Analysis of Europe's First Fully-Fledged Islamic Digital Bank in the Arena of New Age Banking

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Abstract

The study aims to provide the first systematic account of Europe's first fully-fledged digital Islamic banking service and review in detail with the available information. It explains the new-age banking concept and theory as well as identifies the role of *insha* in digital trends. The research primarily focuses on the concept of new-age banking and demonstrates the application of this concept by scrutinizing an Islamic digital banking platform. It selects '*insha*', a digital banking service platform [in other words, Bank-as-a-Service platform] that provides digital banking services in Europe, as a case for this study. The study reveals two Tiers of the new age banking: Tier I NAB brought cost efficiency by reducing personnel expenses by replacing the workforce, and Tier II NAB has come front to reduce personnel expenses by replacing workforce intelligence directly. Besides, it also discloses four aspects of new-age banking: i) Accessibility, ii) Cost Advantage, iii) Time Efficiency, and iv) Security. On the other hand, the study shows the application of new-age banking by spotlighting an Islamic digital bank, *insha*, which experienced significant tractions within two months of inauguration, and the app has been downloaded over 9,000 times. This paper provides an excellent case, *insha*, to comprehend the concept of new-age banking, and manifests how it could facilitate customers to access the banking platform.

Keywords: New age banking, Fintech, Islamic Fintech, Digital banking, Banking-as-a-Services, Islamic finance.

Jel Codes: F65, G21, G29

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Introduction

Over the past few decades, the world has experienced a stunning transformation of the finance sector through developments in technology. Consequently, it is becoming challenging to ascertain the banking sector without implementing the most advanced technologies. The financial technologies that have been implemented so far are the initial steps of the New Age Banking (NAB) era.

Much of the available literature on NAB deals with the narrow sense use or sub-banking forms (Shankar & Kahanna, 2011; Singh & Kaur, 2012; Rani & Kavitha, 2014; Padmaavathy & Adalarasu, 2015). In some literature, the term NAB is used in a narrow sense as internet banking (Singhal & Padhmanabhan, 2008). Bihari and Murdia (1970) used the term as 'another form of a banking institution'. However, the approach of this study is to take the whole banking system into account to consider NAB as an emerging concept.

Before delving into the new-age-banking, familiarizing with the concept of internet banking and conducted literature could help to establish a basement in order to comprehend the NAB concept and open a door for further exploration.

The term internet banking is used for the new age banking system, which is also called e-banking, online banking, and e-payment (Ozuru et al., 2010; Singhal and Padhmanbhan, 2008; Beer, 2006; IAMAI, 2006). In this system, banking activities are done through the internet, which is the core delivery channel. These activities include: "viewing, checking, and savings account balances, transferring funds, paying mortgages, purchasing financial instruments and certificates of deposits, and paying bills" (Haque et al., 2009). A report on online banking claimed internet banking as convenient, flexible operational timing, no geographical barriers, and minuscule cost for services (IAMAI, 2006). This convenience of online banking facilitates customers to access their banking account at any time and giving greater control over their account in order to financing and regular money management (Beer,2006). For this reason, customers are getting satisfied with the development of this banking system and services, which ultimately triggered a significant relationship between internet banking service quality, e-customer satisfaction, and e-customer loyalty (Amin, 2016). Along with customers' benefits, this online banking is also significantly profitable for the financial sectors (Williamson & Money–America's, 2006).

Despite the attention on internet banking, there is a dearth of understanding about the nature and scope of new-age banking. In fact, the discussion of NAB in the Islamic banking sphere is trivial. For this reason, the study aims to provide comprehensive systematic information regarding NAB and discuss digital service of Islamic banking in the light of NAB concept. This is descriptive research where it mainly focuses on the concept of NAB and demonstrates the application of this concept by scrutinizing '*insha*'. It is a digital banking service platform [also known as 'Bank-as-a-Service' platform) that provides digital banking services in Europe.

