

Analysis of the Acceptance of the Indonesia Pintar Programme Website using the Technology Acceptance Model (TAM) Among Administrative Staff at Pangeran Antasari Vocational High School Balikpapan

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Abstract

Advances in information technology have driven the digitisation of educational services through the Indonesia Pintar (PIP) Programme website to support the administration of educational assistance in schools. However, its implementation still faces challenges, such as an unreliable login system, a lack of awareness-raising, and differences in user perceptions. This study aims to analyse the level of acceptance of the Indonesia Pintar (PIP) Programme website amongst administrative staff at SMK Pangeran Antasari in Balikpapan using the Technology Acceptance Model (TAM) approach. The study employed a descriptive qualitative method utilising interviews, observation and documentation, which were subsequently analysed using the Miles and Huberman model. The results indicate that the website has been accepted by users and assists with the administration and management of beneficiary data. In terms of Perceived Ease of Use, the website is considered reasonably easy to use, although there is still a need for improved awareness-raising and feature enhancements. Regarding Perceived Usefulness, the website is seen to improve work efficiency, although some administrative staff still use Microsoft Excel. Consequently, improvements to the systems's quality and user training are required to optimise the website's implementation.

Keywords: *Technology Acceptance Model (TAM); the Indonesia Pintar Programme (PIP); Website; User Acceptance; Perceived Ease of Use; Perceived Usefulness.*

1. Introduction

The development of information technology in this digital age has transformed many aspects across various fields, including the world of education. The use of information technology aims to enhance effectiveness, efficiency, transparency and ease of access to public services. Therefore, education plays a vital role in people's lives and must not be overlooked in the face of a highly competitive world. In the field of education, the government has various assistance programmes to expand access to education for the public by providing direct assistance to pupils, known as the Indonesia Pintar Programme. According to [1], the Indonesia Pintar Programme is a conditional cash transfer (CCT) scheme allocated to pupils from families classified as underprivileged. To support the implementation of this programme, the government provides a web-based platform utilised by schools for data collection, verification, monitoring and the management of beneficiary data. The school's primary role is to ensure that the assistance provided is targeted appropriately and is capable of improving the quality of education for underprivileged pupils [2]. Pangeran Antasari Vocational High School in Balikpapan is one of the educational institutions that also supports the Indonesia Pintar Programme. In this process, administrative staff play a crucial role in entering student data, organising administrative documents, verifying information, and submitting reports relating to the PIP via the official website provided by the government; however, users sometimes encounter difficulties in navigating the menus and understanding the system interface. Although the Indonesia Pintar Programme website has been implemented as a tool for digital administration, not all users find the system easy to use or helpful in their work. It is still possible that some administrative staff face difficulties when using the website, such as a complicated data entry process, a slow-running system, and unclear data navigation, as the funds are channelled through accounts directly allocated to students [3], thus requiring valid data. Consequently, an analysis is required to understand how satisfied users are with this website based on their views regarding the system's ease of use and benefits. If user willingness to use the system is low, there is a risk that the system developed will not be utilised to its full potential.

This research is essential because the Indonesia Pintar Programme website plays a direct role in the management of educational assistance for pupils. This involves a process of data collection carried out by administrative staff, followed by the identification of recipients, the disbursement of funds, and monitoring and evaluation. The PIP serves as a public policy tool to ensure that every child receives their right

to a good education [4]. Consequently, as administrative staff are the individuals who use the system directly, their level of comfort with and acceptance of the website significantly influences the success of the system's implementation in schools. By understanding the level of user acceptance of the website, schools and relevant agencies can evaluate the system, provide additional training, and improve the quality of the website's services to better meet users' needs.

This study, which utilises the Technology Acceptance Model (TAM) as its analytical framework, employs a widely used method for measuring user acceptance of a technology based on two main variables: Perceived Usefulness and Perceived Ease of Use. This study aims to determine the level of acceptance of the Indonesia Pintar Programme website amongst administrative staff at SMK Pangeran Antasari in Balikpapan in supporting school administrative activities.

2. Literature review.

2.1. Previous research

In this section, the researcher includes a number of previous research findings relevant to the study to be conducted, and then summarises them. Previous research represents the researchers' efforts to draw comparisons and generate new ideas for future research. Furthermore, existing studies also support the research by helping to demonstrate its originality. Previous research has shown that the Technology Acceptance Model (TAM) approach is frequently used to assess how technology is accepted, including in e-learning, educational information systems, and public service websites. However, studies specifically focusing on the acceptance of the Indonesia Pintar Programme website remain limited; therefore, this study aims to fill this gap. The following presents several previous studies related to the topic analysed by the author.

