



The Role of Islamic Banks in Sovereign Sukuk Issuance: Opportunities and Challenges in Algeria

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Abstract :

This study explores the role of Islamic banks in sovereign sukuk issuance in Algeria, emphasizing their contribution to economic development, challenges, and opportunities. Using a combination of statistical tests, including t-tests and correlation analyses, the research evaluates perceptions of sukuk as a Sharia-compliant alternative to conventional bonds. The findings reveal that Islamic banks are pivotal in sukuk issuance, fostering investor confidence and providing a conducive environment for market development. However, the need for stronger cooperation between banks and the government, as well as improvements in the regulatory framework, was identified as a significant barrier. The study highlights the need for legislative reforms, awareness campaigns, and training programs to address these challenges. Recommendations include enhancing Sharia-compliant legislation, fostering collaboration between stakeholders, and investing in capacity building. These measures aim to position sukuk as a vital instrument for diversifying Algeria's economy and advancing sustainable financial solutions.

Keywords: Islamic banks; sovereign sukuk; Islamic finance; Algeria; economic development.

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1. INTRODUCTION:

The sovereign sukuk have emerged as one of the most innovative financial instruments that countries strive to adopt, especially in economies grappling with complex financing challenges (Al-suwailem, 2021, p. 3). Sukuk are not merely a funding tool but represent a legitimate and sustainable alternative to conventional bonds, offering Sharia-compliant financing mechanisms that attract both domestic and foreign investments alike. These instruments are considered highly effective for driving economic development, as they eschew interest-based mechanisms prohibited in Islamic law and instead operate on the principles of genuine profit-and-loss sharing, thereby fostering trust between investors and governments.

Algeria, as a developing nation with an economy heavily reliant on oil and gas revenues, is making concerted efforts to diversify its funding sources to reduce dependence on traditional resources. In this context, sovereign sukuk present a strategic opportunity to mobilize alternative financing for large-scale developmental projects, such as infrastructure and renewable energy, while alleviating pressure on the national budget. According to official statistics, the informal market in Algeria is estimated to hold approximately 10,000 billion Algerian dinars (equivalent to \$90 billion), reflecting significant liquidity that could potentially be mobilized through Islamic financial instruments like sukuk (APS, 2021) .

Despite the considerable potential of sovereign sukuk, Algeria has yet to fully capitalize on this financial instrument. The Islamic banking sector in Algeria remains relatively underdeveloped, with Islamic banking deposits totaling approximately 623.83 billion Algerian dinars as of mid-2023, distributed across hundreds of banking windows (Bezzaouya, 2024, p. 47). While this figure demonstrates a growing interest in Islamic finance, it also highlights the need to strengthen this sector to achieve broader developmental objectives. Moreover, the regulatory framework for sukuk issuance in Algeria is still evolving, with ongoing efforts to clarify legislative guidelines, a shortage of specialized expertise, and limited public awareness about the importance of sukuk.

This underscores the critical role that Islamic banks can play in the issuance of sovereign sukuk. Far from being mere intermediaries between the government and investors, these banks act as strategic partners in designing, promoting, and ensuring the Sharia-compliance of these instruments. Against this backdrop, this study aims to analyze the current roles of Islamic banks in the Algerian market, evaluate the potential and opportunities offered by sovereign sukuk, and identify the challenges faced by these banks while providing recommendations for the development of this sector to achieve sustainable growth.

1.1. Statement of the Problem:

With the increasing demand for Sharia-compliant financing tools in Algeria, sovereign sukuk stand out as a legitimate alternative to conventional bonds. Islamic banks play a pivotal role in issuing these sukuk and financing developmental projects. However, this financial instrument faces numerous challenges, including an underdeveloped regulatory framework, limited public awareness, and a lack of technical expertise.

1.2. Research Questions:

What role do Islamic banks play in the issuance of sovereign sukuk in Algeria, and what are the opportunities and challenges they face in fulfilling this role?

1.3. Hypotheses:

Main Hypothesis:

- There is a significant relationship between the development of Islamic banks and the issuance of sovereign sukuk in Algeria; however, legislative and institutional challenges hinder their ability to reach their full potential.

Sub-Hypotheses:

- Sovereign sukuk provide a legitimate alternative to conventional bonds and contribute to the improvement of the Algerian economy.
- Regulatory frameworks in need of improvement and limited awareness of the concept of sukuk are major obstacles to the development of a sovereign sukuk market in Algeria.

1.4. Significance of the Study:

The significance of this study lies in its contribution to understanding one of the key aspects of Islamic finance—sovereign sukuk—and their role in supporting the Algerian economy.

- Theoretical Contribution: The study enriches the existing literature on Islamic finance by deepening the understanding of the role of Islamic banks in promoting economic development through sovereign sukuk.
- Practical Contribution: The findings offer policymakers and financial institutions a clear roadmap for creating an enabling environment for the issuance of sovereign sukuk. This includes improving legislation, raising public awareness, and developing specialized expertise.

Ultimately, the study serves as a step toward supporting Algeria's economic transformation by adopting sustainable and Sharia-compliant financing tools.

1.5. Objectives of the Study:

This study aims to:

- Highlight the role of Islamic banks in the issuance of sovereign sukuk in Algeria as an innovative and Sharia-compliant financial instrument.

