TUJISE Turkish Journal of Islamic Economics

What Policy for Islamic Financial Literacy?

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Abstract: This paper addresses the concept of financial literacy in Islamic finance and suggests a methodology to elaborate an effective Islamic financial literacy policy (IFLP). Based on a literature review, the paper summarizes the conclusions of studies and surveys conducted in the field of conventional financial literacy while identifying the specificities of the Islamic finance industry. Indeed, the paper would help financial authorities and Islamic financial institutions in elaborating Islamic financial literacy policies (IFLPs) in order to contribute to the sustainable growth of the industry. It promotes the idea that qualitative aspects are worth studying when elaborating an Islamic financial literacy policy that has to take into account many factors such as the maturity of the industry, the objectives of the policy (inclusion or migration), the degree of *Shari'ah* awareness, the understanding of Arabic terminologies, etc. Finally, the IFLP measurement should include quantitative (Total reach and number of people reached) as well as qualitative aspects (level of financial literacy, impact on financial behaviour).

Keywords: Financial literacy, Financial inclusion, Financial education, Islamic financial literacy policy, Fintech, Nudging.

JEL Classification: I22

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DOI: 10.26414/A148
TUJISE
tujise.org

Submitted: 12.03.2020
Revised: 15.06.2020
Accepted: 20.07.2020
Published: 15.08.2020

Introduction

The 'Financial inclusion' concept is generally defined as the process of bringing the different segments of people under a single roof of the financial system (Dinabandhu and Debashis, 2018). Definitions focus more on the quantitative aspects of the process and neglect the way it can connect people to adequate opportunities in the formal economy.

Indeed, financial inclusion can lose its meaning and relevance if its initiatives are not targeting real impact on the daily life of people or if people accessed to inappropriate financial services and instruments. This will add to poverty, indebtedness and thus will lead to financial and economic exclusion due to an unbalanced economic behaviour.

From this perspective, financial inclusion strategies should care about the way people will get access to financial services as well as economic opportunities and the means to keep them as long as possible in the financial system. Therefore, financial inclusion strategies should cover aspects related to financial education and assistance of people to make sure that they have the necessary aptitude to take advantage of the system in a way that will provide them with appropriate opportunities serving their interests. These aspects constitute the financial literacy concept.

In most of the definitions, the financial literacy (Lusardi and Mitchell, 2014) concept covers the financial education, the ability to take advantage from the financial instruments and services and the financial behaviour. Moreover, a financial literacy policy is supposed to support the financial inclusion efforts (Cole, Sampson and Zia, 2010; Lusardi and Mitchell, 2007; World Bank, 2009) but also the financially included people that would like to move to more complex financial instruments.

From another perspective, most of the literature focused on the outcomes of financial literacy policies (measurement, impact on financial inclusion, impact on the financial behaviour of people) and only few research papers adopted a qualitative approach to understand the way a financial literacy policy shall be conceived to reach the expected outcomes.

From the Islamic finance perspective, some authors put forward the specific concept of 'Islamic financial literacy' to emphasize on the specificities and dimensions of such approach in a *Shari'ah* compliant universe. Moreover, the literature covered other subjects such as the measurement of the Islamic financial literacy and its impact on the financial behaviour of people. Nevertheless, the qualitative approach related to the elaboration of an Islamic financial literacy policy is still not covered in a comprehensive way by the existing literature.

This paper focuses on the qualitative aspects of the Islamic financial literacy and suggests a standardized approach to elaborate an efficient policy based on the specificities of Islamic finance and the key success factors related to financial literacy in a conventional context.

In the first part, the paper presents a summary of the literature review related to financial literacy in conventional finance and the main concepts and guidelines for the Islamic financial literacy concept. The second part of the paper explains the research methodology and the main principles guiding the elaboration of an Islamic financial literacy policy for Islamic financial institutions and financial authorities.

Literature Review

The Financial Literacy Concept

In literature, financial literacy definitions vary from one author to another (Hung et al., 2009) but they generally cover two main aspects. First, some authors link financial literacy to financial knowledge (Hilgert et al., 2003) or to the knowledge of basic financial concepts (Lusardi, 2008). Secondly, other authors define financial literacy as the ability to evaluate the new and complex financial instruments and make informed judgments (Mandell, 2007) or as the ability of people to use the knowledge they have learnt (Moore, 2003).

Nevertheless, both aspects do not contradict each other and financial literacy can be defined as the knowledge of basic economic and financial concepts as well as the ability to use that knowledge and other financial skills to manage financial resources effectively. (Hung et al., 2009). Therefore, financial literacy is a three-step process that relies on financial education, financial skills improvement and financial behaviour adjustment.

Moreover, the aim of financial literacy may depend on the income level of the country (Xu and Zia, 2012). In high-income countries, financial literacy is supposed to address complex financial instruments and reinforce the consumer protection system. In low-income countries, the financial literacy content is more focused on inclusion and increasing access to basic financial instruments.

The Outcomes of Financial Literacy

In literature, authors covered a wide range of topics related to the outcomes of financial literacy (FL) starting with the measurement of its level in a specific context, its impact on the financial behaviour of people and their ability to protect their interests and rights.

In terms of Financial Literacy Measurement, the strategies adopted are mainly based on Knowledge Self-Assessment tests or Performance tests and are covering four main areas (Investment, Debt, Savings and Numeracy) (Hung et al., 2009). These strategies assume that financial literacy measures may have a strong predictive power of consumers' intentions and that consumers turn immediately their intentions to actions. Moreover, there is a belief that financial literacy can improve the ability of consumers to protect and increase their welfare in the financial markets and systems. Nevertheless, this belief relies more on theory rather than on empirical surveys or evidence (Willis, 2009).

