# MOBILE BASED STOCK EXCHANGE (MBSE)

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# Mobile Based Stock Exchange MBSE

A thesis submitted to the Academic Dean Office in partial fulfillment of the requirements for the degree Master of Science (Information Technology)

Universiti Utara Malaysia

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### Abstract

Most stock exchanges provide stock price quotation through market watch service. Since stock prices change every second; investors have to observe the change throughout the trading session in order to make the right decision at the appropriate moment. However, accessing this service has limitation, where it is only available through the brokerage firms' screens as well as online computer. Since there is a tremendous need to access information regarding the stock prices, an alternative way of accessing the information is required. This arises when the investors are not able to be at the brokerage firm, or contact their brokers or access the information about the stock through online computer. Mobile technology and wireless communication have been identified as potential alternatives since they are able to fulfill the need of the investors through ubiquitous service. This study discusses a prototype Mobile-Based Stock Exchange (MBSE) and simplifies ubiquitously accessing online stock exchange through mobile devices. MBSE was developed for stock exchange market watch. The results of user evaluation on the MBSE indicate that it has been rated highly in terms of The Usefulness, Ease of Use, Information Quality, Functionality, Interface Quality, Design/Layout and Outcome /Future Use. Moreover, the results also indicate that there is no significant difference between novices and experts for MBSE users in most measured dimensions.

# Dedication

I humbly thank **Allah** Almighty, the Merciful and the Beneficent, who gave me health, thoughts and co-operative people to enable me achieve this goal...

I wish to dedicate this work to Holy Prophet Muhammad (Peace be upon him) and his companions who laid the foundations of Modern civilization and paved the way for social, moral, political, economical, cultural and physical revolution...

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### CHAPTER 1

### INTRODUCTION

### 1.1 Background

Today's stock exchanges' operation has become highly organized trading market. Investors who wanted to trade securities must do it through a brokerage firm which pays to own a seat on the exchange (Khandelwal, 2007). Most stock exchanges established as floor exchanges, where it was face-to-face trading to make a deal. The New York Stock Exchange (NYSE) is the largest stock exchange in the world, continues to function in this way, but now, most of the world's stock exchanges have become fully electronic (Stoll, 2006).

Electronic systems provide the market watch on the screens, where the market trend would be observed through brokerage firms or through the Internet. A new "visuality" turns the stock market to an entity of knowledge consumption. Wonderful art of the screen's design turned the market into an interactive representation on the surface. On the computer screen, the market becomes an entity of constant movement and variation. Fluctuation and changing direction change its appearance at any time. Continuing with the online investment is a function of the functions of the investor's reflectivity, which needs to observe the market's motion to make his own decision successfully (Zwick & Dholakia, 2006).

# The contents of the thesis is for internal user only

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