

Evaluating governance frameworks to ensure the integration and transition to Islamic banking in Algeria: An Analytical MCA Approach

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Abstract:

The study aimed to present the governance frameworks affecting the financial transition in search of the appropriate composition of the establishment of Islamic financial institutions in Algeria by examining the experiences of some countries that have achieved important success through exploratory data analysis of MCA. The study found that the integration of Islamic banking is based on the crucial adaptability of governance frameworks, also interest in providing and improving these special platforms was found to play a role in the success of the banking financial transition, Credible Sharia and homogeneous supervisory frameworks are the key common denominator for a full transition to Islamic banking.

Keywords: governance frameworks; Islamic Financial Institutions; Islamic banking; Financial transition; MCA approach.

JEL Classification Codes : P43, P45, P49.

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1. Introduction

Algeria has progressed greatly under the traditional banking system, with the emergence of Islamic transaction jurisprudence that has proved its worth in recent times. It has stood the test of time in the world's financial and trade circles, and with the development of Islamic banking, it has been adopted by many Islamic countries and others around the world. This has led Algeria, as a Muslim country, to see the need to keep pace with the changes and a good push for competition and to attract more capitals.

The Algerian legislation enacted Regulation n°02-18 of 4 November 2018, relating to the rules of practice of banking operations related to participative banking by banks and financial institutions (Bank of Algeria, No Regulation, 18-02), as oil prices continue to fall, in 2019 Algeria has enacted legislation; Regulation n°20-02 of 15 March 2020, laying down the banking operations related to Islamic banking and the rules of its practice by banks and financial institutions (Bank of Algeria, Regulation No, 20-02).

The establishment of Islamic banking has emerged as an alternative means of obtaining finances that traditional banks are unable to provide. However, there is still a need to construct a complete strategic approach to dual banking. Past studies have explored governance frameworks in individual countries, but there is a need for a more comprehensive and comparative analysis to determine the most efficient methods for integrating Islamic banking into the wider financial system. This is particularly important as it necessitates harmonized governance structures. The Algerian government looks forward to determine *what governance frameworks are needed to ensure a full transition to Islamic financial institutions?* To answer the problem, we attempt to suggest hypotheses:

-H0: The adaptability of governance frameworks to accommodate changes and innovations in the financial sector is positively associated with the successful integration of banks.

-H1: The composition of governance frameworks plays a crucial job in achieving the intended transformation in the banking sector's financial landscape

The significance of this issue is underscored by the significant development of Islamic banking in the world (Al-Afif, 2024) and the influence of the overall shift of the Algerian banking sector on the national economy. Achieving financial inclusion through the use of Islamic banking as it can appeal to a wider segment of society, moreover this research aims to identify the most flexible governance systems, which can offer significant insights and recommendations to policymakers and regulators for improving the integration of banks.

The study presents different experiences of adopting Islamic banking in terms of another banking system, which makes it possible to identify different experiences in terms of framework and try to extract from them what corresponds to the current state of banking in Algeria.

The objectives of this study are; to understanding the basics of Islamic banking and presenting several governance frameworks for experiments showing Islamic banking in each of the countries that have known successful experiences in applying types of Banking Transformation. Propose and determine the criteria that enable to achieve a Smooth transition banking towards the establishment of Islamic financial institutions on a dual financial system.

The research method uses the deductive approach using the analytical descriptive approach to try to study the relationship, according to the MCA approach used in this study, between the most important frameworks and machines influencing the banking shift highlight their compatible composition with it.

1.1.Global presentation of theoretical terms:

Islamic finance was interesting not just to the Islamic world but also the other part of the world, United Kingdom was the first country to adopt a policy of a dual financial system where it's defined by (Bank of England, 2022) "It's a way to manage money and do business that fits with the moral principles of Islam".

