DIGITAL LITERACY AMONG WOMEN ENTREPRENEURS IN RURAL AREAS

Roseliza Hamid[1♣]
Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kelantan
rose286@uitm.edu.my

Zuriani Ahmad Zukarnain[2]
Faculty of Computer and Mathematical Science, Universiti Teknologi MARA Cawangan Kelantan
zurianiaz@uitm.edu.my

Nik Sarina Nik Md Salleh[3]
Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kelantan
sarina707@uitm.edu.my

Nik Nor Hasimah Nik Ismail[4]
Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kelantan
niknor@uitm.edu.my

Abstract: The ability to use information and communication technologies has become crucial nowadays specifically to businesses. Hence, this paper makes an attempt to report the findings on women entrepreneurship and digital literacy skills. It focuses on digital knowledge and its usage by respondents who were participants of *Program Inkubator Usahawan Komuniti (PIUK) Jeli* organized by Pusat Pembangunan Komuniti dan Usahawan (PPKU), UiTM Kelantan Branch. All participants were selected among women entrepreneurs from rural areas who are mostly home-based micro traders. They are also members of Amanah Ikhtiar Malaysia (AIM) Jeli branch. The questionnaires were distributed among participants in order to collect data which were later analyzed and described through descriptive analysis. The findings showed that most of the respondents have knowledge of the Internet, are moderate in digital literacy skills, and have been using the Internet via smart phones and tablets to browse Facebook and WhatsApp. Thus, this study suggests more digital programs need to be conducted to enhance skills among women entrepreneurs in utilizing the Internet for businesses.

Keywords: Women Entrepreneurs, Digital Literacy, Rural Area

1. Introduction

1.1. Women Entrepreneurship

Strengthening the economic power of women is one of the key solutions in achieving growth, dynamism, and ingenuity in the global economy. It is estimated that 61.3 million women entrepreneurs own and operate businesses in ASEAN, which accounted for 9.8 per cent of the total population in ASEAN. In Malaysia, women represent twenty percent of more than 650,000 registered entrepreneurs. According to a report by SME Bank, the Malaysian government spent RM2.3 billion on 10 women entrepreneurship programs in 2018 to encourage women's participation in business. These programs have benefited 364,052 Small and Medium Enterprise (SME) recipients. Furthermore, women participation in entrepreneurship have become a major interest for developing countries in bridging the digital gap especially in rural areas (Razak & Pisal, 2017). However, despite the support from the government and community, women entrepreneurs, specifically in the rural areas, are facing problems such as lack of access to capital, limited entrepreneurship and business skills, bargaining power within the market, and lack of inclusiveness in major decisions to entrepreneurship development (Ariffin, Baqutayan, & Mahdzir, 2018). Moreover, with the innovation and inventions that were brought into the marketplace, the obstacles became more intense. The advent of the Internet more than two decades ago

♣Corresponding author: Faculty of Business & Management, UiTM Cawangan Kelantan, Bukit Ilmu, 18500 Machang, Kelantan, Malaysia, rose286@uitm.edu.my

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automated most of the businesses. In order to compete in this borderless world, entrepreneurs, unexceptionally, must be well-versed in using current technology. Social media marketing has become a major strategic issue among entrepreneurs, specifically women entrepreneurs. One of the strategic marketing issues in entrepreneurship is making advertisements more interactive in order to be more effective. Hence, women entrepreneurs need to take advantage of Facebook, Twitter, as well as Instagram conversations about their company and product or services to consumers. Moreover, marketing of products has evolved to be more about building a two-way relationship with consumers than just informing consumers about a product or service (David & David, 2017). Women entrepreneurs have to take advantage of the increasing numbers of users in social media. According to David and David (2017), Facebook has 1200 million users, Google Plus (500 million), Twitter, (400 million), and Instagram (200 million) users. In order to take advantage of this surge in media social users, women entrepreneurs have to increase their digital literacy in order to capitalize on the opportunity of reaching mass consumer markets and remain competitive. Being literate digitally catalyses women entrepreneurs to explore various intensive strategies in marketing their products and services. They can increase the sales of their products and services through Market Penetration using social media, by reaching millions of customers in minutes, while at the same time implementing a Market Development strategy by digitally bringing their products and services to every corner of the world.

