

Analysis of Digital Readiness in the Social Assistance Distribution System with the Unified Theory of Acceptance and Use of Technology (UTAUT)

Soni Adiyono ^{1*}, Noor Latifah ², Diana Laily Fithri ³

^{1,2,3} Sistem Informatika, Fakultas Teknik, Universitas Muria Kudus
soni.adiyono@umk.ac.id ¹, noor.latifah@umk.ac.id ², diana.laily@umk.ac.id ³

Article Info

Article history:

Received 2025-01-09
Revised 2025-02-20
Accepted 2025-02-25

Keyword:

UTAUT Model,
Technology Adoption,
Social Assistance,
Digital Systems,
Behavioral Intention,
Actual Use.

ABSTRACT

The adoption of digital systems for social assistance distribution has become increasingly vital in enhancing efficiency and accessibility. This study examines the acceptance of such a system using the Unified Theory of Acceptance and Use of Technology (UTAUT) model, analyzing six key constructs: Performance Expectancy (PE), Effort Expectancy (EX), Social Influence (SI), Facilitating Conditions (FC), Behavioral Intention (BI), and Actual Use (AU). A total of 150 respondents participated in the survey, providing insights into their perceptions of the system. The findings indicate that Performance Expectancy (4.2) received the highest mean score, demonstrating that users perceive the system as beneficial in improving efficiency. Effort Expectancy (4.0) suggests that the system is easy to use, while Social Influence (3.8) highlights the moderate role of external encouragement. Facilitating Conditions (3.9) reveal the availability of infrastructure but also suggest areas for improvement. Additionally, Behavioral Intention (4.1) and Actual Use (4.0) indicate strong user commitment toward system utilization. The study contributes to the understanding of digital technology adoption in social welfare programs and provides recommendations for optimizing system implementation. Future research should explore the long-term impact of digital adoption, assess its effectiveness in different demographic groups, and integrate qualitative insights to deepen the understanding of user experiences. Additionally, expanding the analysis to include external factors such as policy support, economic conditions, and digital literacy could further enhance the model's applicability.



This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

I. PENDAHULUAN

The advancement of information technology has brought about significant changes in various aspects of life, including the distribution of social assistance. The digitalization of social assistance distribution systems aims to enhance efficiency, transparency, and accuracy in delivering aid to communities in need. Governments and various social institutions are now adopting technology-based systems to reduce misallocation, misuse, and improve accountability in social assistance programs. However, the successful implementation of digital social assistance distribution systems heavily relies on the digital readiness of users, both beneficiaries and program administrators. Factors such as digital literacy, access to technology, and public acceptance of the new system pose challenges that warrant further

analysis. In this context, the utilization of a theoretical framework capable of measuring digital acceptance and readiness becomes crucial in evaluating the effectiveness of such systems.

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a model employed to understand the factors influencing technology acceptance by users. This model identifies four key variables contributing to technology acceptance: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions [1]. Utilizing UTAUT, this research aims to analyze digital readiness in the implementation of social assistance distribution systems and identify the factors influencing its adoption. While digital social assistance distribution systems hold significant potential in enhancing efficiency and transparency, several

challenges persist in their implementation, including a lack of digital literacy, limited access to technology, socio-cultural factors that can affect the adoption of digital systems, and uneven infrastructure support. According to [2], Performance Expectancy plays a vital role in building public trust in digital systems, while research by [3] indicates that Effort Expectancy is also a key determinant of whether users are willing to adopt the technology being introduced.

Research conducted by [4] found that social support and infrastructure availability play an important role in the successful adoption of technology-based systems among communities with limited digital access. This suggests that Social Influence and Facilitating Conditions must be considered in the evaluation of digital readiness. Another study by [5] highlights that the adoption of e-government services is significantly influenced by technology availability and the digital literacy level of the community. Furthermore, a study by [6] found that the acceptance of digital transformation in public services heavily depends on the readiness of organizations and the public to adapt to new technologies.

[7] identified that the digital divide and demographic factors also influence the successful implementation of digital systems in public services. In the context of social assistance distribution, research by [8] shows that the use of digital systems can reduce inefficiencies in aid distribution but still faces challenges such as limited access and resistance to new technology. [9] also highlight that the level of digital literacy has a direct impact on the readiness of communities to adopt e-government services, particularly in areas with limited digital infrastructure.