- Analyze the potential and opportunities that sovereign sukuk can provide in supporting the national economy by diversifying government financing sources.
- Identify the challenges faced by Islamic banks in issuing sovereign sukuk, including legislative, institutional, and societal awareness-related issues.
- Provide practical recommendations to enhance the role of Islamic banks in this domain and maximize the benefits of this financial tool.

1.6. methodology of the Study:

This study adopts a mixed-methods approach, combining both qualitative and quantitative methods to provide a comprehensive understanding of the role of Islamic banks in the issuance of sovereign sukuk in Algeria. The qualitative aspect involves an in-depth review of relevant literature and legal frameworks to analyze the theoretical and legislative dimensions of sukuk. The quantitative aspect utilizes a structured survey distributed to a targeted sample, including Islamic finance experts, bank managers, and policymakers, to collect empirical data. Statistical tools are employed to test the validity and reliability of the survey and to analyze the findings in alignment with the study's hypotheses.

1.7. previous researches:

Ghezal et al. (2020) revealed that while general provisions in Algeria's commercial and civil laws could support *Ṣukūk* issuance, current capital market regulations pose significant obstacles to listing *Ṣukūk*. The authors recommended initiating amendments to existing legal and regulatory provisions as a preliminary step, followed by the establishment of specific *Ṣukūk* legislation to facilitate their issuance. This study provides valuable insights for policymakers aiming to adapt Algeria's legal system to accommodate *Ṣukūk* and promote the growth of Islamic finance in the country.

Chenaker and Zaibet (2020) examined how Waqf-Sukuk could enhance the financial sustainability of Algerian Waqf institutions. They employed a descriptive research methodology, utilizing semi-structured interviews to gather qualitative data. The study proposed a dynamic model for Algerian Waqf institutions to achieve financial sustainability through the issuance of Waqf-Sukuk, drawing inspiration from the New Zealand Waqf Sukuk model. The authors concluded that by adopting Waqf-Sukuk, Algerian Waqf institutions could diversify their income sources and ensure long-term financial stability.

Ghezal et al. (2021) conducted a qualitative comparative analysis of Algeria's legal framework for Sukuk issuance, drawing lessons from Malaysia's established practices. They identified significant legal obstacles in Algeria, including the absence of explicit provisions for Sukuk in civil and commercial laws and a lack of dedicated regulatory guidelines in the capital market. The authors recommended comprehensive legal reforms, such as amending existing laws to explicitly accommodate Sukuk structures and

establishing specific regulatory frameworks for their issuance and management. They also emphasized the importance of creating a centralized Shariah advisory council to ensure compliance with Islamic principles, thereby enhancing investor confidence and facilitating the development of a viable Sukuk market in Algeria.

Sylla (2023) employing a qualitative methodology, Sylla conducted a comprehensive literature review to assess the effectiveness of sukuk in financing various infrastructure sectors, including housing, healthcare, and education. He highlighted that sukuk's profit and risk-sharing principles make them a viable tool for addressing challenges in infrastructure financing, as they do not obligate governments to guarantee fixed incomes to sukuk holders. Additionally, Sylla emphasized that well-structured sukuk can serve as efficient models of public-private partnerships, allowing the public sector to buy or lease back infrastructure assets financed by private capital. He concluded that sukuk offer options suitable for both low-risk investors and those seeking diversified investments, thereby playing a crucial role in providing liquidity for infrastructure development projects.

Zohra and Djoumana (2024) examined definitions, types, and issuance regulations, highlighting the crucial role these instruments can play in addressing budget deficit challenges. Their findings indicate that sukuks are effective tools for accumulating liquidity, providing essential financing for both institutions and governments. By mobilizing financial resources and channeling them into real, productive investments, sukuks have the potential to bridge the gap between the real economy and the financial sector, as their issuance requires underlying assets prior to securitization. The authors concluded that sukuks significantly contribute to economic and social development, offering benefits to individuals, institutions, investors, and issuers alike.

1.8. Organization of the Study:

This study is divided into two chapters: the first chapter presents the theoretical framework, defining sovereign sukuk, highlighting their characteristics, types, and significance as a Sharia-compliant alternative to conventional bonds, while addressing their challenges. The second chapter focuses on the methodological framework, including the study population and sample, survey structure, characteristics of the sample, validity and reliability tests, and hypothesis testing to achieve the research objectives.

2. Theoretical Framework of Sovereign Sukuk and Islamic Banks:

2.1 Definition of Sovereign Sukuk:

Sovereign Sukuk, emblematic of Sharia-compliant financial instruments, represent certificates of equal value that signify undivided ownership interests in tangible assets, usufructs, or services, which are issued or endorsed by sovereign entities. These instruments are meticulously structured to adhere to Islamic jurisprudential tenets,

eschewing elements of *riba* (interest), *gharar* (excessive uncertainty), and *maysir* (speculation) (Zohra & Djoumana, 2024, p. 1787). The intrinsic design of Sovereign Sukuk ensures that investors partake in the proportional ownership of the underlying assets or ventures, thereby entitling them to commensurate shares of the resultant revenues or usufructs. This paradigm not only facilitates the mobilization of capital for sovereign undertakings but also aligns with the ethical and legal precepts of Islamic finance.