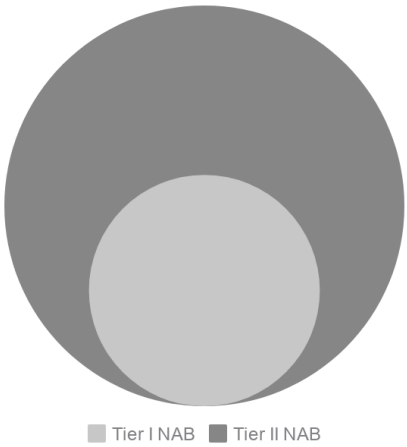
The reminder part of this paper is organized as follows. Section 2 discusses the concept, nature, significance, and features, and future of new-age banking. The overview of Islamic digital

banking and NAB is explained under Section 3. Section 4 scrutinizes the case in the light of NAB. Finally, section 5 concludes.

1. New Age Banking (NAB)

The NAB can be defined as developing financial intermediation processes in banking with informatics and computer technologies. It is divided into two broad tiers (see *Figure 1*)—i.e., Tier I and Tier II—by offering an adequate explanation from the definition. Computer-technologies-oriented banking activities is the main element of Tier I NAB; informatics, on the other hand, is the key factor for Tier II NAB.

Figure 1: Framework of Tier I and Tier II of NAB



Source: Authors

Currently, banking is one of the most technology-oriented sectors in many jurisdictions. It can be assumed that structural changes in banking are motivating gradual adaptation of Tier I NAB and Tier II NAB (Amel & Jacowski, 1989). As an external factor, the increased pace of society, in general, is also useful in Tier I NAB adaptation (Tinnila, 1970).

Tier I NAB covers the overall global banking system. The total incumbent banking sector is experiencing NAB for the last three-decade through computer technologies they employed; non-traditional peer-toper services is the main characteristic of Tier I NAB. As can be seen from Figure 1, the Tier I NAB is an inner and relatively small tier of the NAB era. However, beyond Tier I NAB, there are more substantial opportunities based on math and artificial intelligence developments. Owing to this reason, considering NAB as a form of banking or a particular product has a conceptual bias. It even does not need to be considered as a futuristic offer.

In recent years, many banks have been engaged in informatics through the complete financial intermediation process. These banks are categorized under the Tier II NAB. The main difference between the Tier I and Tier II NAB is the employment of artificial intelligence to replace the workforce, which brings a particular differentiation in the services with solutionary consultancy.

1.1. Significance of New Age Banking

Adapting to the significant development of technology, financial institutions—especially banks—are gradually transforming their entire system based on financial technology. As we mentioned earlier, there are two stages, namely Tier I and Tier II, through which banks are transforming their financial structure. However, a remarkable difference is evident between these two stages.

The primary purpose of Tier I is to enjoy the benefits of technological development by introducing new technology-based financial instruments. This stage introduces the human workforce with advanced financial technologies to facilitate the operational process and augment the efficiency of the operation. Also, through Tier I, bank tends to maximize their market share, minimize the human error in operation, ameliorate customer services, and increase the satisfaction level of customers.

On the other hand, Tier II aims to replace the aggregate human workforce by employing artificial intelligence (AI) in the incumbent financial system. Although the primary objective of this stage is to enjoy technological development similar to Tier I, the ultimate purpose of it is to replace the human workforce with AI, which may have a significant impact on the macroeconomic factors, especially on unemployment rate. Besides, due to the extensive use of AI, the bank's authority can easily bring the customers under the surveillance system, which could be a security issue. However, despite having these disadvantages, Tier II may boost the country's economic growth by increasing the tendency of entrepreneurship among people.

1.2. Features and Future of NAB

According to the classical financial intermediation theory, the bank is a financial intermediary between the fund supply and fund demand entity. However, nowadays, the demand for banking is mainly on payment systems. Verily, this is the key reason behind the world's choice of developing NAB through technology and informatics. The mainstream trend towards digitalization also attracted the financial sector to provide efficient payment systems. Besides, it can be analyzed from the margin between deposit rates and credit rates that transaction cost has become higher than deposit rates. Because of this reason, there had been critics in the banking sector, which is another cause behind the trend on Tier II NAB.

In view of previous observations, it can be said that the banking sector was mostly focusing on enjoying computer technology under the Tier I NAB era, especially for better accounting experience. Whereas the Tier I NAB brought cost efficiency by reducing personnel expenses through replacing human resources, the Tier II NAB has come front to reduce personnel expenses by replacing human intelligence directly.