Therefore, this research seeks to fill the gap in the literature by exploring how the four factors in the UTAUT model influence the digital readiness of communities in accepting social assistance distribution systems. This study aims to analyze the digital readiness of communities in the implementation of technology-based social assistance distribution systems, identify factors influencing technology acceptance based on the UTAUT model, measure the relationship between Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions with the digital readiness of communities, and provide strategic recommendations to improve the acceptance and effectiveness of digital social assistance distribution systems.

This research is expected to provide academic benefits by increasing insights into the study of technology acceptance in the field of social assistance distribution and contributing to the development of literature related to the digital readiness of communities in adopting technology-based systems using the UTAUT model. Practically, this research can provide recommendations to policymakers in improving the effectiveness of digital social assistance distribution systems and provide an overview of the challenges and opportunities in implementing technology-based systems among beneficiary communities. From a social perspective, this research can encourage increased digital literacy among

social assistance recipients and accelerate the adoption of technology to improve transparency and accountability in social assistance distribution. With this research, it is hoped that digital social assistance distribution systems can be better accepted and optimized in improving community welfare more efficiently and accurately.

Several previous studies have also highlighted the importance of external factors in the implementation of digital technology in the social sector. According to [10], government policies that support the adoption of technology greatly influence the success of implementing digital systems in various social programs. In addition, a study conducted by [11] shows that the level of digital literacy of the community greatly influences the speed of adoption of new systems. Another study by [12] found that local community support and active community participation in the use of digital-based systems can increase the effectiveness of technology implementation.

By considering these various factors, this study will use a quantitative approach through a survey that will be distributed to beneficiaries of social assistance programs and managers of digital-based social assistance distribution systems. The results of this study are expected to provide more comprehensive insights into the factors that influence digital readiness in the context of social assistance distribution and offer strategic recommendations for the government and related institutions in increasing the effectiveness of technology-based systems.

II. METHOD

This study uses a quantitative approach with a survey method to analyze digital readiness in implementing a technology-based social assistance distribution system using the Unified Theory of Acceptance and Use of Technology (UTAUT) model [13]. This method was chosen because it allows for systematic measurement of the level of technology acceptance through the main variables in UTAUT, namely Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions [6][14].

A. Research Design

This study is descriptive and explanatory in nature with the aim of identifying factors that influence the digital readiness of the community in using a technology-based social assistance distribution system. Data were collected through a questionnaire developed based on indicators in the UTAUT model. The following table summarizes the main indicators in this study [1].

B. Population and Sample

The population in this study were social assistance recipients in certain areas. The sample was selected using a purposive sampling technique, with the criteria of respondents who already had access to a digital-based social assistance distribution system. The number of samples taken

was 150 respondents, in accordance with the minimum recommendations in quantitative research based on UTAUT.

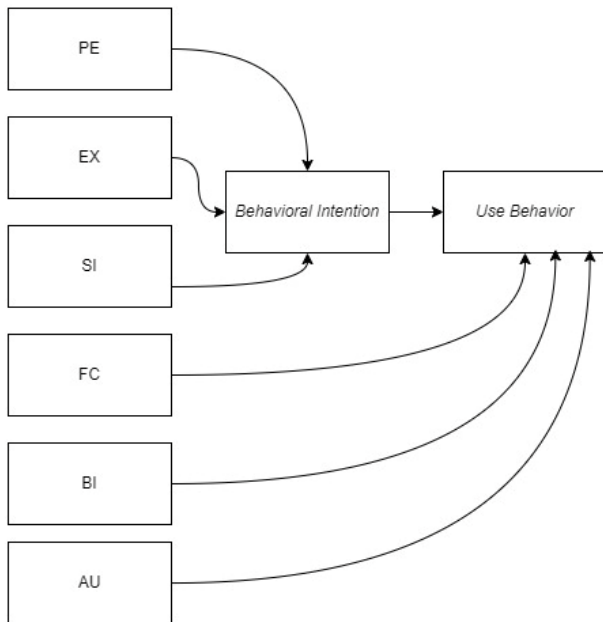


Figure 1: UTAUT Research Model [12]

C. Research Instrument

The main instrument in this study is a closed questionnaire consisting of two main parts:

1. Respondent Characteristics (age, education level, access to technological devices, and experience in using digital systems).
2. UTAUT variables, which are measured using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

TABLE I. VARIABLES AND INDICATORS IN THE UTAUT MODEL

Variable	Indicator
Performance Expectancy	Perceived benefits of the system, increased efficiency, ease of access to assistance
Effort Expectancy	Ease of use, ease of learning, ease of accessibility
Social Influence	Support from family, friends, and community for system usage
Facilitating Conditions	Availability of infrastructure, technical support, and access to technology training

D. Data Collection Techniques

Data were collected using an offline survey method through a questionnaire that had been prepared using a framework referring to the UTAUT variable that was distributed and worked on by all respondents. In addition, short interviews were conducted with several respondents to gain deeper insight into the existing social assistance distribution system [15].