1.2. Digital Literacy

Digital literacy means having the skills needed to live, learn, and work in a society where communication and access to information is increasingly through digital technologies like internet platforms, social media, and mobile devices. The influence of technology on businesses is the main reason for this new mandate. In running businesses, people might use digital technologies either to sell goods or services (e-commerce, including apps), for source materials (B2B transactions), to manage their finances and employees (HR or accounting software) or to market their businesses online (including social media). A study by Aziz and Razak (2012) on 1nita Project (a national project that aims at transforming women entrepreneurship from material businesses to online ventures) showed positive impact on their income level, online presence and network.

1.3. Amanah Ikhtiar Malaysia

In Malaysia, Amanah Ikhtiar Malaysia (AIM) was the first and largest microcredit institution. It was established in 1987. AIM replicates micro-credit model of Grameen Bank in Bangladesh which is a model of credit through close supervision in a solidarity group that targets poor households as their borrowers. The main objective of AIM is to provide benevolent loans to finance income-generating activities to poor households and eventually move them out of poverty. As of September 2019, AIM has 363 497 registered members – so-called "Sahabats." A study by Alam, Hassan and Said (2015) on 393 microcredit borrowers from Amanah Ikhtiar Malaysia (AIM) proved that it has a positive and enhancing effect on the livelihood of the *Sahabats*. This effect is reflected in the assessment of their well-being, especially in the context of *Maqasid Al-Shariah*. Additionally, Mokhtar (2011) also believed that microcredit loans have significantly increased a borrower's microenterprise revenue and household's income and provided social (more involvement in business and family decisions and increased self-esteem) and economic security (increased personal savings, more optimistic in facing the future and increased effectiveness in coping with negative shocks).

2. Literature Review

Digital literacy is usually perceived as an integration of technical-procedural, cognitive and emotional-social skills (Aviram & Eshet-Alkalai, 2006). Using a computer program is an example conceived as involving procedural skills (e.g., handling files and editing visuals), as well as cognitive skills (e.g., the ability to intuitively decipher or "read" visual messages embedded in graphic user interfaces). Similarly, data retrieval on the Internet is conceived of as a combination of procedural skills

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(working with search engines) and of cognitive skills (evaluating data, sorting out false and biased data, and distinguishing between relevant and irrelevant data). Effective communication in the chat room is understood as requiring the use of certain social and emotional skills. With increased exposure to the digital work environment and learning, digital literacy has been described as a "survival skill", a key that helps users effectively perform complex digital tasks.

Therefore, in studies by Eshet (2004) and Aviram et al. (2006), there are six skills required to be literate with digital technologies:

1. Photo-visual literacy skills
2. Reproduction literacy skills
3. Branching literacy skills
4. Information literacy skills
5. Social-emotional literacy skills
6. Real-time thinking skills

In explaining the digital practices of women entrepreneurs, there are several theories that can be linked to the practice such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivation Model (MM), Theory of Planned Behavior (TPB), a combination of the theory of Behavioral Technology Acceptance Model (C-TPB-TAM), PC Usage Model (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT). The Unified Theory of Acceptance and Use of Technology (UTAUT) is the most relevant theory that can be used in clarifying technology acceptance among women entrepreneurs in running their enterprises. Developed by Venkatesh, Morris etc. (2003), UTAUT is the combination of eight theories outlined above. There are four core determinants of use and intentions of technology acceptance in which this study is related to digital literacy. Performance expectations, social influences, business expectations, and facilitation requirements are the four factors in driving technology acceptance. Besides, gender, age, experience, and voluntary use are described as moderators of key relationships between the determinants of use and intentions of technology acceptance. Other than that, TPB, that was introduced by Ajzen (1991), has assumed that an individual's intention to perform certain actions will influence the individual's willingness or ability to put the amount of effort into actualising the behaviour. An individual with a strong desire to act will normally behave in a certain way. This behaviour is subjective due to his/her attitude towards behaviours, subjective norms and perceived behavioural control. Therefore, these two theories; UTAUT and TPB are fruitful in relating digital literacy practice among women entrepreneurs in Malaysia.

2.1. Ability

One of the factors for digital literacy among women entrepreneurs is ability. According to Noe (2002), ability is defined as the physical and mental capacity to perform a task, while Tamkin and Hillage (1997) in their case study research with employees, found that individuals want to engage in activities because they believe it will improve their ability to perform their job; because it increases the possibility of a more responsible (and better paid) job and because it would maximise both employability and their value to their organization.

