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“Optimizing Innovation in Knowledge, Education and Design”

EXTENDED ABSTRACT



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Assalamualaikum warahmatullahi wabarakatuh,



First and foremost, I would like to express my gratitude to the organizing committee of i-Spike 2023 for their tremendous efforts in bringing this online competition a reality. I must extend my congratulations to the committee for successfully delivering on their promise to make i-Spike 2023 a meaningful event for academics worldwide.

The theme for this event, 'Optimizing Innovation in Knowledge, Education, and Design,' is both timely and highly relevant in today's world, especially at the tertiary level. Innovation plays a central role in our daily lives, offering new solutions for products, processes, and services. By adopting a strategic approach to 'Optimizing Innovation in Knowledge, Education, and Design,' we have the potential to enhance support for learners and educators, while also expanding opportunities for learner engagement, interactivity, and access to education.

I am awed by the magnitude and multitude of participants in this competition. I am also confident that all the innovations presented have provided valuable insights into the significance of innovative and advanced teaching materials in promoting sustainable development for the betterment of teaching and learning. Hopefully, this will mark the beginning of a long series of i-Spike events in the future.

It is also my hope that you find i-Spike 2023 to be an excellent platform for learning, sharing, and collaboration. Once again, I want to thank all the committee members of i-Spike 2023 for their hard work in making this event a reality. I would also like to extend my congratulations to all the winners, and I hope that each of you will successfully achieve your intended goals through your participation in this competition.

Professor Dr. Roshima Haji Said
RECTOR
UiTM KEDAH BRANCH



WELCOME MESSAGE (i-SPIKE 2023 CHAIR)



We are looking forward to welcoming you to the 3rd International Exhibition & Symposium on Productivity, Innovation, Knowledge, and Education 2023 (i-SPIKE 2023). Your presence here is a clear, crystal-clear testimony to the importance you place on the research and innovation arena. The theme of this year's Innovation is "*Optimizing Innovation in Knowledge, Education, & Design*". We believe that the presentations by the distinguished innovators will contribute immensely to a deeper understanding of the current issues in relation to the theme.

i-SPIKE 2023 offers a platform for nurturing the next generation of innovators and fostering cutting-edge innovations at the crossroads of collaboration, creativity, and enthusiasm. We enthusiastically welcome junior and young inventors from schools and universities, as well as local and foreign academicians and industry professionals, to showcase their innovative products and engage in knowledge sharing. All submissions have been rigorously evaluated by expert juries comprising professionals from both industry and academia.

On behalf of the conference organisers, I would like to extend our sincere thanks for your participation, and we hope you enjoy the event. A special note of appreciation goes out to all the committee members of i-SPIKE 2023; your dedication and hard work are greatly appreciated.

Dr. Junaida Ismail

Chair

3rd International Exhibition & Symposium Productivity, Innovation, Knowledge, and Education 2023 (i-SPIKE 2023)

INVESTIGATING THE ACCEPTANCE OF COURSE FILE ELECTRONIC KNOWLEDGE ACQUISITION PPPG (CEKAP) SYSTEM VIA UTAUT MODEL

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ABSTRACT

There is still a physical buildup of files in the process of collecting, recording and documenting files in an organization, which can slow down the search for files or data needed and raise the possibility of losing crucial data. In this scenario, implementing a system or application is critical for improving company processes. The benefits of adopting technology are apparent, including time savings, ease of access to information, cost efficiency, mobility, and many more. However, there are issues such as the time-consuming verification of each staff member's material supply and the administrator's action to respond to each submission since all papers supplied must be evaluated. If any provided information is missing, the administrator must additionally call each staff member. This type of problem emerges when technology is not used in Pusat Pengajian Pengurusan Gunaan (PPPG). Hence, the CEKAP system is a researcher-proposed project to enhance the present system of data collection, evaluation, and endorsement for the PPPG Course File. Aside from that, the goal of this study is to determine the level of acceptability of the CEKAP system among the staff of PPPG. The results of the analysis demonstrate that the suggested system received highly good replies from the respondents. According to the survey, all the elements in the CEKAP system are acceptable and may be used to improve the current system. Consequently, many parties will utilize it to better their performance, resulting in the long-term growth of Malaysia's education business.

Keywords: CEKAP System, UTAUT Model

INTRODUCTION

Technology is developing rapidly from time to time. The use of systems or an application in an organization is also necessary to facilitate and speed up a process. The process of gathering data and maintaining records is a part of technology-driven organizational evolution (Junglas et al., 2022). According to Saiful et al. (2015), the use of document management system technology represents a possible approach to increase employee productivity, minimize the number of employees, strengthen service, reduce the amount of storage space, combine, or get rid of duplication of work by different government offices. As a result, with the advancement of technology and the industrial age 4.0, this study was carried out to further analyse the acceptance of utilising the CEKAP system among the employees of Pusat Pengajian Pengurusan Gunaan and to enhance the existing data collecting, review, and endorsement system. Currently, Google Drive is used for document preservation and storage. This strategy has certain drawbacks, such as the time-consuming assessment of whether the resources submitted by each staff member are thorough. Furthermore, it takes time for the administrator to respond to each submission since she must personally verify all the data and call each member of staff if any information is missing. It is intended that the survey results will offer a more accurate image of the staff's acceptance of the CEKAP system, since understanding the preferences of the employees may aid in their choice to deploy the system in the company.

