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Fintech Lending Adoption among Muslim Millennials: Toward Inclusive and Ethical Sharia Banking in Southeast Asia

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ABSTRACT

Purpose – This study aims to analyze the economic, social, and cultural factors influencing fintech lending adoption among Muslim millennials in these three nations while critically assessing the regulatory and ethical challenges of integrating Islamic financial principles into digital lending ecosystems

Method – This research employs a comparative qualitative approach, integrating survey data, semi-structured interviews, and policy analysis to examine the regulatory landscapes and consumer behavior in Indonesia, Malaysia, and Thailand.

Findings – The findings indicate that Malaysia leads in Islamic fintech adoption, supported by a well-regulated and structured Sharia-compliant financial system. Indonesia demonstrates high fintech penetration but suffers from low consumer awareness regarding Islamic digital finance alternatives. Thailand, in contrast, lacks a formal Islamic fintech framework, which has led to low adoption rates despite the presence of Muslim-majority provinces.

Practical implications – The study offers important theoretical implications by bridging Islamic finance principles with digital financial innovation and contributing to the literature on fintech adoption in Muslim-majority and minority regions. The practical implications suggest that ASEAN policymakers should harmonize Islamic fintech regulations to enable cross-border collaborations, expand Sharia-compliant fintech to underserved Muslim populations, and develop financial literacy initiatives to enhance consumer trust in digital Islamic finance.

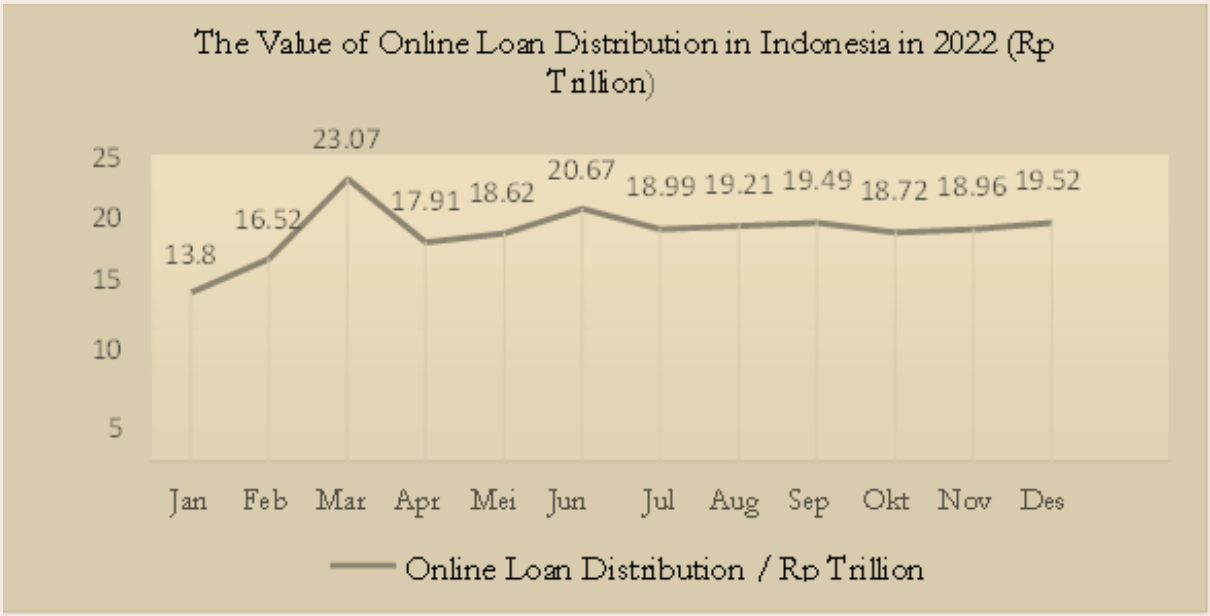
Originality/value – This study provides Southeast Asia comparative ASEAN Muslim-majority vs minority fintech on Islamic fintech adoption, an underexplored area in existing research.

A. Introduction

Digital transformation has had a significant impact on the financial sector. Technology in finance is commonly referred to as Financial Technology (fintech), and one of the most popular forms among the general public today is fintech lending (Uthaileang & Kiattisin, 2023). Fintech lending, also known as Fintech Lending, represents the latest innovation in the financial sector, utilizing technology to provide loans online, thereby eliminating the need for face-to-face loan transactions. Fintech lending provides a borrowing platform where the entire process—from application and approval to fund disbursement—can be completed online, eliminating the need for in-person meetings (Admiral & Pauck, 2023).

Fintech lending can be obtained starting from smaller amounts. Unlike traditional bank loans, which usually require large disbursements at once, fintech lending through Fintech Lending allows borrowers to apply for amounts ranging from hundreds of thousands to millions of rupiah. The ability to control the loan amount based on the borrower's needs and financial capacity is a key advantage of fintech loans over traditional bank loans. The ease of the loan disbursement process and the enticing offers of high credit limits often attract people in urgent need to apply for loans without verifying the legitimacy of the fintech lending providers (Subagiyo et al., 2022). Furthermore, the high number of individuals involved in illegal loans indicates that financial literacy in Indonesia is still low, as many people are unaware of which fintech lenders are legal and which are illegal

Figure 1. The Value of Online Loan Distribution in Indonesia (January 2022-January 2023)



Source: Databoks, 2023

The issue of fintech lending (pinjol) is a social crisis as it causes negative impacts and harms society on a national scale. The government has issued regulations through the Financial Services Authority (OJK) to supervise online loan providers (Technology-Based Money Lending Services. According to Figure 1.1, the value of Fintech lending distribution in early January 2022 reached its peak in March, amounting to 23.07 trillion rupiahs. Meanwhile, in other months, the fluctuations were relatively stable, ranging between 13 and 20 trillion rupiahs.

The rapid growth of fintech lending in Indonesia, Malaysia, and Thailand has transformed consumer access to financial services. In Indonesia, peer-to-peer (P2P) lending platforms have expanded financial inclusion, particularly among unbanked populations. Malaysia, with its strong Islamic finance ecosystem, has seen an increasing demand for Sharia-compliant fintech solutions. Meanwhile, Thailand's fintech sector is growing, but Islamic financial services remain underdeveloped despite a significant Muslim population in the southern provinces. However, the expansion of online lending raises concerns about financial ethics, debt burden, and consumer protection, particularly among Muslim millennials.

Ideally, fintech lending in Muslim-majority and minority regions should align with Islamic financial ethics, ensuring compliance with *maqāṣid al-sharīʿah* (the objectives of Islamic law) while promoting responsible financial management (Maharani et al., 2022). A financial system that integrates Islamic principles could mitigate issues such as riba (interest), gharar (uncertainty), and unethical debt collection, which remain concerns in conventional digital lending platforms (Ningsih, 2021). Research indicates that non-compliance with Islamic finance principles leads to financial exclusion among devout Muslim consumers who avoid fintech lending due to religious concerns (Lifia Lifia & Aunur Rofiq, 2023). By adopting Sharia-compliant digital finance models, fintech firms can attract a broader customer base while ensuring ethical financial inclusion (Yuslem et al., 2022). Additionally, harmonizing fintech regulations across Indonesia, Malaysia, and Thailand would create a more inclusive and sustainable digital financial ecosystem that supports both economic growth and Islamic financial values (Aziz et al., 2019). The development of cross-border Sharia-compliant fintech services could further enhance financial integration within ASEAN markets, thereby reducing fragmentation in Islamic digital finance governance (Laksono & Fauzi, 2019). Therefore, policymakers should prioritize regulatory frameworks that balance innovation, financial accessibility, and Islamic ethical considerations, ensuring that fintech lending remains both competitive and aligned with *maqāṣid al-sharīʿah* (Firdaus, 2018).

