A Study on Digital Competency among Working Women

Lakshmy Priya M G*

Assistant Professor, Naipunnya Institute of Management and Information Technology, Pongam, Thrissur- 680308, Kerala, India

*Corresponding Author's Email: lakshmypriya90@gmail.com

Abstract

Digital literacy helps to be more efficient and makes things more accessible, improving your quality of life. Being digitally competent is more important to women because to become more productive, career-oriented, financially independent, aware of their rights, aware of the requirement to start their own business and also contribute to the country's economy as a whole. the objective of the study is to analyse the level of influence of demographic factors, Digital literacy, IT literacy, media literacy and Internet literacy on the digital competency among working women. Both secondary and primary data were collected and used for the study. The population of the study covers 100 working women in the government sector, private sector and self-employed categories in Thrissur District. The Chi-Square result shows a significant association between age, educational qualification, occupation and Digital competency among working women. The correlation analysis shows that digital literacy, IT literacy, Media literacy, Internet literacy, and Digital competency have positively correlated with each other.

Keywords: Digital Competency, Demographic Factors, IT Literacy, Media Literacy, Internet literacy

Introduction

Digital competence involves the confident and critical use of Information Society Technology for work, leisure and communication. Digital competence is essential for learning, work and active participation in society. It is the confident and critical usage of the full range of digital technologies for information, communication and basic problem-solving in all aspects of life. It is also important to consider that "as a transversal competence, digital competence also helps us master other key competencies, such as communication, language skills, or basic skills in maths and science (Riina Vuorikari , 2015). Digital competence is not just about knowing how to surf the Internet but can be broken down into a range of smaller components. In the modern world being digitally competent is more significant for the existence and survival in both personal and professional life.

Digital literacy refers to the ability to use technology effectively to find, create, evaluate, and communicate information. It is essential for establishing an identity and improving efficiency in the modern world. Technology plays a crucial role in achieving gender equality, but many women

remain dependent on men for tasks like online payments or presentations due to a lack of digital literacy, leading to low self-esteem. Being digitally competent is particularly important for women to become more productive, financially independent, and aware of their rights and business opportunities. The study aims to analyze how demographic factors, digital literacy, IT literacy, media literacy, and internet literacy influence digital competency among working women.

The objectives of the study are to analyse the level of influence of demographic factors, Digital literacy, IT literacy, media literacy and Internet literacy on the digital competency among working women.

Hypothesis

H1: There is a significant association between age and digital competency among working women

H2: There is a significant association between educational qualification and digital competency among working women

H3: There is a significant association between occupation and digital competency among working women

