

Submission of the Thesis Poster

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Thesis Topic: Behavioural Intention of Using Artificial Intelligence in Accounting and Auditing

Behavioural Intention of Using AI in Accounting and Auditing

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Introduction

In 1956, John McCarthy was one of the first researchers that conducted a study on the concept of artificial intelligence. McCarthy defined artificial intelligence as the science and engineering of intelligent machines and computer programs in which those machines understand human intelligence and are capable of achieving goals in the world. Nowadays, massive technology firms such as Google, Microsoft Corporation, and Baidu, Inc. heavily invest in artificial intelligence-based technology. Investing in artificial intelligence can improve the performance of many businesses and organizations and can lead to innovation in the economy overall. With the evolution of artificial intelligence, financial corporations are changing the way they are functioning in which artificial intelligence is taking over some of the core and prominent accounting functions. Financial institutions are now using artificial intelligence to increase cost savings and operational efficiency. Furthermore, the accounting industry has utilized artificial intelligence technology for more than 25 years for the purpose of financial reporting and auditing. The main objective of this thesis is to understand the extent to which the behavioural aspects derived from the technology acceptance model can affect the adoption of artificial intelligence in accounting and auditing practices. Thus, it is very prominent to initially comprehend the role of artificial intelligence in accounting and auditing practices and how accountants and accounting firms utilize artificial intelligence-based software systems in performing their tasks.

Literature Review



Artificial intelligence can serve as the competitive edge for companies to stay sustainable and improve their performance especially in today's competitive and dynamic market. In other words, artificial intelligence can be a game-changer for many businesses and service organisations and it can lead to innovation in the global economy. Artificial intelligence can be defined as a system that is capable of performing accounting tasks that mostly requires human intelligence. In addition to that, artificial intelligence has majorly contributed in the accounting field which will have an inevitable impact on the traditional method of development of the accounting practices and will help in the integration of innovation in the field of accounting. When it comes to the technology acceptance model, it is the most influential and commonly used theory for the description of an individual's acceptance of information systems and it is developed based on the theory of reasoned action (TRA). In other words, the technology acceptance model is used to study the impact of certain variables on accepting or using a certain technology. Perceived usefulness and perceived ease of use are the two prominent behavioural determinants of the technology acceptance model. Perceived usefulness refers to the degree to which an individual believes that utilizing a certain system will lead to the improvement of his or her job performance. While perceived ease of use, it is defined as the degree to which a potential user of a system believes that using a system in performing a task requires no effort. There are certain variables that could potentially have an impact on the perceived ease of use and perceived usefulness variables. Thus, those variables can also have an impact on the actual usage of the technology. Throughout this thesis, we will explore the extent to which those behavioural aspects can affect the adoption of AI in accounting and auditing.

Problem Statement

There are several factors that can motivate auditors and accountants in using artificial intelligence technology. Those factors can include higher productivity, better job performance, higher quality of work and facilitation of the job. These factors are derived from the technology acceptance model and they can affect the accountant's and the firm's behaviour towards the adoption of artificial intelligence technology. There are some research studies that focused solely on the technology acceptance model and its factors which are perceived usefulness and perceived ease of use. However, the problem that needs to be addressed is how the behavioural factors can affect the adoption of artificial intelligence by auditors, accountants and accounting firms. Thus, the research question here is to what extent the behavioural aspects can have an impact on the adoption of artificial intelligence in accounting and auditing practices.



Methodology

This thesis falls into the quantitative approach category as it provides accurate and detailed information on the extent to which the behavioural factors that are derived from the TAM, affect the adoption of AI in accounting and auditing. The research model includes the dependent variable which is the adoption of artificial intelligence technology, while the independent variable will be the behavioural aspects derived from the technology acceptance model and those variables are shown in the figure below. This research is a descriptive conclusive research in which we have a set of hypotheses that must be tested for the purpose of identifying different relationships. The type of data that is collected is primary data and it is collected through making and distributing an online questionnaire of Likert-scale type questions. Our target population of interest is mainly accountants, auditors and financiers working in auditing and accounting firms. Moving on to the correlational and regression analysis, it is applied in this study in order to test the relationships between perceived ease of use and perceived usefulness and the actual usage of AI. The correlational and regression analysis will simply determine the extent to which the perceived usefulness and perceived ease of use have an impact on the AI actual usage.