Although previous studies have examined Islamic fintech adoption in Indonesia and Malaysia, research on Thailand's Islamic fintech sector remains limited, reflecting the country's lack of a dedicated Sharia-compliant financial ecosystem (Munangi & Sibindi, 2022). While Indonesia and Malaysia have formal regulatory frameworks for Islamic fintech, Thailand's Muslim-majority provinces lack institutional support, restricting access to Sharia-compliant digital financial services (Alsmadi et al., 2024). Furthermore, comparative studies on fintech lending behavior across different Muslim-majority and minority regions remain underexplored, despite their potential to inform cross-border financial integration strategies (Kirchner, 2021). Most literature focuses on

either economic factors (e.g., fintech adoption rates, regulatory challenges) or social aspects (e.g., consumer behavior, financial literacy). However, few studies have investigated the intersection of Islamic financial ethics with fintech regulations and cross-border consumer behavior in Thailand's Muslim-minority context (Purnamasari et al., 2024) . Understanding these dynamics is crucial for developing effective policies that ensure Islamic fintech remains accessible, competitive, and aligned with Sharia principles (Syed, 2020). Additionally, research on Islamic fintech governance models in other Muslim-minority regions, such as the UK and Singapore, could provide insights into how Thailand can develop a robust Sharia-compliant fintech framework (Gupta, 2021). Future studies should focus on comparative analyses of Islamic fintech regulation across different ASEAN economies to identify best practices that can be implemented in Thailand's financial sector.

This study aims to analyze the economic, social, and cultural factors influencing the adoption of online loans among Muslim millennials in Indonesia, Malaysia, and Thailand. The rising interest of millennials in using loan applications, despite the increasing number of cases involving illegal loan providers, highlights the need for an analysis of online loan usage and the associated risks faced by society. Therefore, this research analyzes the factors influencing the use of fintech lending among the younger generation.

Fintech lending is often viewed as a tool for financial inclusion, particularly in countries with large populations that are unbanked. However, its rapid growth raises concerns about debt sustainability, financial ethics, and consumer protection, particularly in Muslim-majority regions where interest-based loans are controversial. While Indonesia and Malaysia have established Sharia-compliant fintech regulations, Thailand lacks a formal Islamic financial framework, creating regulatory inconsistencies. A cross-country comparison can reveal best practices, highlight challenges, and propose solutions for an integrated Islamic fintech ecosystem in the ASEAN region.

B. Literature Review

1. Fintech lending

Online lending, facilitated by financial technology (fintech), has become a vital component of modern financial services, offering individuals quick and accessible borrowing options. Unlike conventional banking, fintech lending operates entirely online, allowing borrowers to access funds without the need for face-to-face interactions or collateral requirements (Maznevski et al., 2001). The rapid development of digital financial services has been driven by technological advancements, shifting consumer behavior, and increasing efforts to promote financial inclusion (Barbosa & Fonseca, 2019). Fintech lending serves as an alternative solution for individuals who lack access to traditional banking services, particularly in emerging economies where financial infrastructure remains underdeveloped (Suzianti et al., 2022). In Muslim-majority regions, however, online lending raises concerns regarding Sharia compliance, particularly related to riba (interest), gharar (uncertainty), and ethical debt collection practices (Wirani et al., 2022). These concerns necessitate

a regulatory framework that aligns fintech lending with Islamic financial ethics, ensuring that digital loans are accessible while remaining compliant with *maqāṣid al-sharī'ah* (Erba & Nofrianto, 2022). Given these challenges, understanding the key components of online lending—borrowers, platforms, and lenders—is crucial for assessing its role within the broader fintech ecosystem.

The concept of online lending has evolved from traditional microfinance models to fully digital lending ecosystems, driven by the expansion of fintech services (Ariza-Garzon et al., 2020). Early financial theories emphasized the importance of collateral-based lending. However, fintech has disrupted this model by introducing alternative credit assessment mechanisms, such as big data analytics and AI-driven credit scoring (Pierri & Timmer, 2021). The shift from traditional banking to digital lending has been supported by theories such as the Technology Acceptance Model (TAM), which explains consumer adoption of fintech platforms based on perceived usefulness and ease of use (Gathu & Njenga, 2021). Furthermore, the Islamic Financial Behavior Model (IFBM) suggests that religious beliefs and financial ethics play a significant role in shaping consumer lending decisions in Muslim-majority regions (Ferri et al., 2019). In addition, the Regulatory Sandboxing Theory has been applied to assess how different countries test and implement fintech regulations, ensuring that online lending remains both innovative and compliant with legal standards (Xie et al., 2019). These theoretical developments provide a foundation for analyzing how Islamic fintech lending can strike a balance between accessibility, risk mitigation, and compliance with ethical financial principles.

Previous studies have extensively explored fintech adoption, regulatory challenges, and financial inclusion, but relatively few have examined the intersection of Islamic finance and digital lending in ASEAN countries. Research on Indonesia's fintech sector has highlighted the rapid expansion of P2P lending platforms, with studies indicating that borrowers prioritize speed and accessibility over financial ethics (Rehman et al., 2023). In Malaysia, scholars have examined the effectiveness of Islamic fintech regulations, demonstrating that a structured regulatory framework enhances consumer trust in Sharia-compliant lending models (Alsmadi et al., 2024). Thailand, however, remains understudied in the Islamic fintech literature, with most research focusing on general fintech development rather than its application in Muslim-majority provinces (Dianty & Faturohman, 2023). While existing research provides valuable insights into economic and technological factors influencing fintech adoption, it largely overlooks the role of Islamic financial ethics in shaping borrower preferences. Furthermore, comparative studies on fintech lending behavior across Muslim-majority and minority regions remain scarce, leaving gaps in understanding how regulatory differences influence consumer decision-making.

This study applies a multi-theory approach to analyze Islamic fintech lending behavior in Indonesia, Malaysia, and Thailand, combining consumer behavior models, financial ethics frameworks, and regulatory theories. The Technology Acceptance Model (TAM) and Islamic Financial Behavior Model (IFBM) are used to examine how Muslim millennials perceive and adopt fintech lending services, considering both economic necessity and religious principles (Barbosa & Fonseca, 2019) The *Maqāṣid al-sharī'ah* framework is applied to assess whether fintech lending

practices align with the ethical objectives of Islamic finance, particularly in addressing issues of financial justice and debt sustainability (Kamali, 2012). The Regulatory Sandboxing Theory is employed to assess how various ASEAN regulators approach the governance of Islamic fintech, comparing Indonesia's OJK model, Malaysia's Bank Negara regulations, and Thailand's emerging fintech policies (Pratiwi et al., 2023). By integrating these theoretical perspectives, this study provides a structured approach to understanding the complex relationship between fintech lending, Islamic financial ethics, and regional regulatory differences.

This study contributes to the growing body of literature on Islamic fintech and financial inclusion by providing a comparative analysis of digital lending adoption in the Muslim-majority and minority regions of ASEAN. Unlike previous studies that focus solely on economic and technological aspects, this research highlights the role of religious and ethical considerations in shaping fintech borrowing behavior. The study also extends the application of *Maqāṣid al-sharī'ah* in fintech research, demonstrating its relevance in evaluating the ethical impact of digital financial services.

An online loan has three indicators: 1) Borrower: A person who borrows money from a bank, lending company, or financial institution. Typically, the borrower signs a contract and agrees to specific repayment terms. This person is also commonly referred to as the 'principal borrower,' meaning the person who borrows the 'principal' amount or the main sum (Omarini, 2018). 2) Platform: According to Anggriawan & Hasugian (2017), a platform is a combination of hardware and software (application). This definition suggests that a platform has many positive effects, serving as an enhancement for users to operate their systems. Additionally, based on the Kamus Besar Bahasa Indonesia (KBBI), a platform is defined as a program, work plan, or a statement from a group regarding policy programs, stages, or stage settings. 3) Lender: A lender is an individual or legal entity, whether local or foreign, that meets the criteria to provide funds to be loaned to a borrower (Omarini, 2018).

