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Evaluation of the “e-Kursus” System Using the Technology Acceptance Model (TAM): Institute for Rural Advancement (INFRA), Bangi as a Case Study

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Abstract

To suit the needs of organisations and fulfil their strategic management duties, a variety of management information systems have been developed. INFRA, for example, uses e-Kursus , a training-related information management system created by INFRA's Information Technology Division. The goal of this study is to determine the level of acceptance and effectiveness of the e-Kursus system among INFRA personnel. The analysis is based on the Acceptance Technology Model (TAM), which includes the independent variables of perceived usefulness (PU), perceived ease of use (PEOU), and attitude toward usage (ATU). This study will employs a quantitative approach to conduct a descriptive survey.

Keyword: Management Information Systems, Technology Acceptance Model (TAM), Perceived Ease of Use, Perceived Usefulness, Attitudes Towards Using

Introduction

Management information systems (MIS) are an important aspect of information and data management around the world, as they have an impact on an organization's overall efficiency. In terms of the implementation of everyday duties and decision-making processes, the management information system has a significant impact on an organization's productivity and effectiveness (Zalisham & Jali, 2021). Information management and storage are safe and

effective with the use of a MIS, which will ease the maintenance process (Hassan& Deraman, 2020) while also improving customer service and organisation

Data management is an important part of a company's competitive strategy (Manorbalia & Awalludin, 2021). Despite the fact that systematic information management can decide an organization's resiliency and competitiveness (Teoh et al., 2018), most organisations overlook the importance of implementing training record management. The need of establishing a structured information management system has ramifications for a country's educational institutions. In accordance with the electronic government policy, the Institute For Rural Advancement (INFRA), a training institute that provides training services and consultancy, disseminates information, and conducts research in the field of rural development programs and non-formal education has taken the initiative to develop e-Kursus, a training management system.

Acceptance of innovation is a difficult and intimidating challenge for every organisation. Accounting systems, proper skills to operate the system, and preparation to use the system are the most common limitations of management information systems. Because technological developments frequently affect work activity and the needs of users with diverse talents, the technique of work in an organisation will be transformed as a result of their acceptance of technology. The Technology Acceptance Model (TAM) by Davis (1989) elaborates on a technology system's acceptance and efficacy based on three (3) constructs: i) perceived usefulness (PU), ii) perceived ease of use (PEU), and iii) attitude toward using it (ATU). The purpose of this research is to determine the correlations and impacts of perceived usefulness, perceived ease of use, and attitudes about using the e-Kursus system.

Research Objectives

The objectives of the study are to:

1. To determine the level of acceptance between perceived usefulness, perceived ease of use and attitude towards using of E Kursus among INFRA personnel
2. To identify the effectiveness of perceived ease of use on users' attitudes towards using of E Kursus among INFRA personnel.
3. To identify the effectiveness of perceived usefulness on users' attitudes towards using E Kursus among INFRA personnel.
4. To identify how intrinsic motivators influence on attitudes towards using e-Kursus

Problem Statement

When a system exists, it must be capable of realising its potential benefits and applications. Although E Kursus has had a good development, the system's performance and efficacy will not determine users' approval of E Kursus usage based on their experiences. The two key characteristics that will influence behaviour are perceived ease of use and perceived usefulness. As a result, the intention to use the system will be influenced. All of this is dependent on individual perceptions and differs from person to person who uses the system (Abdullah Thani & Othman, 2018). As the Technology Acceptance Model (TAM) has been used in many previous studies, it has been demonstrated that TAM for information technology is not sufficient from an individual standpoint, but must also be considered from an organisational standpoint, for example, by looking at the actual work conditions. TAM has mostly concentrated on individual acceptance and has been chastised for treating individual

acceptance as distinct at the organisational level in terms of implementation success (Soong et al., 2020).