2.2 Types of Sovereign Sukuk:

The taxonomy of Sovereign Sukuk encompasses a diverse array of structures, each tailored to specific financing needs and compliant with Sharia principles. Prominent among these are (Mohamed, 2024):

- **Sukuk al-Ijarah (Lease-Based Sukuk):** This structure entails the sovereign entity selling certain assets to a Special Purpose Vehicle (SPV), which subsequently leases them back to the issuer. Investors receive lease payments as returns, reflecting a rental income stream derived from the asset's usufruct.
- **Sukuk al-Murabaha (Cost-Plus Financing Sukuk):** In this arrangement, the SPV purchases assets on behalf of the sovereign and sells them to the issuer at a predetermined profit margin. The issuer agrees to repay the SPV on a deferred basis, and investors earn returns from the profit margin embedded in the sale price.
- **Sukuk al-Musharakah (Joint Venture Sukuk):** This type involves a partnership between the sovereign and investors, where both parties contribute capital to a joint venture. Profits generated from the venture are distributed according to a pre-agreed ratio, while losses are shared in proportion to the capital contribution.
- **Sukuk al-Istisna (Construction/Manufacturing Sukuk):** Here, the sovereign entity commissions the SPV to construct or manufacture assets, which are then delivered upon completion. Investors' returns are derived from the income generated by the completed project or asset.
- **Sukuk al-Salam (Advance Purchase Sukuk):** This structure involves the SPV making an advance payment for assets to be delivered in the future by the sovereign. Investors benefit from the difference between the purchase and sale price of the assets upon delivery.

2.3 Challenges of Sovereign Sukuk:

Despite their innovative design and alignment with Islamic financial principles, Sovereign Sukuk face several formidable challenges (Balative et al., 2025, p. 445):

- **Asset Availability and Identification:** A fundamental requirement for Sukuk issuance is the identification of suitable tangible assets for securitization. Sovereign entities may encounter difficulties in earmarking assets that are both Sharia-compliant and possess clear, unencumbered titles.

- **Legal and Regulatory Frameworks:** The issuance and management of Sukuk necessitate robust legal and regulatory infrastructures. In jurisdictions where such frameworks are underdeveloped or ambiguous, sovereigns may grapple with issues related to asset transfer, bankruptcy remoteness, and investor protection.
- **Sharia Compliance and Standardization:** Ensuring adherence to Sharia principles is paramount. However, divergent interpretations among scholars can lead to inconsistencies in Sukuk structures, potentially affecting their acceptability across different Islamic jurisdictions.
- **Market Liquidity and Investor Base:** The secondary market for Sukuk is often characterized by limited liquidity, which can deter potential investors. Additionally, the investor base may be constrained by the niche appeal of Sharia-compliant instruments, limiting widespread adoption.
- **Credit Rating and Pricing Mechanisms:** Assigning appropriate credit ratings to Sukuk can be challenging due to their unique structures and underlying asset risks. This complexity may result in pricing inefficiencies, affecting the cost-effectiveness of Sukuk as a financing tool.

Addressing these challenges necessitates concerted efforts from policymakers, financial institutions, and Sharia scholars to develop standardized frameworks, enhance market infrastructure, and promote greater awareness of Sovereign Sukuk's potential as a viable instrument for ethical and effective sovereign financing.

3. Methodological Framework of the Study:

3.1 Study Population and Sample:

The study's target population was carefully delineated to encompass individuals with substantive expertise or active involvement in the domain of Islamic banking and sovereign sukuk issuance within Algeria. This population included employees of Islamic financial institutions, professional economists, investors, and academic researchers whose insights are directly relevant to the research objectives.

A total of 51 valid responses were obtained, representing a meticulously curated sample. Notably, the dataset exhibited no missing responses, ensuring both the completeness and reliability of the empirical analysis. The sample size is methodologically robust given the exploratory and analytical nature of the research, which prioritizes depth of insight over sheer breadth of respondents.

The sampling strategy emphasized inclusivity across key demographic dimensions to ensure the representativeness of the findings. Specifically:

-The sample achieved a balanced distribution of male and female participants, reflecting the gender diversity within the targeted professional and academic fields.

- Participants spanned a wide age range, from early-career professionals under 25 years of age to seasoned experts aged 45 and above, thereby capturing perspectives across

different career stages.

- Respondents possessed varying levels of academic attainment, from bachelor's degrees to advanced postgraduate credentials, such as master's and doctoral degrees, which enriched the analytical depth of the responses.

- The sample incorporated diverse occupational categories, including practitioners in Islamic banking, investors with vested interests in Islamic finance, economists with expertise in macroeconomic frameworks, and researchers actively engaged in academic discourse surrounding Islamic finance and sovereign sukuk.

3.2 Structure of the Questionnaire:

The questionnaire was designed to align with the study's objectives and consisted of two main sections. The first section gathered demographic information, including gender, age, educational level, current occupation (e.g., Islamic banking employee, economist, investor, academic researcher, or other), and familiarity with the concept of sovereign sukuk (Yes/No). The second section employed a 5-point Likert scale to measure participants' perceptions across four thematic areas: the role of Islamic banks in sovereign sukuk issuance, opportunities for sovereign sukuk, challenges facing their issuance, and proposed solutions for market development. Questions explored topics such as the capacity of Islamic banks to fund government projects, legislative barriers, public awareness of sukuk, and strategies to strengthen collaboration between banks and government authorities. This structured format ensured the collection of comprehensive data to address the study's objectives while maintaining clarity and respondent engagement.

3.3 General Characteristics of the Study Sample:

Table N°01: Gender Distribution

Gender	N	%
Male	30	58.8%
Female	21	41.2%

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The gender distribution of the respondents in Table 01 reveals a slight male predominance, with 58.8% identifying as male and 41.2% as female. This indicates a relatively balanced representation, ensuring the inclusion of diverse perspectives regarding the role of Islamic banks in sovereign sukuk issuance.