2. Economic Factor

Economic factors are internal determinants that influence economic activities and individual financial behavior, shaping how people meet their daily needs and strive for prosperity. These factors are reflected in the relationship between demand and supply, as well as in a society's economic capacity to fulfill its needs and desires. Economic conditions have a direct impact on financial decision-making, particularly in areas such as employment opportunities, income distribution, and access to financial services. In the context of fintech lending, economic factors play a crucial role in shaping borrowing behavior, as individuals with limited financial resources are more likely to seek alternative credit solutions (Leang et al., 2023). Demand-side variables such as labor market conditions, wage levels, purchasing power, and interest rates determine an individual's ability to access financial products and manage debt responsibly.

Over time, scholars have explored the relationship between economic status and financial decision-making, particularly in developing economies where fintech lending has emerged as a

major financing alternative (Altavilla et al., 2022). Classical economic theories, such as Keynesian consumption theory, suggest that individuals make financial decisions based on income expectations and liquidity constraints (Septiani et al., 2020). Meanwhile, behavioral economics emphasizes that financial literacy and risk perception influence borrowing behavior, particularly among low-income populations (Kumra et al., 2021). In the fintech context, studies have shown that economic stability and digital financial inclusion have a significant impact on consumer trust in online lending platforms (Alsmadi et al., 2024). Consequently, understanding how economic factors shape fintech adoption is essential for developing sustainable lending models that align with financial ethics and consumer protection.

Research on economic factors influencing fintech lending has primarily focused on financial inclusion, income disparities, and employment conditions. Studies by Sunardi et al. (2021) and Solihat et al. (2023) highlight that fintech lending adoption is higher in economically constrained populations due to the limited availability of traditional banking services. In Indonesia, fintech loans serve as an alternative financial solution for unbanked individuals, whereas in Malaysia, the structured Islamic banking system influences digital borrowing trends (Keng-Soon et al., 2019). However, in Thailand, research on fintech lending remains scarce, particularly concerning Muslim-majority communities where Sharia-compliant digital financial solutions are underdeveloped (Wonglimpiyarat, 2017). Comparative studies across ASEAN fintech markets indicate that income levels and employment status have a significant impact on borrowing behavior, with lower-income individuals being more likely to rely on high-risk fintech loans (Zheng et al., 2022).

This study applies economic theories to examine the impact of education, income, and employment levels on fintech lending decisions among Muslim consumers in Indonesia, Malaysia, and Thailand. The Human Capital Theory suggests that higher education levels enhance financial decision-making capabilities, making individuals less likely to engage in high-risk borrowing (Tan, 2014). Similarly, income levels influence consumer borrowing preferences, as higher-income individuals tend to have access to lower-interest, regulated financial products. In contrast, low-income individuals rely on alternative lending solutions such as fintech loans (Emonena & Matteo, 2020). Additionally, employment stability plays a crucial role in determining loan accessibility, as fintech platforms assess a borrower's repayment capacity based on job status and earnings (Zheng et al., 2022). By integrating these theoretical perspectives, this study examines how economic disparities influence fintech adoption across different ASEAN markets.

This study contributes to the literature by bridging economic theory with fintech lending adoption, particularly within the framework of Islamic digital finance. Unlike previous research that primarily focuses on economic determinants of consumer lending, this study incorporates Islamic financial ethics to assess whether Sharia-compliant fintech platforms provide a viable alternative to conventional digital lending (Alsmadi et al., 2024). Additionally, the study advances the discourse on economic inclusion in Muslim-majority and minority regions, highlighting how regulatory variations across Indonesia, Malaysia, and Thailand influence consumer access to ethical financial solutions (R. Rizk, 2014). By offering a cross-country comparative analysis, this research expands

theoretical insights into how economic structures, employment patterns, and financial accessibility shape digital borrowing behaviors in Southeast Asia.

Economic factor indicators include: 1) Education level. Different education levels mean that some individuals have greater access to better education than others. Education refers to the guidance provided by someone to help another person's development toward a specific goal. The higher a person's level of education, the easier it is for them to secure a job, resulting in higher earnings. On the other hand, inadequate education can hinder a person's development and their ability to embrace newly introduced values (Ismail et al., 2020). 2) Income level: Income is the result obtained from work or effort that has been made. Income influences a person's lifestyle. Individuals or families with high socioeconomic status or income tend to adopt a luxurious lifestyle, for example, being more consumptive because they can afford to buy everything they need, compared to families with lower or middle-class economic status (Ismail et al., 2020). 3) Occupation level: Jobs vary in prestige, and some individuals have greater access to higher-status positions than others. Employment is a symbol of a person's social status. A job serves as a means to earn money, enabling individuals to meet life's needs and access the healthcare services they desire (Ismail et al., 2020).

3. Social Factors

Social factors play a significant role in shaping consumer behavior in fintech adoption, particularly in Muslim-majority and minority regions where cultural and religious influences impact financial decision-making. Social factors refer to groups of people who influence an individual's behavior, either directly or indirectly, through norms, values, and expectations (Kotler et al., 2021). In the context of fintech lending, social factors affect how individuals perceive trust, risk, and the ethical implications of digital financial services (Wonglimpiyarat, 2017). Studies have shown that peer influence, family expectations, and social identity significantly shape consumer attitudes toward financial technology, particularly in societies where traditional financial institutions have been dominant (Razak et al., 2021). Additionally, Muslim communities emphasize financial ethics based on Islamic principles, making social acceptance of Sharia-compliant fintech an essential factor in its adoption (Razak et al., 2021). Understanding these social determinants is crucial for analyzing how Islamic fintech lending platforms can achieve broader consumer adoption while maintaining ethical compliance.

The influence of social factors on consumer behavior has been widely discussed in marketing and financial decision-making theories. Kotler's (2022) consumer behavior model identifies reference groups, family influence, and role/status as primary social determinants affecting purchasing behavior. Social Learning Theory (Tan, 2014) further explains how individuals develop financial habits by observing and imitating their social environment, a phenomenon particularly relevant to fintech adoption among younger generations (Maznevski et al., 2001). The Theory of Planned Behavior (TPB) suggests that subjective norms, influenced by social expectations, play a key role in determining fintech adoption behavior (Suzianti et al., 2022). In Islamic finance, the *Maqāṣid al-sharī'ah* framework has been applied to assess how religious and social values influence

financial decision-making, emphasizing ethical considerations and communal well-being (Muhammad Aqib Ali & Talat Hussain, 2021). These theoretical developments underscore that social norms and financial ethics intersect in shaping consumer behavior, particularly in the context of Islamic fintech adoption.

Previous studies on fintech adoption and consumer behavior have highlighted the significant influence of social determinants, particularly in Muslim-majority regions, where cultural and religious norms shape financial choices. Research on Islamic banking in Indonesia found that reference groups and religious values significantly influence consumer trust in digital financial services (Opwis, 2005). In Malaysia, studies have shown that family influence plays a dominant role in shaping financial decision-making, particularly in the adoption of Sharia-compliant fintech lending platforms (Keng-Soon et al., 2019). However, in Thailand's Muslim-minority regions, social influences on fintech adoption remain underexplored, despite evidence that communal financial practices and informal lending networks continue to dominate (Kijkasiwat, 2021). While prior research has extensively examined individual economic and technological factors affecting fintech adoption, fewer studies have addressed how social norms, religious values, and peer influence collectively shape consumer perceptions of Islamic fintech lending. This gap highlights the need for a comparative analysis across different ASEAN economies to understand the social dimensions of fintech adoption better.

