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## Analysis to Determine the Acceptance and Readiness of Rural Communities to Adopt Padu System

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### Abstract

As digitalization spreads across sectors, rural communities' preparedness to accept technological breakthroughs like System Pangkalan Data Utama (PADU) becomes critical for fair development. The purpose of this research is to examine rural communities' readiness to implement PADU, a centralised database system designed to expedite administrative operations and enhance data management. This study uses qualitative approaches to analyse the socioeconomic, infrastructure, and cultural elements that influence rural residents' preparedness. Purposive sampling is used to collect data from various rural areas, taking into account the viewpoints of inhabitants, community leaders, and local authorities. Thematic analysis reveals significant themes influencing rural communities' preparedness for PADU adoption. These topics include access to technology and digital infrastructure, levels of digital literacy, cultural attitudes toward technology, the perceived advantages and obstacles of implementing PADU, and the role of community participation and support. The findings show that degrees of preparation differ throughout rural areas, depending on factors such as geography, educational opportunities, and existing infrastructure. While some communities are enthusiastic about PADU adoption, others have misgivings regarding data privacy, technical reliance, and compatibility with existing systems. The consequences of these findings highlight the significance of targeted approaches to technology adoption in rural areas. Policy proposals include investing strategically in digital infrastructure, providing training and capacity-building programmes, promoting community alliances, and including local viewpoints in PADU design and implementation. Understanding rural communities' willingness to embrace PADU allows policymakers and stakeholders to establish policies to promote inclusive and sustainable digital transformation, encouraging socioeconomic development and empowerment in rural regions.

## 1. Introduction

PADU is Malaysia's new digital database, which provides extensive and trustworthy data for policymaking. It saves utility statistics and other data, with the goal of becoming a single system that consolidates data from many government departments. Registering ensures that eligible persons get targeted benefits, such as subsidies and support. PADU's goals include improving government services, optimising resources,

economically empowering society, and closing socioeconomic disparities.

Several systems, such as MySejahtera and eKasih, have helped Malaysians, particularly in rural regions, demonstrating ICT's critical role in many parts of life. However, rural areas confront obstacles such as inadequate communication networks and access to services. Understanding their readiness for PADU implementation is critical, particularly in developing countries. This study aims to measure rural community preparedness in Linggi, Negeri Sembilan, Malaysia, utilising data analytic tools such as a Word cloud generator and Microsoft Excel.

Rural communities, including Linggi, frequently struggle to adjust to new government structures. This study looks on Linggi's readiness to apply PADU, emphasising on their willingness and acceptability to adopt the system. Understanding Linggi's preparedness is critical for identifying potential hurdles and enablers to effective deployment. Investigating PADU acceptability in Linggi will show community opinions about the system, including concerns about data privacy and security. This study intends to help policymakers and implementers establish effective methods for equal access and favourable results, while also contributing to inclusive government and citizen involvement.

This study looks into the readiness of rural areas, such as Linggi, to embrace System Padu, which addresses a major social issue. The research seeks to address gaps in the current literature by investigating how these societies adopt information technology. It employs a qualitative method, collecting standardised tests and longitudinal data to give strong evidence.

## 2. Literature Review

There are a few challenges that account for women's lag in business development. Said et al acknowledged the structural differences between men and women entrepreneurs despite having the same business processes. Furthermore, women entrepreneurs lack experience and are mostly involved in less profitable sectors. Hence, despite their quantitative survey results show that female entrepreneurs score higher on average for entrepreneurial orientation, product service innovation and marketing strategy, these qualities are against their literature reviews on the lower rate of women success.

A mixed method study conducted by Omar et al (2014) found that women entrepreneurs with the following criteria: low income, micro-enterprise business in service sector reported that they have to tolerate the loss of daily income if they are to join any training. 85% of women entrepreneurs in this study also reported childcare as their inhibitor from joining training programs. Studies have been looking at entrepreneurship development from them.

