

Digital Optimization In Improving Credibility Sharia Financing Institution

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Abstract

This study aims to examine the optimization of digitalization in financing institutions, focusing on its transformative role in the financial sector, its impact on financial inclusion, and the integration of sharia compliance. The research also investigates how digital optimization enhances the credibility and accessibility of Islamic financial institutions. Using a qualitative literature analysis approach, this study reviews current trends, innovations, regulatory challenges, and opportunities related to the digital transformation of the Islamic finance sector. The findings indicate that digitalization holds significant potential to broaden access to Islamic financial services, particularly for previously underserved populations. It has enabled more affordable and efficient services for individuals and small and medium-sized enterprises (SMEs), contributing to greater financial inclusion. Nevertheless, the sector continues to face several barriers, including complex regulatory frameworks and insufficient consumer literacy regarding digital financial products. To ensure sustainable growth, the study highlights the need for collaborative efforts among regulators, industry stakeholders, and Islamic financial institutions. Such cooperation is essential to create a supportive ecosystem that fosters innovation while upholding sharia principles. This research recommends further interdisciplinary inquiry into unexplored dimensions of the digital economy, particularly within the context of sustainable development and Islamic finance.

Introduction

In the changing global context, Islamic economics has emerged as a topic of increasing interest. Islamic economics is not only based on a financial system that is in accordance with Islamic teachings, but is also a concept that upholds the principles of justice, sustainability, and financial inclusion. By definition, Islamic economics is an economic system that is based on Islamic principles. These principles cover topics such as *riba* (interest), unfairness in transactions, excessive specialization, and investment in illicit industries such as alcohol and gambling. Beyond the financial system, Islamic economics also encourages a more equitable distribution of wealth, greater financial inclusion, and poverty alleviation. (AS Hakim & Nisa, nd, p. 144) In the era of the industrial revolution 4.0, technological developments are certainly very rapid, not only in Indonesia but the world also feels the development of technology that changes significantly every time. Indonesia is said to be the country that occupies the sixth position as the country with the largest use of technology in the world in 2013-2018. A situation like this can occur because technology continues to develop and has penetrated many industries, including the financial sector. Digital transformation is not only about introducing new technology for use in existing activities, it is also the process of designing all business models. In order to support entrepreneurs' efforts in implementing new business models and digital transformation in their businesses, it is important for the government to create structural policies for long-term interests. This policy is not only used to deal with the Covid-19 pandemic but also the future Industrial Era 4.0. An example is fintech (financial technology) which is a technology to support financial services. The development of fintech has given rise to many application innovations in financial services, such as payment instruments, loan instruments and others that are starting to become famous in this digital era. (Majid, 2022, p. 112)

Therefore, it is a differentiator or distinction of this research with previous researchers, focusing on how digitalization can increase the credibility of Islamic financing institutions in general, covering aspects of service, efficiency, transparency, and public trust but becoming a digital distinction based on sharia that has responsibility towards customers in improving the economy and taking care of each other to be more optimal. Digitalization has become a key factor in driving technological innovation in MSMEs worldwide. According to Radicic and Petković, digitalization enables MSMEs to update their production processes and improve efficiency, which ultimately contributes to increased innovation. The study shows that companies that adopt digital technologies tend to innovate more easily because they have increased access to relevant information and data. The digital era encourages companies to be more responsive to market and technological changes. Continuous innovation is key to staying relevant and competitive in a rapidly changing environment. (KD Darmayani et al., 2023, p. 123).

Innovation plays a vital role in economic development and education, with a symbiotic relationship between the two domains. Previous research comprehensively explains how innovation drives economic growth and how education systems can foster innovation to drive economic development. It emphasizes the importance of factors that contribute to sustainable levels of innovation in driving economic development and growth. This shows the close relationship between innovation and economic prosperity, indicating that fostering innovation is essential to driving overall economic prosperity. The benefits of micro-enterprises in the Indonesian economy include their ability to provide employment related to labor, produce goods and services, and ensure equitable distribution of national income. Small businesses are increasingly important in driving national economic growth, and micro-enterprises are currently contributing to the growth of a country or region. (77151-75676721995-1-SM , n.d., p. 1053)