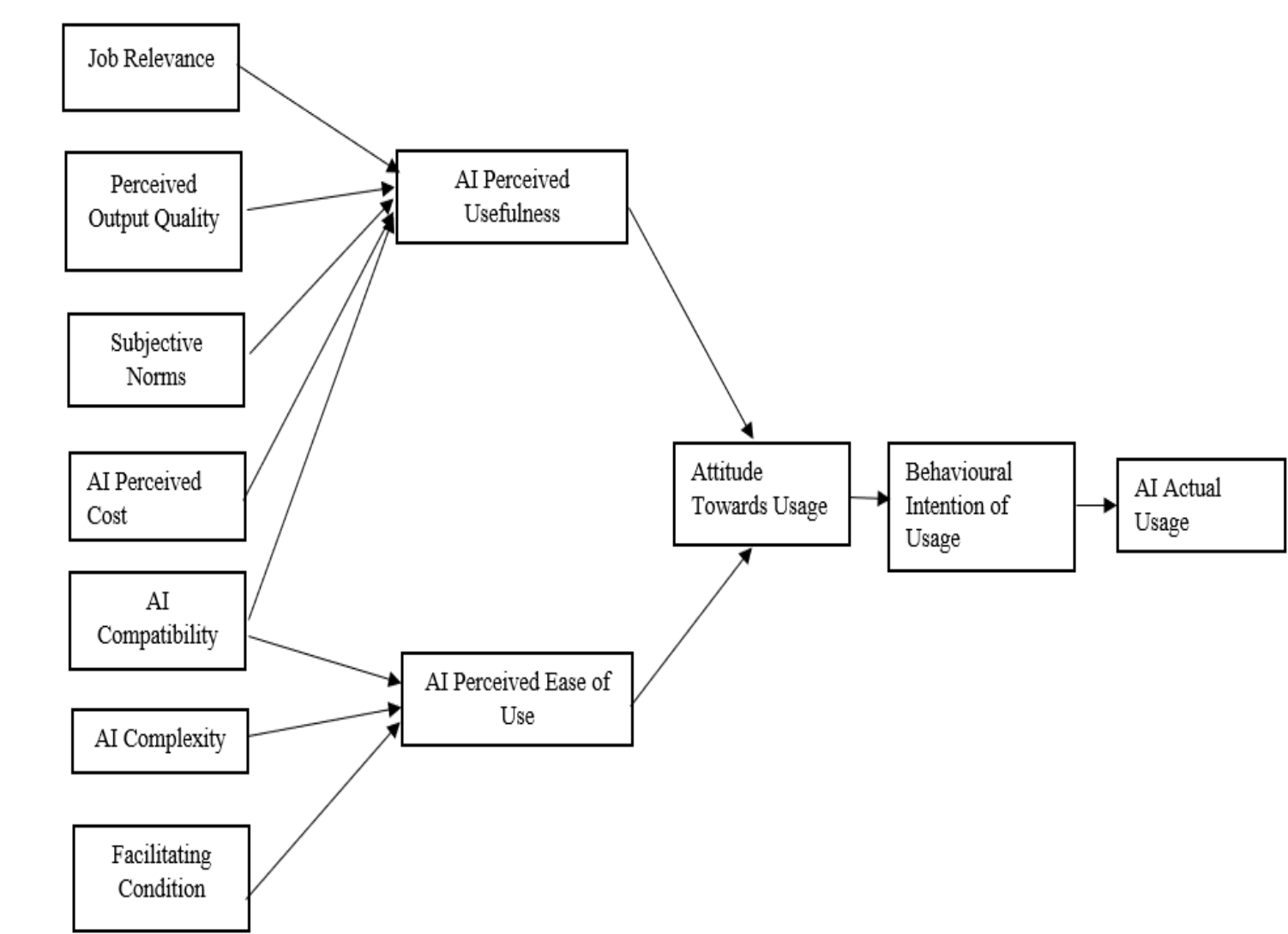
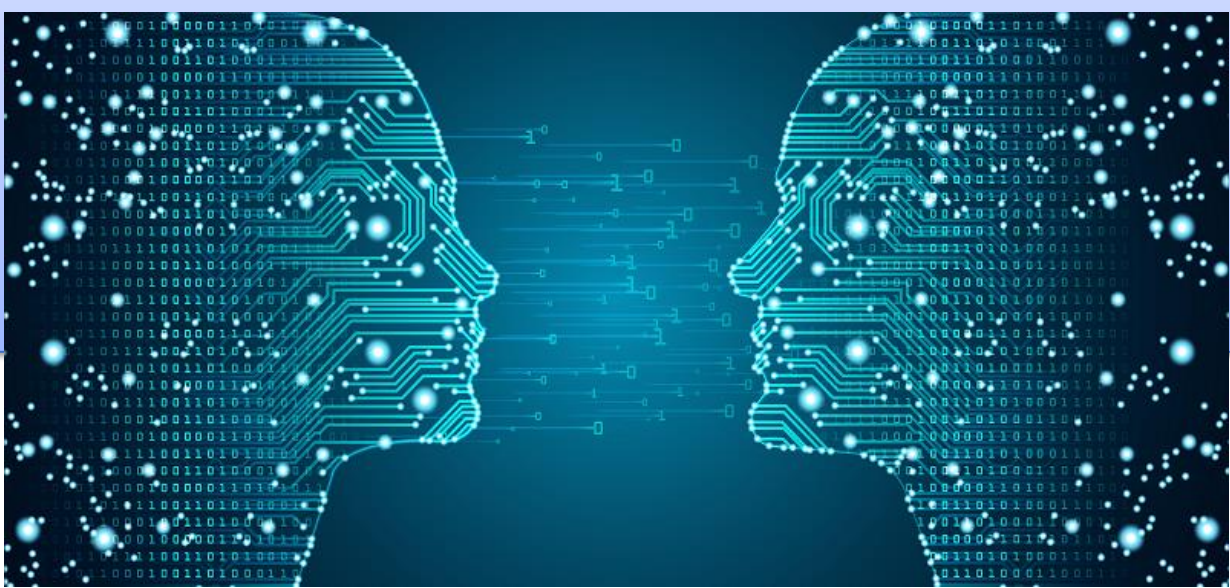


Fig.1. Technology Acceptance Model (Conceptual Framework)



Results

Hypothesis 1: AI Perceived Usefulness has a positive impact on attitude towards usage.
Hypothesis 2: AI Perceived Ease of Use has a positive impact on attitude towards Usage.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.812 ^a	0.659	0.657	.60947

a. Predictors: (constant), AI_Perceived_Ease_Of_Use, AI_Perceived_Usefulness

ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	356.079	2	178.040	479.311	.000 ^b
Residual	184.610	497	.371		
Total	540.690	499			

a. Dependent Variable: Attitude_Towards_Use
b. Predictors: (constant), AI_Perceived_Ease_Of_Use, AI_Perceived_Usefulness

Regression Analysis is utilized in order to identify the relationship between attitude towards use which is the dependent variable and the 2 independent variables which are perceived usefulness and perceived ease of use. From the above table, it is shown that 65.9% of the variation in Attitude towards use is explained by the AI perceived usefulness and perceived ease of use.

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