

## Exploring the Essential Factors on Digital Islamic Banking Adoption in Indonesia: A Literature Review

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### Abstract

*The Islamic banking sector is going to change as a result of shifting customer behavior, rising expectations, the adoption of new technology, and the digitization of business and society in general. Islamic banking must become digitally savvy to survive in this new era of technology. Successful digital banking adoption affect by some factors. The purpose of this research is to identify the key success factor digital banking adoption on Islamic banking in Indonesia. This study employed a qualitative research design through library research techniques. The author reviewed and analyzed various published publications using a systematic literature review (SLR) approach. The findings of the study highlight that there are three key factors that affect digital banking adoption in Islamic banking. First demographic factors include gender, age, income, and education. The second is psychological factors which include security and trust. Third is technological factors which include relative advantage, compatibility, complexity, perceived risk, and perceived cost.*

**Keywords:** Digital Banking Adoption, Islamic Banking, Demographic, Psychological, Technological Factors.

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### 1. INTRODUCTION

Islamic banking is a financial institution that follows sharia principles in all of its operations and activities (Aisyah, 2018; Siska et al., 2021). Islamic banking is characterized by its partnership and mutual benefit principles, which creates an alternative banking system that benefits both the public and the bank. By emphasizing the principles of togetherness and participation in production, and eliminating any speculative activity in financial transactions, this system will prioritize factors linked to transaction fairness and ethical investing (Financial Authority Service, 2020)

Similarly to many other businesses, the Islamic banking sector is evolving as a result of changing customer behavior, rising expectations, adoption of new technology, and the digitization of business and society in general (Rahmayati, 2021). The Islamic banking industry's rapid development necessitates the company's ability to build a competitive edge in order to increase market share; one of its accomplishments

is the use of digitalization technology (Saba et al., 2019). Digital technologies are rapidly boosting a bank's connectedness with all stakeholders, including customers, employees, and suppliers, stimulating innovation through products and services that streamline banking procedures (Nugroho & Nugraha, 2020).

Digital banking is steadily gaining traction among consumers all around the world. In general, digital banking offers services similar to traditional banking. The difference is that all banking services are handled individually through a smartphone banking application. Customers can use digital banking to acquire financial services on their own (self-service), rather than going to the bank (Anggraeni et al., 2021).

Banking must become digitally adept in order to survive in this new era of technology. Failure to respond and adapt to the new environment will almost certainly result in huge losses and failure. Ramasastrri (2016) explained that financial Institutions can improve client satisfaction by providing full-featured

digital banking services. This can also help them achieve other business goals, save expenses, and increase customer satisfaction and loyalty. Baidhowi, (2018) highlighted that digitization not only assists banks in delighting their consumers and increasing customer retention, but it also aids in cost reduction, hence accelerating growth. Furthermore Margaret & Kinyuru (2018) stated digital banking is becoming more essential in the banking business a variety of reasons. It includes lower operating expenses, better service delivery, bigger profit margins, and improved digital analytics and predictive models, all of which contribute to a better customer experience overall.

Given the importance of digital banking, banks must expand on existing transformational strategies, which may not be enough to ensure long-term existence and profitability. Dell has developed a innovative and comprehensive framework that maps the current situation of digital banks and aids in the creation of tailored action plans. This model is known as The Dell Digital Maturity Model (Harvey et al., 2015). As shown in Figure 1, banks are classified into one of five levels based on their digital technology integration.

**Figure 1. Digital Banking Maturity Model**



Source: Dell (2015)

The physical bank is the first level. Physical channels are utilized to deliver services, with digital channels employed for information distribution and notifications. The second level is the online bank. Transactional services, such as payments made through digital channels are included in this level. Self-service Bank is the third level. Customers can make their own judgments at this level, which includes basic social networking and analytics services (such as online chat). Connected Bank is the fourth level, which combines concept branches, cross-channel integration with partial fulfillment, and maximal services via digital channels. The last level is digital bank. The bank of the future offers digital access to all services 24 hours a day, 7 days a week,

365 days a year, with a focus on functional innovations and a new operating model.