According to Razak et al (2022) many studies have modified TAM to match their research and to obtain correct results; these studies have also adopted an extension to the TAM that was initially based on the purpose and samples of the studies. This is done to ensure that the findings may be used for future research and are applicable to the topic of study. For example, as established by Kelman (1958) and subsequently examined by Mishra and Galletta (2020), the three processes in social influence, which comprise compliance, identification, and internalisation, have a significant impact on TAM, which is directly tied to individual behaviour.

To begin with, compliance occurs when a person adopts induced behaviour in the hopes of receiving rewards or avoiding punishments, rather than because she believes in its substance. Second, when an individual accepts influence in order to preserve or build a satisfactory self-defining relationship with another person or group, this is referred to as identification. Furthermore, internalisation occurs when a person accepts influence since it is related to them.

These processes are thought to lead to commitment, or psychological attachment, to the continued use of the information system, regardless of whether the system is accepted or not.

Contribution of Study

In Malaysia, the growth of e-Kursus is not a new phenomena. INFRA have jumped on the e-Kursus bandwagon, seeking to capitalise on this emerging trend. However, there are concerns and obstacles with e-training implementation that must be avoided or managed in order to improve user happiness and e-Kursus efficacy. Al-Rahmi et al (2018) listed seven concerns and obstacles in the Malaysian public service deployment of e-training. These include a lack of public awareness, a poor adoption rate, capacity and connectivity constraints, computer illiteracy, a lack of high-quality e-Kursus content, difficulty engaging learners online, and a language barrier. The reaction rate of Malaysian public service' e-training systems will be influenced by bandwidth and network constraints (Al-Rahmi et al., 2018). Users will become frustrated and bored if the e-Kursus system takes too long to respond, resulting in low satisfaction.

To justify the investment, thorough measurement and evaluation of current organisational educational advantages accruing from e-Kursus are required. Some important questions to consider are, "Are the workers happy with the e-Kursus system supplied by the organisations?" and, more significantly, "Are they keen to pursue e-Kursus in the upcoming and are the gains outlined realised?" Knowing the essential factors that contribute to user happiness and good training results is critical for firms to gain the benefits of e-Kursus. As a result, this study will seek a significant relationship between perceived ease of use, perceived usefulness and attitudes towards using e-Kursus system in INFRA.

Management Information Systems in Malaysia

A system, according to Yap et al (2021), is a collection of interconnected elements that work together to achieve a common goal. A Management Information System (MIS) is defined by Iftikhar et al (2021) as a system that transforms data into usable information for the goal of making a certain decision or planning inside an organisation. Information services systems, information systems, information processing systems, and computer-based information systems are all synonyms for MIS.

Management information systems (MIS) are widely utilised in organisations and institutions all over the world, including Malaysia. The process of gathering data, analysing, storing, and distributing pertinent information for the aim of managing work more efficiently and effectively inside an organisation is referred to as MIS implementation in institutions.

The Malaysian Central Electricity Board (Lembaga Letrik Malaysia—LLM) was the first to utilise MIS for its accounting and payroll system in 1965. Other organisations followed, including the Malaysia Tax Return Agency (Jabatan Hasil Dalam Negeri—LHDN), which used a statistical information processing system, and others. The goal and purpose of these various MIS are the same: to increase job performance, efficiency, and productivity inside an organisation by managing data, information, and resources. While a result, as Malaysia tries to become a high-income country, a focus on innovation is critical, as it can help the country become more competitive. Human Resource Information Management Systems (Sistem Maklumat Pengurusan Sumber Manusia—HRMIS) are one of the management information systems utilised in Malaysia (Davarpanah & Mohamed, 2020).

The e-Kursus system was developed as a platform for information management for INFRA courses in the framework of management information systems. It facilitates data storage, information collaboration, and greater efficiency. It runs on a local network, allowing users to rapidly and accurately access any course-related information. Users must register for e Kursus in order to participate. Then, on the day of the event, they must scan the QR code to confirm their participation. Users must provide comments on the courses they attended after completing the training, and the system will automatically create a certificate of attendance.

