DIGITAL BEHAVIOUR OF RURAL SCHOOL STUDENTS: ATTITUDES AND PERCEPTION OF DIGITAL TECHNOLOGIES

Siti Noorsuriani Maon*

Department of International Business and Management Studies
Universiti Teknologi MARA, Puncak Alam Campus
Malaysia
sitinoor123@uitm.edu.my

Naffisah Mohd Hassan

Department of International Business and Management Studies
Universiti Teknologi MARA, Puncak Alam Campus
Malaysia
naffi885@uitm.edu.my

Noorain Mohammad Yunus

Department of International Business and Management Studies
Universiti Teknologi MARA, Puncak Alam Campus
Malaysia
noorainyunus@uitm.edu.my

Sri Fatiany Abdul Kader Jailani

Department of Technology and Supply Chain Management Studies
Universiti Teknologi MARA, Puncak Alam Campus
Malaysia
fatiany@uitm.edu.my

Nor Azmaniza Azizam

Department of International Business and Management Studies
Universiti Teknologi MARA, Puncak Alam Campus
Malaysia
norazm8472@uitm.edu.my

*Corresponding Author email: sitinoor123@uitm.edu.my

Submission: 22 December 2020

Revised: 18 February 2021

Accepted: 05 March 2021

Peer-review under responsibility of 6th Asia International Conference 2020 (Online) Scientific Committee

<http://connectingasia.org/scientific-committee/>

© 2021 Published by Readers Insight Publisher,

Office # 6, First Floor, A & K Plaza, Near D Watson, F-10 Markaz, Islamabad, Pakistan,

editor@readersinsight.net

This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

ABSTRACT

Digital technologies have become essential tools in today's society in many ways. However, not all of them have undergone formal training or assistance to be competent for them to survive in a challenging environment in a digital world. Hence, this study is intended to determine the digital behavior of students in rural schools, including learning how youth self-evaluate their perceptions of digital technologies, digital competencies, and attitudes towards digital technologies. A descriptive quantitative methodology was employed, using survey questions were distributed to selected secondary schools in rural areas. Based on the descriptive analyses of 211 responses, the findings indicate there is a high level of attitude toward ICT usage. Troubleshooting, staying safe online, and being credible; as well as in the ethical knowledge, were found moderately competent. Digital security attributes were at a moderate level; however, privacy concerns have reached a high level of agreement. Perception of ethical digital behaviour was significantly associated with the frequency of ethical digital behaviour of the school students. Specific concerns and emphasis on youth digital technology usage and education must be imposed on ensuring that they are not neglected, and vulnerable to cybercrime, but also on fostering a responsible e-society with excellent digital citizenship attributes.

Keywords: *Digital Competency, ICT Usage in Rural Areas, Digital Citizen, Youth and Digital Security*

RESEARCH HIGHLIGHTS

1. Most three common digital activities among the students were listening to music, visiting social media and networking and playing online games. On the other hand, the least three digital activities were using email, work with learning software and media sharing.
2. In terms of digital competence, ethical knowledge dimension was considered as skillful among the students compared to technological, cognitive and communication dimensions. However, all dimensions of digital competence were significantly correlated with attitude to digital use.
3. There was a statistically significant associated between attitude to digital use and digital competence dimensions; including technological, communication and cognitive. Dimensions of cybersecurity were also statistically significant associated with attitude to digital use.

Research Objectives

Digital technologies have become essential tools in today's society in many ways. These digital technologies are transforming the ways of people working, studying, communicating, evaluating information, sharing documents, or even spending leisure time, among others. The young generation nowadays is very savvy using digital technologies. It is important to instill digital citizenship skills in preparing those who are also the technology users for a digital society today. However, not all of them have undergone formal assistance to be competent for them to survive in a challenging environment in a digital world. Due to the rising of unethical digital issues, it is strongly

suggested that educators are in need to be trained on how to educate digital responsibilities to provide an ethical digital foundation to students. However, those yet to be connected remain cut off from the benefits of digital technologies and remain further behind, thus the students must be competent in using digital technologies. It is a growing concern on the healthy use of the digital technologies i.e. digital wellness. Hence, this study is intended to determine digital behavior of students in rural schools, including learning how youth self-evaluate their perceptions of digital technologies i.e concerning to unethical behaviour, digital competencies, and attitudes towards digital technologies usage.

Methodology

The target population of the study was school pupils children in rural areas. Using the purposive sampling technique, a total of 240 samples were obtained from all schools that have been determined. A survey questionnaire was used to collect data, and it consists of four sections; including 1) the demographics and pattern of digital usage; 2) attitude to digital use; 3) digital competence and cybersecurity; and 4) digital behaviour. These survey questions of digital competence used a 5-point Likert scale (from 1 – very unskillful to 5 – very skillful). Cybersecurity was measured as intellectual property, privacy, accuracy and accessibility. These questionnaire items were measured using a 5-point Likert Scale (from 1 – strongly disagree to 5 – strongly agree). These items measurement was based on frequency in nature (from 1 – never to 5 - always). These items were selected from past related research and subsequently modified to fit the cyber-ethics issues and digital behavior and belief. All the obtained data were analysed using a statistical package for social science (IBM SPSS version 23.0). Both descriptive and inferential statistics were applied. Simple frequencies were carried out to study the characteristics of the respondents.

