

# COMPARISON OF THE EFFECTIVENESS OF WHATSAPP GROUPS AND SCHOOL WEBSITES AS INFORMATION MEDIA FOR TAM-BASED PPDB

Nurul Cahfid<sup>1\*)</sup>, Abdul Halim<sup>2)</sup>, Mochammad Darip<sup>3)</sup>

<sup>1, 2, 3)</sup> Ilmu Komputer, Universitas Bina Bangsa

Jl. Raya Serang – Jakarta, KM. 03 No. 1B, Pakupatan, Kota Serang, Banten

e-mail: [chafid09@gmail.com](mailto:chafid09@gmail.com)<sup>2\*)</sup>, [a.halimkom@gmail.com](mailto:a.halimkom@gmail.com),<sup>2)</sup> [darif.uniba@gmail.com](mailto:darif.uniba@gmail.com)<sup>3)</sup>

## ABSTRACT

*The development of digital technology has encouraged schools to utilize various platforms to deliver information, particularly in the new student admission process, commonly referred to as PPDB. MIN 7 Tangerang uses WhatsApp Groups and the school website as the primary media for disseminating PPDB information; however, the effectiveness of these two media has not been determined. This study aims to compare the effectiveness of WhatsApp Groups and the website as media for PPDB information using the Technology Acceptance Model approach. The study employed a quantitative method supported by qualitative data. Data were collected from 136 parents of admitted students who passed the PPDB selection for the 2024/2025 academic year, all of whom had accessed and used both media. The research instrument consisted of a Likert-scale questionnaire based on TAM constructs along with additional variables. Cronbach's Alpha was used to test the reliability of the instrument, while validity testing was conducted using Exploratory Factor Analysis (EFA). Furthermore, a paired sample t-test was applied to compare two related conditions, and regression analysis was employed to examine the effect of Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) on technology acceptance. The results indicate that WhatsApp Groups are superior in terms of ease of use, whereas the website demonstrates superiority in terms of usefulness, trust, and user satisfaction. The regression analysis confirms that both PEOU and PU significantly influence technology acceptance, with PU exerting a more effect. This study contributes to the understanding of digital communication strategies in school information services by demonstrating how different digital platforms fulfill complementary roles in educational information dissemination. In conclusion, WhatsApp Groups and the website play complementary roles in delivering PPDB information..*

**Keywords:** PPDB, WhatsApp Group, Website, Technology Acceptance Model, information media effectiveness.

## I. INTRODUCTION

The development of information technology in the digital era has brought significant changes in various aspects of life, including the education sector. The use of technology as a medium for information dissemination has become an essential part of transforming educational services to be more effective and efficient. One form of this transformation is the use of digital media in delivering information related to the New Student Admission process or PPDB [1]. MIN 7 Tangerang, as the only state Islamic elementary school (Madrasah Ibtidaiyah Negeri) in Balaraja District, Tangerang Regency [2], is required to provide PPDB information services that are easily accessible and responsive to the needs of the surrounding community. This is because most prospective parents are engaged in full-time employment, making limited time the main obstacle in obtaining information related to the registration and admission process for new students [3]. Therefore, this condition requires information

media that can be accessed quickly, flexibly, and efficiently in accordance with user characteristics.

Along with the development of communication technology, WhatsApp Groups and the school website have become the two main media used to disseminate PPDB information. From the perspective of educational technology, the use of digital platforms in schools is not limited to learning media but also includes the management of information services that contribute to improving institutional performance. Effective dissemination of PPDB information is part of technology-based educational services because it affects the quality of communication between schools and parents, the efficiency of administrative services, and parental involvement from the early stages of the educational process. In practice, WhatsApp Groups offer fast, interactive, and mobile-based communication [4], while websites provide more structured and well-documented information [5]. Although both have been widely used, the effectiveness of each medium in meeting PPDB information needs, as well as the level of user acceptance of both media,

has not been clearly identified, particularly at MIN 7 Tangerang. To examine user acceptance of this technology, this study applies the Technology Acceptance Model (TAM) as its analytical framework. TAM explains that technology acceptance is influenced by two main constructs, namely perceived usefulness and perceived ease of use, which subsequently affect users' intention and behavior in using technology [6]. This model has been widely applied in various studies, particularly in the evaluation of information systems and educational technology, because it can empirically explain the factors influencing technology adoption. For example, a study by [7] entitled "Analisis Penerimaan E-Learning Madrasah Menggunakan Metode Technology Acceptance Model (TAM)", emphasized that perceived usefulness can be improved through the provision of continuously updated information. However, among existing studies, no research has been found that specifically compares the effectiveness of WhatsApp Groups and school websites as media for PPDB information while considering the characteristics of communities with limited time due to full-time work. Therefore, this study is expected to identify which medium is more effective and more widely accepted by users based on perceived usefulness and perceived ease of use. In addition, this study aims to identify the strengths and weaknesses of each medium based on users' perceptions and experiences and to provide recommendations for improving information media that better align with the needs of prospective parents.