From another perspective, literature showed that in High-income countries, financial literacy is correlated with retirement planning (Bucher-Koenen and Ziegelmeyer , 2011; Fornero and Monticone, 2011; Lusardi and Mitchell, 2011) sophisticated investment behaviour (Abreu and Mendes, 2010), debt and mortgage while that in low-income countries, surveys showed that financial literacy is correlated with having a bank account and an insurance product (Xu and Zia, 2012).

Policymakers always cite a number of surveys that claim the efficiency of financial literacy. Nevertheless, there are several problems to overcome in terms of research design and statistical technics such as data reliability, controls on conditions, validity measurement and interpretation of results (Willis, 2009).

Moreover, research neglects the qualitative aspects such as the way content and design of courses that can impact the efficiency of a financial literacy policy, the delivery formats of financial education, the most effective manner of targeting different populations and the way female entrepreneurship can be improved through different programs of financial literacy (Xu and Zia, 2012)

The Qualitative Approach of Financial Literacy

The qualitative approach of financial literacy pays particular attention to three major aspects: the targeting strategy, the content and format of delivery and the program evaluation.

In terms of *targeting strategy*, research showed that mistakes are more common for low-income and less educated households (Martin, 2007) and that needs in terms of financial education differ from high-income to low-income countries. Therefore, it is recommended, for low-income countries, to identify and target vulnerable populations (such as women, minorities, youngsters), rely more on raising awareness rather on numeracy skills and finally leverage social networks and peer effects (Xu and Zia, 2012) while adopting various nudging technics to assist people in their financial decisions (Taler and Sustein, 2009).

In terms of *content and format of delivery*, the financial literacy programs, for high-income countries, shall take into account the specificities of the context and should cover a wide range of topics such as retirement planning, savings, home-ownership, credit use and any other relevant topic. In low-income countries, these programs shall focus on both awareness and numeracy skills. They shall be conducted in face-to-face sessions in a classroom with a counsellor or by any other relevant means (Xu and Zia, 2012).

For the *program evaluation* aspects, the improvement of the effectiveness and the measurement of the impact of financial literacy programs require evaluations and continuous assessment to be included as a major component of these programs (Hathaway and Khatiwada, 2008)

Islamic Financial Literacy Specificities

Abdullah and Anderson (2015) defined Islamic financial literacy as the stock of knowledge that one acquires through education and/or experience specifically related to essential Islamic finance concepts and products. However, the scope covered by Islamic financial literacy is expected to be wider and should include behavioural aspects.

Rahim, Rashid and Hamed (2016) defined Islamic financial literacy as the ability of a person to use financial knowledge, skill, and attitude in managing financial resources according to the Islamic teachings. As a matter of fact, the Islamic teachings are the only additional aspect in this definition compared to conventional financial literacy. Nevertheless, the *Shari'ah* dimension is not the unique specificity of the Islamic financial literacy.

Setiawati et al., (2018) defined Islamic financial literacy as the ability of a person from aspects of knowledge, attitudes and behaviour of Islamic finance to manage finances based on Islamic financial principles.

Islamic financial literacy covers aspects related to knowledge, skills and behaviours in managing financial resources effectively in line with *Shari'ah* principles. In terms of Islamic financial literacy measurement strategies, they are identical to those in the conventional financial literacy. Indeed, they are based on knowledge assessment tests covering Islamic financial products and concepts including *Shari'ah* principles underlying them (Zaman et al., 2017; Setyowati et al., 2018).

Genesan et al. (2020) added the understanding of Arabic language as a new dimension to Islamic financial literacy measurement. In fact, most of Islamic banks in non-Arab countries use Arabic terms when developing a new product or a brand name while most people in these countries are not familiar with Arabic. Therefore, including Arabic terminologies in testing the knowledge of people and measuring the Islamic financial literacy effectiveness seems to be relevant.

Zaman et al. (2017) demonstrated that Islamic financial literacy is an important indicator of adoption of Islamic banking in Pakistan. Hence, the slow level of adoption is justified by the lack of awareness and education among the masses. The authors recommended an increase in education and in financial literacy to improve customer services quality and the *Shari'ah* credibility of Islamic banking services.

A similar study conducted in the UAE Market (Albaity and Rahman; 2019) found out that Islamic financial literacy is negatively linked to the intention to use Islamic banks. According to the study, when literacy alone increases, the intention to use Islamic banks decreases but when associating it to attitude towards Islamic banks, then, the link becomes positive. Therefore, Islamic financial literacy is not enough to encourage the adherence of people to Islamic finance.

Literature Review Gap

The literature related to Islamic financial literacy focused more on measurement aspects and customer perception towards Islamic financial products and institutions. Indeed, the qualitative aspects were neglected such as the content relevance, the delivery formats, the literacy targets, the financial behaviour and many other qualitative aspects.

It is worth noting that the conclusions and recommendations issued by research papers in conventional financial literacy are still valid in the context of Islamic financial literacy if and only if the specificities of the Islamic finance industry are taken into account.