LITERATURE REVIEW

The UTAUT model was created by Venkatesh et al. (2003) as an attempt to combine earlier theories used to examine technology acceptance. The determinant variables in the UTAUT Model include performance expectancy, effort expectancy, social influence, and facilitating conditions. When compared to other similar models and theories, the UTAUT model can describe 70% of behaviour intent for technology usage in information systems settings (Mills, 2016). Therefore, this study focuses primarily on these variables to evaluate the adoption of technology within the context of academics.

Performance expectancy is the degree to which a person thinks that adopting the system will enable him or her to improve their level of performance at work. There were five important elements that were discussed by Venkatesh et al. (2003), which include perceived usefulness, extrinsic motivation, job-fit relative, and outcome expectations. Therefore, individuals making the choice to use an online filing system do not focus on job performance but rather on individual personal performance.

Effort expectancy is defined as the level of comfort associated with using the system. The idea of effort expectation is captured by three constructs from the current models: complexity, perceived ease of use, and perceived complexity (Venkatesh et al., 2003). Effort evaluates how simple it is for an individual to use the technology. In this case, the individual will compare how much effort it takes to complete a filing system with or without Google Forms.

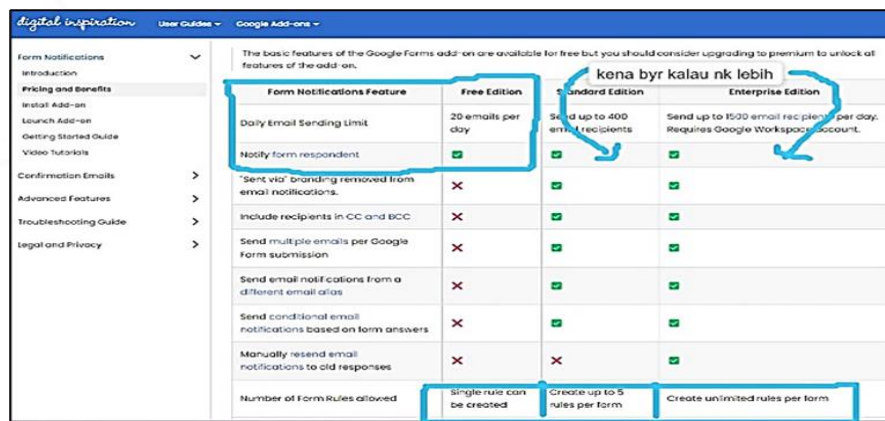
According to Mills (2016), social influence can be referred to as the degree to which an individual perceives that others believe he or she should use the new system. Social influence was validated as a significant influencer of technology usage acceptance (Chan et al., 2022). Therefore, it may lead to positive feedback towards the new system that has been created by the researcher.

In this study, facilitating conditions refers to the extent to which individuals believe that the available infrastructure in the organization supports the use of the new filling system. Additionally, Mensah and Adams (2019) substitution of trust for facilitating conditions points to the effectiveness and consistency of UTAUT in a variety of use cases. As such, the researcher found through the literature that the original UTAUT model, inattentive facilitating conditions, deemed sufficient to explore the omnibus question of this study.

METHODOLOGY AND DATA ANALYSIS

Methodology (Procedural System Process)

In conjunction to Quality Management System throughout UiTM, controlling and documentation must follow ISO 9001:2015. Thus, to assist the office of Academic Affairs in ensuring that the Course Files are always updated, a simple fast idea is using Google Form with some additional add on software.