Digitalization also plays a role in enhancing innovation collaboration, especially in terms of research and development (R&D). Abdelaty and Weiss (2021) highlight that strong R&D capacity and good appropriation strategies enable MSMEs to collaborate more effectively in innovation activities. Their research shows that by strengthening collaboration, MSMEs are able to access new technologies that can be integrated into their products or services, thereby increasing their competitiveness (Abdelaty & Weiss, 2021). Digitalization has become a key factor in driving technological innovation in MSMEs worldwide. digitalization enables MSMEs to update their production processes and increase efficiency, which ultimately contributes to increased innovation. The study shows that companies that adopt digital technologies tend to innovate more easily because they have increased access to relevant information and data . Digitalization also plays a role in increasing innovation collaboration, especially in terms of research and development. Their study shows that by strengthening collaboration, MSMEs are able to access new technologies that can be integrated into their products or services, thereby increasing their competitiveness . (Chaidir et al., nd, Article 77) In the era of big data, Anderson (2008) argues that data has replaced traditional scientific methods as the primary tool for business decision-making. Big data enables SMEs to make decisions supported by concrete evidence and predictive analysis, which can ultimately accelerate the innovation process and increase the competitiveness of companies in changing markets (Anderson, 2008).

METHOD

The research method used is *Library Research* with a qualitative descriptive analysis approach to produce a formulation as a comprehensive conclusion. This research involves a thorough examination of various reference works and previous similar research results. By referring to the richness of the contents of various books and sources, a strong theoretical foundation can be built for the research problem at

hand. The main goal is to contribute to a more comprehensive and informed understanding of the topic being studied. Literature study serves as an accurate data collection method by analyzing books, literature, notes, and sections that are directly related to the problem being studied. (Girsang & Telaumbanua, 2024, p. 9831)

RESULTS AND DISCUSSION : Digitalization Concept

development of *e-commerce* in Indonesia is apparently inseparable from the behavior of internet users, then the results of a survey by the Indonesian Internet Service Providers Association (APJII). The results of the survey stated that 62% of users visit commercial online shopping content. This proves that in addition to meeting the needs of the community, *e-commerce* also improves the community's economy. Internet usage behavior. In implementing the concept of digitalization, the element of support plays a very important and crucial role. This support must come from various parties, including the government, local communities, and stakeholders . Then it must be able to meet three important elements:

1. Support
2. Capacity
3. Value (*Benefits*)
4. and Inhibiting Factors of Public Services . (Deandlles Christover et al., 2023, p. 202)

Current developments and challenges globally refer to how to develop and maximize digitalization in this economic sector in a way that can be applied in all countries, including Indonesia. E-commerce and business digitalization have proven to be crucial in building a modern economic system. There are several ways in which *e-commerce* and business digitalization contribute to minimizing unemployment . The role of e-commerce or business digitalization in minimizing unemployment :

1. Creation of New Jobs
2. Freelance and Self Employed Work
3. Online Education and Training
4. Digital Entrepreneur
5. Global Connectivity
6. Technology Innovation

E-commerce companies and businesses focused on digitalization often drive innovation in technology, including artificial intelligence, data analytics, and automation. This can lead to higher demand for technological advancements. However, it is important to note that while e-commerce and business digitalization can help reduce unemployment, there are also potential negative impacts, such as the automation of human labor in some cases. Therefore, a balanced approach and government support for training and job transition are important in managing these changes . (Firdaus, 2023, p. 720)

Understanding Digitalization

Digitalization is the use of digital technology for new business models that can provide opportunities that generate value. In companies, digitalization provides opportunities to improve their business. This is a digital business and the integrity of digital technology into everyday life. When viewed in the banking sector, digitalization is the development of work methods in the scope of work. With digitalization, customers or clients can be more independent in making transactions. Mc Kinssey (2014) quoted in the *Smaje & Willnot article* said that companies must go through 7 different milestones in order to survive and succeed in the digital world. *Cloud computing* is one of the digital technologies that is widely used in the business world. (Muhammad Ismail Sha Maulana et al., 2022, p. 93) The rapid development or advancement of technology has an impact on various aspects of human life. Technology that continues to develop can have positive and negative impacts on society. Technology can be seen positively when it provides significant benefits and supports human activities, and negatively when it causes harm to the general public. For this reason, it is very important to have digital skills, digital ethics, digital culture, and digital skills. (Ayu et al., 2022, p. 22) Digital transformation as mentioned briefly in the beginning of this article, can be interpreted as the process of utilizing existing digital technologies such as virtualization technology, mobile computing , cloud computing , integration of all systems in the organization and so on. There are also those who interpret it as the impact obtained from the use of a combination of digital innovations that are produced so that they cause changes to the structure, values, processes, positions or ecosystems within the organization or the environment outside the organization. The literature review conducted resulted in a conclusion on the question of what is digital transformation. (Chusumastuti et al., 2023, p. 179)