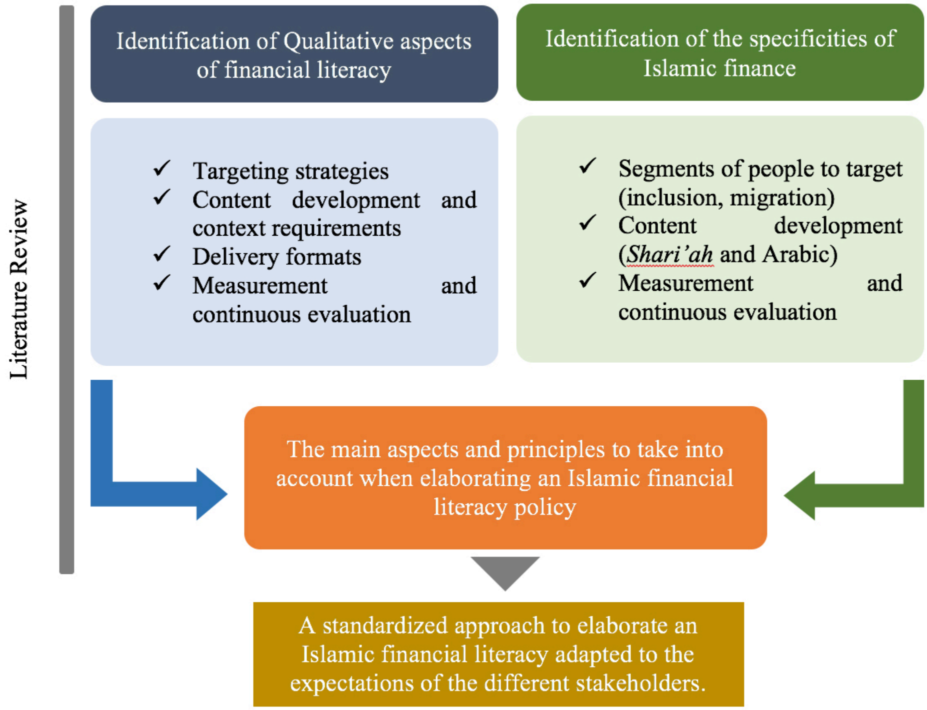
The aim of this paper is to address the qualitative aspects of the Islamic financial literacy based on the conclusions of the financial literacy literature related to qualitative aspects while taking into account the specificities of the Islamic finance industry.

Research Methodology

The objectives of this Research paper are to conceive a standardized methodology that takes into account the outcomes of literature review related to qualitative aspects of conventional financial literacy as well as the specificities of Islamic finance in order to elaborate Islamic financial literacy policies adapted to the requirements and expectations of both customers and Islamic financial institutions. The Research methodology adopted is as follows:

Figure 1

Research methodology of the paper, Source: Author's own.



The Specificities of Islamic Financial Literacy Policies

The specificities of the Islamic financial literacy policies all come from the characteristics of the Islamic finance industry itself in terms of segments and targets and in terms of its commitment to comply with *Shari'ah* principles.

Segments and Targets

Generally, Islamic financial institutions are dealing with four different profiles of people that may be interested in Islamic finance (Tahiri Jouti, 2018):

Profile 1: People who do not have a bank account and reject all the conventional financial instruments due to religious concerns.

Profile 2: People who have a bank account with a limited use of basic services and reject all the other conventional financial products and services due to religious concern. Hence, this profile subscribes to basic services because it is obligatory to have them to receive a wage or to start a business.

Profile 3: People who use conventional financial services without any restrictions but preferring to subscribe to Islamic financial products once available.

Profile 4: People who use all the conventional financial products and services but would choose to convert all their financial commitments to Islamic financial products.

The Islamic financial literacy policies shall have three main approaches to target the four profiles cited above:

The first approach aims at promoting financial inclusion (profiles 1 and 2). From this perspective, Islamic financial institutions target the self-excluded people for religious concern and people who are using basic conventional financial services and would like to have a *Shari'ah* compliant alternative.

The second approach aims at assisting people (profiles 3 and 4) that are already included in the conventional financial system but need to move to the Islamic financial products. These people have already commitments with conventional financial institutions and would like to subscribe or to convert their commitments to Islamic financial institutions using the available mechanisms. From this perspective, Islamic financial literacy should focus on migration mechanisms and requirements that are very different from those of financial inclusion.

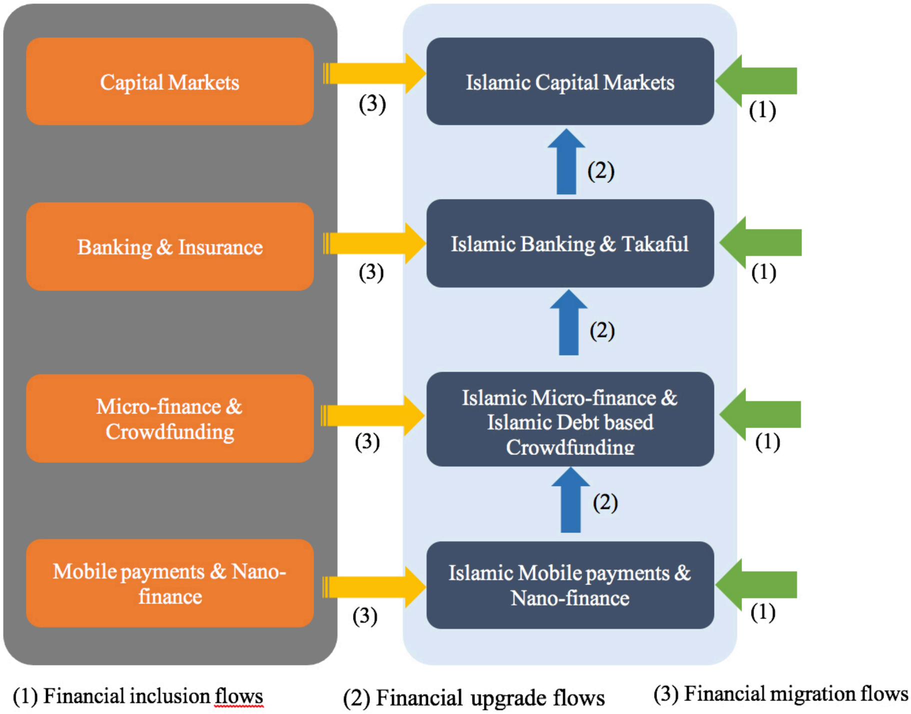
An Islamic financial literacy policy shall take into account this category of people and to prepare adequate mechanisms and instruments for financial migration.