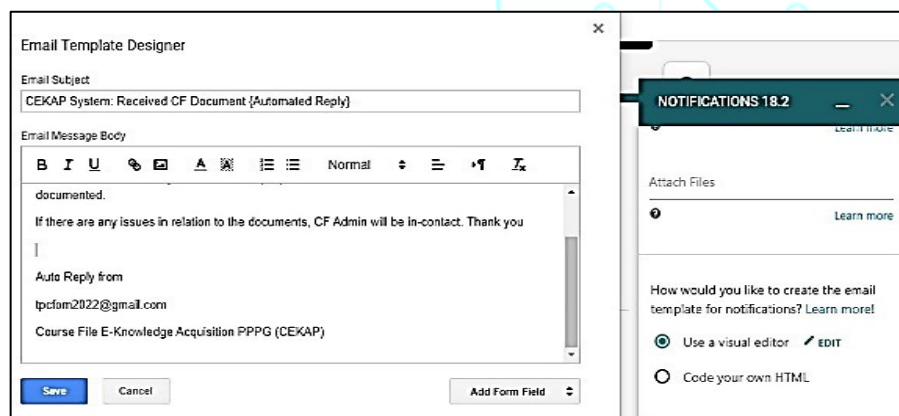


Form Notifications Feature	Free Edition	Standard Edition	Enterprise Edition
Daily Email Sending Limit	20 emails per day	Send up to 400 email recipients	Send up to 1500 email recipients per day. Requires Google Workspace account.
Notify form respondent	✓	✓	✓
"Sent via" branding removed from email notifications	✗	✓	✓
Include recipients in CC and BCC	✗	✓	✓
Send multiple emails per Google Form submission	✗	✓	✓
Send email notifications from a different email alias	✗	✓	✓
Send conditional email notifications based on form answers	✗	✓	✓
Manually resend email notifications to old responses	✗	✗	✓
Number of Form Rules allowed	Single rule can be created	Create up to 5 rules per form	Create unlimited rules per form

Figure 1: Google Add-On Features & Email Template

Additional tools incorporated are the "Google Add-On Tool," used to ensure the ability to use the form and automatically trigger the below actions:

1. The user who submits the form will get an email reply (Refer to Figure 2 for the email template used; content can always be edited, but a single rule is used).
2. The CEKAP owner or admin will also receive notification, take action to check the uploaded content, and later email the user if there is incomplete content.
3. The system will stop collecting data for document checking purposes (controlled by CEKAP admin).



Email Template Designer

Email Subject: CEKAP System: Received CF Document {Automated Reply}

Email Message Body:

documented.

If there are any issues in relation to the documents, CF Admin will be in-contact. Thank you

Auto Reply from
tpcfom2022@gmail.com
Course File E-Knowledge Acquisition PPPG (CEKAP)

Buttons: Save, Cancel, Add Form Field

Notifications 18.2 sidebar:

Attach Files

Learn more

How would you like to create the email template for notifications? Learn more!

Use a visual editor (selected) / EDIT

Code your own HTML

Figure 2: Single Rule Triggering Email Template

Analyzing the data for auditing purposes will be based on the online concept where the content access can be controlled via Google security options controlled by the system CEKAP owner or admin.

Data Analysis

This study involved 25 staff of Pusat Pengajian Pengurusan Gunaan, and the data collected was in total 24 respondents via Google Form, which is enough for the population according to Krejcie & Morgan (1970). The research instrument survey contained 16 statements pertaining to performance expectancy, effort expectancy, social influence, and facilitating conditions and 3 demographic questions. The question was adapted based on Unified Theory of Acceptance and Use of Technology Model (UTAUT). A Likert scale measurement (1 to 5) was used for this statement where 1 indicated a very negative point of view (Strongly Disagree) and 5 indicated a very positive view (Strongly Agree). The Cronbach's Alpha values are high which is (Performance expectancy = 0.853, Effort expectancy = 0.954, Social influence = 0.924 and Facilitating condition = 0.955). Therefore, all the items in the questionnaire are accepted. The data was analyzed using the IBM-SPSS version 26.

FINDINGS AND DISCUSSION

The total of 33.3% (males) and 66.7% (females) of staffs comprises of ages until above 50 years old with range of below 5 years until more than 20 years of working experience has answered the survey. Most of the staff (50%) were between 31- 40 years old.

The respondents gave a very good response to the performance expectancy of CEKAP system ($M=4.49$) which comprises of system efficiency, productivity, task accomplishment and chances of getting raise. This element in the CEKAP system shows that this system is acceptable and can be used to enhance the present system. The result was consistent with the earlier study proposed by Saiful et al. (2015), which found that users of the new documentation system were more satisfied. In terms of effort expectancy, the result was very good ($M=4.69$) which indicates the ease of use of CEKAP system towards the user. Social influences, even though slightly lower, it also showed very good ($M=4.57$) where staff in the department play the factor of the user to try and use the system as stated by Hajjar et al. (2021), social influence may come from friends, family and other people who influence the behavior. This survey also shows that the use of CEKAP by the staff is contributed by the facilitating conditions ($M=5.20$) where the resources needed are available, knowledge and assistance required available as well as fits the staff working style which according to Bai & Guo (2022), the facilitating condition may be attribute the nature of digital technology where user need to learn new technology in order to enjoy the convenience of digital revolution.

CONCLUSION

In conclusion, the study's findings demonstrated that the Course File Electronic Knowledge Acquisition PPPG (CEKAP) System was a good solution to the issue of time-consuming verification of each staff member's material supply and the administrator's action to respond to each submission because all papers supplied must be evaluated. The findings are intended to give a better knowledge and image of the consumer's demand and preferences for utilizing a system to speed up the process of collecting, recording, and documenting data in an organization.

The researchers were hoping that once the system was commercialized, numerous parties would use it to improve their performance, resulting in the long-term development of Malaysia's education business.

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