transformation is an evolutionary process that relies on existing capabilities and digital technology to create or change business processes, operational processes and customer experiences to create new value . (Hadiono & Santi, 2020, p. 81) . Digital literacy has a direct relationship with transformation, while also influencing the emergence of courage and the ability to carry out digital transformation for micro and small business actors . (Firmansyah et al., 2022, p. 246) . Digital Transformation The transformation of education in Indonesia towards education 4.0 needs to be prepared. This readiness is not only infrastructure but also all stakeholders, especially students, teachers, schools, and curriculum alignment. The rapid development of information and communication technology (ICT) today, also known as the Industrial Revolution 4.0, has created fundamental changes in all aspects of people's lives, including education. The current challenge of ICT in education is to utilize various potentials that can narrow the digital divide, character formation, digital education transformation, and vocational education. (Nagel, 2020, p. 35)

The Relationship Between Digital Transformation and Institutional Credibility

Digital transformation not only improves efficiency and service, but also strengthens the credibility of sharia-compliant organizations by giving more trust to

the community and employees. This is in line with the principles of sharia economics which prioritize transparency, integrity, and trust as the main pillars in running a business.(Purnama Sari et al., n.d.) So the main pillars that must be considered are *The First* Increasing Transparency and Accountability Digital transformation enables Islamic financing institutions to implement transparent and accountable systems through technologies such as blockchain and cloud computing. These technologies create transaction records that are difficult to manipulate, thereby increasing the trust of customers and other stakeholders. This transparency is in line with sharia principles that emphasize honesty (*siddiq*) and justice (*'adl*). (Farah Qalbia & M. Reza Saputra, 2023, p. 408) Therefore, the principles of sharia emphasize honesty and justice in all matters , especially in upholding the values of accountability and performance, as Allah emphasizes in the Qur'an,

يَا أَيُّهَا الَّذِينَ ءَامَنُوا كُونُوا قَوَّامِينَ لِلّٰهِ شُهَدَاءَ بِالْقِسْطِ ۚ وَلَا يَجْرِمَنَّكُمْ شَنَاٰنُ قَوْمٍ عَلَىٰ ءَلَّا تَعْدِلُوا ۚ اَعْدِلُوا هُوَ أَقْرَبُ لِلتَّقْوَىٰ ۚ
وَاتَّقُوا اللّٰهَ ۚ إِنَّ اللّٰهَ خَبِيرٌ بِمَا تَعْمَلُونَ

Meaning: O you who believe, let you be those who always uphold (the truth) for the sake of Allah, be witnesses fairly. And never let your hatred of a people encourage you to act unfairly. Be fair, because justice is closer to piety. And fear Allah, verily Allah is All-Knowing of what you do. (QS Al Maidah: 8)

يَا أَيُّهَا الَّذِينَ ءَامَنُوا اتَّقُوا اللّٰهَ وَكُونُوا مَعَ الصّٰدِقِينَ

Meaning: O you who believe, fear Allah, and be with those who are righteous. (QS At Taubah: 119)

وَابْتَغِ فِيمَا ءَاتٰكَ اللّٰهُ الدّٰرَ الْآخِرَةَ ۚ وَلَا تَنْسَ نَصِيبَكَ مِنَ الدُّنْيَا ۚ وَأَحْسِنَ كَمَا أَحْسَنَ اللّٰهُ إِلَيْكَ ۚ وَلَا تَبْغِ الْفُسَادَ فِى الْأَرْضِ
ۚ إِنَّ اللّٰهَ لَا يُحِبُّ الْمُفْسِدِينَ

Meaning: And seek what Allah has bestowed upon you (happiness) in the land of the afterlife, and do not forget your share of worldly (pleasures) and do good (to others) as Allah has done good to you, and do not cause damage on (the face of) the earth. Indeed, Allah does not like those who do damage. (QS Al-Qashash: 77)

Based on the verses that have been explained in the Quran, that all of us should uphold justice, be fair to anyone and then be able to maintain discipline in any condition so that it is expected to provide benefits to many people. Honesty is the foundation for every individual to continue to spread it to others, especially in the accountability of discipline in a job.

The Second Operational Efficiency and Risk Management Digitization of business processes reduces reliance on manual systems, speeds up processes, and reduces human error. For example, automation in credit scoring *helps* institutions make quick and accurate decisions. This efficiency reflects the principle of *istiqamah*

(consistency) in providing high-quality services. *The Third* Customer Service Improvement Digital technologies such as mobile applications and *chatbots* make it easier for customers to access financing services anytime and anywhere. Responsive and accessible services increase customer satisfaction and loyalty, which contributes to the credibility of the institution.