This study employs a multi-theory approach to investigate how social factors impact the adoption of fintech lending in Indonesia, Malaysia, and Thailand. Kotler's consumer behavior framework is utilized to examine the influence of reference groups, family, and social status on financial decision-making (Kotler et al., 2021). Social Learning Theory provides insight into how individuals develop trust in fintech platforms through peer influence and communal endorsement (Tan, 2014). Additionally, the Theory of Planned Behavior (TPB) is applied to measure the role of subjective norms in fintech adoption among Muslim millennials, considering both social expectations and religious adherence (Khalilieh, 2019). To evaluate ethical implications, the *Maqāṣid al-sharī'ah* framework is integrated to assess how Islamic financial values shape social acceptance of fintech lending (Amiruddin et al., 2020). By utilizing these theoretical models, this study provides a structured approach to understanding the intersection of social norms, consumer behavior, and fintech lending in ASEAN markets.

This study contributes to the growing discourse on Islamic fintech adoption by integrating social and religious perspectives into the analysis of fintech consumer behavior. Unlike previous studies that focus solely on economic and technological drivers, this research highlights the role of reference groups, family influence, and social identity in shaping financial decision-making. The study also extends the application of the *Maqāṣid al-sharī'ah* framework to analyze fintech adoption behavior, demonstrating that ethical and religious factors significantly impact consumer trust in Islamic financial services. Additionally, by conducting a cross-country comparative study, this research provides valuable insights into how fintech adoption varies across Muslim-majority and

minority regions, offering policy recommendations for developing Sharia-compliant fintech ecosystems in ASEAN countries.

Social factor indicators: 1) Reference groups. According to Kotler (2021), a person's reference group consists of all groups that have a direct or indirect influence on their attitudes or behavior. A group that has a personal impact on an individual is referred to as a membership group. In contrast, a group that has an indirect influence on an individual is referred to as an aspirational group. 2) Family: The family is the most important consumer buying organization in society, and family members are the most influential primary reference group. In fact, even if buyers no longer interact deeply with their families, the influence of the family on the buyer's behavior can remain significantly permanent (Kotler & Keller, 2021). 3) Role and status: An individual participates in several groups throughout their life. Their role and status can significantly impact their position within each group. A role includes the activities that an individual is expected to perform. Each role results in a status. People choose products that can communicate their role and status in society. Therefore, marketers must be aware of the potential status symbols of products and brands (Achrol & Kotler, 2022).

4. Cultural Factors

Culture is the most fundamental determinant of an individual's values, preferences, and financial behavior, influencing decision-making processes in fintech adoption and digital financial services (Falola & Adebayo, 2018). Cultural factors influence how individuals perceive risk, trust financial institutions, and interact with technology-based financial services, particularly in Muslim-majority societies, where religious beliefs impact economic activities (Sum, 2023). In the context of fintech lending, cultural norms determine attitudes toward debt, financial literacy levels, and consumer trust in digital finance platforms (Emonena & Matteo, 2020). The Islamic finance culture, which emphasizes riba-free (interest-free) and ethical financial transactions, has a significant impact on fintech adoption among Muslim consumers (Ashraf et al., 2021). Millennials, representing the largest working-age population, play a crucial role in driving the growth of digital financial ecosystems; yet, their financial behavior differs significantly from that of previous generations (Rahmah, 2015). Understanding how cultural elements such as societal norms, subcultures, and social class influence financial decision-making is essential for developing fintech models that align with consumer expectations across Indonesia, Malaysia, and Thailand (Zheng et al., 2022).

Several theoretical models explain the relationship between culture and financial decision-making, particularly in the context of fintech adoption. Hofstede's Cultural Dimensions Theory suggests that societies with high uncertainty avoidance are less likely to adopt digital financial services, as individuals prefer stable and regulated financial environments (Bojovic et al., 2022). In contrast, low uncertainty avoidance cultures, such as those in Malaysia and Indonesia, exhibit higher adaptability to fintech solutions, particularly when aligned with Islamic financial values (Erba & Nofrianto, 2022). Latif's Consumer Behavior Model (2019) highlights that culture, subculture, and social class shape consumer preferences, influencing whether individuals perceive fintech lending as an ethical and acceptable financial solution. Additionally, the Diffusion of Innovations Theory

(Ashraf et al., 2021) explains how cultural acceptance influences the adoption of financial technologies, where early adopters—typically younger, tech-savvy individuals—drive digital finance trends. The *Maqāṣid al-sharī'ah* framework further contributes to understanding how Islamic financial principles interact with cultural influences, ensuring that fintech solutions remain both ethically compliant and socially acceptable (Bojovic et al., 2022). These theoretical models offer a comprehensive framework for examining how cultural factors influence the adoption of Islamic fintech by consumers in ASEAN markets.

Research on cultural influences in fintech adoption has primarily focused on individual country studies, leaving gaps in cross-regional analyses. Studies on Indonesia's fintech sector indicate that cultural perceptions of debt significantly impact consumer trust in online lending platforms, particularly in Muslim-majority regions where Islamic financial principles shape attitudes toward borrowing (Ismail & Rahman, 2020). In Malaysia, research highlights the role of subcultures, with ethnic and religious groups influencing fintech adoption behaviors (Yusof et al., 2021). However, Thailand remains understudied in cultural fintech research, despite evidence suggesting that social class and subcultural differences shape financial habits in Muslim-majority provinces (Mamat et al., 2022). While prior studies emphasize technological and economic determinants of fintech growth, they often overlook the cultural aspects that influence consumer trust and decision-making in Islamic fintech adoption (Kusnadi & Ramadhan, 2022). A comparative study across Indonesia, Malaysia, and Thailand is essential to identify cultural similarities and differences in fintech lending preferences, contributing to a broader understanding of fintech adoption in diverse Muslim-majority and minority contexts.

This study employs a multi-theory framework to examine the influence of culture, subcultures, and social class on fintech lending behavior in Indonesia, Malaysia, and Thailand. Hofstede's Cultural Dimensions Theory is employed to compare risk perception and trust in fintech platforms across various cultural contexts, examining how uncertainty avoidance affects adoption rates (Hofstede, 2001). Setiadi's Consumer Behavior Model (2003) is employed to examine how subcultures and generational differences impact digital financial preferences, particularly among millennials and Gen Z consumers who are more receptive to fintech solutions (Strauss & Howe, 1991). The Diffusion of Innovations Theory (Rogers, 1995) is applied to analyze how fintech lending spreads across different social classes and cultural groups, identifying early adopters of Islamic fintech solutions. The *Maqāṣid al-sharī'ah* framework is integrated to evaluate whether fintech lending aligns with Islamic financial ethics, ensuring compliance with riba-free and ethical financial principles (Dusuki & Abdullah, 2007). By employing these theoretical perspectives, the study offers a structured framework for understanding the cultural dimensions of fintech adoption in ASEAN Muslim markets.

This study contributes to the growing body of literature on Islamic fintech adoption by integrating cultural and financial perspectives in analyzing consumer behavior across Indonesia, Malaysia, and Thailand. Unlike previous research that primarily examines technological and economic factors, this study emphasizes the role of societal norms, subcultures, and social class in

shaping attitudes toward digital financial services. Additionally, it extends the application of Hofstede's Cultural Dimensions Theory and Setiadi's Consumer Behavior Model in fintech research, demonstrating how cultural factors influence trust and adoption rates in Islamic digital finance. By incorporating the *Maqāṣid al-sharī'ah* framework, this study further explores how fintech lending can align with both cultural values and Islamic financial ethics, ensuring that digital financial services remain both accessible and ethically compliant. Moreover, by offering a comparative analysis across Indonesia, Malaysia, and Thailand, this research provides valuable insights into cross-cultural fintech adoption patterns, offering policy recommendations for expanding Islamic fintech services in culturally diverse ASEAN markets.

C. Method

This study employed a comparative qualitative approach to analyze fintech lending adoption among Muslim millennials in Indonesia, Malaysia, and Thailand, focusing on the economic, social, and cultural factors that influence borrowing behavior. A mixed-method approach was used, combining survey data, in-depth interviews, and policy analysis to ensure a comprehensive understanding of Islamic financial ethics in digital lending practices. The study not only investigated consumer perceptions but also evaluated regulatory frameworks governing Islamic fintech in the three countries.