TABLE II. UTAUT BASED QUESTIONNAIRE MODEL

Var	Questions	1	2	3	4	5
PE	I believe that the digital system will increase the speed of receiving social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	This system helps me get more accurate information about social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The use of a digital system makes it easier for me to access social assistance without having to come directly to the relevant office.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	This system helps reduce the potential for errors in the social assistance distribution process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I feel more confident using this system because it provides real benefits for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I believe this system can increase transparency in the distribution of social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EX	I found the system easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I had no difficulty understanding how the social assistance distribution system works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The system has a clear and easy-to-understand interface.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I can use the system without help from others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I do not need any special training to use the system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The instructions for use in the system are easy to follow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SI	People around me encourage me to use this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I will use this system if recommended by the government or authorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I am more confident in using this system if people I know are also using it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I feel more comfortable using this system because many people have used it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The opinions of friends and family influence my decision to use this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Support from my community or social group makes me more confident in using this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FC	I have sufficient devices (smartphone/laptop) to use this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I have sufficient internet access to use this social assistance distribution system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	There are help services available if I have difficulty using this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	I can contact the authorities if I experience technical difficulties in this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The technological infrastructure in my area supports the use of this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I know where to get information or training related to the use of this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BI	I plan to continue using this system in my next social assistance claim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I would recommend this system to others who need social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If there is a similar system in other areas, I am interested in using it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I feel comfortable switching from a manual method to a digital method in accessing social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I will continue to use this system even if there are some technical difficulties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AU	I have used this system in collecting social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I often access this system to check my social assistance status.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I use this system without needing help from others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I prefer this system over manual methods in distributing social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I actively seek the latest information about social assistance through this system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I am satisfied with the experience of using a digital system in distributing social assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. Data Analysis

After data collection, the data was analyzed in depth to answer the question of how acceptable the social assistance system that has been running is so that it is more measurable in the acceptance of the system using the UTAUT framework, in addition to that descriptive analysis was also carried out to describe the digital readiness of the community in general [16].

III. RESULTS AND DISCUSSION

A. Overview of Respondents

Table 3 presents the demographic characteristics of the respondents, including the number of participants, average age, gender distribution, and education level.

TABLE III. DEMOGRAPHIC RESULTS OF QUESTIONNAIRE ACQUISITION

Respondent Category	Σ	Average Age	Gender (M/F)	Education
Beneficiaries of Social Assistance	80	45 years	30/50	60% High School, 40% Junior High School

Village Officials/Distribution Officers	40	38 years	25/15	50% Associate/Bachelor's Degree, 50% High School
Other Stakeholders	30	42 years	18/12	70% Bachelor's Degree, 30% High School
Total	150	42 years	73/77	Varied

B. Calculation Method for UTAUT Model Analysis

The UTAUT model evaluation is based on responses collected using a 5-point Likert scale, where: 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

For each variable (Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions), the mean score is calculated using the following formula:

$$Mean\ Score = \frac{\sum Individual\ Score}{N} \quad (13)$$

Where:

- Σ Individual Scores is the total score obtained from all respondents for a specific variable.
- N is the total number of respondents.

To provide a more detailed picture, here is an example of the distribution of responses from 150 respondents:

C. Performance Expectancy (PE)

The total score from each category is calculated as follows:

TABLE IV. CALCULATION OF MEAN SCORE PE

Skor Likert	Number of Question Respondents	Respond
1 (Strongly Disagree)	5	5 × 6 = 15
2 (Disagree)	10	10 × 6 = 60
3 (Neutral)	20	20 × 6 = 120
4 (Agree)	60	60 × 6 = 360
5 (Strongly Agree)	55	55 × 6 = 330
Total	150	150 × 6 = 900

The total score from each category is calculated as follows:

$$Total\ Score = (1 \times 45) + (2 \times 90) + (3 \times 180) + (4 \times 315) + (5 \times 270) = 45 + 180 + 540 + 1260 + 1350 = 630$$

Next, calculate the Mean Score:

$$Mean\ Score = \frac{Total\ Score}{Total\ Respondents} = \frac{630}{150} = 4.2$$

Alternatively, considering the number of questions:

$$Mean\ Score\ per\ Question = \frac{630}{900} = 0.7$$

$$Mean\ Score\ per\ Respondent = 0.7 \times 6 = 4.2$$

The majority of respondents (65%) rated 4 or 5, indicating that they agree or strongly agree with the benefits of the digital system. Only 15% of respondents disagreed or strongly disagreed, suggesting that most users positively perceive the system. The Mean Score of 4.2 indicates that Performance Expectancy received the highest score in the UTAUT model, implying that the digital system is perceived as beneficial by social assistance recipients.