Hence the classical debate in psychology comes in: are successful entrepreneurs born with these characteristics or are they developed? Contemporary psychologists believe that as much as psychological profiles can be inherited through genetics, there is a very remarkable chance for the developmental process to alter the psychological profile.

### 2.1 PADU

PADU is a system that provides individual and household profiles for Malaysian citizens and permanent residents aged 18 and up. This profile information will be updated regularly by integrating administrative data from many sources. Citizens can use this ecosystem to access and edit information directly in the PADU system.

The goals of this system are to prepare the country's major database safe, comprehensive, and "near real-time" for periodic analytics and digitalization without leakage. The other goals include data-driven policy development and decision-making procedures. Finally, the budgetary position should be balanced by focused policy execution. The purpose of this system is to increase the efficiency with which the government delivers services. Not only that but to execute reinforcement with little resources. Also, to empower the social system by improving economic and human well-being. The most crucial component is bridging the socioeconomic divide by satisfying people's demands while balancing progress.

In these studies, the researcher will be using qualitative methods to collect data analysis on how the

communities in the rural areas determine the readiness of rural communities to adopt System Padu as we know that this system is new to the communities and how they adapt and accept it.

## 2.2 Core Readiness

Core readiness in research refers to the essential knowledge, skills, and attitudes that a researcher needs to possess to successfully conduct a research project. It encompasses various aspects. According to Alarabiat, A., & Wahbeh, N. (2021), in their previous articles, the research purpose is to explore citizens' acceptance factors for e-participation initiatives through Facebook, providing insights into citizen beliefs, technological capabilities, and expected outcomes in predicting citizens' acceptance behavior toward e-participation. This study is relevant as it delves into the factors influencing citizen acceptance of e-participation initiatives, which is crucial for understanding citizen readiness and acceptance of new governance systems. (Alarabiat & Wahbeh, 2021).

According to Kasim and Sofia (2021), the researchers explore the acceptance of information technology, specifically the MySejahtera app, among older adults in Kedah during the COVID-19 pandemic. It investigates the factors influencing acceptance, such as perceived usefulness, ease of use, and user satisfaction. The study also examines the relationship between residential areas and the type of network used by older adults. The research methodology involves a quantitative approach using the Statistical Package for Social Science (SPSS) system for data analysis. The findings indicate a positive relationship between perceived usefulness, ease of use, and user satisfaction with the acceptance of MySejahtera apps. Additionally, the study highlights the impact of digital health initiatives on socioeconomic inequalities and the need for targeted interventions to address disparities in access to technology.

According to Rusli et al (2022), in their previous research, the involvement of the elderly in the digital environment was detected to be somewhat limited to health purposes without enjoying the advantages in terms of searching for information that provides information on various platforms. Perceptual confusion and distrust of new and modern things are also acknowledged to have created obstacles for the elderly to use technology devices. Most of the elderly are not IT literate, overshadowed by the perception of exposure to negative information that can be derived from trusting himself who said the medicine from the clinic was too expensive and ineffective. Various scams and the spread of wrong information have also created fear and mistrust towards the function of this health application.

According to Rana et al. (2015) in the article, they emphasized the policy emphasis on reaching out to rural areas and incorporating inputs from non-government organizations and the private sector in the implementation of IT systems and information and communication technology (ICT). These references shed light on the importance of considering rural areas in the adoption of e-government applications. Moreover, the researchers explored citizens' acceptance factors for e-participation initiatives through Facebook, providing insights into citizen beliefs, technological capabilities, and expected outcomes in predicting citizens' acceptance behaviour toward e-participation (Alarabiat & Wahbeh, 2021). This study is relevant as it delves into the factors influencing citizen acceptance of e-participation initiatives, which is crucial for understanding citizen readiness and acceptance of new governance systems. In conclusion, the readiness and acceptance of citizens in rural areas towards new governance systems, particularly e-government applications, is a multifaceted issue that requires a comprehensive understanding of factors influencing adoption and acceptance.