1.1.1. Islamic Financial Institutions

As a term Islamic Financial Institution (IFI) are part of the modern global economy and subject to the same economic regulations as conventional financial market participants in accordance with sharia compliant (Tatiana et al., 2015), means that Islamic Financial Institutions (IFI) are unique actors in global finance, offering Sharia-compliant approaches. They navigate challenges through localization, standardization, technology, and partnerships for international expansion and ethical finance (Aladağ, 2023). Others define it as a "financial institution" that abides by the principles and purposes of Islamic law in all transactions, investment activities, and management of affairs, and is obliged to refrain from dealing, receiving or giving interest (Rustam, 2014).

1.1.2. Islamic banking

Islamic banking is a distinct financial system that adheres to Islamic Sharia principles (Zidan, 2023). Islamic banks have made substantial contributions to economic development and investment objectives. The industry has gained popularity due to its ethical framework (Zubair, 2023) which serves as the fundamental basis for this phenomenon. Islamic banks, being religiously-oriented and profit-driven institutions, have to conform to two sets of regulations: Sharia law and the laws established by different countries, which are generally supportive (Biancone & Secinaro, 2022).

1.1.3. Governance frameworks of Islamic financial institutions

The structure of Islamic financial governance is being strengthened to enhance trust and sustainability, thereby enhancing the overall financial management practices within the financial sector. Islamic banks require a robust legal, corporate, and regulatory structure, including operational independence, adequate resources, a robust legal framework, and effective accountability mechanisms. (Mejia et al., 2014). Some others see an updated Islamic Corporate Governance in Islamic banks (Minaryanti & Mihajat, 2024), with a specific emphasis on regulatory changes, Sharia boards, a positively impacts sustainability performance in Islamic Banks and Financial Institutions, promoting financial stability and growth (Jan, Lai, & Tahir, 2021). These measures aim to preserve the distinctiveness of Islamic banking services (Ayub et al., 2023).

1.1.4. The integration and transition to IFI in financial system (hybrid)

The founding or transformation of certain branches of traditional banks into Islamic branches might be viewed as a transition from conventional banking to Islamic banking (Mohamed, 2006). In the other side, the transition phenomenon refers to the creation of branches by traditional banks that conduct all banking activities in compliance with the principles of Islamic shariah (Bouaita & Benahcene, 2019). Therefore, it is imperative for economic and financial institutions to contemplate the implementation of Islamic Finance frameworks. Establishing a comprehensive framework will enhance the applicability of the Islamic finance system, facilitating a smoother shift for both Muslim and non-Muslim nations from traditional banking to Islamic finance systems (Rafay & Sadiq, 2015). The shift of conventional banks to adopt Islamic banking has taken various forms, either by opening windows offering Islamic banking services, opening Islamic branches, or converting conventional banks

to Islamic banking entirely. Guarantee the legitimacy and security of transformation. (Nawaz, 2019) Investments in human capital and strong corporate governance positively impact the market performance of Islamic banks, with full-fledged banks and Shariah-windows benefiting more (Nawaz, 2019). A great governance climate significantly explains the growth of the financial market in Africa, with solid institutional frameworks potentially encouraging financial systems growth (S. Appiah-Kubi, et al., 2023).

The research aims to remedy the lack of comparative analysis of governance frameworks and their influence on the integration of Islamic banking into different financial systems.

1.1.5. Approach MCA model

Multidimensional Descriptive Statistical Factorial Method used to analyze the relationship between at least two qualitative variables (possibly categorical). In the field of survey processing, it is rare to limit oneself to two variables. Multiple correspondence analysis (MCA) is a method for analyzing the relationships (Zahi & Achchab, 2019) between multiple categorical dependent variables, similar to principal component analysis when the variables are categorical instead of quantitative (H. Abdi & D, 2006) (Roux & Rouanet, 2009) . The aim is to examine possible relationships between the variables considered. To the extent that the data are presented as Burt tables, contingency tables comparisons only consider relationships between pairs of variables (Baccini, 2010). MCA is a method for exploratory data analysis. In contrast to simple statistical analyses, it's concerned with correlations between variables (ARMAND, 2021), Based on MCA, we can further cluster individuals (Djeudja et al., 2023, p. 72).

2. Methodology and material

As a first stage, collecting all of the used library sources from books, articles, scientific journals, research reports, and other documents related to the research topic.