In addition, this study contributes to the understanding of digital communication strategies in school information services by showing how various digital platforms fulfill complementary roles in the dissemination of educational information. The findings of this study are expected to provide practical contributions for the principal of MIN 7 Tangerang in determining a more effective PPDB communication strategy that aligns with community needs. Theoretically, this study contributes to the development of research on technology acceptance in education, particularly in the area of information services for communities with limited access time due to work commitments. Thus, this study is relevant not only for the development of school communication management but also for the formulation of educational communication strategies that are more adaptive to user characteristics.

## II. LITERATUR REVIEW

Several previous studies have applied the TAM framework in the context of educational technology. A study conducted by Scherer et al. examined teachers' adoption of digital technologies in education using a meta-analytic structural equation modeling approach based on TAM. The results showed that perceived usefulness and perceived ease of use significantly influence teachers' behavioral intention to use digital technologies in learning environments. The study also demonstrated that TAM provides strong explanatory power for understanding technology acceptance in educational settings [11].

In addition to learning systems, TAM has also been applied to analyze the adoption of communication technologies in educational environments. A study on the use of WhatsApp in education found that the platform is widely accepted by students due to its accessibility, ease of use, and real-time communication capabilities. The research revealed that perceived usefulness and perceived ease of use significantly influence students' adoption of WhatsApp as a communication and information-sharing platform in academic activities [12].

Furthermore, research on digital information systems in education indicates that online platforms such as websites and e-learning systems play an important role in delivering structured and reliable information. Studies on the acceptance of e-learning technologies show that digital platforms can improve access to information and learning resources when users perceive them as useful and easy to use. These findings highlight the importance of evaluating technology acceptance to ensure the effectiveness of digital platforms in educational services [13].

Previous studies have shown that WhatsApp is widely adopted in educational communication due to its accessibility and real-time interaction features. However, most studies focus on its role in learning activities rather than its effectiveness as an official information dissemination medium in school administrative contexts such as PPDB.

And Unlike instant messaging platforms, websites provide structured and well-documented information that can be accessed repeatedly over time. Therefore, websites are often used as official information sources by educational institutions, particularly for formal announcements and administrative procedures.

However, limited studies have compared instant messaging platforms and official websites in the context of school information dissemination, particularly in the PPDB process.

Based on previous studies, it can be concluded that TAM is an appropriate theoretical framework for analyzing the acceptance of digital communication media in education. However, most existing studies focus on learning systems such as e-learning platforms, while limited research compares the effectiveness of different communication media for disseminating school information. Therefore, this study aims to compare the effectiveness of WhatsApp Groups and the school website as PPDB information media using the TAM approach, particularly in the context of parental access to school information.

### III. METHOD

This study employed a descriptive quantitative approach through questionnaire distribution to measure perceived usefulness and perceived ease of use, as well as a qualitative approach through interviews to obtain a deeper understanding of users' experiences and preferences [8]. The questionnaire instrument was developed based on the two main constructs of TAM, namely perceived usefulness and perceived ease of use, which were measured using a five-point Likert scale to obtain measurable and standardized quantitative data [9]. The collected data were analyzed using the TAM framework to determine the level of acceptance and to examine differences in the effectiveness of the two media. Instrument validity and reliability were tested using correlation analysis and Cronbach's Alpha coefficient to ensure measurement consistency and accuracy. Furthermore, inferential statistical analyses, such as regression tests or mean comparison tests, were applied to examine the influence of perceived usefulness and perceived ease of use on the level of acceptance and to identify significant differences in effectiveness between WhatsApp Groups and the school website [10].

#### A. Research Design

This study employed a descriptive quantitative approach complemented by qualitative data. The quantitative approach was applied to measure users' perceptions and levels of acceptance toward PPDB information media [11], whereas the qualitative approach was utilized to explore respondents' understanding of their perceptions,

attitudes, and experiences regarding the two media under investigation [12]. The research was conducted at MIN 7 Tangerang, involving 136 parents whose children were registered and successfully admitted through the 2024–2025 PPDB selection process as respondents. All respondents had accessed and used both the WhatsApp Group and the school website as PPDB information media, enabling each participant to evaluate both platforms.

The sampling technique applied was saturated sampling (total sampling), as the entire target population namely, the parents of 136 newly admitted students was included as the research sample. This technique was selected to ensure that the collected data represented the full relevant population and aligned with the evaluative-comparative objectives of the study. Saturated sampling (total sampling) was applied because the population size was relatively small. Therefore, all members of the population were included as respondents to ensure comprehensive representation of user perceptions. Semi-structured interviews were conducted with 10 selected respondents to explore deeper insights into their experiences. All participants provided informed consent prior to data collection, and confidentiality of responses was strictly maintained.