The past researchers found that the respondents had a positive view of accepting the use of ICT for educational purposes. Comparing between constructs, the majority of the students had higher mean values and standard deviations for facilitating conditions, followed by social influence, performance expectancy, and effort expectancy (Halili and Sulaiman, 2019). Venkatesh et al. (2003) reported that performance expectancy is the most influential construct based on his Unified Theory of Acceptance and Use of Technology (UTAUT) model, however, the current study found that facilitating conditions were more influential in using ICT among rural students.

## 2.3 Unified Theory of Acceptance and Use of Technology (UTAUT)

The acronym UTAUT stands for the Unified Theory of Acceptance and Use of Technology. It is a theoretical framework that combines eight key research theories on individual technology adoption and use. UTAUT has been widely used and expanded in research to better understand and forecast technology uptake and usage in a variety of situations, both organisational and non-organizational. The idea includes components like performance expectancy, effort expectancy, social influence, and enabling environments, which all impact behavioural intention and actual technology usage (Venkatesh et al., 2016). Overall, the advantages of UTAUT are its ability to provide a strong and adaptable framework for studying technology acceptance and use, its versatility in a variety of contexts, and its potential for integration and extension to improve understanding of individual technology adoption and usage behaviour (Venkatesh et al., 2016).

## 3. Methodology

### 3.1 Research Design

In Linggi, Negeri Sembilan, this study investigated how technologically prepared rural communities were for the PADU system using a qualitative methodology. In-depth participant perspectives were gathered through semi-structured interviews. These interviews enable flexible inquiry, help to overcome language hurdles, and use audio recordings to guarantee the accuracy and completeness of the data. In addition, researchers addressed biases, preserved respondent motivation, and took into account a number of variables influencing the consistency and quality of the data. The advantages of semi-structured interviews for gathering thorough and pertinent data for qualitative research have been demonstrated by earlier studies. All things considered; this survey offers insightful information on how rural people see the preparedness of the PADU system. Chapter 3 describes the method for the study. In this chapter, the research design, the research sampling, the interview protocol, and the interview process are discussed.

### 3.2 Research Sampling

Village chiefs who have strong ties to the people living in the Linggi region were selected as responders for this study. For economical and practical considerations, this location was chosen. A diversity sampling technique was used in the study, which is advised for conducting semi-structured interviews. Snowball sampling is a technique that Kirchherr and Charles (2018) propose to be utilised in qualitative social research. Participant referrals from ongoing participants are used to find new participants. This approach is useful for reaching difficult-to-reach populations, such those who are dispersed over big regions or who are stigmatised by society. To participate, participants might need to have confidence. Because of its simplicity and versatility, snowball sampling is highly desired in communities with low numbers, poor mobility, or high transience.

### 3.3 Research Sampling

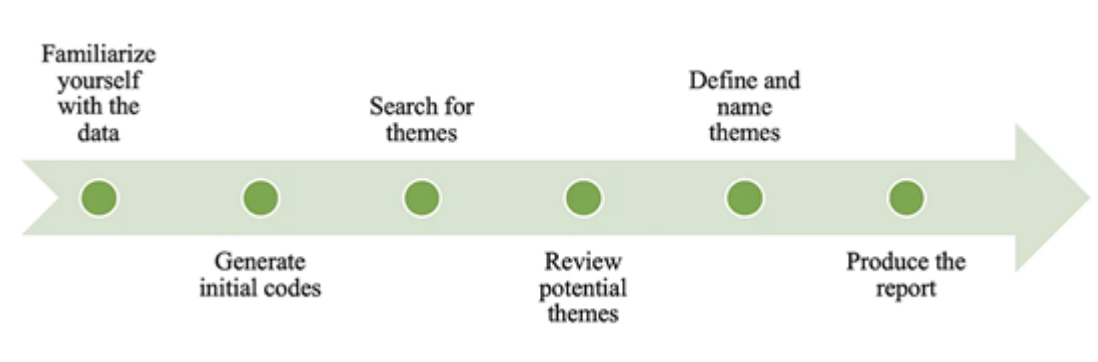
#### 3.3.1 Research Participant

The study objectives and body of knowledge on new system readiness were taken into consideration while crafting the interview questions. These inquiries aimed to comprehend the functions, difficulties, and recommendations for the future concerning the investigation of rural areas' technological preparedness for the PADU system. Since village chiefs are the primary liaisons between the government and the Linggi populations, all materials were developed in English. They are also dependable delegates who understand the customs of their communities. Four distinct villages, namely Kampung Tampin Linggi, Kampung Sawah Sunggala, Kampung Sungai Raya, and Kampung Pengkalan Durian, were represented by their village chiefs.