Data collection consisted of primary and secondary sources. Primary data was obtained through semi-structured interviews with fintech users, financial regulators, and Sharia finance experts. The study targeted Muslim millennials (ages 20–40), as they represented the most active demographic in fintech adoption. A minimum of 50 respondents per country was selected using purposive sampling, ensuring diverse perspectives from urban and rural regions, different income levels, and varying degrees of financial literacy. Additionally, 10 financial experts and policymakers per country were interviewed to assess the regulatory landscape, the integration of Sharia compliance, and fintech market trends. The interviews were designed to capture consumer motivations, regulatory gaps, and ethical concerns related to online lending.

Secondary data included policy documents, fintech market reports, and academic literature on Islamic finance and digital lending. Official regulatory guidelines from Indonesia's OJK (Otoritas Jasa Keuangan), Malaysia's Bank Negara, and Thailand's Ministry of Finance were analyzed to identify similarities and differences in Islamic fintech governance. The study also reviewed case studies from successful Islamic fintech platforms, such as Indonesia's ALAMI Sharia, Malaysia's Ethis, and Thailand's nascent Islamic banking initiatives, to understand how different fintech models align with *maqāṣid al-sharī'ah* (the objectives of Islamic law).

For data analysis, the study applied thematic coding to categorize emerging themes from interviews and policy documents. Data is analyzed through a cross-country comparative framework, highlighting common challenges, best practices, and unique regulatory differences in each market. The *Maqāṣid al-sharī'ah* framework is used to assess the ethical implications of fintech

lending. At the same time, the Technology Acceptance Model (TAM) and Islamic Financial Behavior Model (IFBM) provide insights into consumer adoption trends. The Regulatory Sandboxing Theory was applied to evaluate the effectiveness of fintech regulations in ensuring consumer protection and promoting Sharia-compliant financial inclusion.

To enhance empirical validity, the study employed triangulation methods, cross-referencing interview data, survey responses, and policy documents to ensure consistency and accuracy. This approach ensured that findings were not solely reliant on self-reported consumer data but were also validated through expert insights and regulatory assessments. Limitations of the study included potential sampling biases due to differences in fintech adoption rates across the three countries, as well as challenges in obtaining regulatory data in Thailand, where Islamic finance was still in its early stages of development. However, these limitations were mitigated by cross-referencing data with global Islamic finance reports and fintech industry benchmarks.

D. Results

1. Research Instrument Testing

a. Validity Test

The validity test conducted by the researcher used SPSS version 20, focusing on the Corrected Item-Total Correlation value. Suppose the Corrected Item-Total Correlation value for each variable or item is greater than the r-table value. In that case, the instrument is considered valid and can be used for the actual research.

In this study, a trial test was conducted with 40 respondents, who answered all 22 items from the variables. The significance test was carried out using the r-table value with a significance level of 0.05 in a two-tailed test. The r-table was calculated using the formula df = (N-2), resulting in df = (40-2) = 38. The r-table value is 0.3120 (see the appendix for the table). If the result is positive and the r-calculated value is greater than the r-table value, the item is deemed valid; however, if the r-calculated value is less than the r-table value, the item is deemed invalid. The following are the validity test results for each variable and item based on 40 respondents:

Table 1: Validity Test Results

Variabel	Item	Corrected item total correlation	Rtabel	Sig	Explanation
Economic Factor	PE1	0,743	0,3120	0,000	Valid
	PE2	0,485	0,3120	0,001	Valid
	PE3	0,695	0,3120	0,000	Valid
	PE4	0,683	0,3120	0,000	Valid
	PE5	0,796	0,3120	0,000	Valid

	PE6	0,642	0,3120	0,000	Valid
Social Factor	PS1	0,616	0,3120	0,000	Valid
	PS2	0,860	0,3120	0,000	Valid
	PS3	0,799	0,3120	0,000	Valid
	PS4	0,725	0,3120	0,000	Valid
	PS5	0,824	0,3120	0,000	Valid
	PS6	0,668	0,3120	0,000	Valid
Cultural factor	PB1	0,831	0,3120	0,000	Valid
	PB2	0,872	0,3120	0,000	Valid
	PB3	0,939	0,3120	0,000	Valid
	PB4	0,937	0,3120	0,000	Valid
	PB5	0,942	0,3120	0,000	Valid
	PB6	0,936	0,3120	0,000	Valid
Fintech lending	PPO1	0,843	0,3120	0,000	Valid
	PPO2	0,821	0,3120	0,000	Valid
	PPO3	0,864	0,3120	0,000	Valid
	PPO4	0,844	0,3120	0,000	Valid

Source: Processed Data, 2024

Based on Table 1, all the statements used in the questionnaire were declared valid after being tested, as the corrected item-total correlation is greater than the critical r-value (r-table) = 3.120. Therefore, the validity test conducted was valid and could be used as an item for the actual research testing.

b. Reliability Test

The reliability test was used to determine whether each variable in this questionnaire can be used more than once by the same respondents. A variable was considered reliable if it had a Cronbach's Alpha value greater than 0.60 (Nunally, as cited in Ghozali, 2013).

The results of the reliability test for the instruments of all variables were presented in the table below:

Table 2: Reliability Test Results

No	Variabel	*Cronbach's Alpha*	Batas Realibilitas	Keterangan
1	Economics Factors (X_1)	0,753	0,60	Reliabel
2	Social Factors (X_2)	0,841	0,60	Reliabel

3	Culture Factors (X_3)	0,958	0,60	Reliabel
4.	Online Loan (Y)	0,864	0,60	Reliabel

Source: Processed Data, 2024

Based on Table 2, Cronbach's Alpha values for each variable vary but generally exceed the reliability threshold (0.60). Therefore, the variables in this study are reliable.

c. Classical Assumption Test

The classical assumption test was used to determine whether symptoms were present in this study, such as residual normality, multicollinearity, and heteroscedasticity in the regression model. A regression model can be considered good if it meets the assumptions that the data are typically distributed, there is no multicollinearity, and no heteroscedasticity occurs.

Normality Test

The normality test in this study was used to observe and determine whether the collected data are typically distributed. This test used the Kolmogorov-Smirnov test. If the test results showed a significance value greater than 0.05, the data were considered normally distributed. Conversely, if the significance value was less than 0.05, the data were not normally distributed.

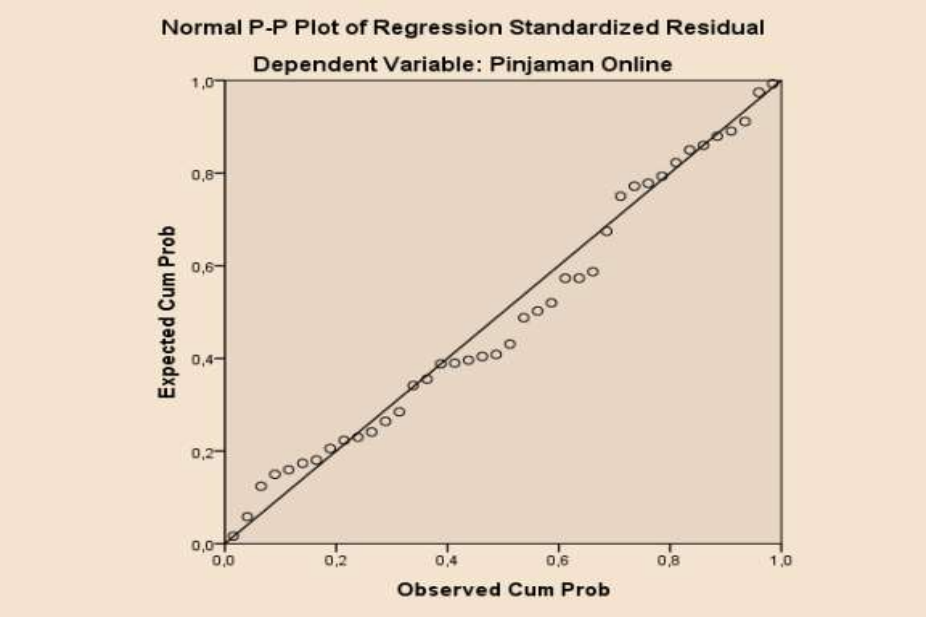
Table 3: Normality Test

		Unstandardized Residual
N		40
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	1,98216576
Most Extreme Differences	Absolute	,097
	Positive	,097
	Negative	-,065
Kolmogorov-Smirnov Z		,614
Asymp. Sig. (2-tailed)		,846

Source: Processed Data SPSS, 2024

The Sig value of 0.846 indicated that the data were normally distributed, as it exceeds 0.05. Therefore, the data were typically distributed.

