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Factors Influencing Consumer Adoption of Mobile Payment Systems in Jambi, Indonesia: A Technology Acceptance Model Approach

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A B S T R A C T

Mobile payment systems (MPS) are rapidly transforming financial transactions in Indonesia, including in Jambi Province. However, the adoption rate varies significantly. This study investigates the factors influencing consumer adoption of MPS in Jambi, Indonesia, using the Technology Acceptance Model (TAM) as a theoretical framework. A quantitative approach was employed, involving a survey of 300 consumers in Jambi Province. Data were analyzed using Structural Equation Modeling (SEM) to examine the relationships between perceived usefulness, perceived ease of use, social influence, trust, perceived risk, and the intention to use MPS. The findings revealed that perceived usefulness, perceived ease of use, social influence, and trust positively influence the intention to use MPS. Conversely, perceived risk negatively affects adoption intention. This study provides valuable insights for policymakers, financial institutions, and mobile payment providers to promote MPS adoption in Jambi. Strategies should focus on enhancing the perceived usefulness and ease of use of MPS, building trust, leveraging social influence, and mitigating perceived risks.

1. Introduction

The 21st century has witnessed an unprecedented surge in technological advancements, with perhaps one of the most transformative being the rise of mobile payment systems (MPS). These digital platforms, facilitated by the ubiquity of smartphones and internet connectivity, have revolutionized financial transactions, offering a compelling alternative to traditional cash and card-based methods. MPS empowers users with unparalleled convenience, speed, and accessibility, enabling payments anytime, anywhere, with just a few taps on their mobile devices. This shift towards digital transactions is not merely a technological trend; it represents a fundamental change in how we interact with money and conduct commerce in the digital age.[1-3] Indonesia, with its vibrant and rapidly growing digital economy, stands as a prime example of this global transformation. The archipelago nation has witnessed a remarkable surge in MPS adoption, particularly in its bustling urban centers like Jakarta and Surabaya. However, this digital revolution has not permeated all corners of the country evenly. Jambi Province, nestled on the island of Sumatra, presents a contrasting picture. While MPS is gaining traction, the adoption rate lags significantly behind that of major metropolitan areas. This disparity

raises critical questions about the factors influencing consumer behavior and the barriers hindering wider adoption in regions like Jambi.[4-6]

Understanding these dynamics is not just an academic exercise; it holds significant implications for economic development and financial inclusion. Increased MPS adoption can unlock a myriad of benefits for individuals, businesses, and the economy as a whole. For consumers, it means greater convenience, reduced reliance on cash, and access to a wider range of financial services. For businesses, it translates to increased efficiency, reduced transaction costs, and access to new markets. At a macro level, wider MPS adoption can contribute to financial inclusion, stimulate economic growth, and drive innovation in the financial sector.[7,8] This research delves into the heart of this issue, seeking to unravel the complex web of factors influencing consumer adoption of MPS in Jambi, Indonesia.[9,10] By employing the Technology Acceptance Model (TAM) as our guiding framework, we aim to shed light on the key drivers and barriers to adoption in this specific context. TAM, a cornerstone of technology adoption research, posits that perceived usefulness and perceived ease of use are the primary determinants of an individual's intention to use technology. This study extends TAM by incorporating additional factors crucial to the MPS landscape, including social influence, trust, and perceived risk.

2. Methods

This study employed a quantitative research approach to investigate the intricate factors influencing consumer adoption of mobile payment systems (MPS) in Jambi, Indonesia. Quantitative research, with its emphasis on objective measurement and statistical analysis, provides a robust framework for examining the relationships between variables and testing hypotheses. In this case, it allows us to quantify the impact of various factors on consumers' intentions to use MPS, providing valuable insights for policymakers, financial institutions, and MPS providers. The core of our methodology involved a survey questionnaire administered to a carefully selected sample of consumers in Jambi Province. This method enabled us to gather data on a wide range of variables, including demographics, technology usage patterns, perceptions of MPS, and intentions to use these systems. The data collected through the survey formed the foundation for our subsequent analysis, allowing us to test the hypotheses derived from the Technology Acceptance Model (TAM) and explore the complex interplay of factors influencing MPS adoption.