A study by [5], entitled 'Analysis of the Acceptance of a Web-Based Engineering Application for Public Complaints Services Using the Technology Acceptance Model', aimed to assess the extent to which users accepted the web-based application for public complaints services at P2TP2A-LIP, using the Technology Acceptance Model (TAM) approach. The results of the study indicate that perceptions of the benefits and ease of use influence the acceptance of the system, meaning that the application is considered capable of improving services. Furthermore, Kadek [6] conducted a study entitled "ANALYSIS OF INFORMATION SYSTEM ACCEPTANCE USING THE TECHNOLOGY ACCEPTANCE MODEL (CASE STUDY: SIJALAK IN POHSANTEN VILLAGE, JEMBRANA REGENCY, BALI PROVINCE)".

The aim of the study was to determine the extent to which staff at the Pohsanten Village Office accepted the use of the SIJALAK website for public administrative services, using the Technology Acceptance Model (TAM). The results showed that the variables of perceived usefulness, perceived ease of use, attitude towards use, and behavioural intention to use had a positive impact on system acceptance. Meanwhile, actual use did not show a significant influence, as the system was only used when required for administrative purposes. In a study conducted by [7] entitled "Analysis of User Satisfaction Levels with the pupr.jambiprov.go.id Website Using the Technology Acceptance Model (TAM)". This study employed a quantitative approach by collecting questionnaire data distributed to website users, which was then analysed using Structural Equation Modelling (SEM) with the aim of analysing the factors that play a role in determining the level of satisfaction and user acceptance of the website pupr.jambiprov.go.id using the Technology Acceptance Model (TAM). The results of the study indicate that perceived usefulness, attitude towards use, and intention to use fall into the 'fairly high' category, whilst perceived ease of use remains relatively low; however, overall, users are fairly satisfied with the website's functionality.

2.2. Theoretical basis

The theoretical framework refers to a collection of definitions, concepts and theories drawn from various sources and used as the basis for the research. The theories applied in this study were selected because of their direct relevance to the system under investigation. This theoretical framework provides a solid foundation for analysing user acceptance of the Indonesia Pintar (PIP) Programme website amongst administrative staff at SMK Pangeran Antasari in Balikpapan.

2.2.1. The indonesia pintar programme

The Indonesia Pintar Programme (PIP), through the Indonesia Pintar Card (KIP), provides according to the National Team for the Acceleration of Poverty Alleviation (TNP2K) cash assistance for education to all school-age children between 6 and 21 years of age who come from families holding a Family Welfare Card (KKS) or who meet pre-determined criteria. The Indonesia Pintar Programme is an evolution of the Assistance for Poor Students Programme (BSM), which is designed to provide educational support and to promote equitable access to education for all pupils in Indonesia, with the primary aim of preventing pupils from dropping out of school [8].

2.2.2. Technology acceptance model

The Technology Acceptance Model (TAM) is a model that describes the acceptance of information technology systems by their users; it was introduced by Fred Davis. TAM explains that user acceptance is influenced by two main factors, namely perceived ease of use and perceived usefulness, which in turn influence users' attitudes and intentions regarding the use of a system..

2.2.3. Website

A website is a collection of pages within a single domain that contain information. Websites are used as a medium for conveying information, communicating and providing digital services; they are divided into three types: static, dynamic and interactive websites. Therefore, user acceptance of a website is crucial to ensure the system can be used to its full potential.

2.3. Theoretical framework

The theoretical framework provides an overview of the relationships between the variables that form the basis of the research. In this study, the theoretical framework was developed with reference to the Technology Acceptance Model (TAM) introduced by Davis in 1989. It is

important to understand this because the evaluation of technology will determine how a person assesses it and what impact arises from an individual's views on technology, as well as other factors relating to attitudes towards computer technology. The TAM approach comprises concepts including [9]

1. Perceived usefulness (PU)
Perceived usefulness refers to users' perceptions of the benefits of the Indonesia Pintar Programme (PIP) website in assisting with school administrative tasks. The greater the benefits perceived by users, the higher their level of acceptance of the system will be.
2. Perceived ease of use (PEOU)
Perceived ease of use refers to users' perceptions of how easy the Indonesia Pintar Programme (PIP) website is to use. A user-friendly system will make it easier for users to carry out administrative tasks.
3. Attitude toward using (ATU)
Attitude toward using refers to users' attitudes towards using the Indonesia Pintar Programme (PIP) website, whether positive or negative.
4. Behavioural intention to use (BI)
Behavioural intention to use refers to users' desire or intention to continue using the Indonesia Pintar Programme (PIP) website for school administrative activities.
5. Actual system use (AU)
Actual system use refers to the actual use of the Indonesia Pintar (PIP) Programme website by administrative staff in their day-to-day administrative activities.

