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THE FACTORS INFLUENCING ICT ADOPTION AMONG SENIOR CITIZENS IN LOCAL COMMUNITIES PETALING JAYA, MALAYSIA

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ABSTRACT

This study investigates Information and Communication Technology (ICT) adoption among senior citizens in Malaysian local communities. In an increasingly digitalized world, understanding the challenges and opportunities for seniors is crucial. As Malaysia's elderly population grows, addressing the digital divide is essential. In order to test the dependent variable, several factors will be focus on perceived usefulness, perceived ease of use, technology anxiety, social influence and facilitating condition. Due to this, 158 communities in Apartment Harmoni, Petaling Jaya has participated in the survey of ICT adoption among senior citizens with 29 questions in total. The theory used to estimate the ICT adoption among senior citizens and factors of influencing ICT adoption is technology acceptance model (TAM). The research findings suggest that ICT adoption among senior citizens will have a positive impact because it is important for fostering connectivity, promoting access to essential services, well-being, enabling them to lead active and fulfilling lives in the digital age.

ARTICLE INFO

Keywords:

ICT adoption among senior citizens,
perceived usefulness,
perceived ease of use,
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(TAM)

1.0 INTRODUCTION

Information and communication technologies (ICT) have become essential in modern society, transforming various aspects of life such as communication, work, and access to information (Liu & Yuan, 2015). In Malaysia, the demographic landscape is rapidly changing, with the elderly population projected to increase significantly by 2030 (Lean et al., 2009). This demographic shift highlights the importance of studying how senior citizens interact with ICT in local communities to bridge the digital divide and ensure inclusivity (Tsai et al., 2015).

ICT offers numerous benefits to older adults, including improved social connectedness, access to health monitoring, learning opportunities, and social interactions (Kenny, 2002). By utilizing technologies like smartphones, computers, and wearable devices, seniors can stay connected with loved ones, reducing social isolation and enhancing mental well-being (Tsai et al., 2015). Additionally, ICT provides brain-stimulating activities, cognitive training, and assistive technologies that contribute to improved memory, cognitive function, and overall quality of life for seniors (Kyere & Kumah, 2017).

Factors influencing ICT adoption among senior citizens include perceived usefulness, perceived ease of use, technology anxiety, social influence, and facilitating conditions (Mahamed et al., 2020). Understanding these variables is crucial to ensuring a positive ICT adoption experience for seniors and promoting digital inclusion in Malaysia (Lean et al., 2009). As the elderly population in Malaysia continues to grow, addressing these factors becomes increasingly important for the country to achieve digital inclusivity and support the well-being of its senior citizens (Lean et al., 2009).

In conclusion, the adoption of ICT among senior citizens in Malaysia is a pressing issue that requires comprehensive research and understanding of the challenges and opportunities within the evolving demographic landscape. By examining the interaction of senior citizens with ICT in local communities and considering the factors influencing adoption, researchers can contribute to bridging the digital divide and promoting inclusivity in the digital age.

2.0 LITERATURE REVIEW

2.1 ICT Adoption Among Senior Citizens

Information and Communication Technologies (ICT) play a crucial role in the lives of individuals across all age groups, including the elderly. Elderly individuals benefit significantly from ICT by enabling them to connect with family and friends, access essential information, receive medical and social support, utilize public services, and engage in social activities (Fischer et al., 2014). However, elderly individuals often face barriers to adopting and using technology, such as a lack of necessary skills, access to computers and the internet, and outdated devices (Niehaves & Plattfaut, 2014; Guner & Acartürk, 2018). Factors influencing the acceptance of ICT by the elderly include perceived usefulness, ease of use, technology anxiety, facilitating conditions, and social influence (Shaked, 2017; Zainal et al., 2023). It is essential to address these barriers by providing user-friendly interfaces, simplified procedures, and cost-efficient alternatives tailored to the needs and preferences of the elderly (Yap et al., 2022).

Moreover, the adoption of technology by the elderly is influenced by various physiological, sociological, and personal factors, making it a complex process compared to younger individuals (Ma & Chen, 2023; Fotoyi & Cilliers, 2023). Studies have shown that elderly individuals tend to use technology when their needs are met, emphasizing the importance of designing products that cater to their specific requirements (Guner & Acartürk, 2018). Additionally, the use of avatars

and virtual agents has been proposed as a way to provide automated assistance and companionship to help elderly individuals maintain autonomy and quality of life (Shaked, 2017).

