting a direct impact on the public's perception of the organization's brand. Newman and Landay (2000) proposed that the areas of navigation, information, and visual design should also be considered. Fan and Tsai (2010) suggest that visual components may indeed be the most important and valuable components of a website.

Websites provide a valuable opportunity to interact with existing and potential customers as well as other interested parties on a one-on-one basis. Organizations of all types provide virtual addresses

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