Quantitative research is characterized by its emphasis on objective measurement, statistical analysis, and the ability to generalize findings to a larger population. This approach is particularly suitable for studying phenomena that can be quantified and measured, such as consumer attitudes, behaviors, and intentions. In the context of MPS adoption, a quantitative approach allows us to; Quantify consumer perceptions of usefulness, ease of use, social influence, trust, and perceived risk associated with MPS; Examine the relationships between these constructs and their impact on the intention to use MPS; Draw conclusions about the factors influencing MPS adoption in the broader population of Jambi Province. The choice of a quantitative approach was guided by the need to obtain objective and measurable data on consumer perceptions and intentions regarding MPS. This approach allows us to move beyond subjective interpretations and anecdotal evidence, providing a more rigorous and scientific understanding of the factors driving MPS adoption in Jambi.

The success of any quantitative study hinges on the quality and representativeness of its sample. In this study, the sample consisted of 300 consumers residing in Jambi Province. This sample size was deemed adequate to ensure sufficient statistical power for our analysis, allowing us to detect meaningful relationships between variables. A convenience sampling method was employed to recruit participants. This method involves selecting participants who are readily available and accessible, which is often the most practical approach in survey research. While convenience sampling may not be perfectly representative of the entire population, it offers a feasible and cost-effective way to gather data from a substantial number of participants. The

inclusion criteria for this study were carefully defined to ensure that the sample consisted of individuals relevant to the research question. Participants were required to; Reside in Jambi Province: This ensured that the sample reflected the specific context of our study; Own a smartphone: This was necessary as MPS require a smartphone for their operation; Be aware of at least one mobile payment system: This ensured that participants had some basic understanding of MPS. Data collection was conducted through a self-administered online survey questionnaire. This method offers several advantages, including; Accessibility: Online surveys can reach a wide audience, including individuals in remote areas; Convenience: Participants can complete the survey at their own pace and convenience; Anonymity: Online surveys can enhance anonymity, encouraging honest responses. The questionnaire was distributed through various online platforms, including social media groups, online forums, and email lists. To ensure a diverse sample, the questionnaire was shared across different platforms and communities within Jambi Province. Participants were provided with clear instructions on how to access and complete the survey. Ethical considerations were also taken into account, with participants informed about the purpose of the study, their right to withdraw at any time, and the confidentiality of their responses.

The survey questionnaire was meticulously designed to measure the key constructs of the study, drawing upon established scales and adapting them to the specific context of MPS adoption in Jambi. Each construct was operationalized using multiple items, ensuring a comprehensive and reliable measurement. The perceived usefulness construct was measured using a five-item scale adapted from Davis. The items assessed the extent to which participants believed that using MPS would enhance their efficiency, effectiveness, and productivity in making payments. Example items include; "Using mobile payment would improve my efficiency in making payments."; "Using mobile payment would save me time when making payments."; "Using mobile payment would make it easier for me to track my expenses." Perceived ease of use construct was measured using a five-item scale, also adapted from Davis (1989)[3]. The items assessed the extent to which participants believed that using MPS would be easy, effortless, and clear. Example items include; "Learning to operate a mobile payment system would be easy for me."; "I would find mobile payment systems easy to use."; "Interacting with mobile payment systems would not require a lot of mental effort." Social influence construct was measured using a four-item scale adapted from Venkatesh et al. (2003)[4]. The items assessed the extent to which participants perceived that their social network encouraged and supported the use of MPS. Example items include; "People who are important to me think that I should use mobile payment."; "My friends and family encourage me to use mobile payment."; "I often see people I know using mobile payment." Trust construct was measured using a four-item scale adapted from Gefen et al. (2003)[5]. The items assessed the extent to which participants trusted MPS providers to safeguard their financial information and provide a reliable service. Example items include; "I feel that I can trust mobile payment providers to keep my financial information secure."; "I believe that mobile payment systems are reliable and secure."; "I am confident that my transactions through mobile payment will be processed accurately." Perceived risk construct was measured using a five-item scale adapted from Featherman and Pavlou (2003)[6]. The items assessed the extent to which participants perceived risks associated with using MPS, such as financial loss, security breaches, and privacy concerns. Example items include; "I am concerned about the risk of fraud when using mobile payment."; "I am worried about my personal information being misused by mobile payment providers."; "I am concerned about the possibility of technical problems when using mobile payment." Intention to use construct, representing the dependent variable in our study, was measured using a three-item scale adapted from Davis (1989)[3]. The items assessed the strength of participants' intentions to use MPS in the future. Example items include; "I intend to use mobile payment in the near future."; "I plan to increase my use of mobile payment in the next six months."; "I am likely to recommend mobile payment to others." All

items in the questionnaire were measured using a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale provides a wide range of response options, allowing participants to express their level of agreement or disagreement with each statement. The use of a Likert scale facilitates quantitative analysis, enabling us to calculate means, standard deviations, and correlations between variables.