In conclusion, enhancing the usability and acceptance of ICT among the elderly requires a comprehensive understanding of their unique needs, preferences, and challenges. By addressing barriers, providing tailored solutions, and considering factors such as perceived usefulness and ease of use, technology can significantly improve the quality of life for elderly individuals.

2.2 Theory of Acceptance and Use of Technology

Studies by (Venkatesh, 2016), (Zhou, 2023), and (James, 2016) have significantly advanced our understanding of ICT adoption, particularly within the context of the Unified Theory of Acceptance and Use of Technology (UTAUT). In our fastevolving digital landscape, effective ICT adoption has become essential for individuals to actively participate in modern society, a fact emphasized by (Venkatesh, 2016). The digital divide challenges are particularly acute among senior citizens, necessitating a comprehensive examination of the factors influencing their ICT adoption, as highlighted by (Zhou, 2023).

The UTAUT model, initially proposed by Venkatesh , integrates components from various technology acceptance theories to create a unified theoretical approach, encompassing Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC). PE, central to the UTAUT framework, signifies a user's belief that ICT will enhance their performance, with PE being a strong predictor of use intention, relevant in both voluntary and mandatory adoption scenarios, as supported by research from (Zhou, 2023) and (Venkatesh, 2016). Effort Expectancy (EE) gauges the perceived ease of system use, with research by (Liu, 2022) and (Oikonomu, 2018) noting that its significance diminishes after prolonged technology use. Social Influence (SI) reflects the degree to which individuals feel that important others expect them to use the new system, emphasizing its impact, especially in mandatory technology adoption scenarios, as proposed by (Venkatesh, 2016). Facilitating Conditions (FC) assesses the belief in the existence of organizational and technical infrastructure to support system use, with (Venkatesh, 2016) underscoring its direct positive effect on use intention, particularly during the initial phases of technology adoption. Applying the UTAUT model to ICT adoption among older individuals in local communities is crucial for addressing the digital divide, as per (Venkatesh, 2016). Nevertheless, it is important to recognize that the UTAUT components' application and impact may vary across demographics and circumstances, necessitating a nuanced assessment of its utility in increasing ICT adoption among older adults. While the UTAUT model provides a complete framework for understanding technology adoption, applying it to ICT adoption among older persons in local communities is crucial for adapting interventions and policies to overcome the digital divide (Venkatesh, 2016). However, it is important to emphasize that the application and impact of UTAUT components may vary among demographics and circumstances, demanding a more nuanced assessment of its usefulness in increasing ICT adoption among older adults.

2.3 Factors of Influencing ICT Adoption

Factors influencing ICT adoption among senior citizens are multifaceted and crucial for successful implementation. Perceived usefulness of ICTs is a key driver, with seniors more likely to adopt technology when they see it as beneficial for their specific needs such as healthcare management, social connectivity, and information access (Gono et al., 2016). This perception is shaped by factors like user-friendliness, compatibility with their requirements, positive past experiences, and the perceived benefits of ICT (Gono et al., 2016). Facilitating conditions, including supportive technical infrastructure and user-friendly designs tailored to older adults, are essential for encouraging ICT adoption (Hoque et al., 2016). Social

influence, particularly recommendations and opinions from family and friends, significantly impacts seniors' willingness to use ICT (Gono et al., 2016). Addressing technology anxiety, which stems from concerns about using technology, is crucial for successful ICT adoption among seniors (Gono et al., 2016).

Moreover, limited exposure to technology can negatively affect seniors' perception of the usefulness of ICTs (Gono et al., 2016). Seniors' readiness to adopt ICT is not solely influenced by the technology itself but also by their social networks, highlighting the importance of social influence in promoting adoption (Gono et al., 2016). Technology anxiety, often due to the generation gap and lack of exposure to ICT, is a common challenge among older individuals (Hoque et al., 2016). Overcoming this anxiety and promoting digital literacy are essential to help seniors embrace technology for their well-being. A holistic approach considering these factors is necessary to facilitate successful ICT adoption among senior citizens and bridge the digital divide in this demographic (Hoque et al., 2016).

