How to Cite:
Joshua, B. S., & Chandrasekaran, M. (2022). Perception analysis of user satisfaction model for e-learning using smartphone. *International Journal of Health Sciences*, *6*(S5), 9671–9675. https://doi.org/10.53730/ijhs.v6nS5.12011

Perception analysis of user satisfaction model for e-learning using smartphone

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***Abstract*---**The purpose of the research is to make user satisfaction model for e-learning using smartphone, and to produce and to recommend e-learning content for research and e-learning. Level of smartphone usage can be used as an indicator of technological progress of a region. This study aims to explore and make user satisfaction model for e-learning using smartphone applications in Dhanalakshmi College. The components that would be evaluated in this research are focused on the following matters: User satisfaction for e-Learning using Smartphone; Service quality, Information quality, User participation, and Benefit. Where as service quality consists of demeanor, responsiveness, competence and tangible. Information quality consists of completeness, relevancy, accuracy, and currency. User participation consists of training provider, user understanding and participation. Benefit consists of easier to the job and increase productivity. The research method used percentage anlaysis and Anova Analysis. Total of respondent are 50 students which are consist of 25 females and 25 males. The statistical value in the model of e-learning user satisfaction has a highly significant correlation values and strong construction between variables, which is evidenced by the size of the construct reliability values above 0.70 and the value of its variance extracted 0.50. The model can be considered in developing an e-learning application in the future.

***Keywords*---**e-Learning, User Satisfaction, SEM Smartphone.

Introduction

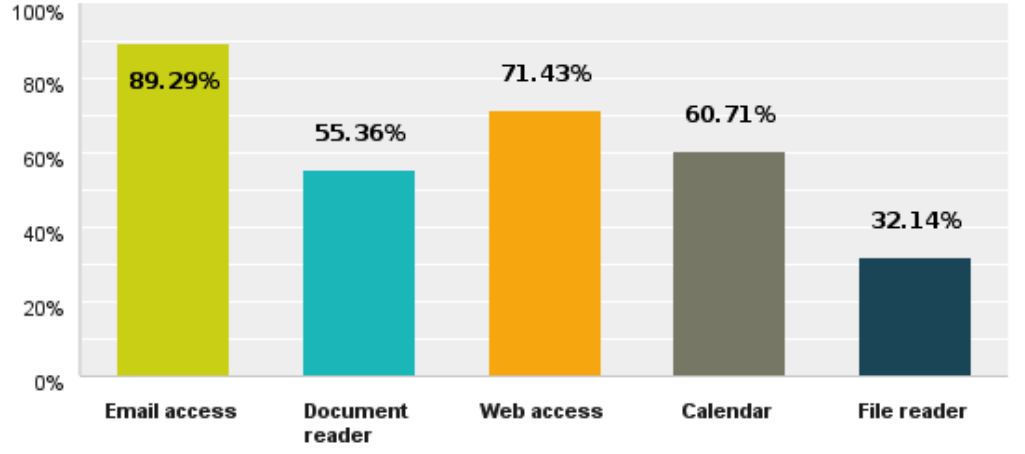
Nowadays, smartphones have become a part of every person life. People around the world have adopted this new and exciting technology as one of the most important required facility in their everyday life. A variety of smartphones applications is available to be used in a wider range of usage situations. It is no doubt a smartphone is a new gadget which has a capability to change people lives. Smartphones are used to replace digital cameras, watches, video recorders, and many more. Having a smartphone is like having a tiny computer in a pocket. With the advancement of the Internet technologies and its applications, smartphones are not only used for making phone calls but also for internet usage such as sending and receiving emails, chatting, sharing photos and documents, reading news, browsing the Internet, and online selling and buying. The dramatic growth of smartphone users has also increased the growth of social media users.

Smartphone is a communication tool whose ability is getting closer to the use of notebook. Although now the most popular activities performed on smartphones is accessing social media, but one day the smartphone can replace the function of the notebook in processing files and other important data. The most frequent activities of smartphone users are social media, group discussion, youtube, browsing, games, download, e-commerce, and entertainment news. However, e-learning and other learning applications are the shortest activities of all activities, whether through smartphones or notebooks. Social learning concepts, micro-content, and informal learning are a result of the mobile learning surge. This research is the preliminary research of three stages of research. For the future research will be developed smartphone content that can be used for e-learning.