Results

In total, 211 valid for data analysis; with 54% female students and 46% male students. Sixty percent of students were from lower-level form and 39% were upper-level. The majority of students used smartphones (85%) and having access to the internet at home (38%). The most three common digital activities among the students were listening to music (73%), visiting social media and networking (67.3%) and playing online games (63%). In descriptive analysis, a high positive means scores of attitudes towards digital usage ($M=4.11$, $SD=0.61$) were found. In terms of digital competence, students had higher mean scores in an ethical knowledge dimension compared to other dimensions; including the technological dimension ($M=3.11$; $SD=0.67$), the communication dimension ($M=3.01$; $SD=0.76$) and the cognitive dimension ($M=2.90$; $SD=0.64$). Results showed that students had perceived as “totally unacceptable” on unethical digital behaviour ($M=1.69$; $SD=0.42$) and the frequency of unethical digital behaviour were also low mean scores ($M=1.47$; $SD=0.36$). In relation to cybersecurity aspects, results showed that privacy had highest mean scores ($M=3.91$; $SD=1.12$) compared to other aspects; including accuracy ($M=3.46$; $SD=0.66$), intellectual property ($M=3.19$; $SD=0.74$) and accessibility ($M=3.08$; $SD=0.86$). Finally, the data findings

revealed that all dimensions of cybersecurity and digital competence dimensions were statistically significant associated with attitude to digital usage.

Findings

The majority of students utilised smartphones and mostly they got connected to the internet at home. It was found that students were more listening to music, participating in social media and networking and playing online games. Attitude to digital use was found high mean scores among the students. In digital competence, students were considered as skillful towards ethical knowledge dimension compared to technological, cognitive and communication dimensions. Students are able to perceive unethical digital behaviour. In regards to unethical digital behavior, the students had never done the unethical digital behaviour. Attitude to digital use was significantly correlated with the dimensions of cybersecurity and digital competence.

Acknowledgement

This research has been funded by Universiti Teknologi MARA via BESTARI Perdana Grant: 600-IRMI/DANA 5/3/BESTRARI (032/2018). We would like to express our sincere gratitude to Universiti Teknologi MARA, (UiTM) Cawangan Selangor and the Faculty of Business and Management, Universiti Teknologi MARA (UiTM) Kampus Puncak Alam, for their kind support and contributions.

References

- Ferrari, A., Punie, Y., & Redecker, C. (2012). *Understanding Digital Competence in the 21st Century: An Analysis of Current Frameworks*. https://doi.org/10.1007/978-3-642-33263-0_7
- Masrom, M., Mahmood, N. H. N., & Zainon, O. (2013). Cyberethics and internet behaviour of Malaysian primary education students. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4(1), 105-111.

Author's Biography

Siti Noorsuriani Maon is an associate professor at the Faculty of Business and Management, Universiti Teknologi MARA (UiTM), Malaysia. She received her Ph.D. from the University of Queensland (UQ), Australia in 2013. She has actively participated in several research works and community projects relevant to her interest. She is the recipient of several research grants; including internal and national grants. Her research interest includes management, health behavior, health informatics, and technological intervention in health improvement.

Naffisah Mohd Hassan is a senior lecturer at the Faculty of Business and Management, Universiti Teknologi MARA (UiTM), Malaysia. She received her Ph.D. from the University of Wollongong, Australia. She has published papers in various journals and conference proceedings. She is an active member of community engagement projects with NGOs. She has organized several community projects to raise awareness, understanding, and acceptance of autism within Muslim communities.

Noorain Mohamad Yunus is a senior lecturer at the Faculty of Business and Management, Universiti Teknologi MARA (UiTM), Malaysia. She received her Ph.D. from International Islamic University Malaysia (IIUM). Currently, she has been appointed as Head of Department at faculty. She has published papers in several journals and conference papers. She is the recipient of several research grants; including internal and national grants.

Sri Fatiany Abdul Kader Jailani is a senior lecturer at faculty business. She received her Ph.D. from International Islamic University Malaysia (IIUM). She received a bachelor's degree and a master's degree in Information Technology from Universiti Teknologi MARA Malaysia. Her current field placement is with the Universiti Teknologi MARA. Her research area includes information technology, sustainability and social networking.

Nor Azmaniza Azizam is a senior lecturer at faculty business. She received her PhD from Universiti Kebangsaan Malaysia (UKM). She has published papers in various journals and conference proceedings. She is the recipient of several research grants; including internal and national grants. Her research interests include health economics and health management.