3.0 RESEARCH FRAMEWORK

To determine the relationship between the Factors Influencing ICT Adoption such as Perceived Usefulness, Facilitating Condition, Social Influence, Perceived ease of use and Technology Anxiety at Apartment Harmoni, Petaling Jaya, Selangor, Malaysia, is depicted in Figure 1.

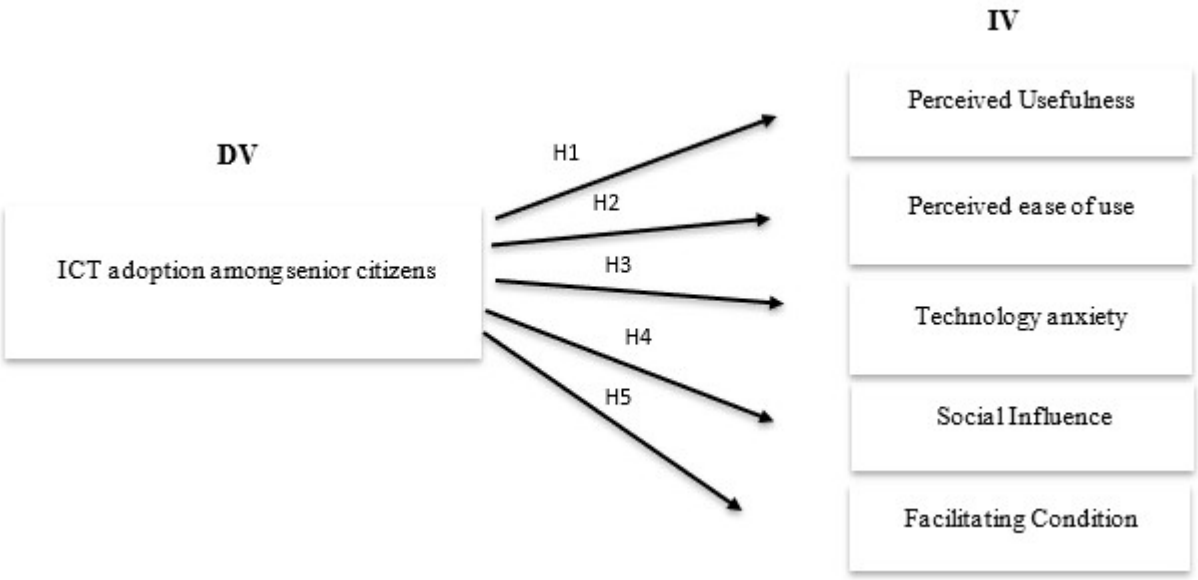

Figure 1: This conceptual framework has been adopted from (Houwelingen & Thijs van Houwelingen, 2018)

4.0 METHODOLOGY

This section discusses the research design, target population, sample size, data collection techniques, research instrument/questionnaire, and data analysis of the current study. Further details on the process are provided in Table 1 below.

Table 1: Research Methodology

Research Design	The research was carried out in many stages, including a review of the relevant literature, data gathering, data analysis, discussion, and conclusion
Target Population	Consist of 158 communities in Petaling Jaya which is Apartment Harmoni
Sample Size	A total of 158 respondents were involved in the survey and valid feedback was collected.
Data Collection	Questionnaire was distributed to the target employees through WhatsApp using the Google Form as that is the most convenient way to reach the respondents.
Instrument/ Questionnaire	The instrument consists of (7) Sections: Section A: Demographic questions (5 Items): Section B: Perceived Usefulness (4 Items): Section C: Perceived Ease of Use (3 items): Section D: Technology Anxiety (4 items): Section E: Social Influence (3 items): Section F: Facilitating Condition (3 items) and Section G: Behavioural Intention (3 items)
Data Analysis	A reliability assessment was conducted in order to ascertain the reliability of the items employed to measure each variable, utilizing the Cronbach Alpha coefficient. The data collection process involved the compilation of information through the distribution of questionnaires. These questionnaires were subsequently processed and analyzed using Statistical Package for the Social Sciences (SPSS) Version 29. The purpose of this analysis was to address the study question and hypothesis. A regression analysis was performed to ascertain the correlation between the independent variable and the dependent variable

5.0 FINDINGS AND DISCUSSION

This section presents the findings on respondents' demographic information, regression analysis outcomes, and answers to the study research question and hypothesis.

5.1 Demographic Data (See Table 2)

Table 2: The study demographic data.