Second, based on MCA we follow 4 steps, the procedure usually involves transforming an oral discourse into a text, and then the construction of an analytical instrument to study the meaning of words. Then there is the intervention of a study manager to use the analysis instrument and decode what was said. Finally, analysis establishes the meaning of discourse. Often the difficulties are to gather ambiguous, incomplete, and contradictory information, to interpret similarities and differences between respondents and to arrive at an objective analysis; As a description of compatible governance frameworks that have a strong influence on the development of Islamic financial institutions. These data have been studied, analyzed, and interpreted depending on the tools represented in the methods and programs. “XLSTAT 2019”(Feller, 1977) .

Finally, after getting the results of analysis, this implicit data can be used as a reference for making more targeted strategies and developing quantitatively and qualitatively so that it is possible to move at a steady pace to the establishment of strong Islamic financial institutions in Algeria.

2.1.Data collect (A Sample of study)

The study was conducted based on the outputs of scientific studies and official documents in the leading countries in Islamic banking, which received prominence the last time according to its competencies and advantages. The sample was selected from Arab and Islamic countries that registered successful experiences in the field of banking transformation in the establishment of Islamic financial institutions. Firstly, as similarities in religion and emergent countries, secondly, we take into consideration a successful experience in each type. (Djeudja et al., 2023) We were expected to go via an exploration phase and a qualitative analytical technique by adopting an epistemological perspective (Merriam & Tisdell, 2015).

The data used in the study was collected from various sources including scientific article (Choudar, 2015) , two published thesis (Heba , 2016) (Ben meshish , 2020), Global Islamic Finance Reports (S.Farook et al., 2022), (Shereen & Tayyab, 2022), (G.Deslondes et al., 2022) and (A.J.Yesuf,, 2017).and the reports from each bank, which were published on their respective websites.

2.2.Data Analysis

It is a particular branch of the beauty of statistics by describing shared data, and these methods seek to give the links that may exist between different data and to extract statistical information from them, making it possible to describe the key statistical information contained in these data more succinctly, as well as to try to classify the data into different and homogeneous subsets (ANDREANI & CONCHON, 2005).

2.3.Data factorial Analysis

Through documentation information and previous studies, qualitative information has been compiled based on extrapolation and analysis of documents that represent an important source of qualitative research. As part of our work, we cannot use a technique of quantitative variables because our variables are qualitative. We will therefore use specific techniques for this kind of variable. One of these techniques is called Multiple Correspondence Analysis (MCA) (Alhuzali et al., 2022). However, Prior to doing MCA analysis, we undertake a Thematic analysis, which involves the use of codes to uncover the themes and segments present in the transcribed text. It organizes and describes all data collected (VELTEN Michel, 2021).

2.3.1. First phase: the transcription

Through the extraction and analysis of sources associated with this study and also through previous studies , which will be done exhaustively, data was extracted after summarized in points in order to accomplish the table of the most important variables affecting the

banking transition in the field of Islamic banking .We have noticed some of them need to strengthen the legal, supervisory and regulatory frameworks and we cannot neglect the legitimate and formative framework as elements of variables influencing the complete banking transition

(Ben meshish , 2020). The shift of traditional banks towards Islamic banking requires their adherence to a set of requirements. The transformation process is successful.

legal requirements as First variable (VA01) means “All matters and procedures to be carried out by the bank so that the conversion process is carried out by the legal framework, avoiding this liability” (Munir & Yazane, 2009). Key legal requirements include: Have the legal department of the traditional bank review all legal aspects of the bank's transformation. We are fully prepared for any legal restrictions that may arise during the transition. Legal approval has also been obtained from relevant authorities to revamp the bank (Hossein, 2002).

A financial regulation (VA02) and supervision frameworks (VA03) are both a mechanisms of central bank governance which all actions that affect the administrative regulative system of the bank and are required by the transformation process (Saoud Mohammed, 1989) , Corporate governance in banks involves monitoring performance, controlling risk management by the board of directors and senior management, and protecting shareholder and depositor rights (Maàrif, Sheikhi, & Znaki, 2019).