The third approach targets people that are already included in the system but need to move from one level to another. For instance, a customer, that started his business with a microfinance company, sees his activity growing and requires more funding. Thus, he has to be upgraded from a micro-finance beneficiary to a bank customer. Thus, targeting this category aims at making the financial upgrade process more fluid and successful.

Overall, a financial system should offer people adequate opportunities to be included and upgraded from a level to another while meeting the personal and business requirements in terms of funding and financial services. Figure 2 presents the different targets of Islamic financial literacy policies.

Figure 2

Different targets of Islamic financial literacy policies; Source: The Author's own



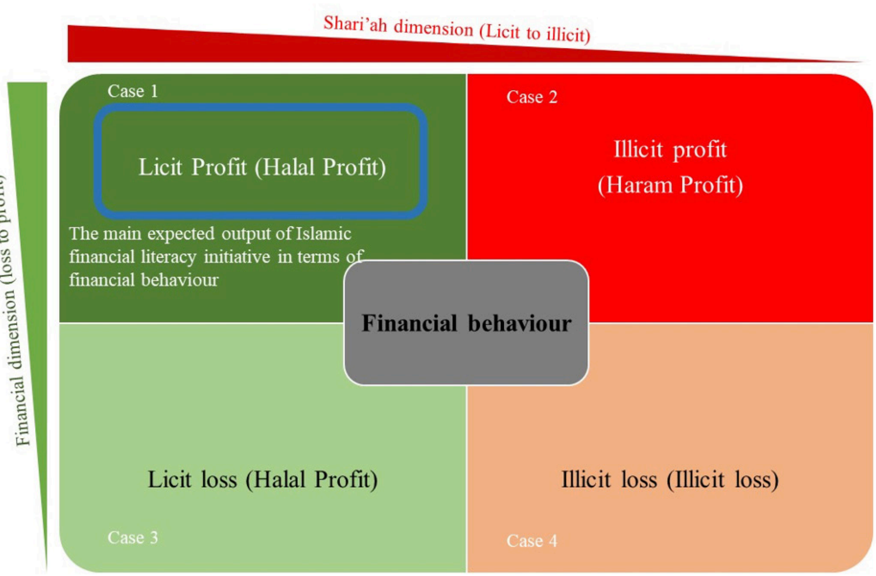
Islamic Financial Literacy Dimensions

Shari'ah dimension vs. Financial dimension

From the Islamic financial literacy perspective, the initiatives shall accompany people to take advantage of the available instruments and improve their financial behaviour while complying with *Shari'ah* principles. Figure 3 presents the expected output related to Islamic financial literacy initiatives.

Figure 3

The expected outputs related to Islamic financial literacy initiatives, Source: Author's own



The cases in figure 3 are explained below:

Case 1: The Islamic financial literacy initiatives are not supposed to focus on *Shari'ah* matters only. They have to provide people with a deep understanding of the financial aspects that can lead to a licit profit and thus to the development of wealth and *Shari'ah* compliant businesses.

Case 2: Based on the international *Shari'ah* standards and best practices, illicit profits are cleansed and generally, they are donated to charities. In this case, Business developed is not *Shari'ah* compliant and without any wealth creation.

Case 3: People conducted a *Shari'ah* compliant business but generated a loss due to the misconduct or misunderstanding of the business requirements or the financial instruments. Obviously, wealth is not created but at least a *Shari'ah* compliant business was implemented. In this case, the focus should be oriented to the financial and business dimension in the financial literacy efforts.

Case 4: People conducted a *Shari'ah* non-compliant business that generated a loss. Therefore, all the Islamic financial literacy dimensions need to be activated.

The Additional Dimensions of Islamic Financial Literacy

In addition to the financial and *Shari'ah* dimensions, Islamic financial literacy initiatives shall include all the secondary dimensions that would help in achieving the predefined objectives. In fact, the list of complementary dimensions is not limited; it is enriched based on the main trends and orientations shaping the industry.

For instance, the technological dimension is very important since most of the successful initiatives related to financial inclusion are based on FinTech (Dinar Standard, 2018). It is true that technology is not a purpose in itself but the technological literacy is an efficient means to help people access and use financial services.

From another perspective, as part of the global financial system, Islamic financial institutions are supposed to meet the United Nations' sustainability development goals (SDGs)[1]. Therefore, raising the awareness of people towards sustainable development is a prerequisite to achieve the different targets and goals. Finally, Arabic terminologies need to be explained to non-Arab people in order to get used with the products and services.

Overall, Islamic financial literacy shall focus on not only the purposes but also the means and instruments that contribute to reach them.