Figure 2: Normality Test P-Plot



The results of the normality test in this study were also supported by the P-plot diagram above. The points in the diagram followed the diagonal line and did not deviate far from the regular line. Therefore, the data in this study were typically distributed.

Multicollinearity test

The Multicollinearity Test was used to determine whether multicollinearity existed by examining the Variance Inflation Factor (VIF). If the VIF was less than 10, it indicated that multicollinearity was not present. The results of the test in this study are shown in Table 4:

Table 4: Results of the Multicollinearity Test

Variabel	*Collinearity Statistics*		Keterangan
	Tolerance	***VIF***	
Economics Factors (X_1)	0,765	1,307	There is no multicollinearity
Social Factors (X_2)	0,625	1,605	There is no multicollinearity
Culture Factors (X_3)	0,773	1,294	There is no multicollinearity

Source: Processed Data SPSS, 2024

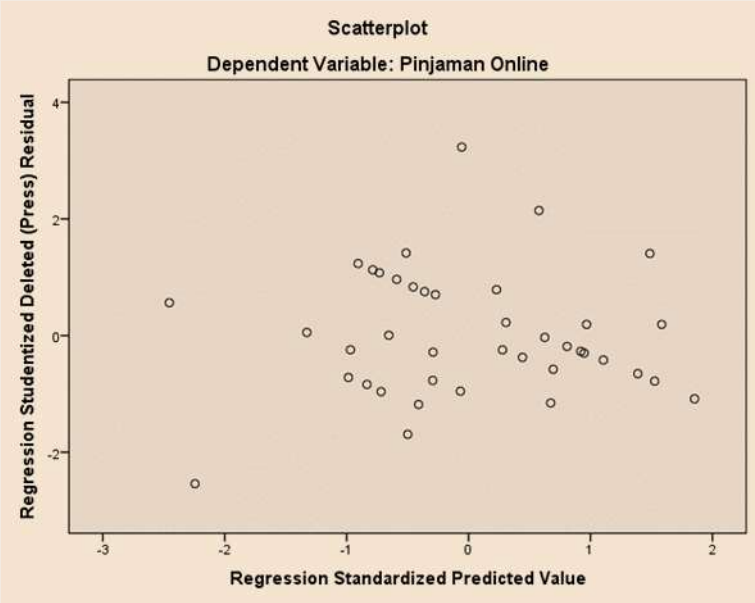
Based on Table 4, the tolerance value was greater than 0.10, and the VIF value was less than 10, indicating that there was no multicollinearity among the variables in this study.

Heteroscedasticity test

The heteroscedasticity test was used to determine whether there was an unequal variance of residuals across different observations. If the variance remained constant, it was called homoscedasticity, and if it differed, it was called heteroscedasticity.

A plot graph was then used between the predicted independent variables (ZPRED) and the residuals (SRESID). The decision-making criterion was based on identifying any specific pattern. If a pattern was found, it was suspected that the regression model had a heteroscedasticity issue, as follows:

Figure 3: Heteroscedasticity test



From Figure 3, the points or plots in this heteroscedasticity test were evenly distributed both above and below the diagonal line, which represented the zero (0) point. Additionally, no pattern, whether narrowing or expanding along the diagonal line, was formed. Therefore, there was no indication of heteroscedasticity in this test.

Multiple Linear Regression Test

Multiple linear regression test analysis examines the relationship or connection between two or more independent variables (X) and a dependent variable (Y). This analysis was used to

determine whether a positive relationship existed between the independent variable (X) and the dependent variable (Y). The multiple linear regression analysis in this study analyzed the variables of Knowledge (X1), Promotion (X2), Location (X3), Social Environment (X4), and the decision-making of the people in Sabang (Y), as shown in Table 5

Table 5: Results of the Multiple Linear Regression Analysis Test

Model	Unstandardized Coefficients	
Model	B	Std. Error
(Constant)	7,904	1,798
Economics	,189	,088
Social	,269	,090
Culture	-,139	,053

Source: Processed Data SPSS, 2024

$$\mathbf{Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e}$$

$$\mathbf{Y = 7{,}904 + 0{,}189\ X_1 + 0{,}269\ X_2 + 0{,}\text{-}139\ X_3 + e}$$

1. The value of *a* was 7.904, representing the constant or state when the variable of online loan usage among the millennial Muslim generation in Banda Aceh (Y) was influenced by other variables, namely Economic Factor (X1), Social Factor (X2), and Cultural Factor (X3). If the independent variables were absent, the dependent variable would not change.
2. *B1* = 0.189 meant that if the other independent variables were 0, the online loan usage among the millennial Muslim generation in Banda Aceh would be 0.189. The positive coefficient indicated a positive relationship between the economic factor and the use of fintech lending among the millennial Muslim generation in Banda Aceh. This meant that if the value of X1 increased by 1 unit, the value of Y (online loan usage) would also increase by 0.189 units.
3. *b2* = 0.269 meant that if the other independent variables were 0, the online loan usage among the millennial Muslim generation in Banda Aceh would be 0.269. The positive coefficient indicated a positive relationship between the Social Factor and the usage of fintech lending among the millennial Muslim generation in Banda Aceh. This meant that if the value of X2 increased by 1 unit, the value of Y (online loan usage) would also increase by 0.269 units.
4. *B3* = -0.139 meant that if the other independent variables were 0, the online loan usage among the millennial Muslim generation in Banda Aceh would be -0.139. The negative coefficient indicated that there was no positive relationship between the cultural factor and the use of fintech lending among the millennial Muslim generation in Banda Aceh. It meant

that if the value of X3 decreased by 1 unit, the value of Y (online loan usage) would also decrease by 0.139 units.

Hypothesis Testing

1. Simultaneous Test (F Test)

To determine whether the independent variables influenced the dependent variable, the F test was used. The criteria for fintech lending were as follows:

- If F-calculated (Fhitung) > F-table (F-tabel) and the significance value < 0.05, then H_0 was rejected and H_1 was accepted.
- If F-calculated (Fhitung) < F-table (F-tabel) and the significance value > 0.05, then H_0 was accepted and H_1 was rejected.

The results of the F test can be explained in the table below:

Table 6: Results of the Simultaneous Test

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	102,670	3	34,223	8,040	,000[b]
Residual	153,230	36	4,256		
Total	255,900	39			

Source: Processed Data SPSS, 2024

Based on Table 6, the result of the ANOVA test showed that the calculated F-value (F-hitung) was 8.040, with a significance level of 5%, equivalent to 3.24 (as indicated in the F-table). The hypothesis testing results indicated that the F-calculated value of the regression calculation is 8.040, while the F-table value was 3.24. Since F-calculated was greater than F-table (8.040 > 3.24) and the significance value was 0.000 < 0.05, H_0 was rejected, and the regression equation was deemed valid. Thus, it could be statistically concluded that the independent variables simultaneously influenced the dependent variable. There was a simultaneous effect between the independent variables (Economic Factor (X1), Social Factor (X2), and Cultural Factor (X3)) and Fintech lending (Y). Therefore, it could be stated that H_0 was rejected, and H_a was accepted.