The legitimate framework (VA04) means "all things and actions that the traditional bank must carry out when it implements the transformation, in order to correct its transformation from legitimacy and realize the will of God Almighty for the commitment to the commands and flows imposed by God" (Munir & Yazane, 2009).

Finally, Formative assessment (VA 04) is a planned and ongoing process used by specific academic institutions to raise the level of employees in the banking financial sector to improve their efficiency in banking institutions, represented mainly by knowledge of the optimal use of resources available to the banking institution (Mimouni & KALOUNE, 2017). Our study tends to analyze data on the integration of Islamic financial institutions in each country according to multiple governance frameworks for which we need a reference variable (VA05) to determine the type of transition to integrate Islamic institutions into the financial system.

2.3.2. Second phase : coding

Through information and according to what was extracted in the first phase, a table must be completed that collects all the mechanisms on which each experience in a banking shift towards Islamic financial institutions has focused, but before that we try to develop a symbol for each variable for highlighting the sub-themes covered. in order to facilitate their processing and analysis with the XL-Stat software. However, we extract the following modalities for each framework to clarify our approach:

Table 1. A qualitative variable and their modalities used for characterization of transformation to Islamic Financial Institutions (MCA inputs)

Variables	Number Of Terms	Code	The Proposed Modalities		categorization
Legal Framework	3	Lg	Ins	Insufficient	1
			Inc	Inclusive	2
			Com	Complex	3
Regulatory Framework	3	Rg	Det	Detailed	1
			Dev	Developed	2
			Prv	Privileged	3
supervisory Framework	2	Sp	Hete	Heterogeneous	1
			Homo	Homogeneous	2

legitimate Framework	3	Lt	Wk	Weak	1
			Imp	Incompatible	2
			Crd	Credible	3
Formative Framework	3	For	E	Weak efficiency	1
			E+	Great efficiency	2
			E++	high-rise efficiency	3
Transformation Type	3	Tr	P	Partial	1
			T	Total	2
			Pro	Progressive	3

Source: made it by a researcher Based on the mentioned references.

2.3.3. Third phase: categorization

For the organization of the themes that will arise and their classification, it is an operation of ranking of sub-themes by grouping in themes. we must respect these principles: Homogeneity and Relevance: the categories will allow a selection of useful and interesting information. And Completeness as all information will be listed in the different categories. Also objectivity; the categories will classify the text fragments of interviews by considering them as scientific objects, away from subjective personal influence. (Moschidis et al., 2022) Since all the modalities that we have in this study are a nominal type for example the modality of the formative framework (For), we used a frequency, Which means that the existence of training and apprenticeship institutes in the Islamic financial sphere, their method and principles have been taken into account, and the second important point is the length of time that these institutions were created to read the text, how often topics and subtopics were discussed and how to address them. shown in Table 1. Thus, we can see the data by completing a table based on the above and subsequent documents by a country:

Table 2. Presentation of observations/variables relevant to the transformation of Islamic financial institution.

	Lg	Rg	Sp	Lt	For	Tr
Egypt	Ins	Det	Hete	Imp	E	P
Sudden	Inc	Prv	Homo	Crd	E+	T
Koweit	Com	Dev	Homo	Crd	E+	T
UAE	Ins	Dev	Hete	Wk	E	P
Arabie Saudi	Inc	Dev	Homo	Crd	E+	Pro
Malaisia	Inc	Prv	Homo	Crd	E++	Pro
Indonesia	Inc	Prv	Hete	Crd	E++	P

Source: made it by a researcher based on the mentioned references (Table 1.).

Our table represented sample observations and variables (which it's frameworks), it summarizes all data from successful experiences of countries in that case to establish our analysis

3. Result

3.1.Final Phase: Inference

For in-depth data interpretation we use application and interpretation of MCA results on total transformation mechanisms to Islamic financial institutions.

