Development of a Measurement Instrument for Website Design Utilizing Analytic Hierarchy Process (AHP) Multi-Attribute Decision Modeling

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ABSTRACT

For many organizations their websites are the first impression customers have of their companies. The impact and importance of web design on organizations continues to dramatically increase. Yet many organizations continue to struggle to find tools to strategically analyze 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 new applications and social media tools that come into the market. In our research 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, 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.

Keywords: Analytic Hierarchy Process (AHP), Benchmarks, Multi-Attribute Decision Model, Quantitative Survey, Website Analysis, Website Design

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INTRODUCTION

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?”

Limited academic research has been done in the area of strategic website design. 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. 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 measure against which an organization’s website can be compared.

This paper provides a contribution to the literature through the development of a measure that allows for a systematic process to evaluate web presence using the results from an Analytic Hierarchy Process (AHP) model.

LITERATURE REVIEW

We conducted a literature review based on peer-reviewed journal articles for website design and found the topic to be highly dynamic. New applications and social media tools having high impact on internet traffic and websites are being continually created. These social media tools demand continuous change and adaptations by organizational websites. Top-level peer-reviewed journals may take anywhere from 2-3 years for an article to be published. By that time, the standards for websites have gone through several iterations.

For example Pinterest, an application that offers visual discovery, collection, sharing, and storage tools was started in 2010. It already has over 300 million active users. Hootsuite was founded in 2008, but only after a $200 million
Insights into Web Service Orchestration and Choreography

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