As has been noted earlier, technology and informatics are the main components for the development of NAB; these components are the keys for credit rationing for better allocation of funds that means significant support for the primary banking activity. The main cost of financial intermediation is credit intelligence for rationing. Here, NAB offers accessibility, data

mining, and cost-efficiency opportunities for banks. Accessibility is the key to marketing since technology is the main factor in expanding distribution channels in the modern world. Even though there are suspicions of potential security problems that may occur by employing high-tech, it is conspicuous that technology improves the security capability of banks. Indeed, increasing accessibility decreases the cost for the customers.

The cost has three dimensions for both banks and customers – i) success of intermediation, ii) employment, and iii) time. For example, card transactions in Turkey are processed within four seconds that can take minutes in total for both sides if realized in cash. The demand for NAB is increasing with the augmentation in payment systems. Besides, increasing computer and smartphone literacy among people is bolstering the increased demand as well. Furthermore, data mining and offering products and services to the customers by the banks is welcoming the necessity for NAB.

Since NAB is cost-efficient, its products need to be categorized under cost-reduction nature. Though many mid-scale software developers can invest the capital need for these services, new-age financial products are under banking monopoly in many jurisdictions. Besides its cost reduction effect, banks are charging fees for their new-age financial products.

The most important futuristic advantage of being a bank is the opportunity to offer new-age financial services and products. The main cost of banking is to have an organizational chart. With NAB, banks reach the optimum size of accessibility; everyone in the world becomes a potential customer and access center with a website or application. Shortly, the value of the banks will be calculated based on the number of registered users like social media companies.

New-age banking has four aspects: i) Accessibility, ii) Cost Advantage, iii) Time Efficiency, and iv) Security. Each service that has all of these four aspects is part of new-age banking activities. The advancement and acceptance of technology in the financial sector will trigger the high involvement of people (e.g., entrepreneurs) with this NAB. As a result, the competition will concentrate on new-age banking, and the trend will follow cost efficiency and alternative distribution channels for the following years in the short-term. However, in the long run, with the abolishing of fiat currency, the NAB will find its new route. In this process, cashiers and branches will be removed from the system/micro branches. Large regional branches will emerge, physical security costs will be discarded, and security software will be demanded. In addition, high insurance costs for branches will be removed, artificial intelligence may hold 70% of the current tasks, new competitors will emerge, and credit intelligence products will be demanded by real sectors.

In the near future, due to the welfare of NAB, the accessibility of E-check, E-cards, and E-POS will be available to ordinary people. The study also expects common use of temporary check/card, optimum transparency in the economy, easy and fast intermediation process, an increasing monopoly in the real sector—i.e., increasing volume, decreasing risk base, and increasing share of retail banking—, increasing fund stock by alternative competitors, shadow banking share, and crypto banks. Furthermore, under this NAB, the concept of "Banking-as-

a-Service (BaaS)"[4] has a significant potentiality to obtain broad acceptance and popularity because of its accessibility and customer-friendly nature.

Banking-as-a-Service is considered under the umbrella of open banking, a banking system which refers to a bank's initiative to open its Application Programming Interfaces (APIs) to third parties and allow them the access to the bank, either to data or to functionality (BBVA, 2019). BaaS provides access of its functionality to the non-bank companies in order that they can connect users and provide bank services without accessing the bank's existing platform.

2. Islamic Digital Banking and NAB

During the era of new-age banking, Fintech may play a vital role in expanding digital banking in the Islamic finance industry by improving cost-efficiency, transferring funds, cash deposits and withdrawals, and online transactions. Consequently, this improvement may develop the institutions of Islamic finance to be more responsive and receptive to adapting and embracing fintech solutions. However, according to the World Islamic Banking Competitiveness Report 2016 by EY:

> "Islamic banks have a much lower customer penetration in digital services compared to conventional banks. Although the industry is quite young, some Islamic banks are expanding their digital offerings quite quickly; however, most of these banks are still a long way from becoming truly digital as currently, many of them only offer some basic online services" (Kmeid, 2017).