Islamic Financial Literacy Objectives

For Governments and Financial Authorities

Financial systems should be accessible and should include upgrade mechanisms in order to contribute to the sustainable development of the country. Therefore, implementing the necessary infrastructure without a comprehensive financial literacy policy would not guarantee the efficiency and effectiveness of the financial system. From an Islamic finance perspective, elaborating and implementing Islamic financial literacy policies aims at:

Encouraging the growth of the Islamic finance industry: As per conventional financial literacy strategies (Richardson et al., 2007), a comprehensive Islamic financial literacy policy would enhance public confidence in the industry from both the financial dimension and the *Shari'ah* credibility dimension. Nevertheless, it goes without saying that even with an Islamic financial literacy, detractors of the industry would exist from both groups:

1 For further details, please visit : https://www.un.org/sustainabledevelopment/sustainable-development-goals/

1.Those who believe that religion does not have to interfere with economics and finance.

2. Those who would always adopt *Shari'ah* orientations different from the *Shari'ah* boards.

Nevertheless, an Islamic financial literacy policy would increase the positive impact of the crowd effects while decreasing its negative impact since Islamic financial institutions would create their own crowds (Graves, 2013).

Reinforcing the trust of people in the whole financial system and in Government institutions: For Government institutions and financial authorities, an Islamic financial literacy policy is an opportunity to educate people about the orientations and choices made in relation with the financial system and to explain the relevance of each choice and decision.

Indeed, Islamic financial literacy would increase the transparency, trust and understanding of the financial system. Therefore, Islamic financial literacy courses could be recommended in schools and universities.

For Islamic financial institutions

An Islamic financial literacy policy would help them in:

Attracting more customers: An Islamic financial literacy policy targeting self-excluded people (especially in case of distrust and lack of documentation) and people that would like to migrate to Islamic finance would bring more customers to Islamic financial institutions. Thus, it will help matching the offer of products to the customers' needs.

Preparing tomorrow's customers: Most of studies showed that the level of financial literacy among the youth is low across most parts of the world (Garg and Shveta, 2018). Therefore, the financial literacy policy shall be oriented to the youth in order to provide them with the necessary skills and aptitude to take advantage of the Islamic finance instruments.

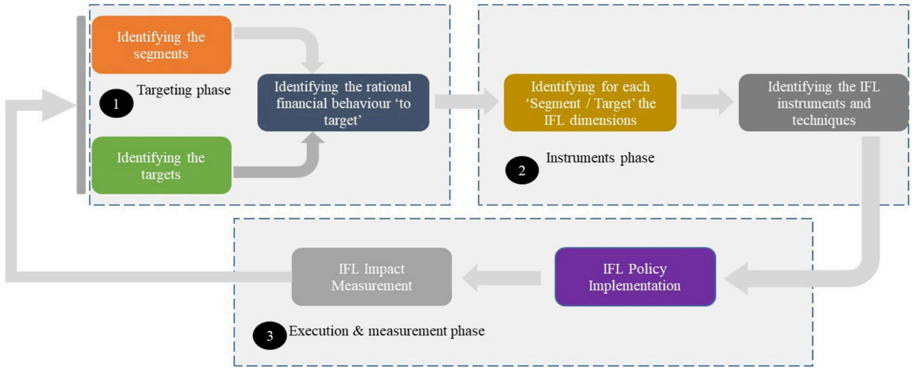
Reinforcing Shari'ah governance of the Islamic financial institutions: As per the link between consumer protection and the level of financial literacy (World Bank, 2009), providing adequate education and assistance to the different segments of customers would add a new level of *Shari'ah* internal control. Indeed, the customers would be part of controlling the *Shari'ah* compliance of the processes and would prevent the cases of *Shari'ah* noncompliance.

Elaborating an Islamic Financial Literacy Policy

Based on the literature review conclusions and the specificities of Islamic finance, the elaboration of an Islamic financial literacy policy should respect the following steps:

Figure 4

Elaboration methodology of an Islamic financial literacy policy, Source: Author's own



An explanation of figure 4 is as follows:

Planning and targeting phase

The targeting phase consists of selecting the segments and the targets of people to address in the Islamic financial literacy policy.

Step 1: *Selecting the segments*

The first step consists of selecting the segments to be addressed. The policy makers shall draw the profile of each segment in terms of:

Needs: the expectations of each segment in terms of learning, financial services, financing formulas and investment characteristics. Mapping the needs is not limited to the products but should be extended to the quality of service, innovation and social impact of the institution.

Behaviours: in terms of spending, lifestyle, religiosity and standard of living.

Financial potential: the policy makers shall estimate the profitability of the segment and the evolution that would occur in terms of needs and behaviours.

The segmentation should also include third parties in the Islamic finance ecosystem such as administrations, real estate developers, intermediaries or brokers, etc. The aim is to provide them with sufficient understanding to facilitate the transactions and the relationship with them.

Examples of segments:

1. Youngsters
2. Small and Medium enterprises
3. High Net Worth clients

Step 2: *Selecting the targets*

The policy makers shall identify for each segment the categories of targets -*some targets and segments cannot match together*-. For instance, targeting financial inclusion flows related to Small and Medium Enterprises is not consistent since all the businesses have already access to, at least, basic financial services. Therefore, Islamic financial literacy policy makers shall target financial migration and upgrade flows. Table 1 presents an example of segmentation.

Table 1
Example of segments / targets

Example	**Segment 1 :** Young people	**Segment 2 :** SMEs	**Segment 3 :** HNW Customers
Target 1 : Inclusion flows	√	×	×
Target 2 : Migration flows	×	√	√
Target 3 : Upgrade flows	√	√	×

Source: Author's own

Step 3: Identifying the rational financial behaviour

For each 'Target/ segment', policy makers shall define the expected outcome of the Islamic financial literacy initiatives and policies. The aim is to define the rational financial behaviour to inculcate to people. Table 2 presents an example of rational financial behaviour targeted in an Islamic financial literacy policy.

