

EFFECT OF MOBILE COMPUTING ENABLED HALAL AUDITING ON
USABILITY OF HALAL AUDITORS

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A thesis submitted in partial fulfilment of the
requirements for the award of the degree of
Master of Information Technology

Faculty of Computing
Universiti Teknologi Malaysia

SEPTEMBER 2017

ACKNOWLEDGMENT

I am most grateful to Allah whose infinite love, protection and mercy is my abounding joy and sources of my inspiration in completing all my undertaken throughout the duration of my programme.

I am especially indebted to my supervisor Dr. Mohd Iskandar Illyas Tan who made great effort in supervising my work with his continued advise, guidance, critic and his time to response to this research would not have reached fruition.

My inexpressible gratitude goes to my parents who want me to achieve knowledge, brought me up saw me throughout my programme, I am grateful and delighted, there is no amount of indebtedness to qualify all the love, relentless support financially, morally and prayerfullt to the success of my programme.

I would like to express my special thanks of gratitude to my supervisor Dr. Mohd Iskandar Illyas Tan who gave me the golden opportunity to do this wonderful project of Halal, which also helped me in doing a lot of research and I come to know about so many new things. I am rally thankful to them. Secondly, I would like to thank my parents and friends who helped me a lot in finalizing this research within limited time frame.

ABSTRACT

Malaysia has been widely acknowledged as the world reference center for halal certification as well as halal standard development, training and labeling. With halal global trade industry booming, large and small-scale companies are trying to enter the market, but they are finding it difficult to get halal certification because the current halal certification process is slow, complex and expensive. The halal audit app is the first mobile auditing app that helps in reducing the complexity, time and cost of halal audit process. This research refers to the design science research (DSR) as the guidelines in conducting this research. The designed questionnaire is based on TAM and TTF models in deriving the elements that suits for the evaluation of the halal audit apps usability for halal auditors. The target respondents are the person who have experienced in performing the audit. The questionnaire is disseminated to 30 respondents to evaluate the user friendliness of the apps towards halal auditing process and to identify user intention in utilizing the apps to conduct halal audit. Correlation analysis were used to analyze the data. This research hopes to contribute to the halal industry mainly to help ease the process of halal auditing for companies applying for halal certification. So, that auditing apps can be widely used and accepted as an alternative way in halal auditing process.

ABSTRAK

Malaysia telah diiktiraf secara meluas sebagai pusat rujukan dunia untuk pensijilan halal serta pembangunan standard halal, latihan dan pelabelan. Dengan industri perdagangan global halal yang berkembang pesat, syarikat-syarikat besar dan berskala kecil cuba memasuki pasaran, akan tetapi mereka sukar untuk mendapatkan pensijilan halal kerana proses pensijilan halal sekarang adalah perlahan, kompleks dan mahal. Aplikasi audit halal adalah aplikasi pengauditan mudah alih pertama yang membantu dalam mengurangkan kerumitan, masa dan kos proses audit halal. Kajian ini merujuk kepada penyelidikan sains reka bentuk (DSR) sebagai garis panduan dalam menjalankan kajian ini. Soal selidik yang direka berdasarkan model TAM dan TTF dalam memperoleh unsur-unsur yang sesuai untuk penilaian kebolegunaan aplikasi audit halal untuk juruaudit halal. Responden sasaran adalah orang yang berpengalaman dalam melaksanakan audit. Soal selidik itu disebar kepada 30 responden untuk menilai keramahan aplikasi pengguna terhadap proses pengauditan halal dan untuk mengenal pasti niat pengguna dalam menggunakan aplikasi untuk menjalankan audit halal. Analisis korelasi digunakan untuk menganalisis data. Diharapkan dengan penyelidikan ini dapat menyumbang kepada industri halal terutamanya untuk memudahkan proses pengauditan halal bagi syarikat yang memohon untuk pensijilan halal. Jadi, aplikasi audit boleh digunakan secara meluas dan diterima sebagai cara alternatif dalam proses pengauditan halal.