As of 2018, the total market volume of digital banking was around $5.2bn in terms of assets under management; this volume is expected to grow more than 3% ($16.2bn) by 2025, based on a 15.3% compound annual growth rate (Maierbrugger, 2020). Though the Islamic finance sector is a bit slower in adapting and modifying its system to digital opportunities, it has gained momentum in the second decade of the 21st century. For instance, Meem[5] was launched in Saidu Arabia as the first fully-fledged Islamic digital banking services in 2015, supported by online channels, social media, and video contact centers in MENA. In continuation of this, in 2018, *insha* began its operation as the first European Digital Islamic bank by Albaraka Turk participation bank under Berlin-based solarisBank's umbrella, followed by Boubyan Bank, proclaimed as the world's best Islamic digital bank, and Qatar Islamic Bank, which has already developed a fully digital financing services arm (Maierbrugger, 2020). As a result, the Central Bank of Malaysia, Bank Negara Malaysia, is

[4] According to Medici, "Banking-as-a-service (BaaS) is an end-to-end process where third parties – FinTech, non-FinTech, developers, etc. – can access and execute financial services capabilities without having to develop them organically." "BaaS involves banks providing third parties with access to core systems and functionality so that they can integrate digital banking and payment services into their own products." (Moneythor, 2020).

[5] "The digital banking arm of Bahrain-based Gulf International Bank (GIB), allowing Bahrainis to access Shariah-compliant retail banking services online in an era where digital technologies are altering the consumer behaviour and redefining financial services".

expected to join in this rally of new-age banking by unveiling its digital banking framework (Roslan, 2019).

Recently, a significant number of researchers have analyzed Islamic banking from the digital aspect. For example, Zouari & Abdelhedi (2021) analyzed the impact of digitalization on the customer satisfaction of 145 Tunisian Islamic banks by applying factor analysis and regression analysis. The study found a significantly positive relationship between customer satisfaction and customer service quality's key dimensions, excluding tangibles. Riza & Hafizi (2020) examined the attitudes of customers in regards to Islamic mobile banking acceptance by considering the Technology Acceptance Model on 179 users who enjoy the Islamic mobile banking services in Central Java and Yogyakarta. The findings revealed a positive perception of the customer in order to the acceptance of Islamic mobile banking. Ananda, Devesh, & Al Lawati (2020) studied the encouraging factors for adopting digital banking, both Islamic and conventional bank, using a multiple linear equation model. In this case, they used a sample size of 200 retail banking customers' responses and found a significant positive impact of awareness, perceived usefulness, and web features on the digital banking adoption of customers.

Furthermore, other studies focused on different areas of digital banking; e.g., Lestari (2021) analyzed the regulations toward digital branches of Islamic and conventional banking, Jamaruddin & Markom (2020) investigated the Islamic fintech application in Islamic banking, and Hassan, Shaikh, & Kayhan (2020) discussed the digital era and Islamic banking. There are many more that also concentrated on the digital aspect of Islamic banking and Islamic fintech. In this continuation, the following section analyzes Europe's first full-fledged Islamic digital banking, known as *insha*.

3. Case Study: Insha

3.1. Background

The emergence of financial technology (Fintech) has trembled the concept and establishment of overall financial institutions' operations and activities across the globe. Although this is a new concept to a significant number of people, it has a long history starting with the inauguration of credit cards in the 1950s. Later, the replacement of ATM instead of teller and branches affixed a significant pillar in the development of this sector (Desai, 2016). In the early 21st century, the industry experienced a revolutionary improvement in terms of retail financial services consisting of mobile wallets, payment apps, robo-advisors services, online crowdfunding platform, and peer to peer lending platform. This development of Fintech did not just adjoin various platforms and services; instead, it has superseded the position of financial institutions by significant participation of customers.

With this evolvement of Fintech, *insha* has been inaugurated as the first European Digital Islamic bank by Albaraka Turk participation bank. It is a digital banking service platform where customers have the opportunity to make all their money-related transactions safely and securely. Although a considerable number of people would be hasty to argue that Islamic

digital banking could be the solution to comply with the growth of financial inclusion, very few of them have applied the concept of fully-fledged digital banking into their everyday economic and financial activities. Reportedly, only six fully-fledged Shariah banks are currently running their operations in the UK, where most of them are involved in the corporate and business markets (Belouafi & Chachi, 2014). Only one Islamic bank is operating its activities in Germany, and another bank is struggling to launch out of Luxembourg.