The research instrument consisted of a questionnaire developed based on the primary constructs of the Technology Acceptance Model (TAM), namely Perceived Ease of Use (PEOU) and Perceived Usefulness (PU), along with additional variables tailored to the research objectives: Effectiveness and User Satisfaction, Trust and Use Intention, and Platform Assessment [13]. Questionnaire items were measured using a five-point Likert scale to generate standardized quantitative data [14]. Table 1 presents the variables and the number of indicators employed in the research instrument.

Table 1. Questionnaire Variable and Indicator

| No | Instrument Testing Variable                     | Number of Indicators |
|----|---|----------------------|
| 1  | Perceived Ease of Use (PEOU)                    | 4                    |
| 2  | Perceived Usefulness (PU)                       | 4                    |
| 3  | Effectiveness and User Satisfaction             | 6                    |
| 4  | Trust and Use Intention                         | 4                    |
| 5  | Platform Assessment related to PPDB Information | 3                    |

Data collection was conducted through questionnaire distribution using the Google Forms platform [15]. The questionnaire was designed to

measure the perceptions and experiences of parents whose children had been admitted as new students in the 2024/2025 academic year. The questionnaire link was disseminated via a WhatsApp Group established by the school, in which all members were parents of newly admitted students. Prior to completing the questionnaire, respondents were informed of the research objectives and provided voluntary consent to participate. All collected data were treated confidentially and used solely for academic purposes. In addition, interviews were conducted with several respondents to obtain deeper insights into their perceptions and attitudes toward the use of WhatsApp Groups and the school website as PPDB information media.

Before hypothesis testing, the research instrument underwent reliability and validity assessment Cronbach's Alpha coefficient was applied to check internal consistency and ensure the reliability of each research variable [16], whereas validity testing was performed through Exploratory Factor Analysis (EFA) to ensure that the questionnaire indicators formed constructs consistent with the study's theoretical framework [17]. The application of EFA in this study aimed to examine the adequacy of the factor structure within the context of evaluating PPDB information media based on the Technology Acceptance Model (TAM). This procedure was essential because the instrument not only incorporated the core TAM constructs (PEOU and PU) but also introduced additional variables such as Trust, Effectiveness and User Satisfaction, and Platform Assessment, adapted to the characteristics of PPDB information services. Accordingly, EFA was employed to assess factor structure suitability, identify dominant indicators, and confirm that the empirical data supported the specified constructs prior to hypothesis testing and inferential statistical analysis.

*B. Hypothesis Development*

Based on the Technology Acceptance Model (TAM) framework and the research objective, which focuses on comparing the effectiveness of WhatsApp Groups and the school website as PPDB information media at MIN 7 Tangerang, this study formulated the hypotheses as presented in Table 2 following:

Table 2. Reasrch Hypothesis Formulation

| Code | Variable              | H0                      | H1                     |
|------|-----------------------|-------------------------|------------------------|
| H01  | Perceived Ease of Use | There is no significant | There is a significant |

|     |   |  |   |
|-----|---|--|---|
|     |   | difference in PEOU between WhatsApp Groups and the website.  | difference in PEOU between WhatsApp Groups and the website.   |
| H02 | Perceived Usefulness                    | There is no significant difference in PU between WhatsApp Groups and the website.                                  | There is a significant difference in PU between WhatsApp Groups and the website.                                  |
| H03 | Trust and Use Intention                 | There is no significant difference in Trust and Use Intention between WhatsApp Groups and the website.             | There is a significant difference in Trust and Use Intention between WhatsApp Groups and the website.             |
| H04 | Effectiveness and User Satisfaction     | There is no significant difference in effectiveness and user satisfaction between WhatsApp Groups and the website. | There is a significant difference in effectiveness and user satisfaction between WhatsApp Groups and the website. |
| H05 | Platform Assessment                     | There is no significant difference in platform assessment between WhatsApp Groups and the website.                 | There is a significant difference in platform assessment between WhatsApp Groups and the website.                 |
| H06 | The effect of PEOU and PU on acceptance | PEOU and PU do not significantly affect technology acceptance.   | PEOU and PU significantly affect technology acceptance.   |

Furthermore, data analysis was conducted in two stages, namely descriptive and inferential analyses. Descriptive statistics were applied to outline respondent characteristics and the distribution of responses across each research variable. In contrast, inferential statistics were used to test the research hypotheses and to determine whether significant differences existed in users' perceptions of WhatsApp Groups and the website.

Since each respondent evaluated both media (paired design), differences in perceptions between WhatsApp Groups and the website were examined using a paired sample t-test when the data were normally distributed, or the Wilcoxon signed-rank test when the data were not normally distributed, with a significance level of 0.05. In addition, regression analysis was employed to examine the relationship between Perceived Ease of Use (PEOU), Perceived Usefulness (PU), and technology acceptance in accordance with the TAM framework. The analytical results were then interpreted by comparing the findings with relevant

literature and previous studies to strengthen the results and discussion [18], and were subsequently used to generate conclusions and strategic recommendations for the school in selecting more effective PPDB information media for the following academic year.