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LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
C	Control
DOSM	Department of Statistics Malaysia
DSR	Design Science Research
E	Efficient
GDP	Gross Domestic Product
GMP	Good Manufacturing Practices
HAC	Halal Accreditation Council
HDC	Halal Industry Development Corporation
HFC	Halal Food Certification
IA	Internal Audit
IHA	Internal Halal Audit
IT	Information Technology
IU	Intention to Use
JAIN	<i>Jabatan Agama Islam Negeri / States Department of Religious Affairs</i>
JAKIM	<i>Jabatan Kemajuan Islam Malaysia</i>
KLCC	Kuala Lumpur Convention Centre
MAIN	<i>Majlis Agama Islam Negeri</i>
MAIS	Islamic Religious Affairs Councils
MIHAS	Malaysia International Halal Showcase
MNC	Multinational Corporation
MPPHM	<i>Manual Prosedur Pensijilan Halal Malaysia / Manual Procedure of Malaysian Halal Certification</i>
MS	Malaysian Standard

NSDC	National SME Development Council
PDA	Personal Digital Assistant
PEOU	Perceived Ease Of Use
PHB	<i>Pejabat Harta Bina</i>
PI	Performance Impact
PKU	<i>Pusat Kesihatan UTM</i>
PU	Perceived Usefulness
SE	Self-Efficacy
SME	Small Medium Enterprise
SMI	Small Medium Industry
TAM	Technology Acceptance Model
TASK	Task Characteristics
TECH	Technology Characteristics
TPP	Trans-Pacific Association
TTF	Task-Technology Fit
UTM	<i>Universiti Teknologi Malaysia</i>

CHAPTER 1

INTRODUCTION

1.1 Overview

Nowadays, the interest for halal food is on the ascent because of more prominent understanding among Muslims on their duty to devour just halal food. Coincidentally, worldwide consciousness on how vital is food safety, that has been connected with halal food, has emerged. With cutting edge innovation, it is currently conceivable to break down the food product with speed and exactness. What's more, halal certification, which gives affirmation on quality and wholesomeness of the food, brings about expansion for the need of such product (Nooh et al., 2015). Auditing is one of the process that should be considered in order to get halal certification, due to the demand on halal food products, halal authority need to be more effective on handling all those applicants who apply for halal certification. In line with mobile technology developments, halal authority has to take step forward to improve their auditing processes from manual to a more automated method.

With advance improvements in mobile technology we are being influenced by it in our everyday life from communication, stimulation, Web approach, social networking, and so forth. Mobile devices have had the most elevated infiltration in our lives in a brief span. Since the presentation of Apple's App store and Google's Android Market (now Google Play) around the center and late part of 2008, the applications (normally called Apps) for the iPhone and android-based phones have outperformed 500,000 for each of the stages (Subramanya & Farahani, 2012). Regardless of the huge number of Apps, there

are relatively few Apps significant to auditing, particularly in the territories of halal auditing, where most auditors need to think about those procedures manually.

Therefore, this study will provide information about the effects of the criteria from chosen acceptance models with usability criteria from past studies in utilizing the halal auditing apps for completing audit process. This mobile app is the first to focus on halal auditing and several tests were conduct to evaluate whether the mobile apps meet the customer needs.

1.2 Problem Background

Mobile access has prominent appeal than at any other time by halal evaluators. Smartphones and other cell phones are turning into the favored approach to get to a data (Nowlan, 2013). Despite Nowlan (2013) said that mobile technologies will be received by most associations inside one year or less. As client desires for mobile services increment, auditing have a stimulating chance to connect with their clients in new and dynamic ways. Giving mobile services enables organization and as well as JAKIM to remain on the curve and remain pertinent in a constantly developing digital society.

The expansion in mobile devices among halal examiners is making it incomprehensible for organizations to overlook this medium. As indicated by Nowlan (2013), 80 percent of individuals accessing the web will do as such by means of mobile devices by the year 2015. As more individuals utilize their mobile devices as opposed to a desktop computer to get to data, organization will find that user practices will move and furthermore should adjust rapidly to this developing pattern.

There is a huge open door in halal auditing to utilize the mobile Apps to upgrade the viability of getting the hang of auditing process. Such Apps could go about as exceptionally going hand in hand to the exiting inspection processes and would be exceedingly valuable to auditors and auditee. A very much composed App for halal

auditing ideas ought to properly consolidate (a) easy to handle the Apps, (b) cost effective, and (c) reduce complexity of the auditing processes.

In order to know whether the mobile apps fulfill those three ideas for halal auditing, usability study for the mobile application is needed. This is because usability is widely utilized as a part of assessing the execution and acknowledgment of products and systems. In spite of the fact that usability studies may not be the most proficient technique for site assessment, they give dependable quantitative evaluations of execution and of subjective user satisfaction (Wei et al., 2015).