The foundation of *insha* is based on Berlin-based solarisBank's BaaS platform, which provides all the core digital banking services— i.e., transactions, accounts, and the process of identification—as "modular white-label services that are integrated directly into the *insha* app via API". As a result, it did not have to build core banking services in line with foreign regulation, apply for a banking license, and create a subsidiary (Bessenbach, 2019). *insha* is the first digital Islamic bank in Europe that provides Shariah-compliant services to customers in Germany—e.g., banking account, debit card, and transfer of money to nations in the Single Euro Payments Area (SEPA) (see *Figure 2*) and Turkey (EPC, n.d.). Notably, there is a multilingual call center that supports this platform. Nowadays, it is experiencing significant traction; for instance, over 9000 times downloads of this app have been recorded within two months of its inauguration. Although the operation of *insha* is currently Germany-based, the expansion of its operation to seven other countries in Europe is in the process.

Figure 2: Money transfer to nations in the Single Euro Payments Area (SEPA)

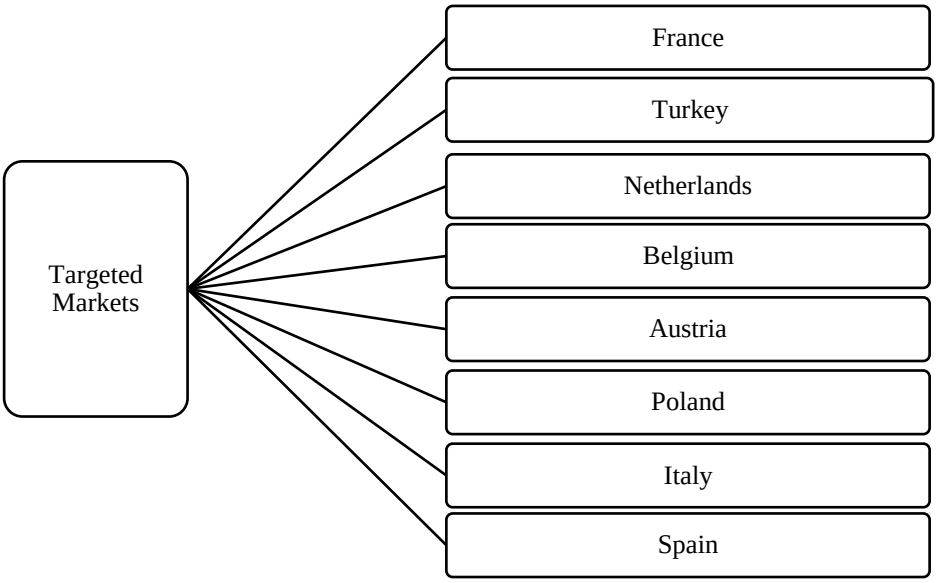
Source: European Payments Council

3.2. Market Segmentation

Due to being the first Islamic digital banking platform, *insha* has enormous opportunities to gain a significant market share and promote the concept of this platform all over Europe. Accordingly, it already has an extensive plan to diversify its product in terms of business

banking instruments. However, because of the fragmented concentration of Muslims in the entire region, this Islamic digital banking platform has become challenging to penetrate despite having a significant potential market (around 20 million Muslims). Currently, in the process of market expansion, the start-up is endeavouring and working on penetrating Austria, Belgium, France, Italy, the Netherlands, Poland, and Spain (see *Figure 3*) within the next year – despite having little to no Islamic financial activities in all markets. If *insha* can successfully penetrate, Shariah complaint finance may experience a new wave of development across the European markets.

Figure 3: Targeted Markets of insha



Source: insha GmbH (Formatted by Authors)

3.3. Potential and Facilities

- One of the significant strengths of *insha* is to have the tag of the first Islamic digital bank in Europe; as a first mover, it enjoys the benefit of gaining a significant market segment.
- *insha* signifies an opportunity to solve the issue of a narrow customer base due to geography as well as offers banking services (Shariah-compliant) to the growing Muslim population of Europe.
- As being the first company in the Islamic digital banking platform, brand name recognition strengthens *insha*'s credibility in the Islamic digital banking sector.
- Offering branch-free banking facilities makes life easier for customers. Therefore, they neither need to bring physical documents nor go to the branch of the bank.