#### IV. RESULT AND DISCUSSION

##### A. Result

This study examines the effectiveness of two primary media used by MIN 7 Tangerang to disseminate PPDB information for the 2024/2025 academic year, namely WhatsApp Groups and the school website. Both media were utilized to convey information regarding admission requirements, registration stages, implementation schedules, and selection result announcements. Documentation of the MIN 7 Tangerang website interface and PPDB information for the 2024 intake is presented in Figure 1 and figure 2 to support the description of the research object.



Figure 1. MIN 7 Tangerang Website



Figure 2. PPDB Information 2024/2025

Reliability testing was conducted to ensure that the questionnaire instrument demonstrated adequate internal consistency. The reliability results for the WhatsApp Group platform indicate that all variables achieved Cronbach’s Alpha values above 0.60, thereby meeting the reliability

criterion. The Perceived Ease of Use (PEOU) variable yielded the highest reliability coefficient ( $\alpha = 0.756$ ), whereas Effectiveness and User Satisfaction recorded the lowest coefficient ( $\alpha = 0.614$ ). Nevertheless, all coefficients remained within the acceptable reliability range for social research. The reliability results for the WhatsApp Group platform are presented in Table Table 3.

Table 3. Realibility Test (Whatsapp Group Platform)

| No | Variabel                          | Cronbach’s Alpha | Interpretation |
|----|-----------------------------------|------------------|----------------|
| 1  | Perceived Ease of Use             | 0.756            | Reliabel       |
| 2  | Perceived Usefulness              | 0.663            | Reliabel       |
| 3  | Effectiveness & User Satisfaction | 0.614            | Reliabel       |
| 4  | Trust and Use Intention           | 0.617            | Reliabel       |
| 5  | Platform Assessment               | 0.623            | Reliabel       |

For the website platform, reliability testing produced higher Cronbach’s Alpha values than those obtained for WhatsApp Groups. The Perceived Usefulness (PU) variable achieved a very high coefficient ( $\alpha = 0.934$ ), indicating excellent internal consistency, whereas Platform Assessment recorded the lowest coefficient ( $\alpha = 0.600$ ) but still met the minimum reliability threshold. The reliability results for the website platform are presented in Table 4.

Table 4. Realibility Test (Website Platform)

| No | Variabel                          | Cronbach’s Alpha | Interpretation |
|----|-----------------------------------|------------------|----------------|
| 1  | Perceived Ease of Use             | 0.768            | Reliabel       |
| 2  | Perceived Usefulness              | 0.934            | Reliabel       |
| 3  | Effectiveness & User Satisfaction | 0.846            | Reliabel       |
| 4  | Trust and Use Intention           | 0.789            | Reliabel       |
| 5  | Platform Assessment               | 0.600            | Reliabel       |

Validity testing was performed using Exploratory Factor Analysis (EFA) to evaluate data adequacy and to confirm that the questionnaire indicators formed constructs consistent with the research model. KMO values between 0.50–0.60 are considered mediocre, while values above 0.60 indicate acceptable sampling adequacy. The suitability of the EFA was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett’s Test of Sphericity. The KMO value for the WhatsApp Group platform was 0.612, while the KMO value for the website platform was 0.550, indicating that the data for both platforms satisfied the minimum requirement for factor analysis, as both exceeded the 0.50 threshold. Bartlett’s Test of Sphericity produced a significance value of 0.000 for both platforms, indicating the presence of inter-variable correlations and confirming that the data were appropriate for factor analysis. A summary of

the KMO and Bartlett’s Test results is presented in Table 5

Table 5. KMO and Bartlett’s Test Results for Whatsapp group and Website

| No | Platform | KMO   | Approx. Chi-Square | df  | Sig.  |
|----|----------|-------|--------------------|-----|-------|
| 1  | WA Group | 0.612 | 828.266            | 210 | 0.000 |
| 2  | Website  | 0.550 | 687.738            | 210 | 0.000 |

The Total Variance Explained results indicate that seven principal factors with eigenvalues greater than 1 were extracted for the WhatsApp Group platform, whereas five principal factors with eigenvalues greater than 1 were extracted for the website platform. A summary of the number of extracted factors and the cumulative explained variance is provided in Table 6.

Table 6. Summary Explanation

| No | Platform | Number of Factors (Eigenvalue > 1) | Cumulative Variance |
|----|----------|------------------------------------|---------------------|
| 1  | WA Group | 7                                  | 68.388              |
| 2  | Website  | 5                                  | 80.648              |

To strengthen the interpretation of the extracted factor structure, the EFA scree plots are presented in Figures 3 and 4. The scree plot for WhatsApp Groups shows a gradual decline in eigenvalues up to the seventh component, whereas the scree plot for the website shows a sharper decline up to the fifth component