The fourth Data Security and Privacy Protection Digital transformation brings innovations in data security such as encryption and biometric-based authentication, which provide assurance that customer data is well protected. This supports the principle of *trust* in maintaining customer trust in the institution. *The fifth* Financial Inclusion Digitalization expands the reach of services to previously hard-to-reach segments of society, such as remote areas. With wider access, Islamic financing institutions can increase public trust in the Islamic financial system and strengthen their credibility as inclusive institutions. *The sixth* Consistent Implementation of Sharia Principles Technology enables the implementation of automatic *compliance* with sharia principles, such as the prohibition of usury and unclear transactions (*gharar*). With a digital system that monitors sharia compliance, the credibility of the institution in the eyes of the community and the Sharia Supervisory Board increases. Allah SWT firmly states in the Quran as follows

الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّ ۚ ذَٰلِكَ ۖ إِنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَا ۚ وَأَحَلَّ اللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَا ۚ فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَانْتَهَىٰ فَلَهُ مَا سَلَفَ ۚ أُولَٰئِكَ هُمْ فِيهَا خَالِدُونَ

Meaning: People who eat (take) usury cannot stand but are like those who are possessed by the devil because of (the pressure of) insanity. Their situation is like that, because they say (opinion), actually buying and selling is the same as usury, even though Allah has permitted buying and selling and forbidden usury. Those who have received a prohibition from their Lord, and then continue to stop (from taking usury), will have for them what they have taken previously (before the prohibition came); and its affairs are (up to) Allah. Those who return (take usury), then those people are the inhabitants of hell; they will abide therein. (QS. Al Baqarah: 275)

Use of Digital Technology

Technology as a teaching medium has also been shown to increase the effectiveness of teaching. Access to digital resources, interactive media, online collaboration, and distance learning enhance learning and help students deliver more effective instruction. The benefits of online learning materials include ease of access, flexibility of time and location, and high levels of interaction. Online learning refers to education that uses the internet with accessibility, effectiveness, flexibility, and the ability to create various types of learning interactions. (Liu & Sukmariningsih, 2021, p. 220). The use of digital technology in financing institutions, including those based on sharia, can increase credibility, efficiency, and accessibility of services. Some of the main benefits of using digital technology in sharia financing institutions. The use of a machine learning-based financial management system can reduce human error and

increase the speed of the financing process . Sharia fintech allows people who have not been reached by conventional financial services to gain access to financing. The use of mobile applications makes it easier for customers to apply for financing without having to come to a physical office. The Sharia Fintech industry is one of the technologies that is increasingly growing to facilitate access to Sharia financial institutions. Based on OJK data until December 2019, there were 12 Sharia Fintech Lending and 1 Fintech Lending that had products that were able to provide the best for institutions . In connection with the above, the main focus of the use of Information and Communication Technology (ICT) in agriculture is to meet the needs of farmers for various information. (Safitri, 2020, p. 132)

Technology Utilization Level

In addition to utilizing internet facilities, the digital revolution in learning can also be seen from the use of digital devices in the classroom. Students are now increasingly familiar with the use of these devices in their learning process. Based on a *Cambridge Assessment International Education* survey, 42% of students use mobile devices in learning, while 48% use desktop computers . Along with the development of digital technology in Indonesia and the needs of students who follow the demands of the latest curriculum, various alternative media have emerged to support students' learning needs. One of them is the growth of digital learning platform services. Technology is not only used to access information, but also to involve students in the learning process. Such as in simulation activities, educational games, and applications that facilitate individual learning. Technology also allows students to learn independently, access learning resources at any time, and expand their understanding through internet services. (Wahyudi, 2024, p. 446)

The Role of Islamic Financing Institutions

The root of the problem is not solely based on demand, but more on financial understanding and analysis. As a result, diversification or alternative financing can be detrimental, including the very strong potential for sharia financing. One way that can be done to encourage MSME recovery is to provide alternative financing models, which can be realized through optimization of sharia financing. The needs of MSMEs that require easy and fair financing models during the Covid-19 pandemic are considered compatible with the characteristics of sharia financing that uphold transparency, justice, and the principle of not wronging each other between transacting parties. This is considered in accordance with the conditions of MSMEs during the pandemic, where they need fair capital accessibility and are able to cover the weaknesses of MSME businesses . (491-Article Text-1883-1-10-20210806 , nd, p. 83)