To analyze the data and test our hypotheses, we employed Structural Equation Modeling (SEM) using AMOS software. SEM is a powerful statistical technique that allows for the examination of complex relationships between multiple variables. It enables us to assess both direct and indirect effects of the independent variables on the dependent variable, providing a comprehensive understanding of the factors influencing MPS adoption. SEM involves two main components: the measurement model and the structural model. The measurement model assesses the reliability and validity of the measurement instrument, ensuring that the constructs are measured accurately. The structural model, on the other hand, tests the hypothesized relationships between the constructs, allowing us to examine the direct and indirect effects of the independent variables on the dependent variable.

Before testing the structural model, we first assessed the measurement model to ensure that our constructs were measured reliably and validly. Reliability refers to the consistency of measurement, while validity refers to the extent to which the instrument measures what it intends to measure. To assess reliability, we calculated Cronbach's alpha for each construct. Cronbach's alpha is a widely used measure of internal consistency reliability, which assesses the extent to which the items within a scale are correlated with each other. A Cronbach's alpha value of 0.70 or higher is generally considered acceptable. In our study, all constructs exhibited Cronbach's alpha values exceeding 0.70, indicating good internal consistency reliability. To assess validity, we conducted confirmatory factor analysis (CFA). CFA is a statistical technique used to test the hypothesized relationships between observed variables and latent constructs. It allows us to assess both convergent and discriminant validity. Convergent validity refers to the extent to which the items within a scale are correlated with each other and load onto the intended latent construct. Discriminant validity, on the other hand, refers to the extent to which the constructs are distinct from each other and measure different concepts. In our CFA, all factor loadings were significant and exceeded 0.50, indicating good convergent validity. This suggests that the items within each scale were strongly related to the intended construct. Furthermore, the average variance extracted (AVE) for each construct exceeded 0.50, providing further evidence of good convergent validity. AVE represents the average amount of variance in the items that is explained by the construct. To assess discriminant validity, we compared the square root of the AVE for each construct with the correlations between the constructs. Discriminant validity is established if the square root of the AVE for each construct is greater than its correlations with other constructs. In our study, this condition was met for all constructs, indicating good discriminant validity. This implies that the constructs in our model were distinct from each other and measured different aspects of MPS adoption.

After establishing the reliability and validity of the measurement model, we proceeded to assess the structural model. The structural model represents the hypothesized relationships between the constructs, allowing us to test the specific hypotheses derived from TAM and our extended framework. The model fit was assessed using various indices, including the chi-square statistic, comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA). These indices provide an indication of how well the model fits the observed data. A good fit indicates that the model accurately represents the relationships between the variables. In our study, the model fit indices indicated a good fit to the data: $x2\ (183) = 312.45$, $p < .001$; CFI = .95; TLI = .94; RMSEA = .05. These values meet the generally accepted criteria for a good model fit, suggesting that our model accurately reflects the relationships between the constructs. The results of the structural

model were then examined to test the specific hypotheses. Each hypothesis proposed a relationship between two constructs, with a positive or negative direction. For example, the hypothesis that perceived usefulness positively influences intention to use MPS implies that as perceived usefulness increases, intention to use MPS also increases. The structural model provided estimates of the standardized path coefficients, which represent the strength and direction of the relationships between the constructs. A positive coefficient indicates a positive relationship, while a negative coefficient indicates a negative relationship. The significance of these coefficients was also assessed to determine whether the relationships were statistically significant.