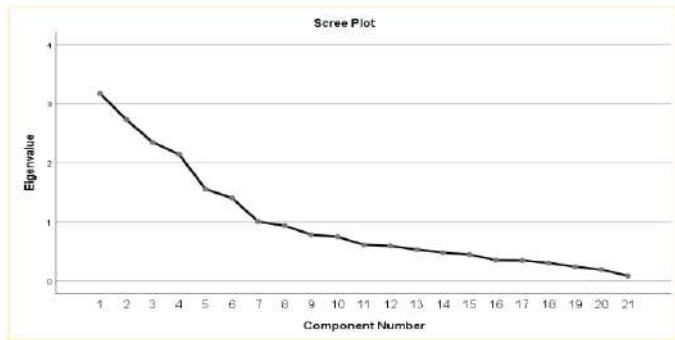


Figure 3. EFA Scree Plot for the WhatsApp Group Platform

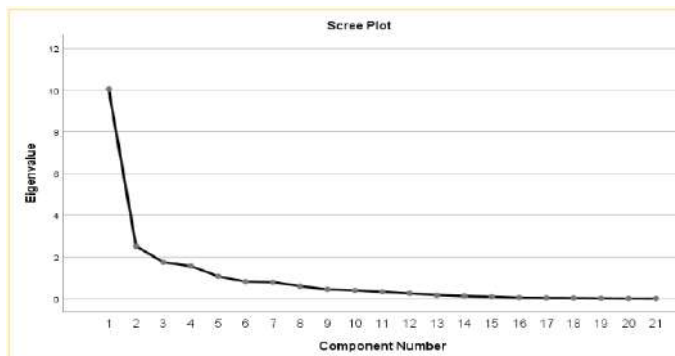


Figure 4. EFA Scree Plot for the Website Platform

Based on the EFA results, seven dominant indicators influenced media acceptance on the WhatsApp Group platform, consisting of four indicators under the Perceived Ease of Use construct and three indicators under the Perceived Usefulness construct. Meanwhile, five dominant indicators influenced user acceptance on the website platform, consisting of four Perceived Ease of Use indicators and one Perceived Usefulness indicator.

After the instrument was confirmed to be reliable and valid, the analysis proceeded to descriptive statistics to portray respondents’ perceptions of both information media. After describing the characteristics of both information media, statistical analysis was conducted to evaluate their effectiveness based on user perceptions. Descriptive statistics were computed by calculating the mean and standard deviation for each variable on the WhatsApp Group and website platforms. The descriptive results indicate that respondents’ perceptions of both media fell within a high category, with mean values ranging from 3.95 to 4.36. A summary of the mean and standard deviation values for both platforms is presented in Table 7.

Table 7. Means and Standart Deviation of User Perfections

| No | Variable                          | WhatsApp Group (Mean ± SD) | Website (Mean ± SD) |
|----|-----------------------------------|----------------------------|---------------------|
| 1  | Perceived Ease of Use             | 4.32 ± 0.58                | 4.05 ± 0.62         |
| 2  | Perceived Usefulness              | 4.01 ± 0.65                | 4.36 ± 0.54         |
| 3  | Trust and Intentions to Use       | 3.95 ± 0.71                | 4.28 ± 0.60         |
| 4  | Effectiveness & User Satisfaction | 3.98 ± 0.69                | 4.30 ± 0.57         |
| 5  | Platform Assessment               | 4.08 ± 0.64                | 4.18 ± 0.61         |

The “high category” refers to Likert scale values between 3.40–5.00, indicating positive user perceptions toward the evaluated variables. As shown in Table 7, WhatsApp Groups achieved a higher mean score for Perceived Ease of Use (4.32), indicating that respondents perceived WhatsApp Groups as easier to use than the website. Conversely, the website obtained higher mean scores for Perceived Usefulness, Trust and Intentions to Use, and Effectiveness and User Satisfaction. These results indicate that the website was perceived as more useful, more credible, and more satisfactory for disseminating PPDB information.

Subsequently, hypothesis testing was conducted to determine whether significant differences existed in user perceptions between WhatsApp Groups and the website across the investigated variables. Since the same respondents evaluated both media, differences were examined using a paired sample t-test. The paired comparison results indicate significant differences in several variables, with significance values below 0.05. A summary of the paired sample t-test results for each variable is presented in Table 8.

Table 8. Paired Sample T-Test Results Between WA Group and Website

| No | Variable                          | t      | df  | Sig. (p) | Cohen's d | Interpretation |
|----|-----------------------------------|--------|-----|----------|-----------|----------------|
| 1  | Perceived Ease of Use             | 4.215  | 135 | 0.00     | 0.36      | Moderate       |
| 2  | Perceived Usefulness              | -5.873 | 135 | 0.00     | 0.50      | Moderate Large |
| 3  | Trust and Intentions to Use       | -4.108 | 135 | 0.00     | 0.35      | Moderate       |
| 4  | Effectiveness & User Satisfaction | -5.102 | 135 | 0.00     | 0.44      | Moderate       |
| 5  | Platform Assessment               | -1.932 | 135 | 0.05     | 0.17      | Small          |