3.1.1. Descriptive statistical analysis

Table 3. Descriptive Statistics (Active and Additional Qualitative Variables)

Variable	Terms	Counts	Effective	%
Legal	Complex	1	1	14.286
	Inclusive	4	4	57.143
	Insufficient	2	2	28.571
Regulatory	Detailed	1	1	14.286
	Developed	3	3	42.857
	Privileged	3	3	42.857
Supervisory	Heterogeneous	3	3	42.857
	Homogeneous	4	4	57.143
Legitimate	Weak	1	1	14.286
	Credible	5	5	71.429
	Incompatible	1	1	14.286
Training	Great efficiency	3	3	42.857
	Weak efficiency	2	2	28.571
	high-rise efficiency	2	2	28.571
<u>Transformation type</u>	Partial	3	3	42.857
	Total	2	2	28.571
	Progressive	2	2	28.571

Source: made it by a researcher (XL-STAT).

Through the table, we note that 71% countries are interested in the credibility of their legal framework, as recorded in this sample, 57% of the inclusivity of the legal framework. In proportion to the regulatory framework, we note that the quality of development and privilege share the same proportion 42.85%. It is important that 57% countries make the supervisory framework homogeneous. The high efficiency of the formative frame ranks first in most countries

3.1.2. Burt Table:

The first result provided is the Burt table, also called “Contingency Table” in some software. Of course, it is more complicated to read than an ordinary contingency table crossing only two variables. It’s

not easily interpreted here: each is equal to the number of the corresponding modality multiplied by the number (p) of variables considered (here 5). Finally, the total population is equal to the number of observations n (in this case 7) multiplied by p² (in this case 25), that is 175

Table N 4. Represented a contingency table of qualitatives variables

	Lg-Com	Lg-inc	Lg-ins	Rg-Det	Rg-dev	Rg-prv	Sp-hete	Sp-homo	Lt-Wk	Lt-crd	Lt-imp	For-E+	For-E	For-E++	Tr-P	Tr-T	Tr-pro
Lg-Com	1.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Lg-inc	0.00	4.00	0.00	0.00	1.00	3.00	1.00	3.00	0.00	4.00	0.00	2.00	0.00	2.00	1.00	1.00	2.00
Lg-ins	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	2.00	0.00	2.00	0.00	0.00
Rg-Det	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Rg-dev	1.00	1.00	1.00	0.00	3.00	0.00	1.00	2.00	1.00	2.00	0.00	2.00	1.00	0.00	1.00	1.00	1.00
Rg-prv	0.00	3.00	0.00	0.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	1.00	0.00	2.00	1.00	1.00	1.00
Sp-hete	0.00	1.00	2.00	1.00	1.00	1.00	3.00	0.00	1.00	1.00	1.00	0.00	2.00	1.00	3.00	0.00	0.00
Sp-homo	1.00	3.00	0.00	0.00	2.00	2.00	0.00	4.00	0.00	4.00	0.00	3.00	0.00	1.00	0.00	2.00	2.00
Lt-Wk	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lt-crd	1.00	4.00	0.00	0.00	2.00	3.00	1.00	4.00	0.00	5.00	0.00	3.00	0.00	2.00	1.00	2.00	2.00
Lt-imp	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
For-E+	1.00	2.00	0.00	0.00	2.00	1.00	0.00	3.00	0.00	3.00	0.00	3.00	0.00	0.00	0.00	2.00	1.00
For-E	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	2.00	0.00	2.00	0.00	0.00
For-E++	0.00	2.00	0.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00	2.00	1.00	0.00	1.00
Tr-P	0.00	1.00	2.00	1.00	1.00	1.00	3.00	0.00	1.00	1.00	1.00	0.00	2.00	1.00	3.00	0.00	0.00
Tr-T	1.00	1.00	0.00	0.00	1.00	1.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00
Tr-pro	0.00	2.00	0.00	0.00	1.00	1.00	0.00	2.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	2.00

Source: made it by a researcher (XL-STAT).

3.1.3. Study on eigenvalues:

The first-factor plane (the first two axes) gives us most of the information with a cumulative inertia of 89.157%, that is to say, that we have a loss of information equal to 2.268%, thus, the first two axes constitute criteria for a good representation of this two-dimensional plane.