3.4. Infrastructure

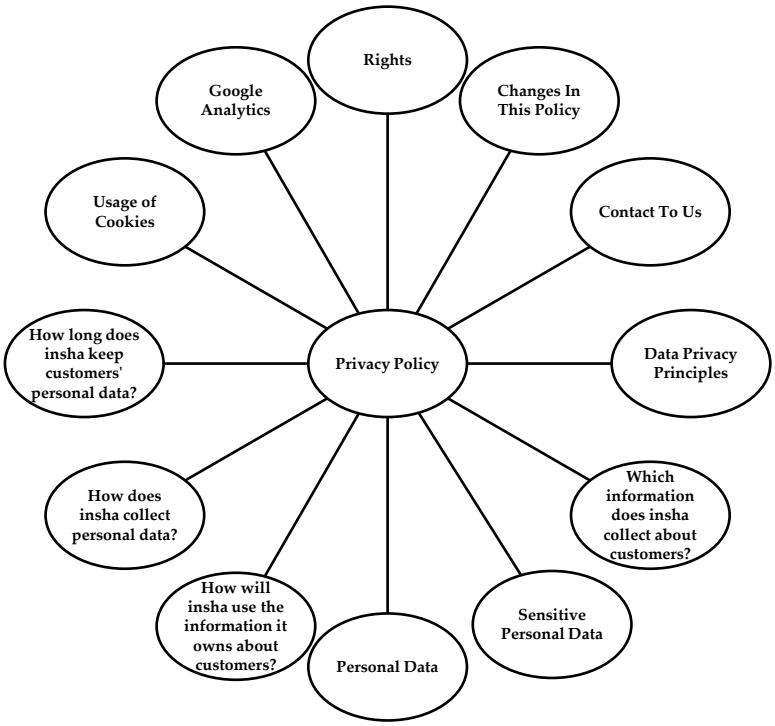
Where none of the company has experienced the test of success, literally failed, *insha* has managed to expand its services at a relatively low cost (see *Table 1*) within a short period. Undoubtedly, this expansion is due to the collaboration with SolarisBank. This cooperation of

bank-to-bank, which is considered as the first in the digital banking sector, helped to save approximately EUR4.5 million (US$5.13 million) as the start-up cost and curtailed more than half of the time-to-market (Dinc, 2019).

Generally, obtaining a banking license requires EUR5 million (US$5.7 million) in the capital in Germany; the process takes between 12-24 months (Dinc, 2019). However, *insha* bypassed all these impediments by using SolarisBank's banking license and API, paying only an installation fee to the Berlin bank. Noticeably, the platform was built by the team within a short time (less than one year); it accepted its first customer within six months.

To protect and secure customer's provided information and be transparent, *insha* has a privacy policy that extensively elucidates all dos and don'ts for both company and customer. *Figure 4* summarises these privacy policies.

Figure 4: Articles of Privacy Policy of insha



Source: insha GmbH (formatted by authors)

3.5. Costs of Services

insha provides numerous services to facilitate customers by receiving a mere service fee (see *Appendix 01*); even many services do not have any service charge at all, such as monthly fees of account and Matercard, card transaction in EUR in the SEPA-region as well as Sweden, first card printing fee, card transaction in Germany, first three withdrawals in Germany, and up to 10 transaction (Monthly), other card transactions in the SEPA-region.