Digital Economic Transformation In Indonesia

Digital transformation in Indonesia has grown rapidly in recent years. Some factors that

accelerate the development of the digital economy in Indonesia include *the first* High growth of internet users: The number of internet users in Indonesia continues to increase from year to year. In 2020, the number of internet users reached more than 170 million people or around 64% of the total population of Indonesia. This creates great opportunities for technology companies and online businesses. *The Second* Pro-innovation regulations: The Indonesian government has introduced pro-innovation regulations to support the development of the digital economy. These include initiatives to increase broadband penetration, facilitate technology investment, and strengthen personal data protection. (Arrazaq, 2023, p. 153), *the third* Investment in education and training: The Indonesian government has invested resources in education and training to improve technology and digital skills. This includes the development of information and communication technology (ICT) curricula in schools and continuing training for existing employees. *The Fourth* Partnership between public and private sectors: There is a strong partnership between the public and private sectors to support the development of the digital economy in Indonesia. The Indonesian government has launched several programs such as "1000 Digital Startup" program to help start-up companies grow and increase global market access. (Dian Sudiantini et al., 2023, p. 25) Digital Transformation The transformation of education in Indonesia towards education 4.0 needs to be prepared. This readiness is not only infrastructure but also all stakeholders, especially students, teachers, schools, and curriculum alignment. The rapid development of information and communication technology (ICT) today, also called the Industrial Revolution 4.0, has created fundamental changes in all aspects of people's lives, including education. The current challenge of ICT in education is to utilize various potentials that can narrow the digital divide, character formation, digital education transformation, and vocational education.(Dian Sudiantini et al., 2023, p. 26). Impact of Digital Transformation As for the impact of digital transformation in Islamic financing institutions, there are at least 2 that are most urgent, namely transformation has a significant positive impact on various sectors , increasing operational efficiency and automating work processes , reducing operational time and costs. Accelerate workflow by using digital-based technology , so that information access is fast, real-time, and organized .

a. Improving Operational Efficiency

Automating processes such as financing applications, risk assessments, and administration reduces operational time and costs. *Machine learning* and *AI* technology currently facilitates data analysis and fast and accurate decision making .

b. Then Better Transparency and Accountability the application of technology such as blockchain *creates* a secure and transparent transaction recording system, thereby increasing customer and stakeholder trust. Digital systems minimize the risk of fraud and data manipulation, strengthening institutional accountability.

c. Improving Customer Service Quality

Mobile application and *chatbot -based services* provide easy access for customers,

increasing convenience and satisfaction. Personalization of data-based services allows institutions to provide financial solutions that suit customer needs.

d. Wider Financial Inclusion

Digital technology enables financial services to reach communities in remote or underserved areas through online platforms, increasing accessibility to Islamic financial services. This service expansion supports the mission of Islamic financial inclusion globally.

- e. Better data security and protection Implementation of advanced security technologies such as encryption and biometric authentication increases customer confidence in the protection of their personal data. Compliance with data protection regulations increases the credibility of institutions in the eyes of regulators and the public.(Schwertner, 2017)

Negative Impacts or Potential Challenges

- a. High Implementation Costs Initial investments in technology infrastructure, human resource training, and digital system maintenance require significant funds, especially for small and medium-sized institutions.
- b. Cyber Security Risks With the increasing use of digital technology, the threat of cyber attacks such as hacking and data theft is also increasing. Inadequate data protection can damage an institution's reputation and reduce customer trust.
- c. Digital Divide Communities who are less technologically literate or do not have access to digital devices may have difficulty accessing services, creating potential service gaps.
- d. Human Resources (HR) Adaptation The transition to a digital system requires new skills that all employees may not have, thus requiring intensive training. Resistance to change from within can be an obstacle in the transformation process.