Table 2
Examples of rational financial behaviour per segment / target

Young people x inclusion flows	*Young people x upgrade flows*	*SMEs x Migration flows*	*SMEs x Upgrade flows*	*HNW x Migration flows*
• *Encouraging people to select Shari'ah compliant careers and investment opportunities in the future.* • *Encouraging young people to manage their spending according to their revenue.* • *Encouraging people to deal with Islamic financial institutions and to take advantage of the financial instruments*	• *Preparing people for the next steps of life to make the right financial decisions in line with Shari'ah principles.* • *Encouraging people to use advanced Shari'ah compliant financial services and instruments to fulfill their needs.* • *Encouraging entrepreneurship and initiatives as it is an Islamic principle.*	• *Encouraging SMEs to move to Islamic finance throughout a smooth process.* • *Encouraging Shari'ah compliant and social impact industries.* • *Enhancing the Islamic ethics in business.*	• *Encouraging very small business dealing with Microfinance institutions to move to Islamic banks and Islamic capital market instruments.* • *Accompanying growing SMEs to optimize their financial decisions.* • *Enhancing the Islamic ethics in business as well as sustainability practices.*	• *Encouraging High Net worth people to move to Islamic investment instruments.* • *Encouraging HNW to contribute in Social impact financial instruments.*

Source: Author's own

Instruments phase

The instruments phase consists of selecting the dimensions to include in the Islamic financial literacy policy as well as the instruments and techniques to implement.

Step 4: *Identifying the dimensions for each segment / target*

Based on each segment / target / rational financial behaviour, policy makers shall identify the dimensions to integrate and the way these dimensions should be addressed. Table 3 presents the dimensions to cover depending on the segments and targets.

Table 3

Dimensions per Segment / Target / rational Financial behaviour; Source: Author's own

Dimensions	Young people x inclusion flows	Young people x upgrade flows	SMEs x Migration flows	SMEs x Upgrade flows	HNW x Migration flows
Shari'ah dimension	√	√	√	√	√
Finance dimension	√	√	√	√	√
Technology dimension	√	×	×	×	×
Entrepreneurship dimension	×	√	×	√	×
Ethical dimension	×	×	√	√	×
Sustainability dimension	×	×	×	×	√

For the *Shari'ah* dimension, there are two categories of people to address:

1. The *first category:* those who would subscribe Islamic financial services just because they are in line with *Shari'ah* principles. This category of people would not go forward in the process of challenging the formulas implemented.

2. The *second category:* those who would need to understand the reasons behind banning some of the conventional practices. For this category, a ban should have an economic impact; otherwise, it is a nonsense. Moreover, the impact could be micro-economic (impacting the individuals) or macro-economic (impacting the society).

Indeed, an Islamic financial literacy policy focusing on the *Shari'ah* dimension should focus on the two categories of people.

Step 5: *Identifying the instruments and techniques for each segment / target / dimension*

For each segment, target and dimension, policy makers shall identify the instruments and techniques of Islamic financial literacy to adopt for both financial education and financial assistance. The financial education consists of pedagogical content presenting the concepts, philosophy, processes and the impacts according to the targets and segments to serve. The financial assistance consists of techniques and instruments elaborated to help people in making optimal financial decisions. Table 4 presents an example of instruments and techniques to provide.

Table 4

Example of Techniques and Instruments for 'Young segment / Inclusion flows target)

<table>
<tr><th colspan="5">Young people</th></tr>
<tr><td colspan="2">Dimensions</td><td>Shari'ah dimension</td><td>Finance dimension</td><td>Technology dimension</td></tr>
<tr><td rowspan="4">Inclusion flows</td><td>Encouraging people to select Shari'ah compliant careers and investment opportunities in the future.</td><td colspan="2" rowspan="4"><u>Education instruments :</u>
• Cartoons (stories giving more details about Shari'ah principles and the rational financial behaviour)
• Handbooks (explaining the basic principles related to Shari'ah but also the rational financial behaviour)
• Coaching sessions in High Schools and universities (Using the handbooks and sharing handbooks and cartoons. IFI can commercialize offers dedicated to teens and university students)

<u>Assistance instruments:</u>
• Gamification (Awards for university students, best customer in terms of rationality among people, etc.)
• Dedicated spaces for Young people in the branches (digital corners to interact directly and learn more about opportunities)
• Special offers for young people</td><td rowspan="4">• Mobile games (Learning)
• Facebook pages of the Islamic financial institutions dedicated to Young people (sharing all the contents and live videos with experts in the field)</td></tr>
<tr><td>Inculcating people the principles related to Shari'ah compliant activities.</td></tr>
<tr><td>Encouraging young people to manage their spending according to their revenue.</td></tr>
<tr><td>Encouraging people to deal with Islamic financial institutions and to take advantage of the financial instruments at their disposal</td></tr>
</table>

It is understood that the contents shall be adapted to each target and each segment.

Execution & Measurement phase

Once the segments, targets, dimensions and instruments are defined, the execution phase is composed of two steps: Implementation and measurement.

Step 6: *IFL Policy Implementation*

The implementation step consists of setting up instruments and mechanisms to educate people and accompany them in taking the right financial decisions for them and for their families. The financial authorities and the Islamic financial institutions shall take into account the latest trends in terms of instruments and tools.

In terms of financial education: In general, education and sharing knowledge witnessed deep changes due to the convergence of three sectors (information technology, media and telecommunications) and the desire of learners and users to have more autonomy in terms of the type of information to select, the way and the time to access it (Nagy and Bernschutz, 2016)

Educational videos seem to be the most efficient and the less expensive instrument. Moreover, they are motivating and they have the power of attraction and can influence emotions and make learning an interesting journey (Marx and Frost, 1998; Fisher and Baird, 2006).