H4: There is a positive relationship between digital literacy, IT literacy, Media Literacy, Internet literacy and digital competency among working women.
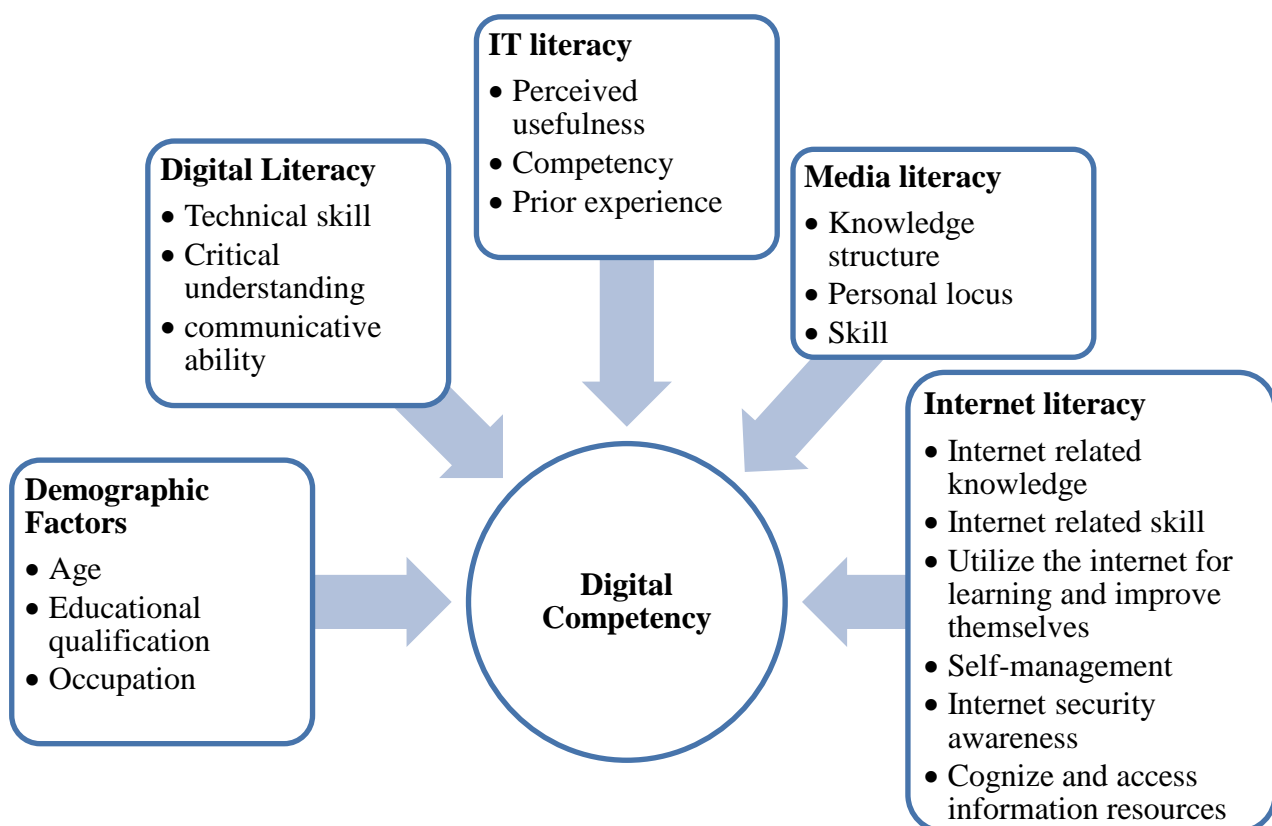
Methods and Materials

Figure 1 – The Conceptual Model

The present study is both descriptive and explanatory and both secondary and primary data were collected and used for the study. The population of the study covers working women in the government sector, private sector and self-employed categories in Thrissur District. The primary data required for the study were collected from 100 respondents using a convenient sampling method. A well-structured questionnaire was developed for the collection of primary data.

The collected data were tabulated and analysed with the help of SPSS 21.0. The statistical techniques used for analysis include chi-square test and correlation. The reliability of the scale of measurement used was assessed using Cronbach's Alpha coefficient, which was above the minimum acceptable level 0.7, thereby confirming the reliability of the scale of measurement used in the study. Digital competency is analyzed only among working women due to the paucity of time. It is also noted that since the study depends mainly on the views of the individual, there are chances for their personal bias while responding to the questions; even then maximum care has been taken while analysing and interpreting the data to draw appropriate and logical conclusions.

Geeta Rani and Anju Gandhi (2022) highlighted the impact of the COVID-19 pandemic on education in India, emphasizing the need for digital competence among teachers to effectively use digital tools and prepare students for the future. They argued that teachers with strong digital skills are crucial in supporting students' growth in the digital age. Nikola Vukčević, Nikola Abramović, and Nataša Perović (2021) explored the development of digital competencies among students at the University of "Adriatic" Bar in Montenegro, focusing on how students' skills align with EU standards for digital competence. Their research showed gaps in digital competency development and suggested ways to improve higher education practices. Yu Zhao, Ana María Pinto Llorente, and María Cruz Sánchez Gómez (2021) conducted a systematic review of research on digital competence in higher education, finding that most university students and faculty have basic digital skills but require more structured development programs. Alberto D. Yazon, Karen Ang-Manaig, Chester Alexis C. Buama, and John Frederick B. Tesoro (2019) examined the relationship between digital literacy, competence, and research productivity, discovering that digital competence positively impacts educators' research productivity. Mala Mathew (2018) argued that India's higher secondary and secondary curricula are outdated and fail to address the digital and media literacy needs of today's students, emphasizing the importance of integrating 21st-century competencies into education.

Results and Discussions

The reliability of the instrument used in the study was tested by computing Cronbach's Alpha (α) value for each of the five variables as well as for the entire set. The test result is presented in Table1.