In the IS literature, the technology acceptance model (TAM) is widely used to describe people's attitudes about using information technology (IT). TAM's believing attitude toward the use chain, on the other hand, stresses instrumentality, concentrating primarily on operational or extrinsic motivating factors while neglecting an individual's subjective sensations of happiness, satisfaction, and good holistic experience with IT (Muchran & Ahmar, 2019). People execute acts not merely for external goals, but also for internal wants also including satisfaction, enjoyment, and excitement, thus according motivation researchers (Shakah et al., 2019). Experts believe both extrinsic and intrinsic motivators act with each other to influence not just whether technological advances are adopted. As a result, we believe that include both within the TAM will likewise clarify and anticipate employees' e-Kursus adoption and usage.

E Kursus System

e-Kursus is a training management information system that organises and retains data from INFRA courses as well as pertinent participant information. It was created by the Information

Technology Division (ITD), with the goal of simplifying the process of centrally managing all data and information. The development of e-Kursus and information exchange is especially important to INFRA, as it may increase the efficiency of daily tasks as well as the safeguarding and recording of information. It can assist and educate consumers, particularly INFRA personnel, in mastering the use of technology and the data management process in a more orderly and efficient manner, from the perspective of administration and management.

Technology Acceptance Model (TAM)

Davis (1989) created the Technology Acceptance Model (TAM), which Venkatesh improved. The Theory of Reasoned Action (TRA) Model, developed by Ajzen and Fishbein, was incorporated into TAM (1980). TAM is frequently used in information technology system research and to evaluate their effectiveness for users. As a result, this research is focused on TAM, which encompasses perceived utility, perceived ease of use, and attitudes about utilising. Davis (1989) defines perceived ease of use as an individual's perception of a system's ease of use, i.e. if it is simple to grasp and learn. People do not need to put forth a lot of effort in terms of time and energy to research the use of e-Kursus in this study.

Perceived usefulness is defined as "the degree to which a person believes that utilising a specific system would improve the individual's performance" (Davis, 1989). The targeted internal users of e-Kursus find it advantageous in this study, notably in terms of enhancing productivity and working more effectively. Davis (1989) defines attitudes about usage as the good or negative feelings that people who use the system have. Internal customer attitudes on utilising the e-Kursus app will be assessed in the context of this study to see if they are open to it or not.

Many studies utilise TAM as a metric for determining how well a system is accepted and used inside a company. TAM is important, according to Shuib et al (2019), who discover that perceptions of utility, perceived ease of use, and attitudes toward use are all important aspects in deciding which management system to utilise. TAM's application in acceptance studies has also been proved to be thorough, based on the considerable association between perceived utility, perceived ease of use, and attitudes about using the system (Ayub et Al., 2021). Consumers will determine whether or not a current system is convenient. This, in turn, can influence whether or not a user continues to use the system.

TAM allows for the formation of three hypotheses:

H1: There is a significant relationship between perceived ease of use, perceived usefulness and attitudes towards using e-Kursus.

H2: Perceived ease of use has a positive impact on users' attitudes towards using e-Kursus.

H3: Perceived usefulness has a positive impact on users' attitudes towards using e-Kursus.

Intrinsic Motivation

According to motivation theorists, motivation is the process that governs human behaviour and activity. When a person feels uninspired, he or she lacks the drive and motivation to take action. Indeed, they divide motivation into two categories: intrinsic and extrinsic motivation, depending on the various reasons or goals for doing an activity. Davis et al (1989). defined