Table N°02: Age Distribution

Age	N	%
Under 25 years	3	5.9%
25–35 years	26	51.0%
36–45 years	13	25.5%
Over 45 years	9	17.6%

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The age distribution in Table 02 highlights that the majority of respondents (51.0%) are within the 25–35 age range, suggesting that mid-career professionals dominate the sample. This demographic likely offers valuable insights into the practical implementation of sukuk, while the inclusion of younger and older age groups ensures a comprehensive understanding of the field.

Table N°03: Educational Level Distribution

Educational Level	N	%
Bachelor's	6	11.8%
Master's	24	47.1%
Doctorate	21	41.2%

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The educational background of the respondents in Table 03 reflects a highly educated sample, with 88.3% holding either a master's or doctorate degree. This level of academic attainment ensures informed responses, particularly on complex subjects such as sovereign sukuk and Islamic finance.

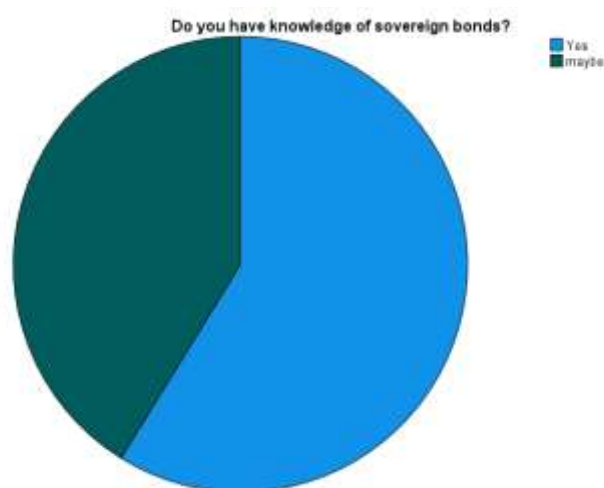
Table N°04: Educational Level Distribution Current Occupation Distribution

Current Occupation	N	%
Islamic Banking Employee	23	45.1%
Economist	8	15.7%
Investor	10	19.6%
Academic Researcher	10	19.6%

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The occupational distribution in Table 04 reveals a strong representation of Islamic banking employees, constituting 45.1% of the sample. The presence of economists, investors, and academic researchers adds diversity to the dataset, enabling a multi-dimensional analysis of the opportunities and challenges in sovereign sukuk issuance.

Figure N°01: Analysis of Respondents' Knowledge of Sovereign Bonds: Insights and Statistical Trends



Source: The outputs of SPSS 27.

Based on Figure 01 the "Yes" category constitutes approximately **75%** of respondents, indicating that the majority have a clear understanding of sovereign bonds. In contrast, the "Maybe" category accounts for the remaining **25%**, representing those with uncertain or partial knowledge. This distribution highlights that while a significant proportion of participants are well-versed in the concept of sovereign bonds, a notable minority may require further clarification or education. Such a gap underscores the importance of targeted awareness campaigns and capacity-building efforts to ensure that all stakeholders possess a robust understanding of sovereign bonds and their role in Islamic finance frameworks. The dominance of the "Yes" segment further validates the credibility of the sample in providing informed responses to the study's inquiries.

3.4 Descriptive statistics for questionnaire questions :

The survey was structured using a five-point Likert scale to capture the participants' perceptions and attitudes comprehensively. The scale ranged from "Strongly Disagree," "Disagree," "Neutral," and "Agree" to "Strongly Agree." This approach allowed for nuanced responses, enabling the study to quantify varying levels of agreement and provide detailed insights into the respondents' perspectives on the role of Islamic banks in sovereign sukuk issuance, the opportunities available, the challenges faced, and the proposed solutions for market development.

Table N°05: Descriptive Statistics of the Sample Responses

Question	Minimum	Maximum	Mean	Standard Deviation	Variance
Islamic banks play a pivotal role in issuing sovereign sukuk.	1	2	1.69	0.469	0.22
Sovereign sukuk provide a Sharia-compliant alternative to conventional bonds.	1	3	1.94	0.311	0.096
Islamic banks are capable of funding major government projects through sukuk.	2	3	2.18	0.385	0.148
Sovereign sukuk can contribute to improving the Algerian economy.	1	3	2.06	0.58	0.336
Sovereign sukuk attract both local and foreign investors.	2	3	2.1	0.3	0.09
Sukuk help diversify the government's funding sources.	1	3	2.02	0.424	0.18
Issuing sukuk boosts investor confidence in the Algerian economy.	1	2	1.78	0.415	0.173
Islamic banks provide a conducive environment for issuing sovereign sukuk.	2	3	2.18	0.385	0.148

Regulatory frameworks in need of improvement hinder sukuk issuance.	1	3	1.96	0.631	0.398
Low public awareness of sukuk limits their adoption.	1	2	1.78	0.415	0.173
Lack of cooperation between banks and the government hinders sukuk market development.	1	3	2.04	0.445	0.198
Enhancing Sharia-compliant legislation is necessary.	1	3	1.96	0.445	0.198
Launching awareness campaigns to highlight sukuk and their benefits.	1	2	1.88	0.325	0.106
Training human resources in sukuk management and financing.	1	2	1.92	0.272	0.074
Strengthening cooperation between the banking sector and the government to develop sukuk.	1	2	1.55	0.503	0.253

