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Investigating the Influence of Perceived Ease of Use and Perceived Usefulness on Housekeeping Technology Intention to Use

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Abstract

Housekeeping is one such department which involves lots of laborious work and tasks which shall be automated to increase effectiveness, the trends of technology are positively impacting the hotel including the housekeeping department. The current study investigates the role of ease of use and usefulness of housekeeping technology on job intention. The relationship between perceived ease of use (PEOU) and perceived usefulness (PU) is assessed in this study. The quantitative approach has been adopted to analyze the data through a questionnaire survey from housekeeping employees in the housekeeping department. The major findings of the study include that perceived ease of use (PEOU) and perceived usefulness (PU) has a positive effect on housekeeping technology intention to use.

Keywords: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Housekeeping Technology Intention to Use.

Introduction

The hotel industry is continuously growing with the help of new technology being brought to operations. Technology is being introduced into each and every corner of a hotel. Housekeeping is an operational department at a hotel that is in charge of the cleaning, maintenance, and aesthetic exterior design upkeep of the hotel's rooms, public areas, back areas, and general surroundings and also that is one of the backbones among its four major departments. In accordance with Das (2021), to improve the work service and to raise the standard of the housekeeping service. Housekeeping is defined as "the provision of a clean, comfortable, safe, and aesthetically pleasing environment." stated by (Raghubalan and Raghubalan, 2015). Recently, the role of the housekeeping staff was to prepare clean guestrooms on a timely basis, but now enormous changes have occurred in hotel housekeeping. This highly fuelled and rapidly rising business requires new trends and technologies to strengthen hotel operations. After all, the housekeeping department is responsible for bringing the largest share of profit to the hotel (Kumar & Eduversity, 2020).

Furthermore, because a room can be sold multiple times, the sale of rooms accounts for a large amount of a hotel's earnings. However, if the rooms remain unsold, there will be a significant income loss and it quickly becomes clear that rooms are more perishable than food.

Ham et al (2005) reported that the rapid advancement and commercialization of new technologies has prompted hotels and other hospitality-related businesses to embrace technological improvements gradually. Different technology helps hotels to improve performance, increase administrative efficiency, and market their enterprises abroad. While technology has been used in the hotel industry from the late 1970s in the form of computerized reservation and global distribution systems, it was not until the 1990s that technology began to have a substantial impact on the industry (Ham et al., 2005). As the majority of hotel employees are equipped with technology, their capability of using them not only for personal communications but also for work-related activities is assumed to be high stated that more than one-third of the hotel industry's employees consisted of Generation Y or Millennials, born between the early 1980s and the early 2000s, who are tech-savvy and digital natives. Considering the characteristics of the current workforce in the hotel industry, most employees are believed to be ready to use technology for their work. In responding to the changes in the current workforce, housekeeping department in hotels should seriously consider accommodating employees' technological needs to retain and attract the new generation of employees who will appreciate the use of technology in their workplace.

According to Nielsen, Forrester (2020) reported that enabling employees to use technology significantly increased their productivity and customer engagement. Hotel employees can efficiently perform various work-related tasks at any places by building more personalized and interactive relationships with their customers, compliant with hotels' cohesive technology strategies. However, the overall effects of emerging technological advancement on work-related outcomes such as perceived usefulness, perceived ease of use, attitude and intention have not been thoroughly and empirically examined from the perspective hospitality and tourism industry. Realizing the gap in the extant literature, more research is needed for user experience (UX) dimensions. To our knowledge, no research has been carried out on perceived ease of use and perceived usefulness on job intention in hotel industry in Malaysia. In an attempt to address these gaps, this study is to examine the user experience (UX) factors of perceived ease of use and perceived usefulness on the housekeeping technology intention. Therefore, the user experience (UX) factor is critically important for the hospitality and tourism industry in Malaysia. This study aims to address these gaps through a questionnaire survey of a sample of 150 respondent from housekeeping staff from hotel in Port Dickson, Negeri Sembilan. Therefore, the research questions are as follows:

This study aims to examine the perceived ease of use and perceived usefulness on housekeeping technology intention to use. The study contributes to the body of literature of the theory of acceptance model (TAM) by providing new insights into factors influencing its use and possible benefits and drawbacks of it application. In particular, focusing on the hospitality and tourism industry as a contextual factor.

The paper is organized as follows. The following section provides a literature review on the theory of flow theory and its use. Then, the research method is described, focusing on data collection and the variable measurement, whereas the findings section presents the results

through descriptive statistics, statistical tests and discussing some quantitative questionnaire responses. The final section includes the conclusions of the study.