Then, (PWC, 2018) has developed a holistic structure that encompasses foundational, differentiated, and leading capabilities to ensure long-term digital banking success and sustainability. This framework presented in Figure 2.

**Figure 2. The Framework of Digital Banking**



Source: PWC (2018)

Foundational capabilities are a collection of behaviors and skills that banks should cultivate in order to build a solid foundation for digital banking. Foundational capabilities consist of several structures as follow:

- Digital IT Strategy: internalize and prioritize digital banking as a high priority
- CIO Collaboration: create a CIO-centric culture of collaboration and consistency
- Robust Security: Evaluate, design, and execute security assessment programs
- Data Quality Management: Prior to a hack attack or attempt, test security systems with real-world exercises to uncover flaws in the network and application infrastructure.
- Integrated Risk and Compliance: utilizing a comprehensive, organized data quality framework to limit technical risk, produce improved data output, and support business and IT alignment.

Differentiating capabilities is a term used to describe the ability to distinguish oneself from others. To set themselves apart, banks should hire personnel with high digital capabilities, implement a multi digital platform, and use advanced customer analytics to understand consumer behavior. Banks should focus on the following:

- Talent Management: Use a talent assessment framework to identify skill gaps and restructure the bank so that learning, hiring, and culture promote collaboration and innovation. Expand your human

resources approach to include think tanks and tech startups. Promote a collaborative and innovative culture by facilitating concentrated on-the-job training, mentorship, and peer coaching.

- Integrated Multi-Digital Channel: Use streamlined future-state IT methodologies to target and overcome legacy system issues. To gain the benefits of a digital presence, create and deploy secure customer-facing applications. To provide deeper and wider access to information across the bank, build data assets as platforms and enterprise services.
- Customer Analytics: Promote information sharing by utilizing communities of interest and voice-of-the-customer opportunities. To gain a better understanding of client habits, wants, and trends, use sophisticated data analytic.

Leading capabilities is assists banks in concentrating on their key business values. Banks should seek out and promote personnel with more sophisticated digital skills and a strong co-creation ambition in order to evolve as market leaders in their respective fields.

- Co-Creation of Products and Services: Create a co-creation strategy roadmap to show how value will be produced and to pave the way for program implementation. Share this roadmap with the rest of the organization.
- Develop a platform to bridge the gap between the existing state of the architecture and the future state of the architecture required to support a robust customer interaction and omni channel ecosystem.
- To drive growth, create communities through customer workshops and engage important internal and external stakeholder communities.
- Manage the process by facilitating engagement among key stakeholders in order to foster an innovative culture and teach teams to reach their goals on time and on budget.

Indonesia has a great potentiality in terms of digitization. In Indonesia, there are three trends that encourage the shift to digital banking. The first is that the number of internet users is increasing rapidly. With a population of over 273 million people, Indonesia has a 64 percent internet penetration rate, with 175 million internet users, and a 67 percent mobile penetration rate, with around 178 million mobile users. Ecommerce, online transportation, and online media will all benefit as a result of this. All of these sectors require a digital payment system that can

support them (Hootsuite, 2020). The second group is the young people, who are technologically savvy and use social media extensively. These demographic and behavioral shifts may be the most important of all. Indonesia's young consuming middle-class adapts quickly to technology improvements, and the number of people in this group is continually increasing. This market segment should be responsive to digital banking and fintech services. The last one is to strengthen the regulatory framework from the government in order to improve transaction channel interoperability and connectivity. This will enhance the adoption and growth of electronic payments. The new Bank Central Indonesia regulation governing the establishment of a National Payment Gateway (NPG) is expected to accelerate Indonesia's adoption of electronic payments (Haykal, 2020).

According to Darussalam et al., (2018), Islamic banks can generate significant value by taking a variety of ways, ranging from digitally enabling their current model to embracing disruptive new propositions, such as new consumer concepts for specific demographics. The Islamic banking industry can take advantage of these technological advancements to boost strategic business development efforts by appealing to a younger, more digital-savvy audience that has grown accustomed to the speed and convenience of using mobile apps in their daily lives and expects their banking and financial needs to be met in the same way. With a digital on boarding procedure, Islamic banks may take significant steps toward digitization right away. Customers can immediately start banking through digital on boarding, which simplifies difficult documentary requirements into a simple, straightforward digital encounter (Ali et al., 2019).