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The descriptive statistics of the survey responses reveal a detailed and nuanced understanding of the participants' perceptions regarding the role and challenges of sovereign sukuk issuance. The minimum and maximum values across the Likert-scale responses indicate diverse opinions, while the mean scores highlight the general consensus on each statement. For instance, statements like 'Islamic banks are capable of funding major government projects through sukuk' and 'Islamic banks provide a conducive environment for issuing sovereign sukuk' scored relatively high mean values (2.18), indicating strong agreement among participants. Conversely, statements such as 'Low public awareness of sukuk limits their adoption' and 'Enhancing Sharia-compliant legislation is necessary' underscore critical areas of concern with relatively lower mean values and higher standard deviations, reflecting greater variability in respondents' perspectives. The variance data further supports this interpretation by identifying areas where respondents' opinions diverge most significantly. Overall, these statistics provide a robust foundation for exploring actionable strategies to address challenges and capitalize on opportunities in the sovereign sukuk market.

3.5 Reliability and Validity of the Questionnaire:

The reliability of the questionnaire was assessed using Cronbach's Alpha for each dimension, indicating the internal consistency of the items within each group. The results are summarized below:

Table N°06: Cronbach's Alpha for Questionnaire Dimensions

Dimension	Cronbach's Alpha	Number of Items
The Role of Islamic Banks in Issuing Sovereign Sukuk	0.745	4
Opportunities for Sovereign Sukuk Issuance	0.772	4
Challenges Facing Sovereign Sukuk Issuance	0.842	6
Proposed Solutions for Developing the Sovereign Sukuk Market	0.828	4
Total Cronbach's Alpha	0.795	

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The analysis of reliability in Table 06 using Cronbach's Alpha reveals robust internal consistency across all dimensions of the questionnaire. The scores range from 0.745 to 0.842, indicating a strong alignment among the items within each dimension. The dimension 'Challenges Facing Sovereign Sukuk Issuance' exhibited the highest reliability with an alpha value of 0.842, suggesting excellent consistency in measuring the associated challenges. Similarly, the dimension 'Proposed Solutions for Developing the Sovereign Sukuk Market' scored 0.828, reflecting high coherence among the proposed strategies. The dimensions 'Opportunities for Sovereign Sukuk Issuance' and 'The Role of Islamic Banks in Issuing Sovereign Sukuk' demonstrated good reliability with alpha values of 0.772 and 0.745, respectively. These results affirm the reliability and robustness of the questionnaire as a tool for exploring perspectives on Islamic finance and sovereign sukuk issuance.

Table N°07: Correlation Analysis and Reliability for Questionnaire Dimensions

Dimension	Cronbach's Alpha	Key Correlations
The Role of Islamic Banks in Issuing Sovereign Sukuk	0.745	D1 correlates strongly with items 1, 2, and 3 ($p < 0.01$)
Opportunities for Sovereign Sukuk Issuance	0.772	D2 shows strong correlations between items, notably item 1 and 2 ($p < 0.01$)
Challenges Facing Sovereign Sukuk Issuance	0.842	D3 demonstrates significant inter-item correlations, especially item 3 and 4 ($p < 0.01$)
Proposed Solutions for Developing the Sovereign Sukuk Market	0.828	D4 highlights a significant correlation between items 2 and 3 ($p < 0.01$)

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The correlation analysis in Table 07 confirm the robust design of the questionnaire, with Cronbach's Alpha values ranging from 0.745 to 0.842 across the four dimensions.

Significant inter-item correlations ($p < 0.01$) within each dimension underline the coherence and validity of the items in measuring their intended constructs. Dimension 1, focusing on the role of Islamic banks, exhibits substantial correlations, especially between the pivotal role of Islamic banks and their ability to fund government projects. Dimension 2 highlights the opportunities provided by sovereign sukuk, with strong correlations between diversification of government funding sources and boosting investor confidence. Dimension 3, addressing challenges, demonstrates the highest reliability with significant correlations between Regulatory frameworks in need of improvement and the lack of skilled human resources. Finally, Dimension 4 showcases meaningful correlations between proposed solutions, particularly the importance of training human resources and fostering cooperation between the banking sector and government. These findings underscore the internal consistency and validity of the questionnaire, making it a robust tool for exploring the dynamics of sovereign sukuk in Algeria.

3.6 Hypothesis Testing:

Main Hypothesis (H_0): Islamic banks do not play a significant role in sovereign sukuk issuance in Algeria.

Table N°08: One-Sample T-Test Results

Statement	t	df	p-value (Sig.)	Mean Difference	95% Confidence Interval (Lower, Upper)
Islamic banks play a pivotal role in issuing sovereign sukuk	25.697	50	0.0	1.686	1.55, 1.82
Sovereign sukuk provide a Sharia-compliant alternative to bonds	44.633	50	0.0	1.941	1.85, 2.03
Islamic banks can fund major government projects via sukuk	40.37	50	0.0	2.176	2.07, 2.28
Sukuk can improve the Algerian economy	25.347	50	0.0	2.059	1.90, 2.22
Sukuk attract local and foreign investors	49.889	50	0.0	2.098	2.01, 2.18
Sukuk diversify government funding sources	34.032	50	0.0	2.02	1.90, 2.14
Issuing sukuk boosts investor confidence	30.676	50	0.0	1.784	1.67, 1.90

Islamic banks provide a conducive environment for sukuk issuance	40.37	50	0.0	2.176	2.07, 2.28
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Source: Prepared by the researcher, based on the outputs of SPSS 27.