Demographic	Categories	Frequency	Percentage (%)
Gender	Male	51	32.3
	Female	107	67.7
Age	Less than 20 years old	3	1.9
	20-30 years old	32	20.3
	30-40 years old	52	32.9
	40-50 years old	58	36.7
	Above 50 years old	13	8.2
Occupation	Government	34	21.5
	Non-profit sector	2	1.3
	Student	13	8.2
	Private	76	48.1
	Other	33	20.9
Education	PhD Degree	2	4.6
	Master's degree	17	10.8
	Bachelor's degree	54	34.2
	Diploma	41	25.9
	SPM	34	21.5
	Others	10	3
Race	Malay	156	98.7
	Chinese	0	0

	India	2	1.3
	Others	0	0
Use Of ICT	Yes	149	94.3
	No	9	5.7
Use Of ICT Devices	Smart Phone	150	96.2
	Internet	8	3.8
	Personal Computer	0	0
	Tablet Computer	0	0
Use Of social media	No Account	0	0
	WhatsApp	138	93.7
	Facebook	20	6.3
	Instagram	0	0
	Twitter (X)	0	0
	LinkedIn	0	0
Purpose Use Of Senior Citizens	Contacting with family	110	80.4
	Arranging hospital appointment	0	0
	Listening to music	0	0
	Watching video	0	0
	Shopping	0	0
	Playing Game	0	0
	Using E-Government	0	0

Sending e-mail	0	0
Using banking services	48	19.6
Learn new information	0	0
Using social media	0	0
Following news	0	0
Meeting new people	0	0

5.2 Independent Variables: Perceived Usefulness

Table 3: Descriptive Statistics of Perceived Usefulness towards ICT Adoption Among Senior Citizens

No	Measurement Item	1	2	3	4	5	Mean Standard deviation
1.	ICT would enable me to accomplish my daily life activities more quickly	4 2.5%	1 0.6%	19 12%	73 46.2%	61 38.6%	4.2215 1.10945
2.	Using ICT would enhance my effectiveness on daily life Using	3 1.9%	3 1.9%	26 16.5%	83 52.5%	46 29.1%	4.0759 0.78638
3.	Using ICT would make it easier to do my daily life activities	3 1.9%	9 5.7%	12 19%	82 51.9%	54 34.2%	4.1646 0.78083

4.	Using ICT I would find useful in my daily life	4 2.5%	1 0.6%	13 8.2%	82 50.6%	38 60%	4.2089 0.82210

5.3 Perceived Ease of Use

Table 4: Descriptive Statistics of Perceived Ease of Use towards ICT Adoption Among Senior Citizens

No	Measurement Item	1	2	3	4	5	Mean Standard deviation
1.	Learning to use ICT would be easy for me	2 1.3%	3 1.9%	36 22.8%	75 47.5%	42 26.6%	3.9620 0.82852
2.	I would find ICT easy to use, clear and easy to understand how to use the ehealth	3 1.9%	5 3.2%	40 25.3%	73 46.2%	37 23.4%	3.8608 0.87767
3.	I would find it easy to get ICT to do what I want it to do	3 1.9%	5 3.2%	32 21.5%	73 46.2%	43 27.2%	3.9494 0.87278

Technology Anxiety

Table 5: Descriptive Statistics of Technology Anxiety towards ICT Adoption Among Senior Citizens

No.	Measurement Item	1	2	3	4	5	Mean Standard Deviation
1.	I am not nervous to use ICT	3	9	52	61	33	3.7025
		1.9%	5.7%	32.9%	38.6%	20.9%	0.92736
2.	I am Not Worried to Use ICT	2	12	55	60	29	3.6456
		1.3%	7.6%	34.8%	38%	18.4%	0.91049
3.	I am comfortable to use ICT	0	12	37	81	37	3.9557
			7.6%	23.4%	51.3%	23.4%	0.74308
4.	I am not confused to use ICT	0	9	54	67	28	3.7089
			5.7%	34.2%	42.4%	17.7%	0.83173

Social Influence

Table 6: Descriptive Statistics of Social Influence towards ICT Adoption Among Senior Citizens

No	Measurement Item	1	2	3	4	5	Mean Standard deviation
1.	People who influence my behaviour think that I should use ICT	1	17	62	56	22	3.5190
		0.6%	10.8%	39.2%	35.4%	13.9%	0.88671