3. Research methodology

This study employed a qualitative method with a descriptive approach and was conducted at SMK Pangeran Antasari in Balikpapan. The research subjects were administrative staff who use the Indonesia Pintar (PIP) Programme website; they were selected through purposive sampling as they are directly involved in managing the system. Data collection was carried out through semi-structured interviews, observation of the website usage process, and documentation in the form of photographs of activities, system screenshots and supporting documents to supplement the research data.

3.1. Types of research

This study employs a qualitative method with a descriptive approach. This approach was chosen to gain an in-depth understanding and an overview of users' experiences in using the Indonesia Pintar (PIP) Programme website. According to [10], this descriptive qualitative research is expected to yield detailed research findings and provide a structured, realistic representation and in-depth analysis of the data sources available in the field.

3.2. Research subjects and location

This study was conducted at SMK Pangeran Antasari Balikpapan, located at Jalan Mayjen Sutoyo RT.38 No. 01, Klandasan Ilir Village, Balikpapan Kota Sub-district, East Kalimantan Province. The research location was chosen because the school utilises the Indonesia Pintar (PIP) Programme website to manage the administration of educational grants.

The subjects of this study were administrative staff at SMK Pangeran Antasari in Balikpapan. They were selected because they play a direct role in the use of the system that is the focus of this study. The sampling technique used was total sampling, in which all members of the population were included in the study sample.

3.3. Data collection techniques

Data collection techniques are a crucial step in research, enabling researchers to address all issues and obtain accurate data in the field. In this study, the following data collection techniques were used:

3.3.1. Interview

An interview is a data collection technique involving a question-and-answer process between the researcher and the informant. Qualitative interviews are conducted to gain a deeper understanding of an individual's experiences, perspectives and viewpoints regarding the phenomenon under investigation [11]. Using this interview method, researchers are able to obtain detailed information that is relevant to the research objectives.

3.3.2. Observation

Observations were carried out by the researcher recording observations of the behaviour and activities of the research subjects [12]. This technique was used to identify emerging issues and to collect data that reflected the conditions in the field.

3.3.3. Documentation

According to [13], documentation serves as an additional reference to reinforce the accuracy of data by referring to existing documents or records. Documentation is used to supplement data obtained from interviews and observations.

3.4. Data analysis techniques

The data obtained through interviews, observation and documentation were then analysed using Miles and Huberman's qualitative data analysis model. This technique was chosen to generate data that provides an in-depth understanding of the phenomenon under study and which cannot be quantified statistically. The analysis process begins as soon as data collection takes place and consists of three key, interrelated stages: data reduction, data presentation, and drawing conclusions or verification [14].

4. Results and discussion

4.1. Website engagement rates for the indonesia pintar programme

Based on interviews conducted with two administrative staff members, they responded positively to the use of the Indonesia Pintar Programme (PIP) website. The website is used as a tool to manage data on recipients of educational assistance and to support administrative processes at the school. Informant 1 stated that, "Logging in is a bit tricky; sometimes it works, sometimes it doesn't." Nevertheless, Informant 1 said they were still willing to use the Indonesia Pintar Programme website. Meanwhile, Informant 2 explained that, "This website makes it easy to access data on students who have been nominated and awarded grants. I am also willing to continue using this website." Observations revealed that both administrative staff members were able to access the Indonesia Pintar Programme website and use its features in accordance with their duties in managing data on Indonesia Pintar Programme beneficiaries. Documentation of an interview with one of the informants is shown in Figure 1



Fig. 1: Documentation of Interview Activities

Through interviews, observations and documentation, it became apparent that the Indonesia Pintar (PIP) Programme website had been positively received by both informants. Although there were some difficulties with the login process, both informants were still willing to use the website as they considered it to support the performance of administrative tasks relating to the management of educational grant recipient data. This is in line with research [15] which indicates that a web-based system is capable of facilitating the process of recommending recipients for the Indonesia Pintar (PIP) Programme more efficiently.