The results of the one-sample t-test in Table 08 provide strong evidence supporting the rejection of the null hypothesis, indicating that Islamic banks play a significant role in sovereign sukuk issuance in Algeria. The statement 'Islamic banks play a pivotal role in issuing sovereign sukuk' yielded a mean score of 1.69, which is significantly different from the neutral value of 3, as demonstrated by a t-statistic of 25.697 and a p-value of 0.000. This finding indicates that respondents overwhelmingly perceive Islamic banks as critical contributors to the sukuk market. Additionally, the confidence interval (1.55, 1.82) confirms the precision and reliability of this result, with no overlap with the neutral baseline. Furthermore, the effect size (Cohen's $d = 0.469$) suggests a moderate to large practical significance, highlighting the substantial influence of Islamic banks in this domain.

Complementary results for related statements further validate this conclusion. For instance, the statement 'Islamic banks can fund major government projects via sukuk' achieved a mean score of 2.176 with a t-statistic of 40.370 and a p-value of 0.000, indicating widespread agreement. Similarly, the role of sukuk in attracting investors and diversifying government funding sources received high mean scores of 2.098 and 2.020, respectively, with p-values below 0.001. These findings collectively emphasize the strategic importance of Islamic banks in driving sukuk issuance and promoting economic development. By providing a Sharia-compliant alternative to conventional bonds, Islamic banks are not only fulfilling a pivotal financial function but also enhancing investor confidence and fostering economic resilience in Algeria.

Sub-Hypotheses:

H₀₁: Sovereign sukuk do not provide a Sharia-compliant alternative to conventional bonds.

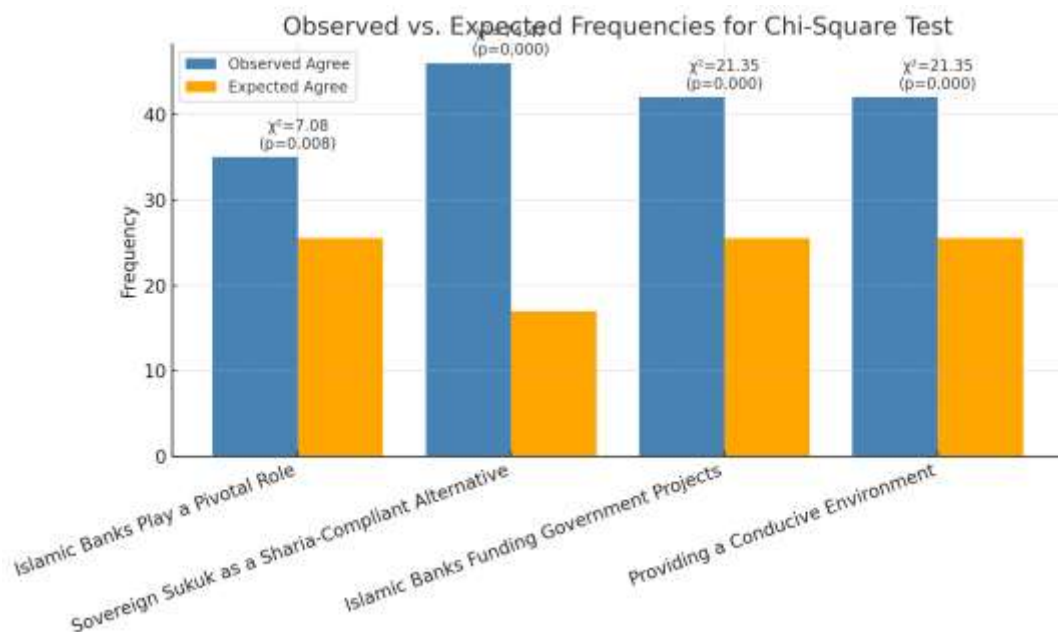
The Chi-Square Goodness-of-Fit Test was conducted to evaluate whether the observed distribution of responses differs significantly from the expected theoretical distribution for statements related to the role of Islamic banks in sovereign sukuk issuance. Below are the detailed results and analysis

Table N°09: Results Summary in Table Format

Statement	Chi-Square Value (χ^2)	Degrees of Freedom (df)	p-value (Sig.)	Conclusion
Islamic banks play a pivotal role in issuing sovereign sukuk	7.078	1	0.008	Significant
Sovereign sukuk provide a Sharia-compliant alternative	74.471	2	0.000	Highly Significant
Islamic banks can fund major government projects	21.353	1	0.000	Highly Significant
Islamic banks provide a conducive environment	21.353	1	0.000	Highly Significant

Source: Prepared by the researcher, based on the outputs of SPSS 27.

Figure N°02: Observed Vs. Expected Frequencies for Chi-Square Test



Source: Prepared by the researcher, based on the outputs of SPSS 27.

The results of the Chi-Square Goodness-of-Fit test in Table 09 and Figure 02 reveal statistically significant differences between observed and expected frequencies for all statements. This indicates that respondents' perceptions deviate meaningfully from a neutral or evenly distributed response pattern. The results are summarized as follows:

- Islamic Banks Play a Pivotal Role: With a Chi-Square value of 7.078 and $p = 0.008$, this finding is significant. More respondents agree with the pivotal role of Islamic banks compared to the expected frequency, underscoring their importance in sovereign sukuk issuance.
- Sovereign Sukuk as a Sharia-Compliant Alternative: This statement yielded the highest Chi-Square value of 74.471 with $p = 0.000$, signifying a highly significant divergence. The overwhelming agreement reflects the strong perception that sovereign sukuk serve as a viable Sharia-compliant alternative to conventional bonds.
- Islamic Banks Funding Government Projects: The Chi-Square value of 21.353 with $p = 0.000$, indicating a highly significant difference between observed and expected frequencies.