Potential digital banking particularly for Islamic banks must be supported with efforts to gain a better knowledge of how customers use these services. The acceptance and use of digital banking technology by customers is critical to its growth. It cannot be denied that the Islamic banking must consider two sides, namely the industry side and its clients. Industry has presented technology-based services, while the customer side has yet fully to adopt these services. It has become a major challenge to ensure that customers are willing to transact using this service. It's essential for Islamic banks to comprehend the factors that influence successful digital banking adoption. Concerning the research background presented, the

author is motivated to pursue study with the title **"Exploring the Essential Factors on Islamic Digital Banking Adoption in Indonesia; A Literature Review."** This study aims to identify factors affect successful on adoption digital transformation in Islamic banking industry.

## **2. RESEARCH METHODOLOGY**

This study used a qualitative research design to delve deeper into the factors that influence adoption of digital banking in Islamic banks. The qualitative research method that was used was library research. Library research is a type of research that collects information from records, reports, books, and other pertinent scientific sources. According to Mirzaqon & Purwoko (2018), library research entails gathering information and data from books, scientific literature references, and other scientific references such as proceedings and reports from an official institution or organization. The Systematic Literature Review method was utilized by the author in this research library. The Systematic Literature Review approach, according to Ahmad et al., (2021) is a sequence of methods for discovering, assessing, and interpreting all available study material in order to provide answers to predetermined research questions.

The planning stage, the implementing stage, and the reporting stage are the three key steps of the Systematic Literature Review technique. Identifying and selecting literature related to digital banking adoption is part of the first stage. At this point, the author searches for primary literature based on previous research from 2016 to 2021 in the form of journals, proceedings that have been published through internet media with the E-ISSN code, as well as reports from independent institutions or the government, such as the Financial Service Authority (OJK) and Bank Indonesia (BI). The author acquired data from existing literature and then synthesized the literature using narrative approaches during the implementation stage of the Systematic Literature Review process. Presenting of the report is the final step in the Systematic Literature Review technique. The authors write the findings of the research in this stage, which examines the factors that determine the success of digital banking adoption in Islamic banks. Following the description of the data, a conclusion is drawn as a result of solving the proposed research problem. Based on the systematic review that has conducted, the authors identify there are three main

factors in the successful adoption of digital banking in Islamic Bank. All of these factors will be discussed in research finding section.

## **3. RESEACRH FINDINGS AND DISCUSSION**

To understand how Islamic banks can effectively adopt digital transformation to support their growth, we must first identify the factors that influence digital banking adoption. Authors identified three primary factors based on a literature review, there are:

### **3.1. Demographic Factor**

Demographic characteristics such as religious, gender, age, and income influence on the motivation to use digital banking services. One's beliefs that can have an impact on one's attitudes and behavior is called religiosity. Johar & Suhartanto (2019) in their study conclude that religious is the most essential for Islamic banking consumers for using internet services. Men were more likely to use online banking services than women. This is proved by the study of (Haider et al., 2018) that conclude males are more task-oriented and value personality, value, and status, therefore perceived utility and perceived self-expressiveness have a significant impact on their intentions. Females, on the other hand, have identified a lack of IT expertise and trust, therefore perceived credibility has a huge impact on their decision. Then, in term of age, young people are more inclined toward internet banking as they are easy to adopt a new technology (Anggraeni et al., 2021). Lastly, the low-income customers are less likely to own a digital banking since they cannot afford to pay for an internet subscription on a monthly basis.

### **3.2. Psychological Factor**

#### **3.2.1. Perceived Security**

The use of internet banking services is hampered by security concerns. Security appears to be a major element in people's distrust of online banking service (Mahad et al., 2015). This is cause by lack of rules governing online banking/internet banking, both banks and clients are very concerned about security risks. Customers that utilize mobile banking services place a high value on security. Moreover Mahad et al., (2015) explained that security breaches can result in a variety of issues, such as exposing operating system data or preventing unwanted access to information, and customers don't trust the internet's security architecture. Vally & Shankar, 2020) stated that one of the reasons for client resistance to mobile banking services has been security concerns.