Based on Table 8, significant differences were identified for Perceived Ease of Use, Perceived Usefulness, Trust and Intentions to Use, and Effectiveness and User Satisfaction. The positive t-value for PEOU indicates that WhatsApp Groups were rated as significantly easier to use than the website. In contrast, the negative t-values for PU, Trust and Intentions to Use, and Effectiveness and User Satisfaction indicate that the website was rated as significantly superior to WhatsApp Groups in terms of usefulness, trust, and user satisfaction. Meanwhile, Platform Assessment did not show a significant difference, indicating that both media exhibited relatively comparable levels of usage intention and platform quality evaluation. Beyond statistical significance, the effect size calculation using Cohen's d indicates that differences between WhatsApp Groups and the website for Perceived Usefulness and Effectiveness and User Satisfaction fell within the moderate-to-near-large range. This suggests that the observed differences were not only statistically significant but also practically meaningful within the context of PPDB information dissemination.

Besides performing difference analysis, regression analysis was applied to explore how the key TAM constructs, Perceived Ease of Use (PEOU) and Perceived Usefulness (PU), influence

technology acceptance in the utilization of PPDB information media. The regression results indicate that both independent variables significantly influenced technology acceptance. A summary of the regression analysis results is presented in Table 9.

Table 9. TAM Regression Analysis Result

| Variable              | Beta (β) | t     | Sig. (p) |
|-----------------------|----------|-------|----------|
| Perceived Ease of Use | 0.382    | 4.918 | 0.000    |
| Perceived Usefulness  | 0.451    | 5.623 | 0.000    |

| Model Summary |                |                         |        |
|---------------|----------------|-------------------------|--------|
| R             | R <sup>2</sup> | Adjusted R <sup>2</sup> | Sig. F |
| 0.713         | 0.508          | 0.501                   | 0.000  |

Based on Table 9, the regression analysis shows that Perceived Ease of Use and Perceived Usefulness significantly affected technology acceptance ( $p < 0.05$ ). The coefficient of determination ( $R^2 = 0.508$ ) indicates that the model explained 50.8% of the variance in technology acceptance of PPDB information media. Moreover, Perceived Usefulness exhibited a higher beta coefficient than Perceived Ease of Use, indicating that perceived usefulness was a more influential determinant of technology acceptance in the context of PPDB information media

## B. Discussion

The findings indicate that both information media WhatsApp Groups and the website were generally rated within a high category in terms of user perceptions. Nevertheless, significant differences emerged across several key variables. These results suggest that although both media are accepted by users, the inherent characteristics of each platform shape perceptions and levels of acceptance in distinct ways.

For the Perceived Ease of Use (PEOU) variable, WhatsApp Groups achieved a significantly higher score than the website. This finding indicates that respondents perceived WhatsApp Groups as easier to use in the context of PPDB information dissemination. This can be attributed to the widespread use of WhatsApp in everyday communication, which minimizes the need for additional adaptation. Mobile-based accessibility and immediate notifications further reinforce the perception of ease of use. Within the Technology Acceptance Model framework, ease of use constitutes an initial driver of technology acceptance. Therefore, the high PEOU score for WhatsApp Groups aligns with TAM, which posits that the easier a system is to operate, the more

likely it is to be accepted by users. This finding is consistent with previous studies highlighting that mobile communication platforms such as WhatsApp are perceived as easy to use due to their familiarity and real-time interaction features.

In contrast, for Perceived Usefulness (PU), Trust, and Effectiveness and User Satisfaction, the website demonstrated significantly higher scores than WhatsApp Groups. This indicates that the website was perceived as more useful, more credible, and more satisfying for PPDB information delivery. This outcome can be explained by the website's function as an official information source that is structured, documented, and institutionally legitimized. Information provided through the website is typically more comprehensive, systematic, and retrievable at any time, thereby strengthening perceptions of usefulness and trust. Within TAM, perceived usefulness is a primary determinant that directly influences intention to use and technology acceptance. The regression results in this study also indicate that Perceived Usefulness exhibited a higher beta coefficient than Perceived Ease of Use, suggesting that perceived usefulness constitutes the more influential factor in shaping acceptance of PPDB information media.

The finding that Intention to Use and Platform Assessment did not differ significantly between the two media indicates that respondents generally demonstrated relatively balanced usage intentions toward both WhatsApp Groups and the website. This implies that the two media are not entirely substitutive, but rather complementary. WhatsApp Groups primarily serve as a rapid and responsive communication channel, whereas the website functions as a documented and official information hub. In the context of educational services, combining both media may enhance dissemination effectiveness by accommodating diverse user needs.

The regression analysis indicates that Perceived Ease of Use and Perceived Usefulness jointly explained 50.8% of the variance in technology acceptance. This coefficient of determination suggests that TAM provides a reasonably strong predictive capacity in explaining acceptance of PPDB information media in the primary education context. The  $R^2$  value of 0.508 indicates a moderate-to-strong explanatory power compared to previous TAM studies, which typically report values ranging from 0.30 to 0.60. This finding reinforces the relevance of TAM as a

theoretical model for evaluating educational information systems, particularly in the context of communication between schools and parents. Moreover, the results indicate that technology acceptance is not driven by a single factor, but rather by a combination of accessibility and perceived benefits.