Literature Review

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed from the Theory of Reasoned Action (TRA) in order to describe an individual's information system (IS) acceptance behaviour. The objective of TAM is to examine why users' attitudes and beliefs influence their acceptance or rejection of IS. TAM aims to provide an explanation of the determinants of the adoption and use of IS. It suggests two specific attitudes: perceived usefulness (PU) and perceived ease of use (PEOU) which determine one's behavioural intention to use technology. Davis (1989) examined the theory and found that while both perceived ease of use and perceived usefulness play a role in predicting user attitudes towards using a system, the influence of perceived usefulness was 50% stronger than that of perceived ease of use. Perceived usefulness and perceived ease of use have been tested to describe or predict behavioural intention on different technologies such as e-banking, e-commerce, e-learning, e-library, e-tax filing, telemedicine technology, word processing, social networking media, smartcard and microcomputer. Many researchers have applied TAM in e-learning studies and have found that the perceived ease of use and the perceived usefulness have significant effects on an individual's behavioral intention to use e-learning systems. Based on TAM, we propose a research model that can examine the impact of the perceived ease of use and the perceived usefulness of housekeeping technology intention to use (see Fig. 1). The model includes variables such as perceived variables, attitude, and behavioral intention.

Perceived Ease of Use (PEOU)

Davis (1989) defined perceived ease of use as "the degree to which a person believes that using a particular system would be free of effort" (p. 320) and posited that perceived ease of use has a positive effect on perceived usefulness. It has been supported by a number of studies (Abdullah et al., 2016; Cho & Sagynov, 2015; Lee et al., 2013; Tong, 2010). Abdullah et al (2016) found a highly significant positive relationship between students' perception of the ease of use of the e-portfolio system and the perceived usefulness of the International Academic Research Journal of Social Science 2(1) 2016, Page 1-5 5 technology. In another study, meeting planners also agreed that the ease of use factor influences their perception on the usefulness of social media (Lee et al., 2013). Likewise, Cho and Sagynov (2015); Tong (2010) found highly significant effects of perceived ease of use on perceived usefulness among online customers. Hence, by improving the perceived ease of use of technology, perceived usefulness could be enhanced and later translate into an increased behavior intention and acceptance of the technology.

According to TAM, perceived ease of use and perceived usefulness are two variables which have an impact on the behavioural intentions to use a system. The relationship between perceived usefulness and perceived ease of use has been discovered by a number of studies (Lee et al., 2013). Teo and Seif et al (2013) also found a direct impact between perceived usefulness (PU) and attitude towards use in the context of acceptance e-learning and factors that affect teachers and students to use technology. This study examines the relationship between the factors, through the following alternate hypotheses:

H1: There is a positive effect between perceived ease of use and housekeeping technology intention to use.

Perceived Usefulness (PU)

According to TAM, user's behavioral intention to adopt a technology is determined by their perception on the technology's usefulness and ease of use (Davis, 1989). Davis (1989) defined perceived usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance" (p. 320). The scholar also stated that perceived usefulness has a positive influence on behavioral intention. This relationship is supported by numerous recent studies. For instance, consumer of online health services highlighted the importance of perceived usefulness both at the initial and latter stages of technology usage (Nicholas et al., 2021). Davis (1989); Dabholkar & Bagozzi (2002) reported that perceived usefulness has significant impact on consumers' intention to purchase traceable meat. In the context of online booking, perceived usefulness refers to the Internet users feeling that using online booking is useful in making online reservations or online payments.

Perceived usefulness can be one of the determinants to predict whether or not they will use online booking [Green & Pearson, 2013) 17]. The effect of perceived usefulness of the smart housekeeping on employee usage intention is more than the effect of perceived ease of use [20]. Thus, the scholar suggested that functionality, efficiency and effectiveness of the housekeeping technology are more important than its ease of use. In contrast, perceived ease of use has no significant effect on perceived usefulness. Technology has been proved as an important aspect in many industries as it helps a company enhance its profits and also satisfy and retain customers. Technological advancement is needed for businesses to become prevalence, there for research on the measurement of and improvement of service quality, has become essential [4]. Numerous studies of technology in hotel industry and its consequences have been done since it is a way to build and create a competitive advantage for a company [5]. However, in-depth understanding of technological advancement concepts is still in its fancy.

H2: There is a positive effect between perceived usefulness and housekeeping technology intention to use

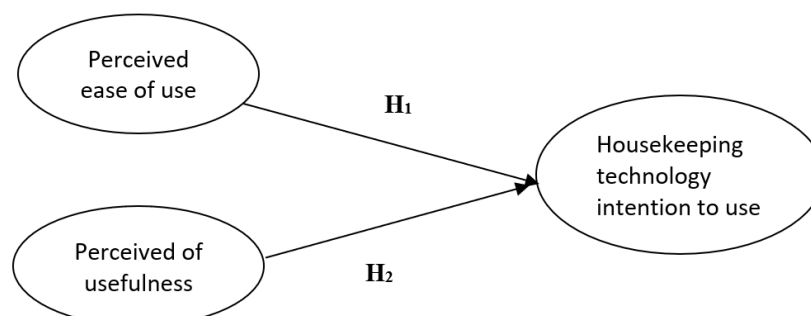


Figure 1: Theoretical Framework

Methodology

This was a cross-sectional study that utilised quantitative approach through the online questionnaires. The questionnaire were asked to report their demographic profile, perceived ease of use, perceived usefulness and housekeeping technology intention. Constructs under investigation were evaluated using a five Likert scale based on existing literature. Recording the sample size, the sample of the study was 150 housekeeping staff from various hotels in Negeri Sembilan, Malaysia. Data analysis was Pearson correlation coefficient from statistical analysis of SPSS version 22 was utilized for hypotheses testing.