D. Effort Expectancy (EX) Response Distribution

74% of respondents rated 4 or 5, indicating that they found the system easy to use and accessible. Only 16% of respondents rated 1 or 2, suggesting that usability challenges are minimal. The Mean Score of 4.0 confirms that Effort Expectancy is perceived positively, meaning the system is user-friendly and accessible the table below:

TABLE V. EFFORT EXPECTANCY (EX) RESPONSE DISTRIBUTION

Likert Score	Number of Question Respondents	Total Responses
1 (Strongly Disagree)	4	4 × 6 = 24
2 (Disagree)	12	12 × 6 = 72
3 (Neutral)	22	22 × 6 = 132
4 (Agree)	68	68 × 6 = 408
5 (Strongly Agree)	44	44 × 6 = 264
Total	150	150 × 6 = 900

Calculation of Mean Score for Effort Expectancy, the total score is calculated as follows:

$$\text{Total Score} = (1 \times 24) + (2 \times 72) + (3 \times 132) + (4 \times 408) + (5 \times 264) = 24 + 144 + 396 + 1632 + 1320 = 4516$$

Next, we calculate the Mean Score:

$$\text{Mean Score} = \text{Total Score} / \text{Total Responses} = 4516 / 900 = 4.0$$

E. Social Influence (SI)

The total score is calculated as follows:

$$\text{Total Score} = (1 \times 36) + (2 \times 90) + (3 \times 180) + (4 \times 360) + (5 \times 234) = 36 + 180 + 540 + 1440 + 1170 = 3366$$

Next, we calculate the Mean Score:

$$\text{Mean Score} = \text{Total Score} / \text{Total Responses} = 3366 / 900 = 3.8$$

TABLE VI. SOCIAL INFLUENCE (SI) RESPONSE DISTRIBUTION

Likert Score	Number of Question Respondents	Total Responses
1 (Strongly Disagree)	6	6 × 6 = 36
2 (Disagree)	15	15 × 6 = 90
3 (Neutral)	30	30 × 6 = 180
4 (Agree)	60	60 × 6 = 360
5 (Strongly Agree)	39	39 × 6 = 234
Total	150	150 × 6 = 900

66% of respondents rated 4 or 5, indicating that social influence (support from family, friends, and community)

plays a significant role in system adoption. Only 14% of respondents rated 1 or 2, suggesting that external encouragement is not a major obstacle.

The Mean Score of 3.8 suggests that while social support is present, its influence is moderate compared to Performance Expectancy and Effort Expectancy.

F. Facilitating Conditions (FC)

The mean score of 3.9 indicates that respondents generally agree that the necessary infrastructure, technical support, and access to technology training are available. However, the presence of some lower ratings suggests that there are still challenges in ensuring smooth system adoption. Improving technical assistance and expanding access to digital training programs could further enhance user experience.

TABLE VII. DISTRIBUTION OF FACILITTING CONDITIONS

ikert Score	Number of Question Respondents	Total Responses
1 (Strongly Disagree)	7	7 × 6 = 42
2 (Disagree)	14	14 × 6 = 84
3 (Neutral)	28	28 × 6 = 168
4 (Agree)	64	64 × 6 = 384
5 (Strongly Agree)	37	37 × 6 = 222
Total	150	150 × 6 = 900

$$\text{Total Score} = (1 \times 42) + (2 \times 84) + (3 \times 168) + (4 \times 384) + (5 \times 222) = 42 + 168 + 504 + 1536 + 1110 = 3360$$

$$\text{Mean Score} = 3360 / 900 = 3.9$$

G. Behavioral Intention (BI)

With a mean score of 3.87, most respondents show a positive inclination toward using the system. However, the score is slightly lower than Performance Expectancy (4.2) and Effort Expectancy (4.0), suggesting that while users recognize the system's benefits and ease of use, external factors such as social encouragement or concerns about reliability may influence their willingness to adopt it fully. Strengthening communication strategies and user engagement initiatives could improve adoption rates.