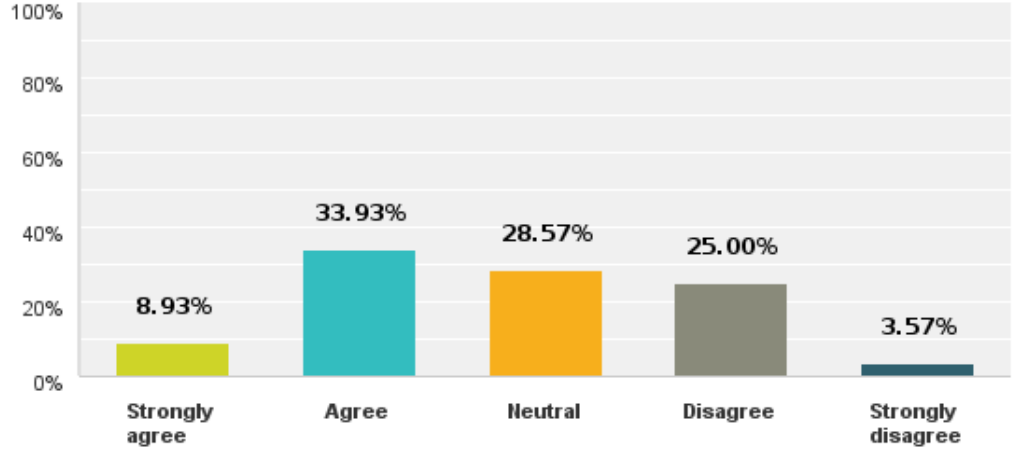
According to Pew Research Center as many as 54 percent of adults in developing countries are already using the internet. There are 21 percent of adults who use smartphones and will rise to 37 percent in 2021. In developed countries, 87 percent of adults are internet users and 68 percent already have smartphones. Smartphones are used for much more than calling, texting, or basic internet browsing. Users are turning to these mobile devices as they navigate a wide range of life events; 62% of smartphone owners have used their phone. Only 30% to take a class or get educational content and 18% to submit a job application.

The challenge facing educators today is how to utilize smartphone technology as a medium of education and knowledge sharing, whether formal or non-formal. The goal is to facilitate and expand the reach of education for those who cannot afford, not paying for professional teachers, unable to attend favorite places, disaster-stricken areas and remote provincial towns. As technology and applications continue to improve, more video content being utilized in eLearning environments. The use of mobile devices for learning will continue to rise as the number of people with mobile devices increases, along with the increased emphasis on optimizing websites and applications to accommodate mobile users.

Data analysis



In order to study, we have listed a list of smartphone applications which can be used for completing job assignments. Participants were asked to make multiple selections from a list of smartphone applications. Figure 2 shows that an email application has the highest score, (89.29%), followed by Web access at 71.43%. Only 32.14% of the respondents have used File reader to complete their job assignments. For teaching purposes, 90.76% of respondents have been using smartphones for supervising project' students through social media applications. However, only half of the respondents are willing to solve students' problems through call or messaging applications. The least score was using smartphones for displaying students ' grades.



Participants were also asked if smartphone can help them to complete their job faster. Their responses were analyzed, and illustrated as in chart. The result of data analysis reveals that only 42.86% of the participants strongly agree and agree that by using a smartphone they can complete their job's assignment faster. About 28.57% of participants feel it is neutral. This result indicates that about 50% of smartphone users do not feel that smartphones are able to help them to

complete their job faster. Although smartphone applications may help academic staffs to complete their job assignments, but smartphones cannot be a device to help academic staffs to complete their job faster.

Result analysis reveals that less than 40% of academicians never use smartphones during a meeting at a workplace, never checking smartphone while talking to coworkers and never postponing job assignments. The results suggest smartphones are also able to divert academic staffs' focus on work.

Conclusion

The resulting analysis for smartphone usage among academic staffs in the context of higher education reveals some interesting findings. Result analysis shows that a smartphone has been used as an alternative to a mobile computer, a digital camera, a watch, a messenger, and a digital storage. Among smartphone's applications, an email system has been the most useful smartphone apps for academic staffs. Findings also reveal that academic staffs cannot use a smartphone as a means to complete the job assignment faster. Carrying smartphones to a workplace has given some negative impacts to the job environment, where academic staffs are tended not to focus on their meetings or face to face communications with co-workers, as at the same time they are using their smartphone. Result analysis also showed that academic staffs have a very personal connected to their smartphone as only majority of the respondents never put their smartphones besides their bed whenever they need to sleep. Furthermore, academic staffs are also negatively affected by the feelings of incompleteness without smartphones. In spite of negative effects, smartphones have been a very a great tool for supervising project's students and knowledge sharing.

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