In Islamic finance, most of the efforts in financial literacy are focused on education through product guides, conferences, Videos, books and booklets.

In terms of assistance: The best way to accompany people in their financial decisions while having control on their behaviours is gamification (Schoech. et al., 2013). It is the use of game techniques and mechanisms to learn more about the real market principles and practices (such as the Stock Market competition between University students in Morocco[2]) or to achieve a goal such as encouraging people to adjust their behaviours through rewards.

As per videos, gamification techniques evolved thanks to smartphones and internet connection. According to statista.com, the global annual smartphone unit sales to end users in 2018 reached 1.56 Billion with a total number of 2.1 Billion smartphone users worldwide representing 32,3% of the global population.

Therefore, mobile applications can help people making optimal financial decisions and to adopt a rational financial behaviour through:

1. Budgeting, tracking the spending and avoiding overspending.

2. Getting advice on the investment universe and the various alternatives.

3. Price comparison tools for different kinds of spending.

In practice, these tools and instruments already exist such as Mint, Pocket Guard, Wally and others. From this perspective, financial institutions can add gamification mechanisms. For instance, every customer using these applications and who achieves saving targets can get preferential terms for future loans and financing especially when it comes to housing, education or mobility.

Step 7: *IFL Policy Measurement*

In order to assess the efficiency and the effectiveness of an Islamic financial literacy policy, the measurement indicators shall focus on four main dimensions:

Table 5
Islamic financial literacy measurement indicators

	Quantitative	Qualitative
Education	**Total reach:** the number of people that accessed the educational content	**Understanding level**: the number of people that understood correctly the different concepts and instruments
Assistance	**Total reach:** the number of people adhering to the gamification initiatives and platforms	**% people with positive behaviour**: the number of people that adjusted their financial behaviour

The results of the measurement step shall be analysed carefully to update and upgrade the new initiatives and targets of the Islamic financial literacy policy.

Conclusion

Financial inclusion is about linking people to adequate economic opportunities and also to the necessary knowledge and education to take advantage of the financial instruments and services. Therefore, a financial literacy policy should be integrated as a main component of the financial inclusion strategy.

Most of the literature in this field focuses on aspects such as measurement of the level of financial literacy for some segments or areas and its impact on the financial behaviour and inclusion of people. Nevertheless, few research papers have discussed qualitative aspects that enhance the effectiveness of a financial literacy policy in terms of contents, format of delivery and other related aspects.

From another perspective, the introduction of Islamic finance in a market should be accompanied with an appropriate financial literacy policy that takes into account the specificities of the local context such as the degree of *Shari'ah* awareness, the Arabic language understanding, the targets and segments of people concerned.

It is worth noting that an efficient Islamic financial literacy can improve the people's understanding of *Shari'ah* concepts and Islamic finance underlying principles. Nevertheless, it will not ensure the adherence of people to Islamic financial products unless they are in line with their understanding to *Shari'ah* and their operational expectations.

Finally, financial literacy policies should not only focus on education but also include the skills and the behaviour using new tools and instruments such as financial technologies and nudging technics.

References

Abdullah, M.A., and Anderson, A., (2015). Islamic Financial Literacy among Bankers in Kuala Lumpur. *Journal of Emerging Economies and Islamic Research, 3*(2), 1-16.

Abreu, M., and Mendes, V. (2010). Financial Literacy and Portfolio Diversification. *Quantitative Finance, 10*(5), 515–528. doi :10.1080/14697680902878105

Albaity, M. and Rahman, M. (2019). The intention to use Islamic banking: an exploratory study to measure Islamic financial literacy. *International Journal of Emerging Markets, 14*(5), 988-1012. doi: 10.1108/IJOEM-05-2018-0218

Bucher-Koenen, T., and Ziegelmeyer, M. (2011). *Who Lost the Most? Financial Literacy, Cognitive Abilities, and the Financial Crisis* (Working Paper Series No. 1299 / February 2011). European Central Bank.

Cole, S., Sampson, T. and Zia, B. (2010). *Financial literacy, financial decisions, and the demand for financial services: evidence from India and Indonesia* (Working Paper No. 09-117). Harvard Business School, Cambridge, MA.

Dinabandhu, S. and Debashis, A., (2018). Financial inclusion and economic growth linkage: some cross country evidence. *Journal of Financial Economic Policy, 10*(3), 369-385. doi:10.1108/JFEP-11-2016-0073

Dinar standard (2018). Islamic Fintech Report 2018: Current Landscape & Path Forward. Retrieved from https://www.dinarstandard.com/wp-content/uploads/2018/12/Islamic-Fintech-Report-2018.pdf.

Fisher, M., & Baird, D.E. (2006). Making mlearning work: Utilizing mobile technology for active exploration, collaboration, assessment, and reflection in higher education. Journal of Educational Technology Systems, 35(1), 3-30. Doi:10.2190/4T10-RX04-113N-8858

Fornero, E., and Monticone, C. (2011). *Financial Literacy and Pension Plan Participation in Italy* (CeRP Working Paper No. 111). Turin (Italy): Center for Research on Pensions and Welfare Policies.