3.6. SWOT Analysis

This section elucidates a SWOT analysis based on the earlier discussion on *insha*'s infrastructure, market segment, pricing, and regulations. The purpose of employing this analysis is to comprehend the nature of the platform better, ascertain the strengths and weaknesses of the platform, understand the threats and opportunities, and finally develop business strategies and policies for the platform. Table 2 summarizes the strengths, weaknesses, opportunities, and threats as follows:

Table 1: SWOT Analysis of insha

Strengths	**Weaknesses**
▪ Banking with values and principles. ▪ Maximum cost transparency and efficiency (see *Appendix 01*). ▪ Eco-friendly and sustainable. ▪ Intuitive handling, versatile features. ▪ Impressive design. ▪ Account opening in less than 10 minutes. ▪ Deposit guarantee scheme. ▪ Charitable donations made easy. ▪ Achieve savings goals successfully. ▪ Real people, no bots. ▪ Cash withdrawal at ATMs. ▪ Perfect data security. ▪ More freedom, more flexibility.	▪ Less accessible for baby boomers. ▪ Vulnerable relationship between bank-customer. ▪ Low credibility of the customers. ▪ Lack of personal human touch. ▪ low awareness level among customers due to the digital divide in the society. ▪ Arduous for financially vulnerable individuals. ▪ A significant concern for confidentiality and integrity of data and information over the internet. ▪ Islamic financial literacy of employees.
Opportunities	**Threats**
▪ To provide user-friendly access. ▪ Increasing Muslim Community. ▪ Integration with an established and renowned bank, e.g., solarisBank. ▪ Financial inclusion.	▪ Security vulnerability, e.g., intrusion of hackers. ▪ Augmentation of Islamophobia. ▪ Conventional counterpart. ▪ Deficiency of customer loyalty. ▪ Lack of legal and regulatory framework.

Source: Authors

Strengths

One of the core strengths of *insha* is its principles—i.e., following interest-free banking principles, which broaden the choice of customers, both Muslim and non-Muslim. Due to its online operation nature, the bank does not need to use papers that passively contribute to the protection of the environment and reduce the cost of documentation. Alongside, user-friendly

features (for example, maintaining credit limit by few clicks, controlling debit cards by locking and unlocking any time, and checking real-time banking activities and receiving notifications) also attract and gain the trust of customers. In a nutshell, the bank provides freedom by offering customized products and features that ensure the flexibility of customers with the operation of the bank.

Weaknesses

Indeed, digital banking is a blessing for Gen Y or millennials (people who were born between 1980 and 1994) and Gen Z (people who were born between 1996 and 2015); however, the baby boomers (people who were born after World War II until 1964) are less adaptable to the technological development of banking. According to Eurostat data, "there were approximately 102 million Millennials living in the EU, roughly 20% of the population, while the Baby Boomers accounted for a larger share (23.4%) in 2017" (Ferrer, 2018). This percentage is significant for the banking sector. Along with the technological know-how, lack of Islamic banking literacy is also a shortfall for the bank.

Opportunities

The user-friendly features of different products of *insha* open a door for future expansion of the bank and augmentation of the customers' number. Besides, the unique principle of the "interest-free" concept strengthens the bank's foundation among the conventional banks in Europe, and it has become more vibrant due to the significant growth of the Muslim population in the region. Most importantly, the integration with solarisBank has bolstered the bank's operation and provide confidence to the target customers.

Threats

Although digital banking has triggered transparency and flexibility in the banking sector, security issues are still a concern—i.e., cybercriminals or security hackers may breach the firewall of the banking system and embezzle with the funds of customers. Noticeably, this threat not only for *insha*, but for all digital platforms currently running their operation based on the internet. On the other hand, the spread of Islamophobia across Europe is one of the significant threats for *insha* to attract customers.

In a nutshell, the penetration of Islamic digital bank, *insha*, has added a new dimension to Europe's banking sector. Customers have the opportunity to experience a new dimension, interest-free banking, which has ensured the banking sector more competitive than before. However, even though few threats exist in the current market, the strengths and opportunities of *insha* conspicuously show a promising and prosperous market for the Islamic digital banking sector in Europe.

Conclusion

The study aims to provide details about the New Age Banking (NAB) as well as the first systematic account of Europe's first fully-fledged digital Islamic banking service. At the

beginning of the paper, it discussed the Tier I (computer-technologies-oriented banking activities is the main element) and Tier II NAB (informatics is the crucial factor). Whereas the Tier I NAB brought cost efficiency by reducing personnel expenses through replacing the workforce, the Tier II NAB has come front in order to reduce personnel expenses by replacing man intelligence directly. The reason behind this discussion is the advancement of technology and its acceptance in every sector across the globe, especially in the financial sector. Nowadays, the implementation of advanced technologies has become an integral part of the global financial institutions, especially in the banking sector; it is becoming challenging to figure out the banking sector without implementing the most advanced technologies. The financial technologies that have been implemented so far are the initial steps of the NAB era.