2. Partial Test (T-Test)

The partial test was used to determine the extent to which individual independent variables contribute to explaining the dependent variable. This T-test was conducted by comparing the t-calculated thitung value with the ttable ttabel value, as well as checking if the significance value is < 0.05 or if thitung > ttabel. The following table explains the results obtained by the researcher using SPSS version 20:

Table 7 Results of the Partial Test (T-Test)

Variabel	T	Sig
Economics Factors (X_1)	2,148	0,039
Social Factors (X_2)	2,982,	0,005
Culture Factors (X_3)	-2,619	0,013

Source: Processed Data SPSS, 2024

Based on Table 7, the hypothesis testing results for each independent variable were as follows:

a. First Hypothesis: This study hypothesized that the Economic Factor (X1) had a significant effect on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Based on the T-test analysis, the calculated t-value for the Economic Factor (X1) was 2.148, while the t-table value is 2.024. Since thitung > ttabel, and the significance value for thitung was 0.039, which was less than 0.05 (significance < 0.05), H1 was accepted. This indicates that the Economic Factor (X1) has a significant influence on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Therefore, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_1) was accepted.
b. Second hypothesis: This study hypothesized that the Social Factor (X2) significantly affected the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Based on the T-test analysis, the calculated t-value (thitung) for the Social Factor (X2) was 2.982, while the t-table value (ttabel) was 2.024. Since thitung > ttabel, and the significance value for thitung was 0.005, which was less than 0.05 (significance < 0.05), H2 was accepted. This indicated that the Social Factor (X2) had a significant effect on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Therefore, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_1) is accepted.
c. Third hypothesis: This study hypothesized that the Cultural Factor (X3) significantly affected the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Based on the T-test analysis, the calculated t-value for the Cultural Factor (X3) was 2.619, while the t-table value was 2.024. Since thitung > ttabel, and the significance value for thitung was 0.013, which was less than 0.05 (significance < 0.05), H_3 was accepted. This indicated that the Cultural Factor (X3) had a significant and negative effect on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Therefore, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H3) was accepted.

3. Coefficient of Determination

The coefficient of determination was used to assess the extent to which the independent variables could explain the variation in the dependent variable. In this case, it measured how well the independent variables—Economic Factor (X1), Social Factor (X2), and Cultural Factor (X3)—explained the variance in the dependent variable, which was the use of fintech lending among the

millennial Muslim generation in Banda Aceh (Y). If the value of R^2 was closer to 1, it indicated a better model fit, meaning that the independent variables explained a larger proportion of the variance in the dependent variable, as shown at Table 8:

Table 8: Table of Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,633[a]	,401	,351	2,063	1,795

Source: Processed Data SPSS, 2024

Based on Table 8, the R-squared (R^2) value was 0.401, or 40.1%. This indicated that the variables Economic Factor (X1), Social Factor (X2), and Cultural Factor (X3) had a 40.1% influence on the use of fintech lending among the millennial Muslim generation in Banda Aceh. Factors outside the scope of this study influence the remaining 59.9%.

The first hypothesis of this study proposes that economic factors (X1) have a significant impact on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Based on the t-test analysis, the calculated t-value for the Economic Factors (X1) variable was 2.148, which is greater than the critical t-value of 2.024. Therefore, the calculated t-value was greater than the critical t-value, and the significance level for the t-value of the Economic Factors (X1) variable was 0.039, which was less than 0.05. Based on these results, H_1 was accepted, indicating that economic factors (X1) had a significant effect on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Therefore, it can be concluded that H_{01} was accepted.

The second hypothesis of this study proposes that Social Factors (X2) had a significant impact on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Based on the t-test analysis, the calculated t-value for the Social Factors (X2) variable was 2.982, which is greater than the critical t-value of 2.024. Therefore, the calculated t-value was greater than the critical t-value, and the significance level for the t-value of the Social Factors (X2) variable was 0.005, which was less than 0.05. Based on these results, H_2 was accepted, meaning that Social Factors (X2) had a significant effect on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Therefore, H_{02} was accepted.

The third hypothesis of this study suggested that Cultural Factors (X3) had a significant impact on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Based on the t-test analysis, the calculated t-value for the Cultural Factors (X3) variable was 2.619, which is greater than the critical t-value of 2.024. Therefore, the calculated t-value was greater than the critical t-value, and the significance level for the t-value of the Cultural Factors (X3) variable was 0.013, which was less than 0.05. Based on these results, H3 was accepted, meaning that Cultural

Factors (X3) had a negative and significant effect on the use of fintech lending among the millennial Muslim generation in Banda Aceh (Y). Therefore, H03 is rejected

E. Discussion

The findings of this study revealed significant differences in fintech lending adoption among Muslim millennials in Indonesia, Malaysia, and Thailand, shaped by economic conditions, regulatory frameworks, and cultural attitudes toward Islamic finance. While fintech lending had grown rapidly in all three countries, its integration with Sharia-compliant financial models varies due to differences in Islamic banking ecosystems and regulatory oversight. The study confirmed that Malaysia leads in Islamic fintech adoption, benefiting from a well-structured and centralized financial regulatory framework. In contrast, Indonesia exhibited high fintech penetration but low awareness of Sharia alternatives, and Thailand struggled due to regulatory and institutional barriers.

From a theoretical perspective, these findings align with Bojovic's Cultural Dimensions Theory, which suggests that countries with a high level of uncertainty avoidance, such as Malaysia, are more likely to develop structured financial regulations that enhance consumer trust in fintech (Bojovic et al., 2022). Indonesia, with its rapidly growing fintech sector and low awareness of Islamic finance, reflects the Technology Acceptance Model (TAM), as fintech adoption in the country is primarily driven by perceived ease of access rather than ethical considerations (Admiral & Pauck, 2023). In contrast, Thailand's low Islamic fintech penetration supports Regulatory Sandboxing Theory, which highlights that a lack of regulatory frameworks prevents innovation and structured development in digital finance (Bin-Nashwan, 2023). Additionally, the *Maqāṣid al-sharī'ah* framework is particularly relevant in explaining why Malaysia has a stronger Islamic fintech ecosystem, as its financial policies emphasize risk-sharing models (Mudharabah and Musharakah), ensuring compliance with Sharia financial ethics (Sidani & Al Ariss, 2015).

In Indonesia, fintech lending has become a dominant force in the financial sector, with Otoritas Jasa Keuangan (OJK) regulating both conventional and Sharia-compliant fintech platforms. Interviews with consumers suggest that economic necessity and accessibility are key drivers of online loan adoption, particularly among young professionals and small business owners. However, while Sharia-compliant fintech platforms like ALAMI and Ammana are growing, survey data shows that many borrowers remain unaware of Islamic fintech alternatives, leading them to use conventional interest-based loans despite religious concerns. Experts from Sharia financial institutions highlight that the lack of education on Islamic fintech solutions and aggressive marketing by conventional P2P lenders contribute to this trend.

A comparison with previous studies indicates that Indonesia's low adoption of Sharia fintech aligns with findings from Alsamdi (2024), who emphasized that consumer trust in Islamic financial products is heavily influenced by targeted awareness campaigns and government support. In contrast, a study by Razak et al (2021) found that Malaysian consumers are more likely to use Islamic fintech due to stronger institutional promotion of Sharia-compliant products. The Indonesian case thus reinforces existing research, demonstrating that both awareness levels and the

perceived accessibility of alternative financing options shape consumer behavior in fintech adoption.