#### 3.3.2 Data Analysis Approach

Finding patterns (themes) in data is often accomplished in qualitative research through the use of thematic analysis. The first step for researchers is to fully examine and evaluate the data in order to comprehend its substance. After that, they establish preliminary codes by determining crucial terms or expressions associated with their study objectives. Based on related ideas or concepts, these codes are arranged into

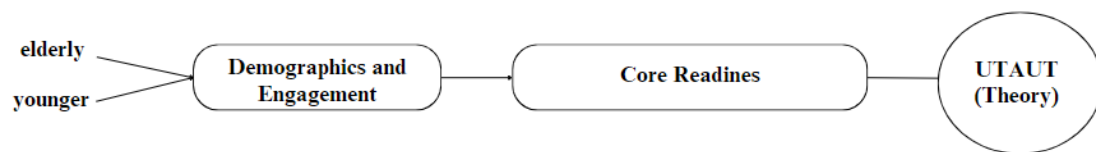
possible themes. To properly portray the data, researchers hone these themes. They then recognise and classify themes, which serve as the foundation for interpretation and analysis. Lastly, researchers summarise their results in a report that includes quotes or examples from the data along with explanations for each topic. Thematic analysis provides in-depth accounts of participants' experiences and is a versatile and organised method for revealing patterns in qualitative data.



*Figure 1.0 Process of Thematic Analysis for this study*

#### 4. Findings and Discussion

In terms of core readiness among rural communities towards system PADU this theme focuses on factors such as elderly and younger people surrounding technology adoption within rural communities toward accepting and utilizing the PADU system.



*Figure 2: Framework of this study*

The data framework as in Figure 2 in this research consists of four criteria: code, categories, theme, and theory. This investigation obtained four distinct codes, including one for coding details, one for categories, one for themes, and one for theory. This study aims to investigate the impact of elders and younger people on the technical preparedness of rural communities for adopting the PADU system. To do this, the study will incorporate UTAUT concepts into the analytical process.

In qualitative research, researchers need to interpret the data based on the pattern to generate the themes for each finding. Thus, below is the data interpretation for this research. It encompasses respondents' individual readiness and predisposition towards adopting new technologies or systems within their work environment. This readiness is influenced by factors such as technological proficiency, adaptability, and openness to change.

Respondent 4 said that “If you want this system to succeed, you have to come down to the ground, meet face-to-face. Like in schools, if teachers don't explain what the system is properly, how can the kids understand?”

He also said that “If you want the best results, call the officials and explain what the system is, so that the people are aware”

This issue presumably relates to the fundamental preparedness of rural populations to embrace the PADU system. This covers factors such as their competence in using digital technology and their overall willingness to embrace new systems. Within the scope of this study, investigating the roles linked to core readiness entails comprehending the fundamental capacities and predispositions of rural communities in relation to the adoption of PADU.

Narrative	Code	Theme	Interpretation
These elderly people cannot do it online, so they need help to register	Elderly	Core Readiness	The data stated that the interviewee informed that most of the people who still live in their area are the old people, the young people have left the area to work in other places.
Unlike young people, there are very friendly with system	Young	Core Readiness	The data stated that the interviewee highlighted that unlike young people, they are very friendly with the system.

**Table 1: Findings and discussion**

Based on the demographic data in Table 1 presented about the Linggi region, it is evident that the population is mostly composed of elderly adults, while younger people have migrated to other locations in search of employment possibilities. The demographic mix of the target population for registration in the PADU system, which consists mostly of elderly adults who may have limited technological skills, presents unique problems and factors to be taken into account throughout implementation. The senior population's unfamiliarity with technology indicates a probable deficiency in their fundamental preparedness to embrace the PADU system. They can have restricted access to digital devices or lack the required ability to utilize online sites.