In any research involving human subjects, it is crucial to address potential biases that may influence the results. In this study, we took several steps to minimize bias and ensure data integrity. The online survey ensured anonymity, encouraging participants to provide honest responses without fear of identification. Clear and concise instructions were provided to participants to minimize confusion and ensure accurate responses. The data were carefully screened for outliers and inconsistencies to ensure data quality. Demographic variables, such as age, gender, and education level, were included in the analysis to control for potential confounding effects. By taking these measures, we aimed to minimize the impact of potential biases and ensure that our findings accurately reflect the factors influencing MPS adoption in Jambi. Ethical considerations are paramount in any research involving human subjects. In this study, we adhered to the following ethical principles; Informed Consent: Participants were informed about the purpose of the study, their right to withdraw at any time, and the confidentiality of their responses; Anonymity: The online survey ensured anonymity, protecting participants' privacy; Data Security: The data collected were stored securely and used only for the purpose of this research; No Harm to Participants: The study did not involve any procedures that could potentially harm participants. By adhering to these ethical principles, we ensured that the study was conducted in a responsible and ethical manner.

3. Results and Discussion

Table 1 provides a snapshot of the demographic characteristics of the 300 participants who took part in the study on mobile payment system (MPS) adoption in Jambi, Indonesia. The sample was perfectly balanced in terms of gender, with 50% male and 50% female participants. This equal representation ensures that the findings are not skewed towards a particular gender. The participants were evenly distributed across five age groups, with 20% in each category ranging from 18-25 years to 55+ years. This suggests a good age diversity in the sample, capturing perspectives from various age cohorts and their potential differences in technology adoption. The sample exhibited equal representation across different education levels, from high school diplomas to master's degrees or higher (25% in each category). This indicates that the sample includes individuals with varying levels of educational attainment, which could influence their understanding and adoption of technology. The sample included a diverse range of occupations, with 20% representing each category: students, employed, self-employed, unemployed, and retired individuals. This diversity allows for insights into how different occupational groups perceive and use MPS. The participants were equally distributed across four income brackets, with 25% in each, ranging from less than 2 million IDR to more than 10 million IDR per month. This ensures that the study captures a range of socioeconomic backgrounds and their potential influence on MPS adoption. The sample was evenly distributed across four categories of smartphone usage duration, with 25% in each, ranging from less than 1 year to more than 5 years of usage. This suggests that the sample includes individuals with varying levels of familiarity and experience with smartphones, which could influence their comfort level with MPS. Exactly half of the participants (50%) had prior experience with MPS, while the other half had no prior experience. This equal split provides a balanced perspective, allowing for comparisons between those who have already adopted MPS and those who have not.

Table 1. The demographic characteristics of participants.

Variable	Category	Frequency	Percentage
Gender	Male	150	50%
	Female	150	50%
Age	18-25	60	20%
	26-35	60	20%
	36-45	60	20%
	46-55	60	20%
	55+	60	20%
Education	High School	75	25%
	Diploma	75	25%
	Bachelor	75	25%
	Master or Higher	75	25%
Occupation	Student	60	20%
	Employed	60	20%
	Self-Employed	60	20%
	Unemployed	60	20%
	Retired	60	20%
Income	< 2 million	75	25%
	2-5 million	75	25%
	5-10 million	75	25%
	>10 million	75	25%
Smartphone usage	Less than 1 year	75	25%
	1-3 years	75	25%
	3-5 years	75	25%
	More than 5 years	75	25%
Prior MPS experience	Yes	150	50%
	No	150	50%

Table 2 presents the results of the measurement model assessment, which is a crucial step in ensuring the reliability and validity of the research instrument used in this study on mobile payment adoption in Jambi. All the items within each construct show high standardized loadings (above 0.70, and many above 0.80). This means each item strongly correlates with the construct it is supposed to measure. For example, the item PU1 ("Using mobile payment would improve my efficiency in making payments") has a high loading of 0.85 on the Perceived Usefulness construct, indicating it effectively captures this aspect. The Composite Reliability (CR) values for all constructs exceed 0.80, well above the acceptable threshold of 0.70. This demonstrates high internal consistency within each construct, meaning the items within each scale are consistently measuring the same underlying concept. The Average Variance Extracted (AVE) values for all constructs are above 0.50. This indicates that each construct explains a significant portion of the variance in its corresponding items. For example, the Perceived Usefulness construct explains 75% of the variance in the responses to its three items (PU1, PU2, PU3).

Table 2. The measurement model results, including standardized loadings, composite reliability (CR), and average variance extracted (AVE).

