

# **PUZZLING TECHNIQUES: A WAY FORWARD FOR MASTERING THE ISLAMIC FINANCE**

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**ABSTRACT:** Islamic finance is making waves as a rapidly growing industry within global finance. Experts are seeing numerous ingenious initiatives and activities to engage clear understanding of Islamic finance products. Nevertheless, the subject requires comprehensive and extensive reading to understand its applications in the real world. Hence, ‘Puzzling the Arrows’ is created to facilitate understanding and ease students’ learning of the subject. Using the puzzle-based learning, this product conceptualizes a new teaching and learning methodology focusing on the development of quick memorizing skills. The modus operandi of Islamic finance products, in terms of their structure, content and process, can be easily understood by learners through the use of Puzzling technique. More importantly, they will become more knowledgeable in understanding and mastering the products of Islamic finance. This innovation draws upon a diverse literature on Islamic finance knowledge and builds upon numerous issues raised by academics and practitioners in providing attractive platforms for mastering the Islamic finance knowledge.

**Keywords:** Islamic Finance, Knowledge, Puzzle, Puzzling the Arrows

## **1. Introduction**

Currently Malaysia is one of the leading centre for Islamic finance. However, the level of public and students’ knowledge and understanding lag behind as the subject of Islamic finance is found difficult and too advanced for the general understanding. According to Abdullah and Chee (2010), the issues arise in the content area where fundamental issues differentiating conventional and Islamic finance operations has failed to be expressed clearly. In the scope of academic, many who are interested in the subject found it challenging to grasp the content of Islamic finance as the writings done by academics and experts are too advanced for their comprehension. Despite the difficulties of its operations, the lack of a national consensus on a standard education curriculum for Islamic finance is another primary issue in explaining the Islamic finance education.

Technological advancement has given birth to sophisticated devices such as mobile phones, tablets, iPads, laptops and many others and making an on educating the community. In this respect, mobile accessibility has a great potential in providing assistance to understand the Islamic finance operations involving different contracts (Bates and Poole, 2003; Carroll, 1991). Zakaria (2015) stated that these technology devices are important tools that can be used as an alternative to traditional teaching approach where they could promote a more comprehensive learning strategy with full features of mobility and flexibility. Accordingly, this study proposes to develop mobile app for Islamic finance education to help reducing the complexity in understanding its contracts and procedures. The motivating factor behind this project is developed based on the importance of using technology in education and the use of it in

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providing teaching and learning support is based on various theory of learning framework such as the behaviourists' theory (Skinner, 1968), constructivism (Bruner, 1966), situated learning (Brown, Collins & Duguid, 1989), collaborative learning (Vygotsky, 1978), informal and lifelong learning (Eraut, 2000). The utilisation of mobile application among the Islamic finance educators and students, and even Islamic finance professionals at various sectors could support better understanding and achievement in mastering the knowledge of Islamic finance in a more attractive learning environment.

## **2. Islamic Finance**

Since the inception of Islamic finance philosophy three decades ago, its concept is developing at a remarkable pace. From only one Islamic banking institution operated in 1975, the number of Islamic financial institutions worldwide has tremendously risen to over 300 today across more than 75 countries (i.e. Malaysia, Bahrain, United Kingdom, Iran, etc). The total assets worldwide are estimated to exceed \$250 billion, and are growing at an estimated 15 percent a year (El- Qorchi, 2005). In Malaysia, Maybank Islamic, leads as the largest Islamic bank in ASEAN and one of the biggest in the world (Stubing, 2017). Maybank Islamic has been awarded as the winner of the Global Best Islamic Financial Institution due to its strong financial and operating performance in 2016 and its proactive approach to developing products. In 2016, Maybank Islamic's gross financing recorded growth of 14% in deposits, and funding was up by 12%. The total income grew by 12% to \$819 million.

The philosophy of Islamic finance mandate that all financial transactions must be based on real economic activity; and forbid investment in sectors such as gambling, tobacco, alcohol, and armaments. Through the Islamic teachings in the fields of transactions (*mu'amalat*), prohibit selling a certain quantity of any present goods or service for a different quantity of the same good or/and service delivered in the future. This is understood to apply to money as well as to all other goods and services. As a result, any amount of present money cannot be exchanged for a larger amount of money in future (Al-Jarhi, 2004).