However, a study by Huerta and Sandoval-Almazán (2007) found telecenter users are digitally illiterate in three skills: "branching ability" (ability to navigate through a nonlinear environment to find the desired information); "reproduction ability" (ability to analyze and synthesize the information retrieved); and "information ability" (ability to assess the quality of information). The findings are supported by Eshet-Alkalai and Chajut (2010) who suggested that the ability to find information or use digital environments does not guarantee an educated or smart use of digital environments.

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2.2. Perceived importance

As the term 'useful' is defined as capable of being used advantageously (Davis, 1989), Mullen, Kroustalis, Meade and Surface (2006) realized that employees who perceive the importance of some activities will be motivated to learn its capabilities. As a consequence, digital literacy will occur as demanded. For instance, a study by Hassan, Shaffril, Azril and D'Silva (2009) found that entrepreneurs do not use ICT because they do not realize its importance in their business activities. Low literacy and the need for ICT among women entrepreneurs are among the factors affecting ICT patterns in Malaysia. Besides, Haque and Quader (2014) proved the advantages of using online platforms by women entrepreneurs when they successfully use online platforms and social networks to exchange information, promote their products, and expand customer needs.

2.3. Digital inclusion

Digital inclusion can be fruitful in two ways: firstly, ensuring that all communities have the opportunity to enjoy direct benefits of the digital technology through access and technology skills, motivation and the confidence to enhance the quality of life; and secondly, ensuring that the indirect benefits offered are to improve all aspects of planning and deployment services in order to be fully utilized by the society (HM Government, 2008). Therefore, Omar, Salman and Rahim (2017) hypothesized three dimensions of digital inclusion that will affect the empowerment of women online entrepreneurs: 1) internet as a source of information; 2) communication network; and 3) e-transaction. Among the dimensions, the Internet, as a source of information and communication network, was successfully proven to have a relationship with online entrepreneurship among women in Malaysia. As the internet platform represents a promising new tool for women entrepreneurs, thus, high-quality online training and mentoring platforms are needed to remove barriers and challenges faced by them in being literate and also in using digital technologies (Sorgney, Bode & Krieger-Boden, 2017).

3. Methodology

This study was conducted to assess the knowledge of digital literacy and its usage among women entrepreneurs in rural areas. The descriptive method was applied, and quantitative research approaches were utilized. The population of this study were the *Sahabats* of AIM Jeli and a total of 22 respondents involved in the study were participants of the Program Inkubator Usahawan Komuniti (PIUK) Jeli, organized by Pusat Pembangunan Komuniti dan Usahawan (PPKU) of UiTM Kelantan Branch. These participants were selected among women entrepreneurs from rural areas in the district of Jeli.

The research instrument used for data-gathering is a set of questionnaires adopted from Hashim (2007). The items were measured based on a five-point Likert scale. The questionnaire consisted of three parts. The first part was about the demography of the respondents. The second part collected data on the trend of usage. The third part evaluated the effective usage of the Internet on their business. The data collected were analyzed using Statistical Package for Social Sciences (SPSS). The descriptive analysis techniques were utilized to explain the results based on the research objectives. Overall research process was summarized in Figure 1 below.