In Malaysia, the fintech lending landscape is more regulated and structured, with Bank Negara Malaysia (BNM) promoting Sharia-compliant digital finance. Unlike in Indonesia, Malaysian Muslim consumers display higher awareness and adoption of Islamic fintech, supported by government-backed platforms such as Ethis and microfinance initiatives from Islamic banks. Interviews with financial regulators reveal that Malaysia's centralized Islamic finance ecosystem ensures better compliance with *maqāṣid al-sharīʿah*, reducing reliance on conventional fintech loans. However, some fintech borrowers express concerns about the stringent qualification requirements for Islamic digital financing, which may steer specific consumers toward easier-to-access conventional fintech loans. Survey responses indicate that fintech users in Malaysia prioritize transparency and risk-sharing mechanisms, making platforms that offer profit-sharing models (Mudharabah and Musharakah) more appealing than debt-based models.

The Malaysian case aligns with findings from Razak et al. (2021 021), which highlight that Malaysia's strong Islamic finance governance fosters trust and adoption in fintech lending. However, the issue of strict qualification criteria limiting accessibility was also noted in Keng-Soon et al (2019), who suggested that Malaysia's Islamic finance institutions must balance regulatory compliance with inclusivity. The findings of this study, therefore, reinforce the argument that while Malaysia has a well-developed Islamic fintech ecosystem, challenges related to accessibility and inclusivity must be addressed to maximize financial inclusion.

In contrast, Thailand faces significant challenges in developing an Islamic fintech ecosystem, despite a sizable Muslim population in the southern provinces. Unlike Indonesia and Malaysia, Thailand lacks dedicated Islamic fintech regulations, leading to limited adoption of Sharia-compliant digital finance solutions. Survey results show that Muslim borrowers in Thailand rely heavily on informal community-based lending systems (hilla) rather than fintech loans, citing distrust in existing financial institutions. Interviews with policymakers confirm that the absence of a centralized Islamic financial authority hinders the growth of Sharia-compliant fintech, as Thai regulatory bodies primarily oversee conventional banking with no specialized framework for Islamic digital lending. Despite this, emerging fintech platforms are exploring interest-free microfinance models to cater to Muslim-majority provinces, such as Pattani, Yala, and Narathiwat.

Comparing these findings with previous research, Kijkasiwat (2021) found that Thailand's Muslim communities face financial exclusion due to the absence of Islamic financial institutions in the country. This aligns with Wonglimpiyarat (2017), who argued that Thailand's regulatory focus on conventional banking creates significant barriers to the adoption of Islamic finance. The findings of this study reinforce these observations, further demonstrating that consumer demand alone is insufficient to drive Islamic fintech adoption without institutional backing. The Thai case highlights the need for regulatory reform, suggesting that Thailand could benefit from adopting a regulatory model similar to Malaysia's structured Islamic fintech framework.

A cross-country comparison reveals that Malaysia leads in Islamic fintech adoption, mainly due to its strong regulatory support and high public awareness. At the same time, Indonesia exhibits high fintech penetration but low awareness of Sharia alternatives, and Thailand struggles due to regulatory and institutional barriers. Thematic analysis of consumer responses suggests that economic necessity is the primary driver of fintech lending adoption across all three countries; however, Sharia compliance becomes a decisive factor only when viable alternatives are unavailable. The lack of Sharia-compliant digital finance solutions in Thailand demonstrates that consumer preference alone is insufficient without institutional support.

These findings underscore the importance of regulatory harmonization across ASEAN countries, suggesting that Thailand could benefit from adopting regulatory models similar to Malaysia's Sharia-compliant fintech framework. At the same time, Indonesia could enhance its awareness campaigns to promote the adoption of Islamic digital finance solutions. The study also highlights the need for cross-border Islamic fintech partnerships, enabling fintech firms in Malaysia and Indonesia to expand their services to underdeveloped Islamic finance markets, such as Thailand.

The findings of this study raise critical questions regarding the scalability, accessibility, and sustainability of Islamic fintech lending across ASEAN markets. The study reveals that Islamic fintech is most successful when supported by strong regulatory oversight, consumer trust, and public awareness, as seen in Malaysia. However, the Indonesian and Thai cases illustrate the risks associated with incomplete regulatory frameworks, where Islamic fintech either remains underutilized (in Indonesia) or lacks the necessary regulatory infrastructure for implementation (in Thailand).

Another critical issue is the gap between financial regulation and consumer financial literacy, particularly in Indonesia and Thailand. While Indonesia has a structured Islamic fintech framework, the findings suggest that many consumers remain unaware of Sharia-compliant alternatives, resulting in widespread use of conventional fintech loans. Similarly, Thailand's lack of consumer awareness about Islamic fintech contributes to low adoption rates, further exacerbated by the absence of formalized Islamic financial regulations. These findings suggest that consumer trust in fintech lending is shaped not only by religious values but also by regulatory clarity and accessibility.

F. Conclusion

The study provides a comparative analysis of Islamic fintech lending adoption among Muslim millennials in Indonesia, Malaysia, and Thailand, revealing significant variations in regulatory frameworks, consumer awareness, and market penetration. The findings confirm that Malaysia has the most structured Islamic fintech ecosystem, supported by strong regulatory oversight and high public awareness. At the same time, Indonesia demonstrates high fintech adoption rates but limited awareness of Sharia-compliant alternatives. In contrast, Thailand faces significant regulatory and

institutional barriers, resulting in low Islamic fintech penetration despite a sizable Muslim population in the southern provinces.

From an empirical perspective, the study highlights that economic necessity is the primary driver of fintech lending adoption across all three countries. However, the extent to which Islamic financial ethics influence borrowing decisions depends on the availability of Sharia-compliant alternatives and regulatory support. While Malaysia's well-integrated Islamic fintech sector ensures strong consumer trust, Indonesia's lack of financial literacy campaigns on Islamic digital finance has led to a preference for conventional fintech loans, even among Muslim consumers. The absence of an Islamic fintech regulatory framework in Thailand further exacerbates financial exclusion among Muslim-majority regions, where informal lending systems remain dominant.

Critically, the study highlights the importance of regulatory harmonization to ensure that fintech lending aligns with Sharia principles while remaining competitive within the broader ASEAN financial market. The variability in Islamic fintech governance across Southeast Asia suggests that consumer adoption is not solely determined by religious beliefs but also shaped by institutional policies, financial accessibility, and cross-border regulatory collaboration. The findings suggest that Malaysia's centralized Islamic finance governance can serve as a model for Indonesia and Thailand, particularly in developing regulatory mechanisms that ensure ethical lending practices and consumer protection.

Constructively, the study proposes several policy recommendations to enhance the adoption of Islamic fintech in ASEAN markets. First, Indonesia must strengthen consumer awareness initiatives on Islamic digital finance to encourage a shift from conventional fintech lending to Sharia-compliant alternatives. Second, Thailand should establish a dedicated regulatory framework for Islamic fintech, enabling Sharia-compliant digital lending solutions to expand in Muslim-majority provinces such as Pattani, Yala, and Narathiwat. Third, ASEAN policymakers should explore the development of a regional Islamic fintech governance framework, similar to the ASEAN Banking Integration Framework (ABIF), to promote cross-border Sharia-compliant financial services. Additionally, the study recommends enhanced regulatory oversight on ethical fintech practices to prevent exploitative lending while ensuring that Islamic fintech remains a viable alternative to conventional digital finance.

The study makes a significant contribution to the Islamic fintech discourse by providing a cross-country comparative perspective, bridging the gap between Islamic financial ethics and fintech innovation. However, several limitations must be acknowledged. First, the sample size for consumer interviews remains limited, which may affect the generalizability of findings across diverse income groups and regional demographics. Second, Thailand's Islamic fintech sector is still in its early stages, making longitudinal studies necessary to assess its development over time. Future research should explore quantitative modeling of Islamic fintech adoption rates, examining how government interventions, digital infrastructure, and financial education initiatives influence consumer decision-making in Southeast Asia.

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