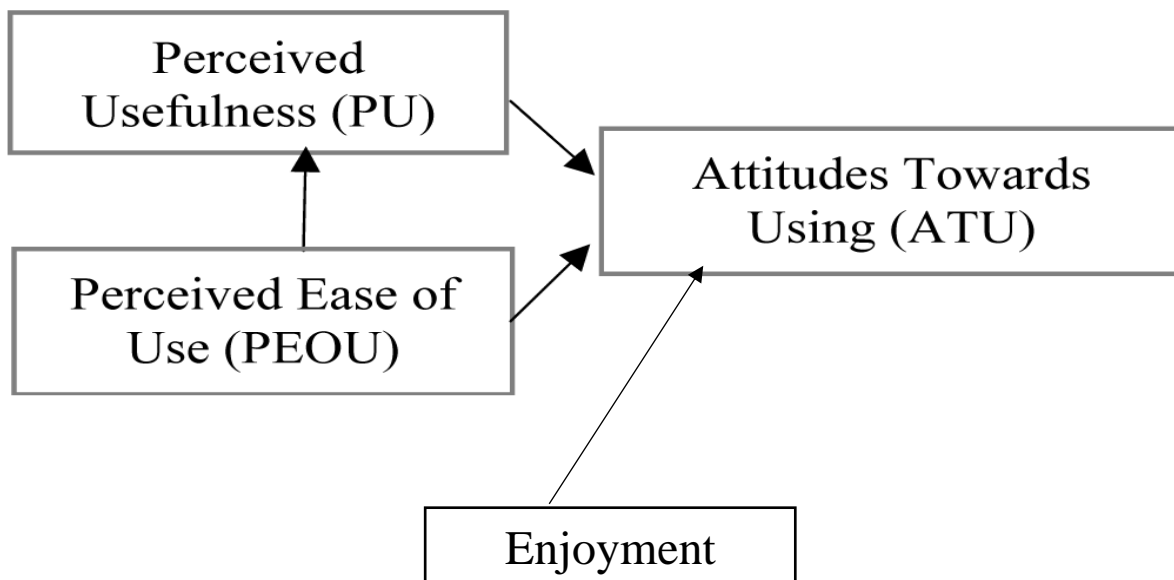
intrinsic motivation as even the performance of a task without no users especially besides the process of undertaking that activity per se, whereas extrinsic motivation alludes to the performance of a task since it gives rise to constructive incentives that are different from either the activity itself.

The TAM focuses mostly on the extrinsic approach, leaving out variables such as human and societal transformation processes. With such a duality in mind, scholars have indeed lately begun to consider the importance of intrinsic motivation in studies in order to incorporate more non-instrumental aspects into the TAM and give a more comprehensive picture and justification of IT adoption (Ahmad, 2018). Research showed because when activities produce a greater level of intrinsic drive, persons would devote greater work and attention to them, engage in far more exploratory activity, and embrace information technology better readily.

Numerous research findings utilise enjoyment to portray intrinsic motivation in discussions as to how intrinsic motivators impact persons' IT acceptance attitude towards usage (Tick, 2019)[Throughout this research, enjoyment alludes towards how enjoyable the activity of using the e-Kursus is within itself, regardless of every expected outcomes consequences. According to Venkatesh et al (2003), intrinsically motivated computer users might have had a lesser perception of the challenge of discovering a new technology since enjoyment reduces the perception of effort. Researchers believe there is indeed a high correlation among enjoyment and attitude toward usage, which is consistent with past findings.

H4 : Enjoyment has a positive impact on attitudes towards using e-Kursus

Figure 1 : Research Model



Methodology

This study use TAM to establish a quantitative design for the link between the three constructs utilising a descriptive research method. The main research tool in this study will be structured questionnaires. According to Abdullah Thani and Othman (2018), a structured questionnaire is a document that has a set of standardised questions with a predetermined

framework that sets the exact phrasing and sequence of the questions, and is used to collect information from respondents. To collect data from a large number of people, the researchers decide to distribute a questionnaire. The cost of creating a questionnaire is low, and the time commitment is significantly less than that of an experimental investigation. The research look at INFRA's headquarters in Bangi, Selangor, as well as its regional offices in Sabah and Sarawak.

The Statistical Package for Social Science (SPSS) version 27.0 will be used to collect and analyse questionnaires. All of the questions are adapted from TAM's creators, but are refined to meet the needs of the study. The opinions of respondents are based on a five-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = highly agree. The questionnaire was the primary tool used to elicit quantitative responses from respondents by online distribution as a data collection approach. There are multiple items thought to be suitable as a questionnaire for each of the constructs researched. All of these questions are adapted from the founders of Theory and Model, but are processed in accordance with the relevance of this study.

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