The Role of Technology in Employee Performance

Technology plays a significant role in improving employee performance. In a case study in Italy, the use of digital technology in human resource management has proven to be faster, more efficient, and more effective in improving collaboration capabilities within the organization. Digital technology also facilitates better data processing and handling through social platforms dedicated to HR management. In addition, digital technology also provides the right tools and applications for managers to motivate and empower employees in achieving organizational goals. Thus, technology plays an important role in improving employee performance. (Angga Wahyudi et al., 2023, p. 103) Digital transformation is part of a process that inevitably involves technology, it is more closely related to the development of competitive digital capabilities in a timely manner and the adoption of processes that will enable business leadership in the industry. Digital transformation has a significant economic impact, bringing new paradigms and approaches to economic development. The first of *the "new digital economy"* is a solution based on knowledge and understanding. (Robiul

Rochmawati et al., 2023, p. 103)

Benefits of Digital Transformation

Digital business transformation is the use of technology to create new business models, processes, software, and systems that result in higher profits, greater competitiveness, and greater efficiency. Businesses achieve this goal by improving business processes and models, increasing employee efficiency and innovation, and accommodating customer and state needs. The transformation of business relationships and interactions between organizations, consumers, suppliers, and employees – is expected to avoid the gap between customer expectations and what traditional business models can offer; it is also related to customer behavior, technological and social changes. Digital transformation can help businesses improve collaboration and communication between employees and departments by leveraging technologies such as cloud-based applications and collaboration tools . (Digital Transformation Book, Erwin 2023. P.06) The digital transformation is as follows *the First* Digital transformation of business: seeking innovative and sustainable solutions . *teh second* Digital business strategy: Building competitive digital capabilities *The Third* Developing Efficient Business Strategies in the Era of Digital Transformation. Digital transformation in educational office management brings a number of significant benefits that are reshaping the way educational institutions manage their operations. One of the main benefits is increased operational efficiency. Through the implementation of advanced information technology and management systems, educational institutions can automate various administrative and routine tasks. This results in a reduction in the time and effort required for these tasks, allowing greater focus on important aspects such as curriculum development and learning. (Ahyani & Dhuhani, 2024, p. 209)

Digital transformation also provides new opportunities for MSMEs to innovate. By utilizing customer data collected through digital platforms, MSMEs can analyze consumer preferences more comprehensively. This allows them to develop products or services that are more in line with market needs, which in turn can increase customer loyalty and satisfaction. Improving customer relationships is also one of the positive outcomes of adopting digital technology. Through the use of communication applications and social media, MSMEs can interact directly with their customers, provide support, and build more personal relationships. This not only improves customer experience but also strengthens brand image. However, the benefits of digital transformation are not only limited to the internal growth of MSMEs, but the development of digital technology also contributes to economic awareness by enabling MSMEs that previously did not have access to wider markets to participate in global economic activities. Thus, digital transformation also plays a role in reducing global economic inequality. (Bahasa & Azis, nd, p. 12). Therefore, according to *Chellappa* and *Pavlou* , technology users must believe that the transactions carried out are in accordance with user expectations. Including when customers already have expectations from the influence of others in use. Even when they consider the technology can help their activities. BSI mobile

has helped customers in every financial transaction they need. These benefits can be capital in maintaining customer trust in banking services. (Setyaningrat et al., nd, p. 65)

Table. 1
Digital Transformation Concept

Draft	Dimensions	Concept Indicator
Digital Marketing	Activity	a. Create or design an effective website. b. Do promotions online. c. Create or participate in a community website. d. Using email. (Nurita & Lundia, 2018)
Promotion	Parties	a. Users: consumers. b. Trader : producer. c. Company sales staff: marketing employees. (Išoraitė, 2016)
Digital Payments	Non-cash transaction preferences	a. Ease of use. b. Benefits of use. c. Security. d. Cost. e. Access to information. (Yutaviando, 2019)

(Makassar State University et al., 2021, p. 139)

Sharia Implications and Regulation

The implications of Sharia and Regulation in the context of personal data protection in digital banking have significant relevance and accountability, especially when associated with the Sharia economy. Applying Sharia principles within a contemporary regulatory framework will create a legitimate and ethical digital banking system. This strengthens public trust in Islamic financial institutions and enhances their credibility in the digital era. Here are some points of implications from a sharia and regulatory perspective . The concept of Fintech in the context of Islamic finance combines technology and Islamic ethical principles to create a more inclusive, equitable and sharia-compliant financial environment. (Norrahrman, 2023, p. 119) Therefore, there are several legal findings that are intended to provide clarification on the legal vacuum above through the efforts of institutions to provide fatwas on new cases, especially those related to the development of digital technology in sharia economic research and transactions . In addition, there are also many legal casuistic findings that need further explanation, especially in the trade sector . (Sukananda, 2018, p. 141)

The progressiveness of fatwas related to sharia economics can be seen from several fatwas that have been issued related to sharia economics or sharia transactions related to sharia finance based on information and digital technology in this digitalization era, as follows