Findings

The descriptive statistics on the responding of housekeeping staff are presented in Table 1. In terms of gender, male is 64% and female is 36%. Meanwhile, 43.33% are thirty and above. The income level of the housekeeping staff 49% was above RM2k and 46% of them has working experience between 1-3 years.

Table 1
Demographic Profile

	n. = 150	%
Gender		
Male	96	64%
Female	54	36%
Age		
18 – 21 years old	16	10.67%
22 – 25 years old	22	14.67%
26 – 29 years old	47	31.33%
30 and above	65	43.33%
Income		
RM 1200 below	6	6.1%
RM1300 > RM1500	13	13.3%
RM1600 > RM2000	48	49.0%
RM2000 and above	31	31.6%
Work experience		
Less than 1 year	11	7.33%
1 – 3 years	69	46%
4 – 6 years	35	23.33%
Over 7 years	35	23.33%

Table 2

Summary of Reliability and Validity

Variables	Items	M	SD	Cronbach Alpha
Perceived Ease Of Use (PEOU)	PEOU1	3.728	0.778	0.823
	PEOU2	3.661	0.819	
	PEOU3	3.655	0.879	
	PEOU4	3.715	0.794	
	PEOU5	3.687	0.875	
Perceived Usefulness (PU)	PU1	3.392	0.833	0.781
	PU2	3.475	0.818	
	PU3	3.415	0.866	
	PU4	3.646	0.924	
	PU5	3.873	0.849	

Table 2 & 3 presents the result of mean and standard deviation for the proposed research model. From the table, we find that H1 and H2 are supported in the research model. The H1 is supported because PEOU shows positive ($\beta = 0.41$) and PU ($\beta = 0.39$) and significant ($p < 0.001$) effect on housekeeping technology intention to use. From this result we can conclude that both PEOU and PU has significant impact on housekeeping technology intention to use.

Hypothesis	Description	Estimates	Result
H1	PEOU ▼ Housekeeping intention to use	0.41**	Supported
H2	PU ▼ Housekeeping intention to use	0.39**	Supported

Notes: $p < 0.05$ ***, $p < 0.001$

Discussion

Perceived Ease of Use (PEOU) and Housekeeping Technology Intention

H1 PEOU has a significant influence on housekeeping technology intention. This finding is consistent with previous studies (Devaraj et al., 2014; Punnoose, 2011). This study extends the prior findings to show the influence of PEOU on job performance. Therefore, in the proposed model of this study, PEOU represents an intrinsically driving force for toward the housekeeping technology intention to use. The signs of PEOU refer to technologies and interfaces on the information system which is more favorable to access than another is more likely to be accepted by the participants. Since they are precise, perfectionistic and effective, they prefer something that is very efficient to use. When they look for a housekeeping tools, they will eagerly compare some features that make the functionality of the system is easier to understand and more efficient to use.

Perceived Usefulness and Housekeeping Technology Intention to use

The result found that H2 is supported. Perceived usefulness (PU) has significant influence on housekeeping technology intention to use. Previous studies indicate that perceived usefulness of an online store positively influences their buying intention and repurchase intention in the future. Thus, housekeeping technology intention to use is determined by perceived usefulness (PU) (Tong, 2013). The results of this study imply that housekeeping staff

who perceive technology as a useful tool for intention to use housekeeping technology. The result is consistent with studies of (Yoon & Steege, 2013; Aldas et al., 2009). The find that online user in different countries have the same expectation and looking for advantages of purchase via the internet by themselves. As a result, perceived usefulness (PU) is one of the major key drivers of usage behavior and intention to use.

Conclusion & Recommendation

This paper has examined relationship between perceived usefulness, perceived ease of use and housekeeping technology intention to use. Results showed that housekeeping staff intention to use housekeeping technology is determined by their perception on its usefulness and how convenient it is to use and access housekeeping technology functions. Further, the results highlighted the importance of Perceived Ease of Use towards housekeeping technology system in terms of how easy or effortless it is to communicate with each other. Housekeeping technology offers a vertically integrated, top-down, services provider approach to delivering wireless Internet access. All things considered; the current findings significantly enhance understanding of housekeeping staff intention to use. Consideration of the factors identified should lead to more successful adoption of housekeeping technology usage. Results suggest users' of housekeeping technology system need to be provided with more diverse and entertaining ways of communicating, which are at the same time easily accessible and convenient to use. Future research can evaluates and analyses the housekeeping technology market, investigating the financial and industrial implications.

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