2.	People who are important to me think that I should use ICT	1	10	49	73	25	3.7152
		0.6%	6.3%	31%	46.2%	15.8%	0.80675
3.	The people whose opinions that I value think that I should ICT	1	9	58	65	25	3.9873
		0.6%	5.7%	36.7%	41.1%	15.8%	4.08974

Facilitating Condition

Table 7: Descriptive Statistics of Facilitating Condition towards ICT Adoption Among Senior Citizens

No	**Measurement Item**	**1**	**2**	**3**	**4**	**5**	**Mean** / **Standard deviation**
1.	I have the resources necessary to use ICT		3	22	96	37	4.2975
		0	1.9%	13.9%	60.8%	23.4%	3.24873
2.	I have the necessary support to use ICT		1 0.6%	28 17.7%	90 57%	39 24.7%	4.0633
		0					0.67422
3.	A specific person (or group) is available for me to give assistance with difficulties of ICT use		9	35	77	37	3.9114
		0	5.7%	22.2%	48.7%	23.4%	0.81686

6.0 Dependent Variable:

6.1 Behavioral Intention

Table 8: Descriptive Statistics of Behavioral Intention towards ICT Adoption Among Senior Citizens

No	Measurement Item	1	2	3	4	5	Mean Standard deviation
1.	I intend to continue using ICT in the future	0	0	20 12.7%	91 57.6%	47 29.7%	4.1582 0.64366
2.	I will always try to use ICT in my-to-day life	0	0	28 17.7%	86 54.4%	44 27.8%	4.0949 0.66570
3.	I plan to continue to use ICT frequently	0	5 3.2	44 27.8%	76 48.1%	33 20.9%	3.8671 0.79892

6.2 Reliability Analysis

Reliability test including Cronbach's alpha is a coefficient tool to measure the internal concept consistency of Likert scale question, examining the reliability of all the statements in scaled questions (Goforth, 2015). The data result was presented in table 8 until table 13, which was the reliability of 4 and 3 Likert scale questions. Reliability Statistics

Reliability Statistics

Cronbach's Alpha	N of Items
.806	4

Table 8: Perceived Usefulness

The Cronbach's Alpha coefficient of 4 Likert scale questions was .806, suggesting that the 4 items have relatively "good" internal consistency. In other words, the 4 questions were of Perceived Usefulness. According to the result, the samples had a good reliability and internal consistency.

Reliability Statistics

Cronbach's Alpha	N of Items
.909	3

Table 9: Perceived Ease of Use

The Cronbach's Alpha coefficient of 3 Likert scale questions was .909, suggesting that the 3 items have relatively "Excellent" internal consistency. In other words, the 3 questions were of Perceived Ease of Use. According to the result, the samples had an excellent reliability and internal consistency.

Reliability Statistics

Cronbach's Alpha	N of Items
.917	4

Table 10: Technology Anxiety

The Cronbach's Alpha coefficient of 4 Likert scale questions was .917, suggesting that the 4 items have relatively "Excellent" internal consistency. In other words, the 4 questions were of Technology Anxiety. According to the result, the samples had an excellent reliability and internal consistency.

Reliability Statistics

Cronbach's Alpha	N of Items
.316	3

Table 11: Social Influence

The Cronbach's Alpha coefficient of 3 Likert scale questions was .316, suggesting that the 3 items have relatively "Unacceptable" internal consistency (more information in chapter 3.5). In other words, the 4 questions were of Social Influence. According to the result, the samples had an unacceptable reliability. A Cronbach's alpha of .316 for social influence is considered low and indicates a lack of internal consistency. Social influence is a multifaceted concept with many dimensions, including family influence, peer influence, and community support. The difficulties in collecting data from

senior citizens, particularly those with limited exposure to technology, may contribute to variability in responses, affecting the scale's reliability.

Reliability Statistics

Cronbach's Alpha	N of Items
.230	3

Table 12: Facilitating Condition

The Cronbach's Alpha coefficient of 3 Likert scale questions was .230, suggesting that the 3 items have relatively "Unacceptable" internal consistency (more information in chapter 3.5). In other words, the 3 questions were of Facilitating Condition. According to the result, the samples had an unacceptable reliability. A Cronbach's alpha value of 0.3 is considered extremely low and indicates poor internal consistency. If a population of senior citizens from local communities is extremely varied according to their ICT adoption experiences, backgrounds, or other characteristics, internal consistency could be compromised because respondents' responses may differ significantly.