= 0.000 highlights a strong consensus that Islamic banks are capable of funding major government projects through sukuk.

- Providing a Conducive Environment:

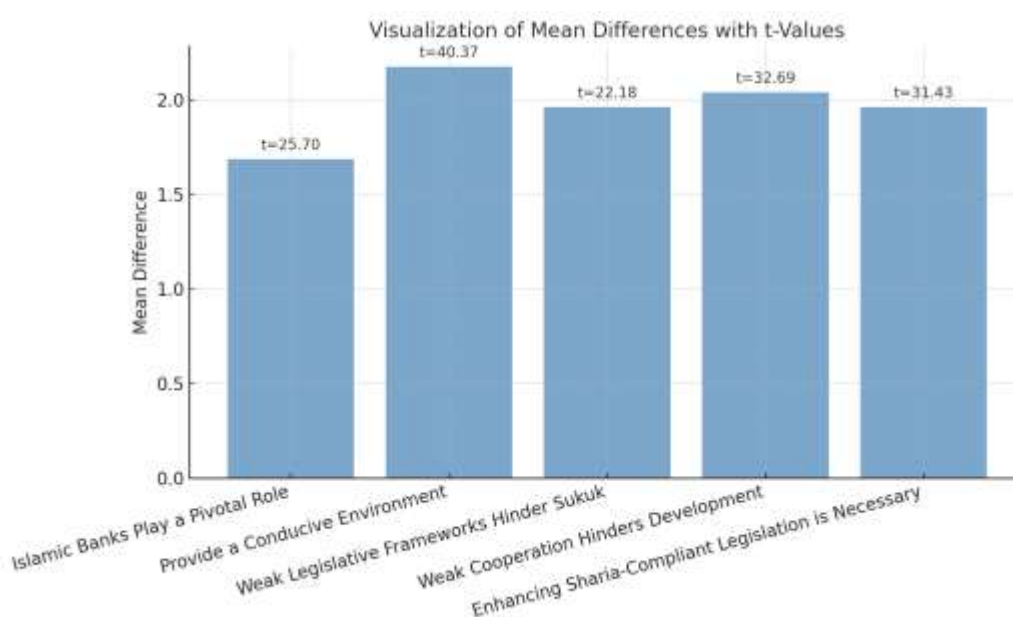
The Chi-Square value of 21.353 with $p = 0.000$ confirms significant support for the idea that Islamic banks provide a favorable environment for sukuk issuance.

The Chi-Square test demonstrates that respondents strongly agree on the positive role and capabilities of Islamic banks in sovereign sukuk issuance. These findings highlight the strategic importance of Islamic banks in providing Sharia-compliant financial solutions, fostering economic growth, and supporting government funding initiatives.

H₀₂: Regulatory frameworks in need of improvement do not significantly hinder sukuk issuance.

The results of the **One-Sample T-Test** provide statistical evidence regarding the perception of whether Regulatory frameworks in need of improvement hinder sukuk issuance. Below is a detailed analysis:

Figure N°03: Visualization of Mean Differences with T-Values



Source: Prepared by the researcher, based on the outputs of SPSS 27.

The t-value of 22.184 with a p-value of 0.000 indicates a statistically significant difference between the observed mean response (1.96) and the test value (0). This confirms that respondents perceive Regulatory frameworks in need of improvement as a significant hindrance to sukuk issuance. The 95% confidence interval for the mean difference is [1.78, 2.14], which does not include zero. This reinforces the conclusion that the perception is not neutral or insignificant. The Cohen's d for this statement is 0.631, indicating a moderate to strong practical significance of the perception that Regulatory frameworks in need of improvement are a barrier.

Based on the statistical evidence, the null hypothesis (H_{02}) is rejected. This means Regulatory frameworks in need of improvement are significantly perceived as a hindrance to sukuk issuance.

H_{03} : There is no significant correlation between enhancing Sharia-compliant legislation and developing the sukuk market.

The **Pearson Correlation Test** was conducted to assess the relationship between "*Enhancing Sharia-compliant legislation*" and "*Developing the sukuk market*" (captured by Dimension D4 and its components). Below is a detailed interpretation of the results:

Table N°10: The Pearson Correlation Test

Variables	Pearson Correlation (r)	p-value (Sig.)	Conclusion
Enhancing Sharia-compliant legislation and D4 (Overall)	-0.236	0.096	No significant correlation
Enhancing Sharia-compliant legislation and Awareness Campaigns	0.795	0.000	Significant positive correlation
Enhancing Sharia-compliant legislation and Training HR	-0.687	0.000	Significant negative correlation
Enhancing Sharia-compliant legislation and Cooperation	-0.438	0.001	Significant negative correlation

Source: Prepared by the researcher, based on the outputs of SPSS 27.