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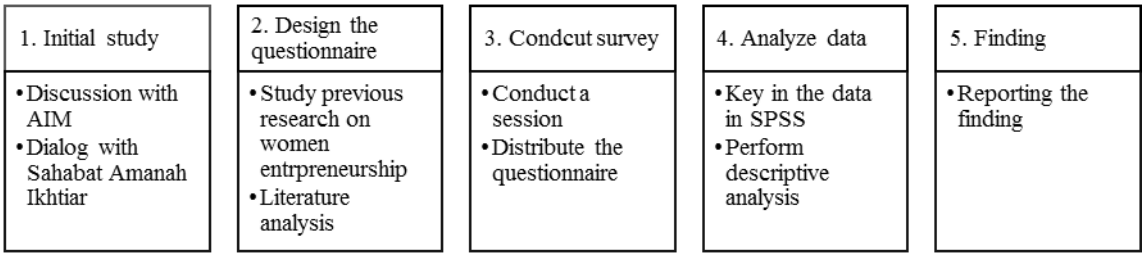
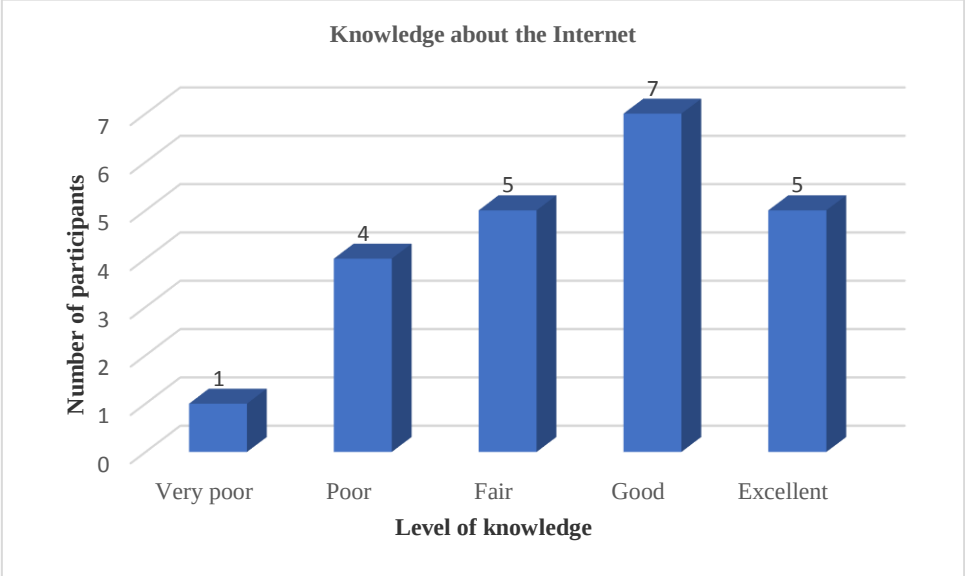
Figure 1: Overall research process



4. Descriptive analysis

There were 22 participants of Program Inkubator Usahawan Komuniti (PIUK). They were selected among women entrepreneurs from rural areas. They were also members of AIM Jeli. More than 70 percent of them aged between 20 to 40 years old. This is the age group that is most dynamic in the sense that they are at the stage in life to improve their standard of living (Aziz & Razak, 2012). Only 23 percent of the participants were more than 40 years old and 4 percent of respondents were below 20 years old.

Figure 2: Level of knowledge about the Internet



According to Figure 2 above, most of the respondents have knowledge about the Internet. Five of them are excellent, while seven respondents have good knowledge about the Internet. Most of them use the Internet via smartphones, tablets or personal computers. This indicates that the participants have a relatively higher digital literacy level as they are considered the products of Malaysia's new economic policy. According to the Malaysian Communication and Multimedia Commission (MCMC, 2018), there were 28.7 million internet users in Malaysia in 2018 that comprises of 87.4 percent of Malaysians.

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Figure 3: Social networking and communication apps users

Internet applications	The Users
 Facebook	50 percent
 WhatsApp	63 percent
 Instagram	28 percent
 Google	41 percent
 Email	28 percent

In 2019, 90.1 percent of Malaysian household had access to the Internet, an increase of 3.1 percent from the previous year (Department of Statistics of Malaysia, 2020). Currently, with wider coverage, people can access the Internet anywhere at any time. More than 50 percent of the participants use broadbands to access the Internet, while another 45 percent access the Internet from home. They barely go to internet access facilities. Additionally, the participants use the Internet for communication and social networking (refer Figure 3). 63 percent of the participants use WhatsApp application, 50 percent of them use Facebook and 41 percent use Google. Moreover, 28 percent of the participants use the Internet for communication such as email and also for social networking such as the Instagram.

According to MCMC (2018), duration of the daily use of the Internet among Malaysians for 1 to 4 hours is the highest, accounted for 39.2 percent. Accordingly, 13 participants of PIUK accounted for 59 percent who use the Internet less than 2 hours a day. 14 percent of them use the Internet for 3 hours to 5 hours a day and the remaining balance use the Internet for more than 5 hours a day. Meanwhile, most of the participants agree that the usage of the Internet positively helps their business, hence, increasing their earnings.

5. Conclusion

Being digitally literate is a mandatory competence nowadays. Many countries have partnered with IT companies to encourage individuals to learn computer science and empower them to achieve more in the digital economy. Employers need to keep track of new inventions and developments and train their staff accordingly. Entrepreneurs must always be up to date with any development in IT so that they will not lose the market. In the case of PIUK participants, they are relatively digitally literate. However, they lack training in benefitting the usage of internet applications. More programs need to be organized to help them adapt to the digital economy and improve their businesses and livelihoods. For future works, it is recommended to conduct similar studies to ensure the recommendations made are relevant for current entrepreneurs in the most recent ICT environment.