The worldwide increment in the Muslim populace and the developing familiarity with expending halal food has made an expanded interest for new and separated halal food. It is realized that the presentation of new items may give organization the upper hand however it is likewise noticed that disappointment rates of new food product are high (Abdul et al., 2009).

In emphasize of audit process of Halal certificate by JAKIM, the audit team comprises two auditors who are qualified in Shariah and technical matters. The site audit will verify the Halal status of ingredients, the processing and storage, halal internal management, labeling and the quality assurance which will be compiled in the Audit Report. If necessary, the auditors may take product samples for analysis to confirm the content of products while at the site inspection (Liow, 2011).

Halal certification is critical as it is the sole distinguishing mark that the item meets the halal necessities to upgrade certainty that items to be obtained are to be sure halal, the part that halal certification plays in Malaysian Muslim shoppers' basic leadership when they purchase their food and alternate variables that Malaysian Muslim customers mull over when they purchase their food (Abdul et al., 2009).

1.3 Problem Statement

According to JAKIM, halal testament is not only a religious necessity to increase halal declaration, producers must maintain strict cleanliness and quality control notwithstanding the terms and conditions set by JAKIM (Fezarudin, 2015). When JAKIM do the inspection to ensure whether the product complies with Halal requirements, the approval rate is only about 70 – 80 percent (Badrudin et al., 2012). Therefore, the mobile apps may help those company or organization in doing halal audit as part of preparation and inspection phase to make sure the process of applying the halal certificate easier.

This research will study the effect of usability of mobile technology in solving the problem of complexity of the process, high cost in applying halal certification and slower process to approve the application. The assessment of system plan and development of mobile web sites frequently incorporates information assortment from different perspectives, for example, ease of use, efficiency of the approach, and usability of the design (ChanLin & Hung, 2016).

Process of halal audit will be implemented by using mobile apps which makes it easier for the auditor in doing the inspections and helping the organization in applying halal certification. In addition, during the auditing process, auditors need not bring many related documents and instruments. So the main question in this research is “How does the mobile application effects the halal auditing in completing audit task?”

Regarding to the above statement, this research will be rooted to the acceptance technology models which are TAM and TTF in accordance to determine the suitable elements of usability that reflects towards user’s intention in utilizing the new technology.

1.4 Research Questions

Based on the problems mentioned above, here are the research questions being identified:

- i. What are the problems faced by the Halal certification applicants?
- ii. What are the elements that are suitable for usability of the halal audit apps?
- iii. How to evaluate the usability of the halal audit apps while performing audit tasks?

1.5 Research Objectives

There are some objectives that are identify regarding to the problem stated above:

- i. To identify the problems faced by the Halal certification applicants.
- ii. To identify the usability elements of halal audit apps.
- iii. To evaluate the usability elements for halal audit apps to perform audit tasks.

1.6 Scope

The audit apps installed on top of the smartphone devices is expected be able to execute the halal audit tasks successfully, so my research aim is on whether utilizing mobile applications could affect the auditing process. The scope of this research determines the barrier of the study and explained as follows:

- i. People or target population is Halal food premises located in Universiti Teknologi Malaysia (UTM) Johor Bahru and industry located in Penang.

- ii. The evaluation is based on the acceptance models as referred to Technology Acceptance Model (TAM) and Task-Technology Fit (TTF) to determine the suitable usability elements.

1.7 Significance of Study

The result of this study will provide proof points on ease of the process of obtaining halal certification among food premises especially for small and medium enterprise and internal halal auditing processes by use of mobile technology to improve the quality of every food handler. This is because there are no existing technologies as of yet that are capable to implement the internal halal audit among SMEs. Other than that, the effectiveness of using mobile technology on solving the problem of complexity, cost, and slower phase specifically on applying halal certification processes.

1.8 Conclusion

This chapter discusses about the brief introduction on the problem background, problem statement, objectives, scope and the significance of study. From this section, individuals can get the fundamental thought on the following point to be talked about later. This Thesis will begin talking head on with introduction of the subject, trailed by the literature review which allude to the past exploration or study by different authors. Next part which is chapter 3 which will concentrate on how the study was directed and the last part for this report will examine the discoveries of the exploration and the future arrangement of it.

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