### 3.2.2. Perceived Risk

Perceived risk is a multi-dimensional construct that is described as a perception of the hazards associated with the usage of open internet infrastructure for the interchange of personal information (Mahad et al., 2015). The perception of risk is the most critical element that promoted or deterred consumers from using online banking and mobile banking (Mbama & Ezepue, 2018). Security and privacy are two key risk factors that may influence a user's decision to use an e-transaction platform. Encryption technology is the most common in all bank sites for secure privacy information, combined with a combination of different unique identifiers, such as the password, the mother's name, a date that cannot be forgotten, or the user logon account will be automatically logoff after a few minutes of inactivity (Johar & Suhartanto, 2019).

### 3.2.3. Trust

The term "trust" refers to one's total confidence that a feature or system will perform as expected in terms of quality and reliability. Trust may also be defined as a preference for relying on another party that one believes to be trustworthy based on prior experience (Mbama et al., 2018). Trust is earned through time by demonstrating one's capability, reliability, and honesty (Margaret & Kinyuru, 2018). According to Kaur et al., (2021) trust is a critical aspect in the development of digital banking services. The study of Mufarih et al., (2020) revealed that users' attitudes and intentions to use digital banking are more heavily influenced by their perceptions of trust and risk. Moreover Mufarih et al., (2020) stated that customers in Indonesia were found to have a high level of trust in Islamic banks.

## 3.3. Technological Factor

### 3.3.1. Relative Advantage

Consumers are aware of the benefits that come with using digital banking. According to Riza (2019) the relative advantage is a likely factor in encouraging the usage of digital Islamic banking service. Furthermore, he explains that convenience, ease of use, a richness of information, reliability, speed, and cost effectiveness are all essential factors in the success of digital Islamic banking. Kaur et al., (2021) opined that an innovation's perceived relative advantage influences its adoption. Customers who use internet banking can better manage their many accounts. Customers benefit from numerous aspects of digital banking, including convenience, time

savings, and better financial control. Due to the perceived relative advantage, a bank customer's many benefits from using digital banking are likely to persuade them to use these services.

### 3.3.2. Compatibility

Individuals' perceptions of new products and services' have no conflict with their wants, beliefs, values, and experiences are referred to as compatibility. Compatibility is one of the most important factors in the spread of innovation, with strong compatibility perceived by individuals contributing to rapid acceptance of new technologies (Margaret & Kinyuru, 2018). Several studies have found that perceived compatibility has a significant affect on people's willingness to use digital banking services. Rahmayati (2021) explained when users have begun to use digital banking service and they find it to be more compatible with their lifestyle, ensuring that they continue to use it. Riza (2019) clarified that it is simpler for a user to begin utilizing an invention if the user believes the innovation would be suitable with their job requirements and that the total value achieved from using the innovation will be satisfactory.

### 3.3.3. Complexity

Willingness the consumer adoption of digital banking has been influenced by the complexity of the digital platform. Johar & Suhartanto (2019) described that the more complicated service of digital banking, the less likely it is to be adopted. Therefore, consumers' decisions are influenced by complexity. The complexity is reverse of ease of use which has been shown to have a direct impact on internet-based technology adoption. It can be suggested that the easier something is to understand and utilize, the more likely it is to be adopted by a consumer (De Villiers et., 2020).

## 4. CONCLUSION

The Islamic banking sector will change rapidly as consequence of changing customer behavior, rising expectations, adoption of new technology, and the digitization of business in general. Successful adopt digital banking service on Islamic bank effect by some factors. Based on our systematic literature review on digital banking adoption, author identified three main factors affecting in adoption digital banking in Islamic bank. First is demographic factor which religious, gender, age, and income. Second is psychological factor that include perceived security, perceived risk,

and trust. The last one is technological factor that include relative advantage, compatibility, and complexity. Author suggest for future research focus on developing a model of digital banking on Islamic bank based on factors mentioned above.

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