The first Fatwa Number 140/DSN-MUI/VIII/2021 Concerning the Offering of Sharia Securities Through Information Technology-Based Crowdfunding Services Based on Sharia Principles. *The Second* Fatwa Number 117/DSN-MUI/II/2018 Concerning Information Technology-Based Financing Services Based on Sharia Principles. *The Third* Fatwa Number 116/DSN-MUI/IX/2017 Concerning Electronic Money . Despite the fact that the development of fatwas in resolving cases related to sharia economics is quite progressive, these fatwas are still relatively passive in terms of dealing with problems faced by the general public. While some economic sectors continue to develop, digitalization has encouraged the emergence of digital banks and *e-commerce* , which can be classified as somewhat passive in terms of issuing fatwas related to sharia economics. Thus, specifically and truly detailed in issuing fatwas, so that subsequent social problems can be resolved in accordance with legal provisions for both individuals and the general public. (Mufrih & Hadiroh, 2022, p. 82)

Sharia Implications *The First* Principle of Trust (Trust): In Islam, protecting customer data is a form of trust that must be maintained. Misuse or leakage of data is considered a breach of trust and violates Islamic ethical values (*akhlaq*). *The Second* Maslahah (Public Welfare) : Protecting personal data is a form of maintaining the public welfare so that no party is harmed due to data leaks . *The Third* Gharar (Uncertainty) : Transparent and clear customer data management avoids *gharar* in digital banking transactions. *The Fourth* Hifz al-Mal (Protection of Assets) : Personal data is a valuable asset and must be protected to prevent fraud or financial crime.

Regulatory Implications *the First* Personal Data Protection: In Indonesia, regulations regarding personal data protection are regulated in Law No. 27 of 2022 concerning Personal Data Protection (PDP). Digital banks are required to comply with this regulation in managing customer data. *The second* Compliance with OJK and BI : The Financial Services Authority (OJK) and Bank Indonesia (BI) have strict rules regarding data security in digital financial services. Non-compliance can result in administrative sanctions up to the revocation of business licenses. *The third* Legal Consequences: Leakage or misuse of personal data may have legal implications, including criminal or civil charges under the PDP Act and contract law.

Legal Implications

Law is a part that is the result of human creativity and initiative that is manifested into a legal product to be able to uphold justice and realize prosperity for the entire community. Therefore, law is essentially to protect human interests. Regarding the purpose of law as we know it is to create order, justice, certainty and prosperity. According to Mochtar Kusumaatmadja, it is hoped that with the realization of order in society, the interests of society will also be protected. Furthermore, law has a function primarily in national development which is described by the word law as a means of renewal or as a means of development itself with the aim of ensuring legal certainty and justice in society. 22 Law as a means of renewal is a grand design that is based on changes that involve society in creating

prosperity. (L. Hakim, 2022, p. 37)

Implications of FinTech technology on regulation in Indonesia

The current growth of fintech has resulted in an extraordinary industry where most of its products are very similar to various traditional financial institutions that have long been known to the public. In addition, there are also fintech products that basically complement the products of traditional financial institutions, such as banks, investment companies, and insurance companies. (Nugroho, nd, p. 240) Fintech itself is the result of modern innovation that is applied and implemented in the field of financial services, it is very rare to find paper money when it has utilized the circulation of fintech in life, both in the transaction process and other things. In other words, it is determined as an innovation in financial services. For better efficiency, cash is converted into digital form thanks to financial technology. Various definitions of fintech can be found in many literatures. Fintech in a broad and comprehensive sense refers to the distribution and application of technology with the aim of providing a way out in the form of solutions to financial problems. In addition, digital technology programs that function as financial intermediaries are another way to define fintech. Fintech, when viewed from a broader definition, is an industry consisting of businesses that use technology to increase the effectiveness that can be done by systems specifically designed in the financial sector and the distribution of its services in the financial context. (Nugroho, nd-b, p. 238 Fintech is a new financing model that is the result of a combination of financial services and technology. FinTech emerged along with changes in people's lifestyles which are currently dominated by users of information technology and the demands of a fast-paced life. FinTech has changed the business model from conventional to moderate. In the conventional business model, payments must be face-to-face and carry a certain amount of money, but after the arrival of fintech, transactions can be carried out remotely with transaction times in seconds. FinTech helps solve problems in buying and selling transactions and payments such as limited time to find products on the market, transfers to banks/ATMs, poor customer service and so on. (275904019 , nd, p. 351)