In the effort to spread knowledge of Islamic banking and finance, education institutions have been established around the world for the last three decades. One of the earliest was Saudi Arabia that promotes Islamic banking through the establishment of Islamic Research and Training Institute (IRTI). The institute extensively engages in research and training in the area of Islamic banking. The growing interest in the area of Islamic banking education has spread even further to South East Asia countries such as Malaysia where Islamic banking is strengthened with its continuous innovation in the product development based on the shariah principle. With recent establishment of the International Centre for Education in Islamic Finance (INCEIF) by the Central Bank of Malaysia, it further stimulates the development of potential Islamic bankers to cater future shortage of Islamic banking human capital (Waemustafa, 2013).

## **3. Academic Challenges in Learning Islamic Finance among Students**

As mentioned earlier, Islamic finance is making a wave amidst the conventional financial sector worldwide. Its growing popularity can be seen in the increasing number of Islamic finance courses offered at higher institutions, not limited to universities in Islam majority countries but also in non-Muslim countries. Moules (2016) reported that the number of higher institutions in the United Kingdom offering courses in Islamic finance has increased to more than 60% over a decade. Osborne (2003), the UK Chancellor of the Exchequer, envisaged Britain as the first the centre of Islamic finance outside the Muslim world when UK became the first country to issue an Islamic bond in 2014.

In Malaysia, the Islamic financial industry faces a shortage of nearly 56,000 qualified professionals to meet the growing needs in the sector. According to Amat Taap Manshor, the Chief Executive Officer for Finance Accreditation Agency, the shortage is critical in Islamic capital market, takaful and banking, particularly in thriving market such as in Malaysia, Indonesia and West Asia. It was projected that the

country will need approximately 40,000 Islamic finance professionals by 2020. Mismatch between skill training and market need is viewed as the major factor contributing to the shortage (Sinar Harian, Nov 4, 2015).

Education in Islamic finance is the key to address this shortage. The role of higher institutions in Malaysia is important in producing trained professionals in the field considering the 15% to 18% of growth of Islamic finance in the country. In Malaysia, there are a number of institutions of higher learning which offer courses in Islamic finance such as Universiti Teknologi MARA (UiTM), the International Islamic University of Malaysia (IIUM), Universiti Utara Malaysia (UUM), Universiti Sains Islam Malaysia (USIM), Kolej Universiti Islam Antarabangsa Selangor (KUIS) and the International Centre for Education in Islamic Finance (INCEIF). Students of Islamic Finance have to take subjects not pertaining exclusively to learning finance alone but they also have to take other subjects related to the *syar'iah* of Islam which borne the fundamental concepts to implement and apply the *syariah* of Islam in managing funds and wealth. Among the subjects have to be taken by students of Islamic finance is the Principles of Islamic Jurisprudence or *usul al-fiqh*. The purpose of learning *usul al-fiqh* is to provide them with the understanding of the rulings (*hukm*) in Islam sprung from the primary sources which are the Quran and Sunnah of the Prophet (S.A.W) and other derivative sources. The learning outcome of this subject is viewed as important as students whom have learnt it should be able to practice of how to derive a ruling in any given issue pertaining to *syar'iah*. In this light, it is expected that students of Islamic finance should be able to derive the rulings pertaining to financial and wealth management in compliance with the teachings of Islam.

Nonetheless, students of Islamic finance in Malaysia face challenges learning subjects related to the fundamentals of Islamic teachings in relation to their field of study. Literature on discussing problems and challenges of the students is also scarce. A study by Noor Naemah Abdul Rahman, Abdul Karim Ali, Rushdi Ramli and Muhammad Safiri Ismail (2008) provides some insight into the difficulties voiced by students in learning one of the subjects related to learning Islamic finance which is *usul al-fiqh*. They have identified three main challenges faced by the students which are unavailability of a standard module for students' reference, limited time allocated for studying *usul al-fiqh* and poor mastery of the Arabic language.

It was found by Noor Naemah et al. (2008) that there was not any standard textbook that was prescribed to the students as a main source of reference for learning *usul al-fiqh*. The need for a students' textbook for reference was also voiced by Mazraehno and Mazdayasan (2016) when the team developed course materials for students of Islamic Jurisprudence in Iran. In Malaysia, Noor Naemah Abdul Rahman (2008) found that lecturers of this subject resorted to their own prepared materials and teaching approaches varies; some translated Arabic terms into students' mother tongue, which itself reflects the difficulty of learning this subject if students do not have proficiency in the source language of *usul al-fiqh*. Islam spread across the globe from the Arabian Peninsula through conquest, trade, migration and missionary activities of Imams. The primary sources of Islamic knowledge are the Quran and the Sunnah of the Prophet Muhammad (SAW) of which both are in the Arabic language. Furthermore, cannons in Islamic knowledge mostly behold their origins in the Arabic language. Hence, proficiency in this language is a prerequisite for someone who wishes to study the original sources of Islamic subjects. As for students of Islamic knowledge, they have to know the terminology in the Arabic language of which are later defined and elaborated in their mother tongue or the English language, depending on the language of instruction of used at the institution, as it becomes basic for someone to know the terms used in discussing theological concepts in the religion before they can proceed to more advanced levels of religious studies. Arabic is the language of Islam and verses in the Quran have clearly stated the ultimate choice of language to deliver the divine revelations to mankind is Arabic;