Reliability Statistics

Cronbach's Alpha	N of Items
.876	3

Table 13: Behavioral Intention

The Cronbach's Alpha coefficient of 3 Likert scale questions was .876, suggesting that the 3 items have relatively "good" internal consistency (more information in chapter 3.5). In other words, the 3 questions were of Behavioural Intention. According to the result, the samples had a good reliability and internal consistency.

Hypothesis Analysis

Hypothesis analysis was used to determine the relationship between independent variables (IV) and dependent variables (DV). The purpose of this study is to see if there is a relationship between the independent variables (Perceived usefulness, perceived ease of use, Technology Anxiety, Social Influence, Facilitating Condition) and the dependent variables (ICT adoption among senior citizens) as follows:

Perceived Usefulness

Table 14: Relationship between Perceived Usefulness and ICT Adoption Among Senior Citizens

		Perceived Usefulness	**ICT adoption among senior citizen**
Perceived Usefulness	**Pearson correlation**	**1**	**.418****
	Sig. (2-tailed)		**<.001**
	N	**158**	**158**
ICT adoption among senior citizen	**Pearson correlation**	**.418****	**1**
	Sig. (2-tailed)	**<.001**	
	N	**158**	**158**

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

Table 14 shows the relationship between Perceived Usefulness and ICT adoption among senior citizens towards Perceived Usefulness is low positive with a correlation coefficient of 0.418. Both significant values are .001, which is less than the highly significant level of 0.05. It shows a significant statistical relationship between Perceived Usefulness and ICT adoption among senior citizens.

Perceived Ease of Use

Table 15: Relationship between Perceived Ease of Use and ICT Adoption Among Senior Citizens.

		Perceived Ease Of Use	**ICT adoption among senior citizen**
Perceived Ease Of Use	Pearson Correlation	1	.494**
	Sig. (2-tailed)		<.001
	N	158	158
ICT adoption among senior citizen	Pearson Correlation	.494**	1
	Sig. (2-tailed)	<.001	
	N	158	158

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

Table 15 shows the relationship between Perceived Ease of Use and ICT adoption among senior citizens ICT adoption among senior citizens is low positive with a correlation coefficient of 0.494. Both significant values are .001, which is less than the highly significant level of 0.05. It shows a significant statistical relationship between perceived ease of use and ICT adoption among senior citizens.

Technology Anxiety

Table 16: Relationship between Technology Anxiety and ICT Adoption Among Senior Citizens.

		Technology Anxiety	**ICT adoption among senior citizen**
Technology Anxiety	**Pearson Correlation**	**1**	**.582****
	Sig. (2-tailed)		**<.001**
	N	**158**	**158**
ICT adoption among senior citizen	**Pearson Correlation**	**.582****	**1**
	Sig. (2-tailed)	**<.001**	
	N	**158**	**158**

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

Table 16 shows the relationship between technology anxiety and ICT adoption among senior citizens is highly positive with a correlation coefficient of 0.582. Both significant values are <.001, which is less than the highly significant level of 0.05. It shows a significant statistical relationship between technology anxiety and ICT adoption among senior citizens.

Social Influence

Table 17: Relationship between Social Influence and ICT Adoption Among Senior Citizens.

		Social Influence	**ICT adoption among senior citizen**
Social Influence	**Pearson Correlation**	**1**	**.256****
	Sig. (2-tailed)		**.001**
	N	**158**	**158**
ICT adoption among senior citizen	**Pearson Correlation**	**.256****	**1**
	Sig. (2-tailed)	**.001**	
	N	**158**	**158**

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

Table 17 shows the relationship between Social Influence and ICT adoption among senior citizens is negligible with a correlation coefficient of 0.256. Both significant values are .001, which is less than the highly significant level of 0.05. It shows a significant statistical relationship between social influence and ICT adoption among senior citizens

Facilitating Condition

Table 18: Relationship between Facilitating Conditions and ICT Adoption Among Senior Citizens.