References

Ajzen, I. (1991). The theory of planned behaviour. *Organisational behaviour and human decision processes*, *50*(2), 179-211.

Alam, M. M., Hassan, S., & Said, J. (2015). Performance of Islamic microcredit in perspective of Maqasid Al-Shariah: A case study on Amanah Ikhtiar Malaysia. *Humanomics*, *31*(4), 374-384.

eISSN 0128-2697

Ariffin, A. S., Baqutayan, S. M. S., & Mahdzir, A. M. (2018). Enhancing Women Entrepreneurship Development Framework: Policy & Institution Gap and Challenges in the Case of Malaysia. *Journal of Science, Technology and Innovation Policy*, *3(*2).

Aziz, J. B., & Razak, N. A. (2012). Developing digital literacy among women entrepreneurs. Recent Researches in Mechanics, Transportation and Culture.

Aviram, A., & Eshet-Alkalai, Y. (2006). Towards a theory of digital literacy: three scenarios for the next steps. *European Journal of Open, Distance and E-Learning*, *9*(1).

David, F.R., & David, F.R. (2017). *Strategic Management. A Competitive Advantage Approach, Concepts and Cases*, Sixteenth Edition. England: Pearson.

Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13* (3), 319-340.

Department of Statistic Malaysia (2020). Retrieved May 13, 2020, from htts://www.dosm.gov.my/v1/index.php#

Eshet, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of educational multimedia and hypermedia*, *13*(1), 93-106.

Eshet-Alkalai, Y., & Chajut, E. (2010). You can teach old dogs new tricks: The factors that affect changes over time in digital literacy. *Journal of Information Technology Education: Research*, *9*(1), 173-181.

Haque, M., & Quader, S. B. (2014). Empowering Women through Online Bakery Stores in Bangladesh: Barriers and Effective Strategies for Growth and Development. *ICT for Development Working Paper Series*, 66.

Hashim, J. (2001). ICT adoption among SME owners in Malaysia. *International Journal of Business and Information*,*2 (2)*, 221-240

Hassan, M. S., Shaffril, M., Azril, H., & D'Silva, J. L. (2009). Problems and obstacles in using information and communication technology (ICT) among Malaysian agro-based entrepreneurs. *European Journal of Scientific Research*, *36*(1), 93-101.

HM Government (2008). *Delivering Digital Inclusion: An Action Plan for Consultation*, Internet World Stats. Retrieved from http://www.internetsociety.org/doc/global-internet-report?gclid=CK2h_OvS8MUCFVcUjgoddDcA9w.

Huerta, E., & Sandoval-Almazán, R. (2007). Digital literacy: Problems faced by telecenter users in Mexico. *Information Technology for Development*, *13*(3), 217-232.

MCMC. (2018) *Internet Users Survey 2018*. Retrieved October 20, 2019, from https://www.mcmc.gov.my/resources/statistics/internet-users-survey

Mullen, T. R., Kroustalis, C., Meade, A. W. and Surface, E. A. (2006, April). Assessing change in perceived organisational support due to training. In *21st Annual Conference of the Society for Industrial and Organisational Psychology, Dallas, TX*.

Mokhtar, S. H. (2011). Microfinance performance in Malaysia (Doctoral dissertation, Lincoln University).

Noe, R. A .(2002). *Employee Training and Development*.McGraw-Hill.

Omar, F. I., Salman, A. & Rahim, S.A. (2017, June). The relationship between digital inclusion and support system towards the empowerment of women online entrepreneurs. *Journal of Education and Social Sciences, 7*(1), 52-57

Razak, N.A. & Pisal, F.N.A. (2017). Development of Muslim women social entrepreneurs: Towards digital economy. *International Journal of Business, Economics and Law, 9*(5), 52-57.

Sorgney, A., Bode, E. & Krieger-Boden, C. (2017). *The effects of digitalization for gender equality in the G20 economies*, Women 20 study. Retrieved from http://economic-policy-forum.org/global-news/women20-study-on-the-effects-of-digitalisation-on-gender-equality-in-the-g20-economies/

Tamkin, P., & Hillage, J. (1997). *Individual commitment to learning: Motivation and rewards*. DfEE.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

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