ز لمؤك لق زع ز زمكل لع زازنبر الءانأزلن ز لنزان أنأ

We have revealed it – the Quran in Arabic – that you may understand (Surah Yusuf 12:2)

زفأ أزق زل زقُّ لَ لَكَ ل عِ كَز ع ز ز ك زكا المَلِك عِ كَز ع زازء زك بزلم زد زكا ز لو زقا زءول ع  
ابزلم ز زق زنعُّ َ َ زاز نبراً اللُكازلن ز لنزان زق زل لر زك

And thus have we revealed it, a true judgement in Arabic, and if you follow their low desires after what has come to you of knowledge, you shall not have against any guardian or a problem.

(Surah Ar-Rad 13:37)

Noor Naemah et al. (2008) revealed that reference materials used to study *usul al-fiqh* in other languages are still unmatched with the original literature in Arabic. Hence, mastery of this language is needed to study Islamic knowledge in depth and students' weakness in Arabic is a great challenge to study a subject such as *usul al-fiqh*. The problem in translating Arabic language into other languages is a source of difficulty among students. In a study by Omar et al. (2016), it was recognised that students faced a lot of difficulty translating Arabic collocations into English. Many students relied on direct word-for-word translation which may not be a good strategy to comprehend the original text in Arabic. Similarly, if the students attempt to translate word-for-word in English into their mother tongue, the translation may yield distortion in actual meaning.

Other than language proficiency as a challenge for students in learning Islamic related subjects, Noor Naemah et al. (2008) also discovered that students felt the time allocated for the learning of *usul al-fiqh* was not sufficient for them to master the subject. The apportioned period was inadequate for the students to cover the scope of the syllabus in a semester.

In summary, current records show that the need for Islamic finance professionals are growing and education is the key to fill the gap in the workforce. It has been acknowledged by previous studies that lack of a main standard module, insufficient time allocation, poor mastery of either the source language (Arabic) or the target language of instruction (English) are the challenges face by students of Islamic studies and other students taking subjects related to Islamic knowledge. Nonetheless, literature discussing academic challenges in learning Islamic finance among students is still scarce and more research should be conducted to investigate the problems faced by students of Islamic finance.

#### 4. Mobile-apps for Islamic Finance Education

The use of mobile phones in our everyday life is growing tremendously. Song et al. (2013) reported that almost 40 per cent of Malaysia's population owns at least two mobile phones with a penetration rate of some 137.7 per cent. It also has been reported that within two years almost 60 per cent of the Malaysian population will own a smartphone. Consequently, the massive infusions of mobile phones and rapidly improving Internet capabilities have altered the nature of education (Green, 2000). The extension of e-learning into wireless or handheld computing devices with the help of a mobile learning (m-learning) has create new environment of teaching and learning in higher education.

Previous researches have defined m-learning as individualized learning (Mottiwalla, 2007), delivered and supported by handheld (Keegan, 2005; Traxler, 2007), transportable with anytime and anywhere learning via mobile technologies (Quinn, 2001; Mottiwalla, 2007; Traxler, 2007; Hwang and Tsai, 2011), either through formal or informal learning (Winters; 2007; Sharples et al.; 2007; Traxler, 2010; Cook et al., 2008). Formal learning is where learning takes place by using materials developed by a teacher to be used during a program of instruction, highly structured, institutionally sponsored, and generally recognised in terms of a certificate or a credit upon completion. Meanwhile, informal learning is often defined as learning that is intentional but unstructured, unanticipated and unorganized which is results from daily workrelated, family or leisure activities (Gikas & Grants, 2013).

Based on the definition of m-learning, it has been acknowledged that m-learning can be used to complement classroom or distance learning (Mottiwalla, 2007). The place independence of mobile phones provides several benefits for m-learning environment like allowing students to utilise their spare

time while traveling in a train or bus or while waiting for her flight at an airport to finish their homework or prepare for lesson or do revision. Thus, m-learning can improve time management efficiency by converting lazy students into a productive learners. The handheld feature and its personalization capability has potentially attracted more and more learners, especially adult learners in higher education to change the way they learn, behave and interact with each other. Learners can personalise the way they interact with the course content as they can access course information quickly in order to build their skills and knowledge and eventually meet their own educational goals (Sharples et al., 2007; Gikas & Grant, 2013).