Regarding respondent characteristics, most parents experienced time constraints due to work commitments. Consequently, media that are easily accessible via mobile devices and capable of delivering information rapidly become highly important. WhatsApp Groups address this need through direct communication and real-time notifications. However, for information that is official, structured, and requires long-term documentation, the website represents a more appropriate option. This indicates that the effectiveness of PPDB information media is strongly influenced by the alignment between media characteristics and user needs.

From a theoretical perspective, this study contributes by extending the application of the Technology Acceptance Model to the context of primary education information services, particularly within the PPDB process. The findings demonstrate that the core TAM constructs remain relevant in explaining technology acceptance, yet should be complemented with additional variables such as trust and user satisfaction to obtain a more comprehensive depiction. Practically, the findings imply that school administrators should not rely on a single information medium, but should strategically optimize the combined use of WhatsApp Groups and the website. WhatsApp Groups can be utilized for rapid communication and concise information delivery, whereas the website can function as a structured and documented official information center. Thus, the findings indicate that the effectiveness of PPDB information media is not solely determined by ease of use, but also by perceived usefulness, trust, and user satisfaction. The synergistic integration of both media has the potential to enhance the quality of educational information services and strengthen communication between schools and parents.

## V. CONCLUSION

This study compared the effectiveness of WhatsApp Groups and the website as PPDB information media at MIN 7 Tangerang using the Technology Acceptance Model (TAM) approach,

involving 136 parents as respondents. The findings indicate that both media were generally well accepted, yet demonstrated different advantages across several key variables. WhatsApp Groups were rated superior in terms of Perceived Ease of Use, whereas the website was rated superior in terms of Perceived Usefulness, Trust, and Effectiveness and User Satisfaction. These findings indicate that the website is more effective as an official, structured, and credible information source, while WhatsApp Groups are more effective as a rapid communication medium with high usability. In addition, the regression analysis indicates that Perceived Ease of Use and Perceived Usefulness significantly influenced technology acceptance in the context of PPDB information media. Perceived Usefulness exerted a stronger influence, indicating that the perceived informational benefit constitutes the primary factor driving acceptance of PPDB information media.

Based on these results, schools are advised to optimize both media in a complementary manner. WhatsApp Groups can be leveraged as a rapid and responsive communication channel, while the website should be used as a documented official information hub. The integration of these two media is expected to enhance the effectiveness of PPDB information dissemination, strengthen user trust, and increase parents' satisfaction with the school's information services. This study has limitations, namely its focus on a single school and a single PPDB period; therefore, the findings cannot be broadly generalized. Future studies are recommended to involve more schools, compare diverse user characteristics, and examine broader technology acceptance models such as UTAUT, or integrate TAM with system quality and information quality variables.