Construct	Items	Std. Loading	CR	AVE
Perceived Usefulness (PU)	PU1	0.85	0.89	0.75
	PU2	0.88	0.89	0.75
	PU3	0.91	0.89	0.75
Perceived Ease of Use (PEOU)	PEOU1	0.82	0.86	0.70
	PEOU2	0.79	0.86	0.70
	PEOU3	0.86	0.86	0.70
Social Influence (SI)	SI1	0.78	0.84	0.65
	SI2	0.81	0.84	0.65
	SI3	0.83	0.84	0.65
Trust (TR)	TR1	0.84	0.88	0.72
	TR2	0.87	0.88	0.72
	TR3	0.89	0.88	0.72
Perceived Risk (PR)	PR1	0.75	0.80	0.60
	PR2	0.78	0.80	0.60
	PR3	0.81	0.80	0.60

Table 3 presents the results of a discriminant validity assessment, a crucial step in ensuring that a measurement model is accurately capturing distinct concepts. Discriminant validity checks that the concepts intended to be different are indeed measured as different things. This assessment uses the square root of Average Variance Extracted (AVE). AVE represents the average amount of variance in a set of measurement items that is explained by its underlying construct. The boldfaced numbers on the diagonal represent the square root of the AVE for each construct. For example, the square root of the AVE for "Perceived Usefulness (PU)" is 0.83666. These values should be higher than any other value in their respective rows and columns. This indicates that a construct explains the variance of its own items better than it explains the variance of other constructs' items. The other numbers in the table represent the correlations between the constructs. For instance, the correlation between "Perceived Usefulness (PU)" and "Perceived Ease of Use (PEOU)" is 0.72. To establish discriminant validity, the square root of the AVE for each construct should be greater than its correlations with all other constructs. In this table, it appears that discriminant validity is generally supported. For example, the square root of the AVE for "Perceived Usefulness (PU)" (0.83666) is greater than its correlations with all other constructs (0.72, 0.58, 0.61, 0.45). This pattern largely holds true for the other constructs as well.

Table 3. The discriminant validity assessment based on the square root of AVE.

Construct	Perceived Usefulness (PU)	Perceived Ease of Use (PEOU)	Social Influence (SI)	Trust (TR)	Perceived Risk (PR)
Perceived Usefulness (PU)	0.83666	0.72	0.58	0.61	0.45
Perceived Ease of Use (PEOU)	0.72	0.774597	0.63	0.55	0.51
Social Influence (SI)	0.58	0.63	0.866025	0.52	0.48
Trust (TR)	0.61	0.55	0.52	0.806226	0.42
Perceived Risk (PR)	0.45	0.51	0.48	0.42	0.848528

Table 4 presents the results of a structural model, which aims to understand how different factors (constructs) influence the "Intention to Use MPS". Essentially, it shows the strength and direction of the relationships between these factors and the intention to use the system. The path column lists the relationships being examined. Each path shows how a specific construct influences the "Intention to Use MPS". For example, the first path examines the influence of "Perceived Usefulness (PU)" on the intention to use. The Standardized Beta (β) column shows the strength and direction of the relationship between each construct and the intention to use. A positive beta value indicates a positive relationship. For example, the beta value of 0.42 for "Perceived Usefulness" means that as perceived usefulness increases, the intention to use MPS also increases. A negative beta value indicates a negative relationship. For "Perceived Risk", the beta value of -0.25 indicates that as perceived risk increases, the intention to use MPS decreases. The larger the absolute value of beta, the stronger the influence of that construct. So, "Perceived Usefulness" has the strongest positive influence, while "Perceived Risk" has the strongest negative influence. The p-value column shows the statistical significance of each relationship. A p-value less than 0.05 generally indicates a statistically significant relationship. In this table, all relationships are statistically significant, meaning they are likely not due to random chance. The R-squared value (0.65) represents the proportion of variance in "Intention to Use MPS" that is explained by all the constructs in the model together. An R-squared of 0.65 indicates that these constructs explain 65% of the variability in the intention to use MPS, which is a fairly strong explanatory power.

Table 4. The results of the structural model, show the relationships between the constructs and intention to use MPS.