4.2. Perceived Ease of Use

The Indonesia Pintar Programme website is considered fairly user-friendly, although there are still some issues with its use. Informant 1 stated that, "It's easy to use but there hasn't been enough guidance, so you have to learn on your own." Informant 2 also remarked that, "The PIP website is easy to learn; the menus and features are also easy to understand." However, Informant 2 felt that there was a lack of clarity regarding the information on the status of fund disbursements as displayed on the system. During the observation period, both informants were already familiar with the Indonesia Pintar (PIP) Programme website, although they had learnt to use it independently (self-taught). This was evident from their ability to access the necessary menus whilst carrying out administrative tasks. Screenshots of the home page and login page of the Indonesia Pintar (PIP) Programme website can be seen in Figure 2 and Figure 3



Fig. 2: Homepage of the indonesia pintar programme website

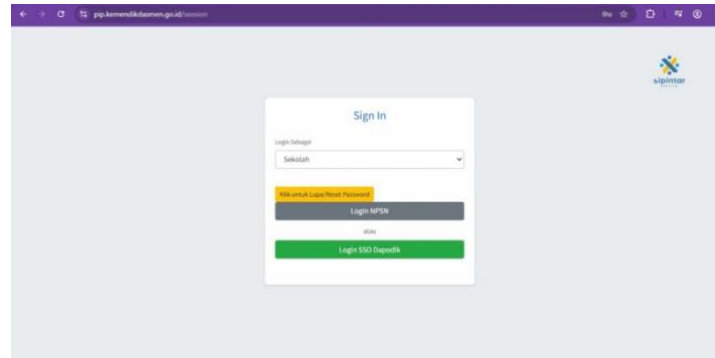


Fig. 3: Loginpage of the indonesia pintar programme website

The research findings indicate that the Indonesia Pintar Programme website offers a reasonably good level of user-friendliness. Both informants were able to understand the website's navigation, but there is still a need to improve awareness-raising regarding the website's use so that users have a better understanding of how the system works. This view is consistent with the findings of a [16], which states that outreach efforts for the Indonesia Pintar Programme (PIP) have not yet yielded optimal results; therefore, the participation of all parties is required to support the successful implementation of the programme.

4.3. Perceived Usefulness

The way the Indonesia Pintar Programme website is used provides varying benefits for both informants, based on their experiences of using the system. Informant 1 stated that, "It's of little use, because we're still required to submit data via Excel, so it's like doing the work twice." This situation is supported by research [17], which states that the preparation of summary reports on Indonesia Pintar Programme funds is still carried out using Microsoft Excel based on data received from each school.

According to Informant 1, the benefits of the website are felt more as a means of accessing information about the disbursement of grants rather than as the primary system for data management. On the other hand, Informant 2 explained that, "The benefits are that it lightens and simplifies the workload, making the work more efficient."

The results of the observations show that the Indonesia Pintar (PIP) Programme website is used by both informants to assist in managing data on recipients of educational aid. To support these observations, screenshots of the student data display are shown in Figures 4 and 5

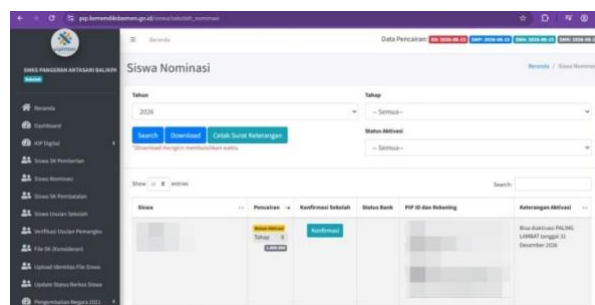


Fig. 4: Student Data Display

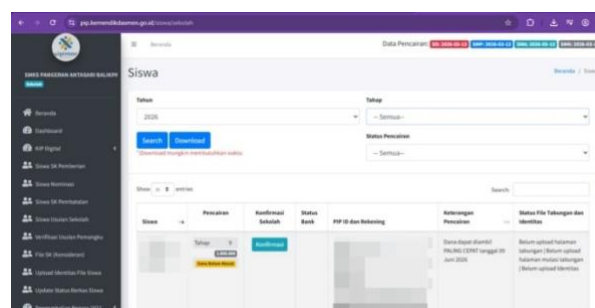


Fig. 5: Student Data Display

Overall, the interviews, observations and documentation indicate that the Indonesia Pintar (PIP) Programme website provides different benefits to the two informants. Informant 1 believes that the website's usefulness remains limited because some administrative processes still require additional steps, whilst Informant 2 considers that the website can simplify the management of beneficiary data and improve efficiency in administrative work. This difference in perspective suggests that the benefits of the website are influenced by individual experience and needs in carrying out administrative tasks.

5. Conclusion

This study shows that the Indonesia Pintar Programme (PIP) website has been used by administrative staff to support the management of data on recipients of educational assistance at SMK Pangeran Antasari in Balikpapan. In general, the website has been well received by

users, although there are still some issues with the login process. In terms of ease of use, both informants were able to understand how to use the website; however, training on the procedures for using the system still needs to be improved. In terms of usefulness, the two informants perceived the benefits of the website differently. One informant considered that the website did not yet fully support the entire administrative process, whilst the other informant considered that the website was able to simplify their work and improve efficiency in managing data on grant recipients.

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