TABLE VIII. BEHAVIORAL INTENTION DISTRIBUTION

Likert Score	Number of Question Respondents	Total Responses
1 (Strongly Disagree)	5	5 × 6 = 30
2 (Disagree)	10	10 × 6 = 60
3 (Neutral)	25	25 × 6 = 150
4 (Agree)	70	70 × 6 = 420
5 (Strongly Agree)	40	40 × 6 = 240
Total	150	150 × 6 = 900

$$\begin{aligned} \text{Total Score} &= (1 \times 30) + (2 \times 60) + (3 \times 150) + (4 \times 420) + (5 \times 240) \\ &= 30 + 120 + 450 + 1680 + 1200 = 3480 \\ \text{Mean Score} &= 3480 / 900 = 3.87 \end{aligned}$$

H. Actual Use (AU)

The mean score of 3.77 indicates that actual usage of the system is slightly lower than the intention to use it (BI: 3.87).

TABLE IX.
RESULT ACTUAL USE RESPOND

Likert Score	Number of Question Respondents	Total Responses
1 (Strongly Disagree)	6	6 × 6 = 36
2 (Disagree)	12	12 × 6 = 72
3 (Neutral)	30	30 × 6 = 180
4 (Agree)	65	65 × 6 = 390
5 (Strongly Agree)	37	37 × 6 = 222
Total	150	150 × 6 = 900

$$\begin{aligned} \text{Total Score} &= (1 \times 36) + (2 \times 72) + (3 \times 180) + (4 \times 390) + (5 \times 222) \\ &= 36 + 144 + 540 + 1560 + 1110 = 3390 \\ \text{Mean Score} &= 3390 / 900 = 3.77 \end{aligned}$$

This suggests that while users express a willingness to adopt the system, certain barriers—such as infrastructure issues, usability concerns, or lack of continuous motivation—might hinder regular use. Addressing these challenges through better user training, system improvements, and policy support can help ensure higher adoption and sustained engagement.

IV. CONCLUSION

This study analyzed technology acceptance using the UTAUT model, focusing on Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Behavioral Intention (BI), and Actual Use (AU). The findings indicate that Performance Expectancy (4.2) and Effort Expectancy (4.0) had the highest scores, showing that respondents perceive the system as beneficial and easy to use. Meanwhile, Social Influence (3.8) and Facilitating Conditions (3.9) scored slightly lower, suggesting the need for stronger external encouragement and improved infrastructure to support adoption. Additionally, Behavioral Intention (3.87) was higher than Actual Use (3.77), implying that while users express willingness to adopt the system, some barriers still hinder full implementation.

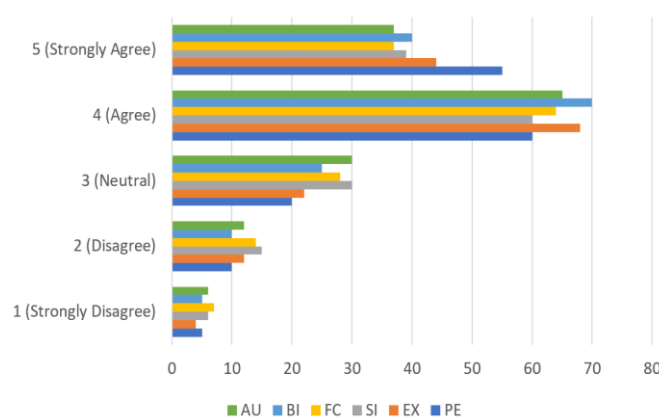


Figure 2: Distribution of Respondents' Likert Scale Responses for UTAUT Constructs

Future research should explore longitudinal studies to examine how user behavior and technology adoption evolve over time. Additionally, structured training programs could be investigated to determine their impact on improving digital literacy and user engagement. Further research could also focus on system optimization, particularly through AI-driven personalization and automation, to enhance user experience. Moreover, studies on accessibility and inclusivity are necessary to assess how the system can be adapted for users with varying levels of digital competence. Lastly, an evaluation of policy and governance could provide insights into the role of government and institutional support in driving the successful implementation of technology in social assistance programs. By addressing these areas, future research can contribute to the development of more inclusive, efficient, and user-friendly digital systems, ensuring broader adoption and sustained impact.