		Facilitating Condition	**ICT adoption among senior citizen**
Facilitating Condition	Pearson Correlation	1	.329**
	Sig. (2-tailed)		<.001
	N	158	158
ICT adoption among senior citizen	Pearson Correlation	.329**	1
	Sig. (2-tailed)	<.001	
	N	158	158

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

Table 18 shows the relationship between Facilitating Condition and ICT adoption among senior citizens is negligible with a correlation coefficient of 0.329. Both significant values are .001, which is less than the highly significant level of 0.05. It shows a significant statistical relationship between facilitating conditions and ICT adoption among senior citizens.

In summary the research study`s objective is to see how perceived usefulness, perceived ease of use, technology anxiety, social influence, facilitating conditions, impact behavioural intention to use ICT adoption among senior citizens. The data shows a significant relationship between the independent variables of perceived usefulness, perceived ease of use, technology anxiety, social influence facilitating conditions, and the dependent variable of behavioural intention to use ICT adoption among senior citizens. The findings found that a high positive correlation strength and a significant statistical relationship between technology anxiety and behavioral intention to ICT adoption among senior citizens. Besides, the study's findings of a strong positive correlation and a statistically significant relationship between technology anxiety and the behavioural intentions of the elderly to adopt ICT are in line with previous research in the field. Previous studies of (Venkatesh, 2016) consistently emphasized that seniors often experience technology anxiety, which stems from unfamiliarity, perceived complexity and fear of making mistakes when using new technology. This concern acts as a major barrier to the use of ICT. Moreover, study by (Chua, Chen, & Wong, 2019) stated, research consistently shows that the behavioural intention of the elderly to adopt ICT is an important precursor to actual use, indicating that addressing and

reducing technology anxiety is an important factor in encouraging the elderly to adopt technology. These findings emphasize the importance of targeted interventions and programs aimed at reducing technology anxiety to increase the willingness of the elderly to adopt ICT, thus increasing their access to digital tools and services for a better quality of life.

CONCLUSION

In this comprehensive study, we have delved into the intricacies of ICT adoption among senior citizens in local communities, with a specific focus on Malaysia. The research stems from the increasing importance of ensuring digital inclusivity for all members of society, including the elderly, and the recognition of the challenges and opportunities this demographic shift presents in the digital era (Malaysia D. o., 2021) . As Malaysia's demographic landscape rapidly evolves, with the senior population expected to grow substantially, addressing the digital divide becomes a paramount concern. The digital gap not only impedes social inclusion but also hinders access to essential services, educational resources, healthcare information, and economic opportunities. The COVID-19 pandemic further underscored the significance of digital connectivity, particularly for senior citizens, who often face physical restrictions and limited access to face-to-face support networks (Malaysia D. o., 2021).To address these pressing issues, this study aims to explore the multifaceted factors influencing ICT adoption among senior adults in Malaysian communities.

The research investigates cultural, economic, and technological aspects that impact ICT adoption, while emphasizing the barriers they face (Claudiu Conan, 2022). By shedding light on these critical elements, we aspire to contribute to the development of informed policies and community initiatives that will help bridge the digital gap, enhance the quality of life for senior citizens, and support Malaysia in achieving its digital inclusion goals (Andraz Petrovcic, 2018). The literature review offers insights into the role of ICT in improving the lives of senior citizens, emphasizing social connectedness, cognitive training, and assistive technologies. It also underscores the growing elderly population in Malaysia and the importance of managing this demographic shift. The review points out that ICT adoption among seniors is influenced by various factors, including perceived usefulness, ease of use, technology anxiety, facilitating conditions, and social influence.

The Theory of Acceptance and Use of Technology (UTAUT) is presented as a valuable framework for understanding technology adoption, especially in the context of senior citizens. The UTAUT model's core constructs—Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions—are highlighted, as they play pivotal roles in shaping an individual's intention to adopt ICT (MD Rakibul Hoque, 2017). Moreover, the questionnaire results, analysed with the assistance of SPSS, reflect the behavioural intentions of senior citizens concerning ICT adoption. The findings indicate a strong willingness among respondents to continue using ICT in the future, integrate it into their daily lives, and use it frequently. In conclusion, this study provides a comprehensive understanding of the complexities surrounding ICT adoption among senior citizens in Malaysian communities. By acknowledging the multifaceted factors and behavioural intentions, we lay the foundation for informed strategies and policies aimed at enhancing digital inclusion and improving the quality of life for senior citizens, thereby contributing to Malaysia's digital future (Malaysia D. o., 2021)

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