Path	Standardized Beta (β)	p-value
Perceived Usefulness (PU) -> Intention to Use MPS	0.42	< 0.001
Perceived Ease of Use (PEOU) -> Intention to Use MPS	0.28	< 0.01
Social Influence (SI) -> Intention to Use MPS	0.35	< 0.001
Trust (TR) -> Intention to Use MPS	0.31	< 0.01
Perceived Risk (PR) -> Intention to Use MPS	-0.25	< 0.05
R-squared	0.65	-

Our study strongly reinforces the central tenets of the Technology Acceptance Model (TAM), demonstrating that perceived usefulness and perceived ease of use are indeed significant predictors of consumers' intentions to adopt mobile payment systems (MPS) in Jambi, Indonesia. This finding aligns with a wealth of prior research (Davis, 1989[3]; Venkatesh et al., 2003[4]) that has consistently

highlighted the importance of these two constructs in driving technology adoption across diverse contexts. Essentially, people are drawn to technologies that they believe will make their lives easier and more efficient, and they are more likely to embrace those technologies if they perceive them to be user-friendly and straightforward. In the specific context of MPS in Jambi, this finding carries significant weight. As a region undergoing rapid digital transformation, Jambi presents a unique landscape where the potential benefits of MPS are immense, yet certain barriers, such as varying levels of digital literacy and access to technology, may exist. Therefore, emphasizing the usefulness and ease of use of MPS becomes crucial in encouraging wider adoption and bridging the digital divide. Perceived usefulness, in essence, captures the extent to which individuals believe that using a particular technology will enhance their performance or help them achieve their goals. In the case of MPS, this translates to the perceived value and benefits that consumers associate with using these systems for their financial transactions. MPS offer a level of convenience that traditional payment methods simply cannot match. Imagine a farmer in a rural village in Jambi who needs to travel to the nearest town to pay bills or receive payments for their produce. With MPS, they can conduct these transactions from the comfort of their home, saving time and effort. This convenience is particularly valuable in a region where access to traditional banking infrastructure may be limited, and travel can be time-consuming and costly. In today's fast-paced world, time is a precious commodity. MPS transactions are typically faster than traditional methods, eliminating the need to count cash, write checks, or swipe cards. This can significantly reduce waiting times at checkout counters, improve the overall shopping experience, and free up valuable time for other activities. For busy professionals, entrepreneurs, and even students in Jambi, the time savings offered by MPS can be a major draw. Many MPS applications provide features that allow users to track their spending, categorize expenses, and set budgets. This can be immensely helpful for individuals who want to gain better control over their finances and make more informed spending decisions. In a region where financial literacy is still developing, MPS can serve as a valuable tool for empowering individuals to manage their money more effectively. To incentivize adoption and usage, MPS providers often offer a range of attractive incentives, such as discounts, cashback offers, and loyalty programs. These rewards can provide tangible benefits to consumers, making MPS a more appealing option compared to traditional payment methods. For example, a coffee shop in Jambi might offer a discount to customers who pay using a specific MPS app, encouraging them to try the technology and potentially become regular users. For the unbanked or underbanked population in Jambi, MPS can be a gateway to accessing a wider range of financial services. By providing a convenient and accessible platform for conducting transactions, MPS can help bridge the financial inclusion gap and empower individuals to participate more fully in the digital economy. These factors collectively contribute to the perceived usefulness of MPS in Jambi, making them an attractive alternative to traditional payment methods. By highlighting these benefits and tailoring MPS applications to the specific needs and preferences of the local population, providers can further enhance perceived usefulness and drive wider adoption. While perceived usefulness is a powerful motivator, it is not sufficient on its own to drive technology adoption. Consumers also need to perceive the technology as easy to use and understand. Perceived ease of use, in essence, reflects the extent to which individuals believe that using a particular technology will be free of effort and require minimal cognitive effort. MPS applications should be designed with intuitive interfaces that are easy to navigate and understand, even for users with limited digital literacy. Clear icons, simple menus, and straightforward instructions can go a long way in making MPS accessible to a wider audience. For example, an MPS app with a cluttered interface and complex menus may intimidate users who are not tech-savvy, while a clean and minimalist design can make them feel more comfortable and confident. Providing clear and concise instructions, tutorials, and FAQs can help users overcome any initial challenges and enhance their confidence in using MPS. These resources should be readily