REFERENCES

- [1] R. Abbas and K. Michael, *Theoryhub book*. 2022.
- [2] F. Davis and P. Warshaw, "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," *Manage. Sci.*, vol. 35, pp. 982–1003, Aug. 1989, doi: 10.1287/mnsc.35.8.982.
- [3] G. Ilieva et al., "Factors Influencing User Perception and Adoption of E-Government Services," *Adm. Sci.*, vol. 14, p. 54, Mar. 2024, doi: 10.3390/admsci14030054.
- [4] S. Majapahit, "The Assessing Cimenyan Village's IT Readiness for Digital Transformation in West Java," *J. Inf. Syst. Informatics*, vol. 5, no. 4 SE-Articles, Dec. 2023, doi: 10.51519/journalisi.v5i4.582.
- [5] M. Zeebaree, M. Agoyi, and M. Aqel, "Sustainable Adoption of E-Government from the UTAUT Perspective," 2022. doi: 10.3390/su14095370.
- [6] K. Szymaniec-Mlicka, "The Utaut Concept In Public Organizations – Results Of An Empirical Study," *Humanit. Soc. Sci. Q.*, vol. 31, pp. 145–152, Sep. 2024, doi: 10.7862/rz.2024.hss.37.
- [7] K. Ofosu-Ampong, A. Asmah, J. A. Kani, and D. Bibi, "Determinants of digital technologies adoption in government census data operations," *Digit. Transform. Soc.*, vol. 2, no. 3, pp. 293–315, 2023, doi: 10.1108/DTS-11-2022-0056.
- [8] V. E. Tobing-David, I. R. Adi, and M. Nuryana, "Conditions of Sustainable Welfare: A Cross-Case Empirical Analysis of 22 Locality-Based Welfare Systems in Decentralised Indonesia,"

2024. doi: 10.3390/su16041629.
- [9] N. Adel, "The Impact of Digital Literacy and Technology Adoption on Financial Inclusion: Evidence from Emerging Economies in Africa, Asia, and Latin America," *Heliyon*, vol. 10, no. 24, p. e40951, 2024, doi: 10.1016/j.heliyon.2024.e40951.
- [10] A. Haleem, M. Javaid, M. A. Qadri, and R. Suman, "Understanding the role of digital technologies in education: A review," *Sustain. Oper. Comput.*, vol. 3, no. May, pp. 275–285, 2022, doi: 10.1016/j.susoc.2022.05.004.
- [11] H. Četojević, "The Impact Of Digital Literacy On The Development Of Higher Education," *Педагошка смарност*, vol. 69, pp. 189–192, Jan. 2024.
- [12] L. Xue, A. M. Rashid, and S. Ouyang, "The Unified Theory of Acceptance and Use of Technology (UTAUT) in Higher Education: A Systematic Review," *Sage Open*, vol. 14, no. 1, p. 21582440241229570, Jan. 2024, doi: 10.1177/21582440241229570.
- [13] F. Amelia and S. Syaefulloh, "Analisis Penerapan Model UTAUT (Unified Theory of Acceptance and Use of Technology) Terhadap Perilaku Pengguna Sistem Informasi (Studi Kasus: Sistem Informasi Akademik Universitas di Pekanbaru)," *Al Qalam J. Ilm. Keagamaan dan Kemasyarakatan*, vol. 17, p. 3853, Nov. 2023, doi: 10.35931/aq.v17i6.2817.
- [14] Z. Y. Pamungkas and A. Sudiarno, "Implementasi Model UTAUT (Unified Theory of Acceptance and Use of Technology) untuk Menganalisis Faktor- Faktor yang Mempengaruhi Penggunaan Aplikasi Brimo," *J. Teknol. Inf. dan Ilmu Komput.*, vol. 9, no. 3, pp. 569–578, 2022, doi: 10.25126/jtik.2022936047.
- [15] A. A. H. Zaid Kilani, D. F. Kakeesh, G. A. Al-Weshah, and M. M. Al-Debei, "Consumer post-adoption of e-wallet: An extended UTAUT2 perspective with trust," *J. Open Innov. Technol. Mark. Complex.*, vol. 9, no. 3, p. 100113, 2023, doi: 10.1016/j.joitmc.2023.100113.
- [16] Z. Taibah and D. Rahmayanti, "Analysis of Intention to Use E-Wallet Dana with the Utaut Approach and Perceived Risk," *East Asian J. Multidiscip. Res.*, vol. 3, no. 3, pp. 1197–1212, 2024, [Online]. Available: <https://journal.formosapublisher.org/index.php/eajmr>
- [17] H. Rençber, "United theory of acceptance and use of technology," *Consum. Behav. Model.*, pp. 181–192, 2020, doi: 10.1007/978-3-030-10576-1_300692.