Ganesan, Y., Allah Pitchay, A.B. and Mohd Nasser, M.A. (2020). Does intention influence the financial literacy of depositors of Islamic banking? A case of Malaysia. *International Journal of Social Economics, 47*(5), 675-690. doi: 10.1108/IJSE-01-2019-0011

Hathaway, I. and Khatiwada, S. (2008). *Do Financial Education Programs Work? FRB of Cleveland* (Working Paper No. 08-03). Retrieved from https://ssrn.com/abstract=1118485

Hilgert, M., Hogarth, J., and Beverley, S. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin, July*, 309-322. Retrieved from http://www.federalreserve.gov/pubs/bulletin/2003/0703lead.pdf

Hung, A., Parker, A. M. and Yoong, J. (2009). *Defining and Measuring Financial Literacy* (RAND Working Paper Series WR-708). Retrieved from SSRN: https://ssrn.com/abstract=1498674

Lusardi, A. and Mitchell, O.S (2007). Financial literacy and retirement preparedness: evidence and implications for financial education. *Business Economics, 42*(1), 35-44.

Lusardi, A. (2008). *Household saving behavior: The role of financial literacy, information, and financial education programs* (NBER Working Paper 13824). Cambridge, MA: NBER.

Lusardi, A., and Mitchell, O.S (2011). *Financial Literacy and Retirement Planning in the United States* (CeRP Working Paper No. 107/11). Turin (Italy): Center for Research on Pensions and Welfare Policies.

Lusardi, A. and Mitchell, O.S. (2014). The economic importance of financial literacy: theory and evidence. *Journal of Economic Literature, 52*(1), 5-44.

Martin, M. (2007). *A Literature Review on the Effectiveness of Financial Education. FRB Richmond* (Working Paper No. 07-03). Retrieved from https://ssrn.com/abstract=2186650

Marx, R.D., and Frost, P.J. (1998). Towards optimal use of video in management education: Examining the evidence. *Journal of Management Development, 17*(4), 243-250. doi: 10.1108/02621719810210154

Mandell, L. (2007). Financial literacy of high school students. In J.J. Xiao (Ed.), *Handbook of Consumer Finance Research* (pp. 163-183). New York, NY: Springer.

Moore, D. (2003). *Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes, and Experiences* (Technical Report 03-39). Social and Economic Sciences Research Center, Washington State University.

Nagy, J.T., and Bernschütz, M. (2016). The impact of webinar-webcast system on learning performance. *Educational Technology Research and Development, 21*(6), 1837-1845.

Garg, N. and Shveta, S. (2018). Financial Literacy among youth. *International Journal of Social Economics, 45*(1), 173-186. doi: 10.1108/IJSE-11-2016-0303

Graves, P. (2013). *Consumerology: The truth about consumers and the psychology of shopping*. London: Nicholas Brealey publishing.

Rahim, S. H. A., Rashid, R. A., and Hamed, A. B. (2016). Islamic financial literacy and its determinants among university students: An exploratory factor analysis. *International Journal of Economics and Financial Issues, 6*(7), 32-35.

Schoech, D., Boyas, J.F, Beverly M. B. & Elias-Lambert, N. (2013). Gamification for Behavior Change: Lessons from Developing a Social, Multiuser, Web-Tablet Based Prevention Game for Youths. *Journal of Technology in Human Services, 31*(3), 197-217. doi: 10.1080/15228835.2013.812512

Taler, R.H and Sustein, C.R. (2009). *Nudge Improving Decisions about health, wealth, and Happiness*. New York. Penguin Books.

Richardson, A.J., Szykman, L., Utkus, S. P. and Young, J. A. (2007). *Literacy, Trust and 401(K) Savings Behavior*. Retrieved from https://ssrn.com/abstract=1299171

Rutledge, S. L. (2010). *Consumer protection and financial literacy: lessons from nine country studies (English)* (Policy Research working paper no. WPS 5326). Washington, DC: World Bank. Retrieved from http://documents.worldbank.org/curated/en/676251468233092150/Consumer-protection-and-financial-literacy-lessons-from-nine-country-studies.

Setiawati R., Nidar S.R, Anwar M. and Masyita D. (2018). Islamic financial literacy: Construct process and validity. *Academy of Strategic Management Journal, 17*(4). Retrieved from https://www.abacademies.org/articles/Islamic-financial-literacy-construct-process-1939-6104-17-4-242.pdf

Setyowati, A., Harmadi, H., & Sunarjanto, S. (2018). Islamic financial literacy and personal financial planning: A socio-demographic study. JurnalKeuangan dan Perbankan, 22(1), 1-13. doi: 10.26905/jkdp.v22i1.1625

Tahiri Jouti, A. (2018). Islamic finance: financial inclusion or migration? *ISRA International Journal of Islamic Finance, 10*(2), 277-288. doi: 10.1108/IJIF-07-2018-0074

Willis, L. E. (2009). Evidence and Ideology in Assessing the Effectiveness of Financial Literacy Education. *San Diego Law Review, 46*(2009), 415.

World Bank (2009). *The Case for Financial Literacy in Developing Countries. Promoting Access to Finance by Empowering Consumers*. Washington, DC: The World Bank.

Xu, L. and Zia, B. (2012). *Financial Literacy Around the World: An Overview of the Evidence with Practical Suggestions for the Way Forward* (World Bank Policy Research Working Paper No. 6107). Retrieved from https://ssrn.com/abstract=2094887

Xiao, J. J. and Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capacity as mediators. *International Journal of Bank Marketing, 35*(5), 805-817. doi: 10.1108/IJBM-01-2016-0009.

Zaman, Z., Mehmood , B., Aftab R. , Siddique, M. S., and Ameen, Y. (2017). Role of Islamic Financial Literacy in the Adoption of Islamic Banking Services: An Empirical Evidence from Lahore, Pakistan. *Journal of Islamic Business and Management,* 7(2), 230-247. doi: 10.26501/jibm/2017.0702-00