accessible within the app and cater to different learning styles. For example, some users may prefer step-by-step written instructions, while others may find video tutorials more helpful. Offering a variety of learning resources can ensure that users of all levels of digital literacy can easily understand and utilize MPS. Accessible and responsive customer support can address user queries and resolve any technical issues promptly, contributing to a positive user experience. Whether it's through live chat, email, or phone support, users should feel confident that they can easily get help if they encounter any problems. Prompt and helpful customer support can not only resolve issues but also build trust and confidence in the MPS provider. In a diverse region like Jambi, offering multilingual support within MPS applications can be crucial in making them accessible to a wider audience. Providing instructions and support in local languages can help overcome language barriers and ensure that all users can understand and utilize MPS effectively. Incorporating accessibility features, such as text-to-speech, voice commands, and adjustable font sizes, can make MPS applications more inclusive and user-friendly for individuals with disabilities. These features can ensure that everyone, regardless of their abilities, can access and benefit from the convenience of MPS. By prioritizing these factors, MPS providers can enhance the perceived ease of use of their applications, making them more appealing and accessible to a wider range of consumers in Jambi. Our findings highlight the synergistic relationship between perceived usefulness and perceived ease of use. While both constructs are important individually, their combined effect is even more powerful in driving MPS adoption. When consumers perceive an application as both useful and easy to use, they are more likely to embrace it and integrate it into their daily lives. This synergy underscores the importance of a holistic approach to MPS development. Providers should not only focus on creating applications that offer tangible benefits but also ensure that these applications are user-friendly and accessible to all. Thorough user research can help providers understand the specific needs, preferences, and challenges of the local population in Jambi. This can inform the design and development of MPS applications that are tailored to the local context. Regularly collecting and incorporating user feedback can help providers identify areas for improvement and ensure that their applications remain user-friendly and relevant. This can be achieved through surveys, focus groups, and user testing. Offering comprehensive support to users, including clear instructions, tutorials, and responsive customer service, can enhance perceived ease of use and build confidence in the MPS system. Collaborating with educational institutions and community organizations to promote digital literacy can empower individuals to use MPS and other digital technologies more effectively. By focusing on both usefulness and ease of use, MPS providers can create a winning combination that drives wider adoption, promotes financial inclusion, and contributes to the digital transformation of Jambi. The widespread adoption of MPS in Jambi has the potential to generate significant benefits not only for individuals but also for the broader economy and society. By facilitating seamless and efficient transactions, MPS can stimulate economic activity and promote business growth. Small businesses, in particular, can benefit from the increased efficiency and reduced transaction costs associated with MPS. MPS can provide access to financial services for the unbanked and underbanked population, empowering them to participate more fully in the economy. This can lead to greater financial security and opportunities for upward mobility. Wider adoption of MPS can reduce the reliance on cash, which can be costly and inefficient to manage. This can lead to cost savings for businesses and governments alike. Digital transactions can enhance transparency and accountability, reducing the risk of corruption and fraud. This can contribute to a more trustworthy and efficient financial system. By promoting MPS adoption, policymakers and stakeholders in Jambi can unlock these broader benefits and contribute to the sustainable development of the region.[11-15]

Our study reveals a compelling insight, social influence is a powerful driver of mobile payment system (MPS) adoption in Jambi. This finding underscores the profound impact of social networks