Legal Protection for Business Actors in Digitalization

As explained above, there are several potentials of MSMEs, but behind these potentials there are several factors that hinder the growth of MSMEs, namely they often face difficulties in dealing with legal issues. Therefore, MSMEs in facing problems require legal protection. In his view, Satjipto Raharjo defines legal protection as an effort to provide a sense of security for human rights that have been taken away or harmed by other parties. This protection is felt by the entire community to enjoy the rights that have been determined by law. In principle, what is expected from legal protection is to provide boundaries and unite various public interests. This is due to the traffic of interests of each individual, so it is necessary to

limit various interests on the other side. Legal interests are concerned with human rights and interests, so that the law has the highest authority to determine human interests that need to be regulated and protected. Legal protection comes from legal provisions, as well as all legal norms shared by society and basically comes from a mutual agreement between the public, between individuals and the government that represents the interests of the people. (Elvlyn & Marhaen, 2022, pp. 85–86)

Access to Wider Markets "Access to a wider market" refers to the ability of an entity, whether an individual, company, or institution to reach more consumers, customers, or business partners. In the context of economics and business, this can occur due to various factors such as *the first* Digitalization and Technology, *The Second* Trade Regulations and Policies *The Third* Finance and Investment. *The fourth* Expansion and Diversification Changes in consumer lifestyles in purchasing behavior in modern markets are influenced by the convenience and quality assurance of modern markets, including (1) through its economic scale, modern markets can sell more quality products at lower prices; (2) price list information for each item is available and easily accessible to the public; (3) modern markets provide a more comfortable and clean shopping environment, with longer opening hours, and offer a variety of payment options such as credit cards for large household appliances (4) products sold in modern markets have undergone quality control and will not be sold if they have expired. (Wibowo et al., 2022, p. 61)

Therefore, stakeholders must commit to strengthening innovation through appropriate support and collaboration. Innovation is considered as one of the key factors in increasing economic competitiveness in the era of globalization and increasingly tight market competition. Innovation plays an important role in creating added value, increasing efficiency, developing new products and services, and improving the quality of products and services provided by companies. In the context of Indonesia, innovation is considered key in answering various challenges faced in developing the economy, especially in achieving Indonesia's vision as a developed country in 2045. (Aidhi et al., 2023, p. 125)

Implementation of Digitalization in the Islamic Financial Sector

With the advancement of technology that causes changes in analog information to digital information, people prefer to use digital information for the following reasons *The first* Easy to search, browse, access and use according to user needs. *The Second* Easy to produce, send, receive, filter, update based on user capabilities *the Third* The writing format and content of the message sent is the same as the writing format and content of the message received. *The Fourth* Not hindered by long distances, language differences and time differences *the Fifth* Sending and receiving messages is very fast and cheap *the sixth* Easy to store and process so it doesn't require a large storage space *the Seventh* Easy to apply in various media because the content format of digital information will be the same, between one device and another. (Mawarni, nd, p. 42) Digitalization, as a phenomenon revealed

through literature review, does not just open doors, but rather penetrates into new dimensions that enable positive changes in various aspects of the efficiency of collecting and presenting sustainability information. Recent research provides in-depth insights that automation technology is not only able to accelerate the reporting process, but also has great potential to increase the level of accuracy of the data that is the basis of sustainability information. The importance of automation technology in this context can be seen as an evolutionary step that changes the overall landscape of sustainability financial reporting. By minimizing the time required for routine processes, the role of humans can be more focused on in-depth analysis, interpretation, and strategic decision-making. In addition, when these processes are integrated as a whole, not only efficiency is increased, but also an ecosystem is created that can proactively respond to rapid market changes and dynamics. (nd, p. 1168)

CONCLUSION

Based on the above research, it can be concluded that digital transformation is a phenomenon that is not affected by how well an organization manages its daily operations. The rapid advancement of technology in recent years has resulted in a digital transformation that needs to be considered carefully. Organizations or individuals must take good care of themselves, and digital transformation must run according to the plan that the organization has. It is important to consider the strategy that will be implemented during digital transformation. This means that organizations must reconsider existing strategies or can innovate in order to adapt to the changes that will be implemented. Hence the “new economy” and the accompanying digital transformation, innovative digital business strategies based on advanced IT solutions are a great opportunity for companies to differentiate themselves from competitors and gain competitive advantage. The study highlights the importance of technology, innovation, knowledge and investment in driving digital transformation and its implications for traditional industries. To remain competitive in the digital age, business owners and entrepreneurs must understand the importance of developing digital technologies. Upskilling the workforce is essential to prepare for the challenges and opportunities presented by digital transformation.

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