Measuring E-Commerce Websites Information Load with EEG Device

Sara Afkhami Rad

Bachelor of Physic

Ferdowsi University

Mashhad, Iran

2003

Submitted to the Graduate School of Business
Faculty of Business and Accountancy
University Malaya, in partial fulfillment of the
requirements for the degree of Master
Business Administration

December 2009

Acknowledgements

It is my pleasure to thank the people who made this research possible. First and foremost, I would like to record my genuine gratitude to my supervisor, Prof. Dr Masood Abessi, for his supervision, advice, and guidance. Above all and the most needed, he provided me unflinching encouragement and support in various ways.

My deepest and most heart-felt thanks go to my most beloved family and adore family in low, for their endless love and support. They have instilled in me a love for knowledge and a strong work ethic which has enabled me to accomplish anything I set my mind to. They have always supported me in whatever I do and wherever it is possible.

To those who were directly and indirectly involved in this research, your contribution shall not be forgotten; please accept my utmost appreciation to all of you.

Above all I would like to thank God for his grace in granting me to complete my studies

To my dearest husband Babak,

for his unconditional loves and supports.

Table of content

List of Figures

List of tables

ABSTRACT

Information overload is an ongoing problem that affects decision making process in purchasing behavior. This problem becomes more serious in online environment which the cost of obtaining information is much less than traditional market. This phenomenon in online environment may result losing prosperity in this environment. So it is important to find out the optimum amount of information to offer to the customer to attract them and also assist them to make best decision. Current research is about finding a way to measuring e-commerce websites information load. With using EEG device to measure theta and alpha mean power as two representatives of working memory load, we have shown the relationship between theta and alpha power and websites information load. We have chosen six website and test their information load in a pilot research and find out two overload website and two websites with moderate information load and two under load websites. Then we have designed an experiment and using an EEG device to measure theta and alpha power for 10 subjects while shopping from those websites. We have found an average number for theta and alpha for overload and moderate load and under load websites, which is usable in designing an e-commerce websites.