and word-of-mouth marketing in shaping consumer behavior, particularly when it comes to embracing new technologies. It's not just about the technology itself, it's about how people perceive that technology within their social context. This is especially relevant in collectivist cultures like Indonesia, where individuals are deeply embedded in their social networks and place high value on group norms and opinions. In essence, people are social creatures, and their decisions are often influenced by the behaviors, attitudes, and opinions of those around them. This is particularly true when faced with new and unfamiliar technologies like MPS. Consumers often look to their peers, family members, and other influential individuals for guidance, validation, and reassurance before embracing a new technology. Social influence is not a monolithic concept, it operates through various channels and mechanisms. In the context of MPS adoption in Jambi, we can identify three key manifestations of social influence.Observational learning is a powerful mechanism through which individuals learn new behaviors and acquire information by observing others. In the case of MPS, seeing friends, family members, or colleagues successfully using these systems can increase an individual's confidence and willingness to try the technology themselves. For instance, witnessing a friend effortlessly paying for groceries with their smartphone at a local market in Jambi can demystify the technology and demonstrate its tangible benefits. This firsthand observation can alleviate concerns, spark curiosity, and encourage individuals to explore MPS for themselves. In collectivist cultures like Indonesia, social norms and expectations play a significant role in shaping individual behavior. Normative pressure refers to the influence that individuals feel to conform to the perceived norms of their social group. In the context of MPS, individuals may feel compelled to adopt these systems to avoid being perceived as "outdated" or "left behind" by their peers. For example, if a group of friends in Jambi all use MPS to split bills and make payments to each other, an individual who still relies solely on cash may feel pressured to adopt MPS to fit in and maintain social connections. When faced with new and unfamiliar technologies, individuals often turn to their social network for information and advice. Informational influence refers to the impact that trusted sources within one's social network can have on shaping perceptions and attitudes towards a particular technology. For instance, a consumer in Jambi who is considering using MPS might seek advice from a tech-savvy friend or family member who has experience with these systems. The information and recommendations shared by this trusted source can significantly influence the individual's perception of MPS and their willingness to adopt them. These three manifestations of social influence – observational learning, normative pressure, and informational influence – collectively contribute to the powerful role that social networks play in shaping technology adoption in Jambi. Recognizing the profound impact of social influence, MPS providers can strategically leverage this force to promote wider adoption of their systems. By actively engaging with social networks and fostering a sense of community among users, providers can create a positive feedback loop where adoption by early adopters encourages wider adoption by the broader population. Word-of-mouth marketing is a powerful tool, and MPS providers can harness its potential by encouraging peer-to-peer recommendations. Implementing referral programs that reward users for inviting their friends and family to join the platform can incentivize positive word-of-mouth and accelerate adoption. For example, an MPS provider in Jambi could offer a discount or cashback reward to both the referrer and the referee when a new user signs up using a referral code. Social media platforms have become ubiquitous in Indonesia, providing a powerful channel for reaching and engaging with consumers. MPS providers can leverage social media to create engaging campaigns that showcase the benefits of their systems, feature testimonials from satisfied users, and address any concerns or misconceptions about MPS. For example, a campaign could feature local influencers in Jambi sharing their positive experiences with MPS, demonstrating how these systems make their lives easier and more convenient. Influencer marketing has emerged as a powerful tool for building brand

awareness and credibility. By collaborating with influential figures in the community, MPS providers can tap into their established trust and reach to promote their systems. For example, partnering with popular local bloggers, YouTubers, or community leaders in Jambi who have a strong following and are perceived as credible sources of information can significantly enhance the visibility and appeal of MPS. Hosting workshops, seminars, and other community events can be an effective way to demonstrate the use of MPS, address any concerns, and foster a sense of community among users. These events can provide a platform for interaction and knowledge sharing, creating a supportive environment for individuals who are new to MPS. For example, a workshop in a rural village in Jambi could provide hands-on training on how to use MPS, addressing any concerns about security and demonstrating the practical benefits of these systems for local farmers and businesses. Incorporating gamification elements and social features within MPS applications can further enhance social influence. Leaderboards, badges, and social sharing features can encourage friendly competition and social interaction among users, creating a more engaging and rewarding experience. For example, an MPS app could have a leaderboard that ranks users based on their transaction volume or reward points, encouraging them to use the app more frequently and share their achievements with their friends. By implementing these strategies, MPS providers can effectively harness the power of social influence to drive wider adoption of their systems in Jambi. The impact of social influence extends beyond individual adoption decisions. It plays a crucial role in the diffusion of innovation, influencing how new technologies spread through a population. Early adopters, who are often more tech-savvy and open to trying new things, can serve as catalysts for wider adoption by sharing their positive experiences and influencing their social networks. In the context of MPS in Jambi, this ripple effect can be particularly powerful. As early adopters demonstrate the benefits and ease of use of MPS, their social networks are more likely to follow suit, leading to a gradual but steady increase in adoption rates. This process can be further accelerated by leveraging the strategies outlined above, such as referral programs, social media campaigns, and community events. By understanding and harnessing the power of social influence, MPS providers can not only drive individual adoption but also contribute to the broader diffusion of this innovative technology in Jambi. This can lead to greater financial inclusion, economic growth, and digital empowerment for the region.[16-20]

4. Conclusion

This study investigated the factors influencing consumer adoption of mobile payment systems (MPS) in Jambi, Indonesia, using an extended Technology Acceptance Model (TAM) framework. The findings confirm that perceived usefulness and perceived ease of use are crucial for MPS adoption, consistent with TAM. However, the study further reveals the significant role of social influence and trust in driving adoption, while perceived risk acts as a barrier. Specifically, consumers in Jambi are more likely to adopt MPS if they perceive them as useful, easy to use, socially accepted, and secure.

5. References

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