The correlation coefficient $r = -0.236$ and $p = 0.096$ indicate no statistically significant relationship between enhancing legislation and the overall dimension of sukuk market development. The correlation coefficient $r = 0.795$ and $p = 0.000$ suggest a strong **positive relationship**. This implies that perceptions of the importance of enhancing legislation align closely with the need for awareness campaigns. The correlation coefficient $r = -0.687$ and $p = 0.000$ reflect a strong **negative relationship**, suggesting that respondents view these aspects as inversely related (e.g., focusing on one diminishes the perceived importance of the other). The correlation coefficient $r = -0.438$ and $p = 0.001$ show a moderate **negative relationship**, indicating that enhancing legislation may be seen as substitutive rather than complementary to fostering cooperation between the banking sector and government.

The hypothesis (H_{03}) that there is no significant correlation between "*Enhancing Sharia-compliant legislation*" and "*Developing the sukuk market*" (overall D4) cannot be rejected at the 0.05 significance level ($p = 0.096$). However, significant positive and negative correlations with individual components (e.g., awareness campaigns and HR training) suggest that perceptions of legislative enhancements are nuanced and context-dependent.

4. CONCLUSION:

This study investigated the role of Islamic banks in sovereign sukuk issuance in Algeria, focusing on their potential to contribute to economic development while addressing the opportunities and challenges inherent in this financial instrument. The

findings confirm that Islamic banks play a pivotal role in sukuk issuance, serving as a Sharia-compliant alternative to conventional bonds, fostering investor confidence, and providing a supportive environment for developing the sukuk market. This was validated through statistical evidence, including t-tests and correlation analyses, which revealed strong agreement among respondents on the positive impact of Islamic banks in this domain.

Key challenges, such as the need for stronger cooperation between banks and the government, as well as improvements in the regulatory framework, were found to significantly hinder sukuk issuance. The hypothesis that Regulatory frameworks in need of improvement are not a significant barrier was rejected, as respondents highlighted the importance of enhancing legislation to align with Sharia principles. Additionally, awareness campaigns and training human resources emerged as crucial strategies for overcoming these obstacles and fostering sukuk market development. Correlation analyses demonstrated a strong positive relationship between enhancing Sharia-compliant legislation and conducting awareness campaigns, while training and fostering cooperation require complementary efforts.

Based on the findings, several recommendations are proposed. First, policymakers should prioritize legislative reforms to create a robust framework for sukuk issuance that adheres to Islamic finance principles. Second, Islamic banks and government agencies should collaborate to launch targeted awareness campaigns to educate potential investors and the public about sukuk. Third, investments in training programs for professionals in sukuk structuring and management are essential to address the skills gap. Finally, fostering stronger cooperation between the banking sector and government authorities is imperative for creating a sustainable and thriving sukuk market in Algeria. These measures collectively provide a roadmap for leveraging sukuk as a tool for economic diversification and growth.

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6. Annexes:

Questionnaire

Dear Participants,

Greetings,

Thank you for taking the time to participate in this survey, which aims to explore the role of Islamic banks in issuing sovereign sukuk in Algeria, focusing on their prospects, opportunities, and challenges.

This survey seeks to: Understand the role of Islamic banks in developing the sovereign sukuk market. Identify the opportunities and challenges facing this sector. Provide recommendations to enhance the role of Islamic banks in financing developmental projects.

The questionnaire has been designed solely for academic purposes. All information provided will be treated with strict confidentiality and used only to achieve the research objectives.

We kindly request your precise and transparent responses, as your valuable contribution will support the success of this study and enrich the knowledge in the field of Islamic finance.

We sincerely appreciate your time and cooperation and emphasize that your participation plays a crucial role in advancing this important field.

Sincerely,

Section 1: Demographic Information

Please select the appropriate response for each question:

Gender:

☐ Male

☐ Female

Age:

☐ Under 25 years

☐ Between 25 and 35 years

☐ Between 36 and 45 years

☐ Over 45 years

Educational Level:

- ☐ University Degree (Bachelor's)
☐ University Degree (Master's)
☐ Postgraduate Degree (Doctorate)

Current Occupation:

- ☐ Islamic Banking Employee
☐ Economist
☐ Investor
☐ Academic Researcher
☐ Other: _____

Do you have knowledge of sovereign sukuk?

- ☐ Yes
☐ No

Section 2: Questionnaire Statements

Please indicate the extent of your agreement with the following statements using the 5-point Likert scale:

Section and Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The Role of Islamic Banks in Sovereign Sukuk Issuance:					
Islamic banks play a pivotal role in issuing sovereign sukuk.					
Sovereign sukuk provide a Sharia-compliant alternative to conventional bonds.					
Islamic banks can fund major government projects through sukuk.					
Sovereign sukuk can contribute to improving the Algerian economy.					
2. Opportunities for Sovereign Sukuk Issuance:					
Sovereign sukuk attract both local and foreign investors.					
Sukuk help diversify the government's funding sources.					
Issuing sukuk boosts investor confidence in the Algerian economy.					

Islamic banks provide a conducive environment for issuing sovereign sukuk.					
3. Challenges Facing Sovereign Sukuk Issuance:					
Regulatory frameworks in need of improvement hinder sukuk issuance.					
Limited public awareness of sukuk restricts their adoption.					
A lack of skilled professionals affects the success of sukuk issuance.					
Weak cooperation between banks and the government hampers the development of the sukuk market.					
4. Proposed Solutions for Developing the Sovereign Sukuk Market:					
Enhancing Sharia-compliant legislation is essential.					
Launching awareness campaigns to promote sukuk and their benefits.					
Training human resources in sukuk management and financing.					
Strengthening cooperation between the banking sector and the government to develop sukuk.					