In the latter part of this paper, a case study on *insha*, the first European digital Islamic bank by Albaraka Turk participation bank, has been analyzed by providing comprehensive information about the platform. To bolster the provided information regarding NAB, we described the functions, features, and concurrent market conditions of *insha*. Although *insha* is currently available only in Germany, it plans to expand its interest-free services to seven other European countries.

The study also mentioned the ethical issues regarding digital banking since it is one of the most critical aspects of digital platform—the intrusion of hackers a common phenomenon in such kinds of platforms. In fact, this ethical issue even more alarming in the case of digital banking. The absence of specific laws and regulations also creates significant ethical issues that open the door for other intruders. Because of this limitation, a client of digital banks may experience hazardous ethical issues.

Policy Recommendation

1. Generally, the wisdom behind innovating and launching new financial products or services is to facilitate people and contribute to the development of an economy. Therefore, the purpose of Tier I and II NAB should not be replacing the workforce and human intelligence; instead, the bank should strengthen human capacity by amending these two stages.
2. Being the first Islamic digital banking platform, *insha* has considerable opportunities to gain a significant market share and promote the concept of this platform all across Europe and the world as well. In doing so, the platform should concentrate on the culture-friendly promotional program without violating any fundamental principles of ethics, in other words, the Shariah.
3. In order to gain the trust and confidence of customers, the *insha* authority should emphasize on establishing legal regulations recognized by the government of the respective countries.
4. To secure the banks, customers, and other stakeholders' database, the bank should have a special three-layered in-house tech team who will particularly be assigned to protect the server from any intrusion of hackers and other malicious attacks.

5. Along with the development of regulations, they should prepare and offer various programs (paid or unpaid) – e.g., training, workshops, seminars, symposiums, and conferences – to students for enhancing Islamic digital banking literacy.
6. The top executives and mid-managers of this platform should have a strong background in terms of Islamic digital baking; simply put, they should have a clear understanding of Shariah issues. Likewise, employees should also have a conspicuous understanding of the interest-free concept and system.
7. '*insha*' should have an extensive focus on research and development (R&D) for the frequent innovation of products and services so that they can immediately come up with new ideas when the number of competitors increases.

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Appendix A

Monthly Fees	
Account	0 €
MasterCard	0 €
One Time Fees	
Card Printing Fee (For the First Card)	0 €
Card Printing Fee (For Each Card After the First Card)	6 €
Payment*	
Card Transaction in Germany	0 €
Card transaction in EUR in the SEPA-region as well as Sweden	0 €
Other card transactions in the SEPA-region	0 €
All other card transactions	1.2% of the Transaction Amount
Withdrawals**	
First 3 withdrawals in Germany	0 €
After 3 withdrawal at an ATM in Germany per withdrawal	2 €
For the cash withdrawal at an ATM in the SEPA-region (except Germany, Switzerland, Andorra and Monaco)	2 €
For the cash withdrawal at an ATM in Switzerland, Andorra and Monaco	2 €
For the cash withdrawal at an ATM in all other countries ($ Currency) (<200 Eur)	1.75 €
For the cash withdrawal at an ATM in all other countries ($ Currency) (200< Amount <300 Eur)	3 €
For the cash withdrawal at an ATM in all other countries ($ Currency) (>300 Eur)	5 €

SEPA Money Transfer	
Up to 10 transaction (Monthly)	0 €
After free 10 transfers per transaction	0.25 €
Turkey Money Transfer* **	
0 — 500 €	4 €
501 — 1,000 €	5 €
1,001 — 2,000 €	6 €
2,001 — 5,000 €	7.50 €
5,001 — 10,000 €	12.50 €

source: insha (n.d.) GmbH (formatted by authors)

*note: *the maximum daily limit for card transactions is €1,500, and a monthly limit for card transactions is €3,000; **the maximum daily limit for cash withdrawals is €1,500, and a monthly limit for cash withdrawals is €3,000; ***the maximum daily limit for money transfers is €10,000.*