Table 1 Test of Reliability

Sl. No.	Variables	No of items	Cronbach's Alpha (α)
1	Demographic factors	3	0.870
2	Digital literacy	3	0.847
3	IT literacy	3	0.791

4	Media Literacy	3	0.867
5	Internet Literacy	6	0.903
6	Total	23	0.952

H1: There is a significant association between age and Digital competency among working women.

Table 2 - Chi-square test result

	value	df	Asymp.Sig (2-sided)
Pearson Chi-Square	75.504	10	0.000

The Chi-Square result shows the association between age and Digital competency among working women. From the result, it is seen that the Pearson Chi-Square value is 60.609, p-value = 0.000 i.e the chi-square test result is less than the alpha level of significance of 0.05. This tells that there is a statistically association between age and Digital competency among working women. Hence, the hypothesis there is a significant association between age and Digital competency among working women is accepted.

H2: There is a significant association between Educational qualification and Digital competency among working women.

Table 3 - Chi-square test result

	value	df	Asymp.Sig (2-sided)
Pearson Chi-Square	60.609	10	0.000

The Chi-Square result shows the association between age and Digital competency among working women. From the result, it is seen that the Pearson Chi-Square value is 70.631, p-value = 0.000 i.e. the chi-square test result is less than the alpha level of significance of 0.05. This tells that there is a statistically association between age and Digital competency among working women. Hence, the hypothesis there is a significant association between educational qualification and Digital competency among working women is accepted.

H3: There is a significant association between Occupation and Digital competency among working women.

Table 4 - Chi-square test result

	value	df	Asymp.Sig (2-sided)
Pearson Chi-Square	70.631	20	0.000

The Chi-Square result shows the association between age and Digital competency among working women. From the result, it is seen that the Pearson Chi-Square value is 75.504, p-value = 0.000 i.e the chi-square test result is less than the alpha level of significance of 0.05. This tells that there is a statistically association between age and Digital competency among working women. Hence, the

hypothesis there is a significant association between occupation and Digital competency among working women is accepted.

Table 5 - Correlation between Digital literacy, IT literacy, Media literacy, Internet literacy and Digital Competency

Independent variables	Dependent Variable	Pearson Correlation	Sig. (2-tailed)	N
Digital Literacy	Digital Competency	.601**	.000	100
IT Literacy		.671**	.000	100
Media Literacy		.532**	.000	100
Internet Literacy		.644**	.000	100

***. Correlation is significant at the 0.01 level (2-tailed).**

From the above statistical results, it is inferred that Digital Literacy (.601**), IT Literacy (.671**), Media Literacy (.532**), Internet Literacy (.644**) and Digital Competency are positively correlated with each other. It indicates the extent to which two variables are linearly correlated. The probability value associated with the correlation is less than 0.01. It indicates that there is a positive relationship between digital literacy, IT literacy, Media Literacy, Internet literacy and digital competency among working women. Hence, the hypothesis formulated for the study is accepted.

Findings

- The Chi-Square result shows the association between age and Digital competency among working women (p-value = 0.000).
- The Chi-Square result shows the association between educational qualification and Digital competency among working women (p-value = 0.000).
- The Chi-Square result shows the association between occupation and Digital competency among working women (p-value = 0.000).
- The correlation analysis shows that digital literacy (.601**), IT literacy (.671**), Media literacy (.532**), Internet literacy (.644**) and Digital competency have positively correlated each other.

Conclusion

Digital technologies have huge potential to act as development enablers for women, as they bring new social, political and economic opportunities. Women face higher barriers when it comes to initial access, affordability of digital services and use of ICT. Particularly, lower levels of technical and digital literacy skills as well as lower confidence impact women's access to, and use of, ICT. In general, more women than men report difficulties in using mobile phones or the Internet. Being digitally competent is more important to women because to become more productive, career-oriented, financially independent, aware of their rights, aware of the requirement to start their own business and also contribute to the country's economy as a whole. the present study is focused on analysing the level of influence of demographic factors, Digital literacy, IT literacy, media literacy and Internet literacy on the digital competency among working women The study reveals the significant relationship between age, educational qualification, occupation and Digital competency among working women and the variables such as digital literacy, IT literacy, Media literacy, Internet literacy, and Digital competency have positively correlated each other.

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