#### REFERENSI

- [1] M. Yansyah, M. Darip, and A. Sapaatullah, "Transformasi Digital Penerimaan Siswa Baru di SDN Ragas I Berbasis Framework Laravel," *Jurnal Riset dan Aplikasi Mahasiswa Informatika (JRAMI)*, vol. 6, no. 02, pp. 307–316, Apr. 2025, doi: 10.30998/jrami.v6i02.11176.
- [2] "Website Resmi MIN 7 Tangerang." Accessed: Feb. 16, 2026. [Online]. Available: <https://min7tangerang.sch.id/>
- [3] Pujiyanto, E. M. Sila, and M. A. Priad, "Sistem Informasi Penerimaan Siswa Baru Di Sekolah Dasar Negeri 3 Rakuti Basuki Berbasis Website," *Jurnal Ilmiah Sistem Informasi*, vol. 3, no. 2, Oktober 2024.
- [4] R. Abineriq, "Grup Whatsapp Sebagai Sarana Diskusi Pada Panturapost (Studi Penggunaan Media Baru)," vol. 1, no. 2, pp. 33–45, Jan. 2021.
- [5] M. Marini, S. Sarah, and A. T. A. A. Siahaan, "Perancangan Sistem Informasi Profil dan Berita Berbasis Web pada Bagian Kesejahteraan Rakyat Kantor Bupati Kabupaten Deli Serdang," *Jurnal Ilmiah Teknik Mesin, Elektro dan Komputer*, vol. 5, no. 3, pp. 356–365, Dec. 2025, doi: 10.51903/juritek.v5i3.6095.
- [6] M. A. Suwandi, M. Y. Mapeasse, and S. Syahrul, "Analisis Pemanfaatan SYAM-OK Menggunakan Metode Technology Acceptance Model (TAM) Di Jurusan Teknik Informatika Universitas Negeri Makasar," *j.pendidikan*, vol. 1, no. 1, p. 32, Sep. 2021, doi: 10.59562/progresif.v1i1.27534.
- [7] H. Agustina, "Analisis Penerimaan E-Learning Madrasah Di MAN 2 Tulungagung Menggunakan Technology Acceptance Model (TAM)," undergraduate, UPN Veteran Jawa Timur, 2024. Accessed: Feb. 16, 2026. [Online]. Available: <https://repository.upnjatim.ac.id/20475/>
- [8] Dedy, M. Sari, and F. Balang, "Penerapan Technology Acceptance Model (TAM) dalam Adopsi Fintech oleh UMKM di Wilayah Perbatasan Indonesia-Malaysia," *Valid Jurnal Ilmiah*, vol. 23, no. 1, pp. 64–78, Desember 2025, doi: 10.53512/valid.v23i1.595.
- [9] N. Hidayah and J. W. Fernanda, "Analisis Penerimaan Aplikasi Pembelajaran Online Menggunakan Technology Acceptance Model 3 Dan Partial Least Square Structural Equation Model (PLS-SEM)," *Focus ACTION Of Research Mathematic*, vol. 3, no. 2, pp. 161–172, Jun. 2021, doi: 10.30762/factor-m.v3i2.3097.
- [10] M. Ramchander, "The Influence of Entrepreneurial Education on Entrepreneurial Intentions of Business Students at the Durban University of Technology," *Journal of Entrepreneurship Education*, vol. 24, no. 3, Mar. 2021, Accessed: Feb. 16, 2026. [Online]. Available: <https://www.abacademies.org/abstract/the-influence-of-entrepreneurial-education-on-entrepreneurial-intentions-of-business-students-at-the-durban-university-o-10332.html>
- [11] H. Riyadi, R. I. Bakho, and J. N. Utamajaya, "Analisis Pengaruh Kualitas Website PPDB Online Terhadap Kepuasan Operator Sekolah Dasar (Studi Kasus Disdikpora Kab. Penajam Paser Utara)," *INFORMASI (Jurnal Informatika dan Sistem Informasi)*, vol. 16, no. 2, pp. 217–230, Oct. 2024, doi: 10.37424/informasi.v16i2.312.
- [12] A. Khusairi and I. Dianto, "Ruang Percakapan Digital Sebagai Limbah Informasi: Analisis terhadap Pengalaman di Media WhatsApp Group," *Ittishol: Jurnal Komunikasi dan Dakwah*, vol. 2, no. 2, pp. 174–201, Dec. 2024.
- [13] R. F. Denovan and E. G. Marsasi, "Perceived Ease Of Use, Perceived Usefulness And Satisfaction To Maximize Behavioral Intention With The Technology Acceptance Model In Generation Y And Z Consumers," *Jurnal Pamator : Jurnal Ilmiah Universitas Trunojoyo*, vol. 18, no. 1, pp. 1–36, Mar. 2025, doi: 10.21107/pamator.v18i1.29461.
- [14] A. Izzudin, C. Y. Y. S, A. C. Ramadhini, and V. R. Aulia, "Penerimaan Teknologi Chatbot Shopee Oleh Konsumen: Studi Kasus Pada Platform E-Commerce Di

- Indonesia,” *Kohesi: Jurnal Sains dan Teknologi*, vol. 8, no. 7, pp. 141–150, Jun. 2025, doi: 10.2238/tw0mps46.
- [15] A. I. Susilawati and Y. Suhari, “Penerapan Technology Acceptance Model (TAM) Untuk Menganalisis Penerimaan Pengguna Terhadap Aplikasi Tatapraja,” *INTECOMS: Journal of Information Technology and Computer Science*, vol. 6, no. 2, pp. 687–692, Sep. 2023, doi: 10.31539/intecom.v6i2.6897.
- [16] N. H. Arfizeah, Risnawati, M. Rizqa, V. Novita, and M. F. Hamdani, “Mengukur Validitas Dan Reliabilitas Instrumen Penelitian Minat Belajar PAI Siswa SMP Negeri 2 Kampar Kiri,” *Pendas: Jurnal Ilmiah Pendidikan Dasar*, vol. 10, no. 04, pp. 279–291, Dec. 2025, doi: 10.23969/jp.v10i04.37104.
- [17] A. S. Depari, H. Hijriah, and H. R. D. Putri, “Perancangan Media Digital Sebagai Strategi Promosi Penerimaan Peserta Didik Baru (PPDB) Pada Era Modern,” *Pengabdian Masyarakat dan Inovasi Teknologi (DIMASTEK)*, vol. 3, no. 01, pp. 121–126, Apr. 2024, doi: 10.38156/dimastek.v3i01.71.
- [18] S. Z. Gelo, L. N. Amali, and M. Polin, “Penerapan Technology Acceptance Model (TAM) Dalam Menganalisis Penerimaan Aplikasi E-kinerja Pada Dinas PUPR Kota Gorontalo,” vol. 4, no. 1, Jan. 2024.