In their earlier study, Ruslin et al. (2022) found that the elderly's digital engagement was confined to health goals without enjoying the benefits of looking for information on multiple platforms. Perceptual uncertainty and skepticism of new and contemporary objects have also hindered senior technology adoption. Most seniors are not IT-savvy, clouded by the sense of bad information from believing himself that the clinic medication was too costly and useless.

The community in this region experiences difficulties with technology acceptance and usage readiness, especially when it comes to implementing new systems, as indicated by the data shown in Table 1. Beyond the most basic features like texting and calling, the majority of inhabitants are not proficient with mobile phones. Their poor technical proficiency indicates that comprehension, not aptitude, is the main obstacle. This inexperience with technology makes it difficult to embrace or modify new systems. In order to solve this, the community's degree of technical competency should be taken into account while designing education and training programmes. Through enhanced comprehension and self-assurance in utilising technology, inhabitants can be more equipped to accept novel technologies with efficiency.

Therefore, the information suggests that the interviewee set up help for the village people to sign up for the PADU system at the community computer centre over a period of one week. This was done to benefit the elderly population, who might not be as tech-savvy and may require assistance with online registration. It was observed that support isn't just given by village chiefs or government representatives; family members and younger, more tech-savvy kids also aid with registration. Many older people depend on their kids or outside help like the state government or local chiefs—to make the registration procedure easier. This highlights the significance of aid and backing in cultivating acceptability and implementation of the novel system, mirroring technological preparedness and acceptance and utilisation readiness concepts.

A number of suggestions may be made to solve the issues with the acceptance and adoption of the PADU system that have been noted in the Linggi area. First and foremost, more help programmes must be established, such as special hotlines or support centres where community members—especially the elderly—can get advice and help with the registration procedure. To further enhance digital literacy, community-wide training programmes should be put in place, emphasising online registration procedures and fundamental technology use. Creating peer support networks in the community may also be helpful since it allows people with different degrees of technology ability to help one other out and mentor one another. Additionally, increasing involvement and acceptability of the PADU system may be achieved by improving communication and raising knowledge about it through a variety of channels, including social media and community gatherings. It is recommended to create customised outreach plans aimed at marginalised populations, such as utilising mobile registration units to offer in-person support to those who are unable to visit centralised facilities. Through the implementation of these proposals, interested parties can endeavour to surmount obstacles to the use of technology in the Linggi region, therefore fostering more inclusion and community involvement in digital activities.



## 5. Conclusion

In conclusion, there are possibilities and problems associated with implementing PADU in rural regions such as Linggi, Negeri Sembilan, Malaysia. The success of the PADU system depends on how prepared and accepting rural communities are, even if its goals include streamlining government services, maximising resource allocation, and bridging socioeconomic gaps. The study's conclusions provide insight into how prepared rural areas are to implement the PADU system, with a special emphasis on Linggi's demographics, which primarily comprise older citizens. According to the statistics, older people may find it difficult to adopt new technologies since they have fewer technological abilities and are less accustomed to using digital platforms. Nonetheless, attempts are being made to deal with these issues. Village leaders and government officials are offering help and backing for the online registration process, while younger people and family members are pitching in to help the old. These cooperative initiatives show how crucial community support is to ensuring that innovative systems like PADU are accepted and put into use. In the future, it will be crucial to carry out focused interventions to improve rural communities' digital literacy, with an emphasis on online registration processes and fundamental technology use. Peer support groups and community-wide training initiatives can help increase digital inclusion and make the PADU system easier to use. Overall, this study highlights the need of taking into account rural communities' particular demands and limitations when implementing digital programmes such as PADU. Addressing these obstacles and harnessing community support will help policymakers and implementers achieve PADU's aims while also encouraging diversity and public participation in governance processes. |

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