

DIGITAL SIMULATION IN TEACHING ISLAMIC FINANCE PRODUCTS: A MODEL FOR UZBEK UNIVERSITIES

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Annotation. The article discusses the use of digital simulations in teaching Islamic finance products in Uzbek universities after the adoption of Law No. ZRU-1126 on Islamic banking. Students often know the definitions of these products but find it harder to follow the correct order of operations. Based on a review of the literature and the AAOIFI standards, the author proposes a low-cost spreadsheet simulation in which the student acts as a bank officer and the system checks key Shariah conditions at each step. The model has not yet been tested and is proposed for a pilot study.

Keywords: Islamic finance, digital competence, educational simulation, murabaha, ijara, experiential learning, applied economics education, Uzbekistan.

Annotatsiya. Maqolada islomiy bank faoliyati to'g'risidagi O'RQ-1126-son Qonun qabul qilinganidan so'ng O'zbekiston oliy ta'lim muassasalarida islomiy moliya mahsulotlarini o'qitishda raqamli simulyatsiyalardan foydalanish masalasi ko'rib chiqiladi. Talabalar odatda bu mahsulotlarning ta'riflarini biladi, biroq amallarning to'g'ri ketma-ketligiga rioya qilish ularga qiyinroq kechadi. Adabiyotlar va AAOIFI standartlari tahlili asosida muallif elektron jadvalga asoslangan arzon simulyatsiyani taklif qiladi: unda talaba bank xodimi rolini bajaradi, tizim esa har bir bosqichda asosiy shariat shartlarini tekshiradi. Model hali sinovdan o'tkazilmagan va pilot tadqiqot uchun taklif etiladi.

Kalit so'zlar: islomiy moliya, raqamli kompetensiya, o'quv simulyatsiyasi, murobaha, ijara, tajriba orqali o'qitish, amaliy iqtisodiy ta'lim, O'zbekiston.

Аннотация. В статье рассматривается применение цифровых симуляций при обучении продуктам исламского финансирования в вузах Узбекистана после принятия Закона № ЗРУ-1126 об исламском банкинге. Студенты обычно знают определения этих продуктов, но им сложнее соблюдать правильный порядок операций. На основе обзора литературы и стандартов AAOIFI автор предлагает недорогую симуляцию в электронной таблице, в которой студент выступает сотрудником банка, а система на каждом шаге проверяет ключевые шариатские условия. Модель пока не апробирована и предлагается для пилотного исследования.

Ключевые слова: исламские финансы, цифровая компетентность, учебная симуляция, мурабаха, иджара, обучение через опыт, прикладное экономическое образование, Узбекистан.

Law No. ZRU-1126 of 27 March 2026 came into force on 29 June 2026 and introduced a dual banking model in Uzbekistan. Conventional banks may now open Islamic windows under a separate licence, and full Islamic banks may operate alongside them [1]. In July 2026 the Central Bank set up an Islamic Finance Council to coordinate banks, microfinance organisations and other institutions [2]. Islamic finance and Islamic economics and finance are also among the eleven new programmes approved for state universities for the 2026/27 academic year [3].

These changes are likely to increase the demand for specialists, but the teaching approach is less clear. Textbooks usually explain Islamic finance products through definitions: murabaha is a cost-plus sale, ijara is a lease, musharaka is a partnership. Students can learn these definitions quickly, but they may find it harder to apply them. For example, in murabaha the bank has to own the goods before it sells them to the client. If the sale contract is signed first, the transaction becomes similar to an interest-bearing loan. This type of knowledge is procedural, and lectures alone may not be enough to develop it.

As a master's student in Project Management, I have been developing my knowledge of investment analysis, financial instruments, and business decision-making. While studying different investment approaches, I became interested in the principles of Islamic finance and the practical differences between conventional and Shariah-compliant financial products. From my learning experience, I believe that practical exercises and digital simulations could help students better understand how financial transactions work, especially when the order of operations and contractual conditions are important.

The aim of this paper is to propose a low-cost digital simulation for teaching Islamic finance products in Uzbek universities. This conceptual study reviews digital competence frameworks, literature on experiential learning and business simulations, and the AAOIFI Shari'ah Standards to develop a simulation model. The model is proposed for pilot testing and has not yet been empirically validated.

Digital competence is understood here in a broad sense. The DigComp 2.2 framework includes problem solving and digital content creation among its five competence areas [4], and the DigCompEdu framework for educators has a separate area on empowering learners [5]. In applied finance, this may mean that a student is able to carry out an Islamic finance transaction in a digital system and see at which step it fails.

Simulations seem suitable for this purpose. Kolb's experiential learning cycle moves from concrete experience to reflection, generalisation and a new attempt [6]. Faria et al. show that simulations have long been used in business education, although it is still debated what exactly students learn from them [7]. This means that a simulation mainly teaches the things it is designed to check.

The proposed simulation can be built in Excel or Google Sheets and later moved to Moodle or another learning management system used by the university. The student acts as a bank officer. A client asks, for example, for equipment for a workshop, a car for a taxi business or working capital for a small trading company. The student chooses a product and completes the steps of the transaction. At each step the system checks a condition based on the AAOIFI Shari'ah Standards [8] and the new law. If a condition is not met, the transaction stops and the student sees the reason (Table 1).

Table 1

Typical student errors and simulation checks

Product	Typical student error	What the simulation checks	Competence developed
Murabaha	Signs the sale to the client before the bank buys the goods	The sale step is locked until the bank's ownership is recorded	Understanding of the asset-based sequence
Ijara	Puts major repair and insurance costs on the client	Ownership-related costs stay with the bank as lessor	Telling a lease from a loan
Musharaka	Fixes a guaranteed return for the bank	Profit is shared by the agreed ratio, losses by capital shares	Understanding of risk sharing

All failed attempts are saved in a log. After the session the student writes a short reflection on where the transaction failed and why, which corresponds to the reflection stage of Kolb's cycle. However, a chatbot could also help to write such a reflection if the log is copied into it. For this reason, the session may end with a short oral debrief, in which the teacher chooses one failed attempt and asks the student to explain it.

The model has several limitations. A spreadsheet cannot replace the decisions of a Shariah council, and the checks cover only the most common conditions. Students may also learn to pass the checks without fully understanding the reasons behind them. Another practical problem is the limited number of lecturers with real experience of Islamic contracts. Cooperation with banks may help here, since the law requires each bank offering Islamic services to set up its own Shariah council [1]. Specialists from these councils could review the simulation and suggest real cases. Finally, the expected learning effects have not been tested yet.

Islamic finance in Uzbekistan is now moving from legislation to banking practice, and universities will need to prepare specialists for it. The proposed simulation focuses on the order of operations in Islamic contracts and can be built with tools that most departments already have. Its effect on student learning should be checked in a pilot study.

Based on the above, the following proposals are made.

1. To test a simulation-based practical module on murabaha, ijara and musharaka in one Islamic finance course and compare the results with groups taught only through lectures.
2. To develop and update the simulation together with practitioners from banks that open Islamic windows.
3. To assess students on the log of attempts, the written reflection and a short oral debrief, not only on final calculations.
4. To organise short training on Islamic contract procedures for economics lecturers before the module is launched.

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