Despite of the advantages of m-learning discussed in the literatures, not much has been done to extend e-learning to these devices (Motiwalla, 2007). One of the concern is the possibility of this device to replace classroom in future. Gikas and Grant (2013) stressed that learning with wireless or handheld devices will never replace classroom or other electronic learning approaches. Nevertheless, if leveraged properly, mobile technology can complement and add value to the existing learning models. Previous researches have been done to investigate students' perceptions and experience in using mobile devices in their teaching and learning process. Motiwalla (2007) developed a prototype application to link wireless or handheld devices to three course websites in university of Massachusetts, United States and pilot-tested for two semesters with a total of 63 students from undergraduate and graduate courses at the university. The result indicates that students found that the m-learning is useful and a good complimentary tool for the classroom interaction. However, students were neutral on ease-of-use. This is because at beginning most students found the mobile phone keypad and screens very difficult while navigating, reading and typing their messages. However, once they overcome this user-interface hurdle, the m-learning applications used for classroom interaction were easier to understand.

In Malaysia, the study on mobile apps learning in Malaysia started in 2010. Wendesen et al. (2010) have developed Mobile Learning Tool for Windows mobile platform in higher education in order to add values on the existing conventional and electronic learning. The tool included five modules which are lecture materials, assignment, academic information, discussion and quizzes for the structural programming course. Then, Kamaludin et al. (2012) have developed an m-learning application for Basic Computer Architecture course. The application was built to assist teaching and learning method. Nevertheless, the prototype is not tested to identify how far its usage and capabilities in complementing teaching and learning process. The recent mobile learning apps developed is by Nawi et al. (2014) is to build a mobile application for the Islamic education course. Their result from the evaluation of teachers and students shown that teachers and students were very satisfied with the mobile application built.

Even though there has been effort to develop mobile-apps to assist teaching and learning process in Malaysia, less effort has been done to develop mobile-apps for Islamic banking and Finance subject. With the rapid growth of Islamic Finance in the country, the need of Islamic Finance education has growing synchronously. The introduction of Islamic Finance as one of the subjects in higher education system in Malaysia has raised several problems among the students. One of the issues raised is the need in understanding the Arabic terminologies and contracts used in the industry such as *Mudharabah*, *Ijarah*, *Murabahah* and so on. In addition, students reported that the subject require a lot of reading in order for them to prepare for the final examination in the universities.

Recently, there has been an effort by a team of researchers to develop a prototype of mobile apps for Islamic banking and Finance. Dollah et al. (2016) explored the prototype development of multilingual glossary of Islamic banking and finance terminologies (Malay-Arabic-English) and its implementations for mobile accessibility. Their study reports the findings of the need v analysis stage, inclusive of mapping users' device type, Internet accessibility, reasons for owning mobile devices, delivery and user interface, and preferred features to be embedded in the mobile app. Despite the effort, this study focuses on building glossary of Islamic banking and finance terminologies. There has been no effort done to focus specifically on Islamic contracts as well as students' learning process in higher education. Thus, this study has been done to fill the gap by developing prototype of Islamic contracts and its applications for teaching and learning process.

## 5. The benefits of using Puzzling Technique

By employing the metaphorical frame of a jigsaw puzzle (Mills and King, 2019; McDonnell, 2015), it underscores that the Puzzling techniques could improve the memorizing technique among Islamic finance students as well as reducing the difficulties in memorizing various Islamic finance terms. By proposing IT-oriented games and learning techniques, it could help students to explicate the contracts involved in Islamic finance and banking transactions, which indirectly encourage students' attention to detail. Thus, providing several insights in order to improve students' cognitive skills.

## 6. Conclusion

Briefly, it can be concluded that the understanding in Islamic finance knowledge and its operation is facing some challenges due to its difficulties in procedures in meeting the Sharia requirements, particularly among students. Therefore, this study reforms the methodology with IT-based application using puzzling technique for better understanding the Islamic finance operations. This study proposed the IT-oriented environment to engage students and other users in improving their knowledge on Islamic finance. The overall interface through the arrow movement could help students to explain easily the Islamic finance contract. This initiative hopes to resolve the difficulties of Islamic finance contracts as well as contribute to a significant input in disseminating the Islamic finance information not only in an efficient and effective way but also engaging and enjoyable to the users.

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