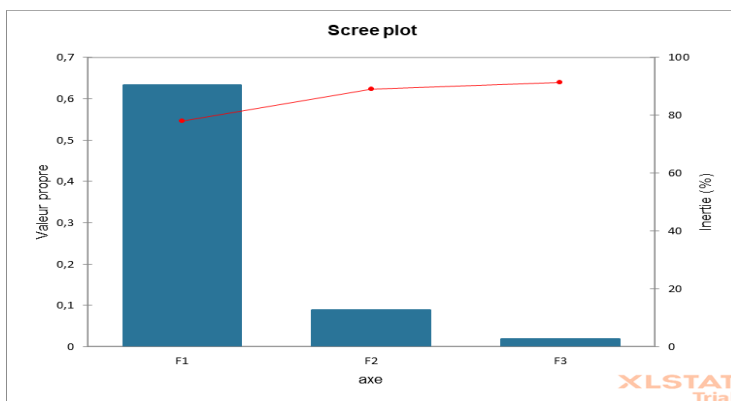
Table 5. MCA eigenvalues

	F1	F2	F3
Adjusted inertia	0.634	0.089	0.018
Adjusted inertia (%)	78.145	11.012	2.268
% Cumulative	78.145	89.157	91.425

Source: made it by a researcher (XL-STAT).

To avoid misinterpretation of the graphs, a display on axes one and three is therefore also required. According to the XL-STAT software the following results will be obtained: Axis 1 has 78.145% of the total inertia corresponding to the first eigenvalue (0.634) Axis 2 has 11.012% of the total inertia corresponding to the second eigenvalue (0.089) Axis 3 shows 2.268% of the total inertia corresponding to the second eigenvalue (0.018).

Fig.1. Eigenvalues graph



Source: made it by a researcher (XL-STAT).

The total inertia generated by the first factor axis is of (78.145%), a minimal loss of information (11.012%) when passing from F2 to F3, we can conclude that the first factor plane (1-2) is the best in terms of representation of individuals and variables we do not need 3rd factor axis.

3.1.4. A study of the correlation between the variables and the principal components

Table 6. Contribution and Coordinates of variables

	main coordinates		standard coordinates		Contributions (Variables)	
	F1	F2	F1	F2	F1	F2
Lg-Com	-0.537	-0.742	-0.674	-2.482	1.297	17.606
Lg-inc	-0.541	0.215	-0.679	0.718	5.267	5.899
Lg-ins	1.349	-0.059	1.695	-0.196	16.409	0.219
Rg-Det	1.599	0.235	2.008	0.786	11.521	1.764
Rg-dev	0.009	-0.467	0.011	-1.561	0.001	20.897
Rg-prv	-0.542	0.388	-0.680	1.300	3.965	14.475
Sp-hete	0.796	0.163	0.999	0.545	8.559	2.549
Sp-homo	-0.597	-0.122	-0.749	-0.409	6.419	1.912
Lt-Wk	1.100	-0.352	1.381	-1.177	5.449	3.959
Lt-crd	-0.540	0.023	-0.678	0.078	6.563	0.088
Lt-imp	1.599	0.235	2.008	0.786	11.521	1.764
For-E+	-0.581	-0.322	-0.730	-1.076	4.562	9.928
For-E	1.349	-0.059	1.695	-0.196	16.409	0.219
For-E++	-0.478	0.541	-0.600	1.810	2.059	18.723
Tr-P	0.836	0.239	1.050	0.801		
Tr-T	-0.634	-0.484	-0.796	-1.619		
Tr-pro	-0.621	0.125	-0.780	0.417		

Source: made it by a researcher (XL-STAT).

The first main component is characterized by: Strong positive correlation with variables Lg-ins / Rg-Det / Lt-imp / For-E Moderately correlated with the variable Sp-hete / Sp-homo / Lt-crd, and Low positive correlation between variables: Lg-Com / Lg-inc / Rg-dev / Rg-prv / Lt-Wk / For-E+ / For-E++.

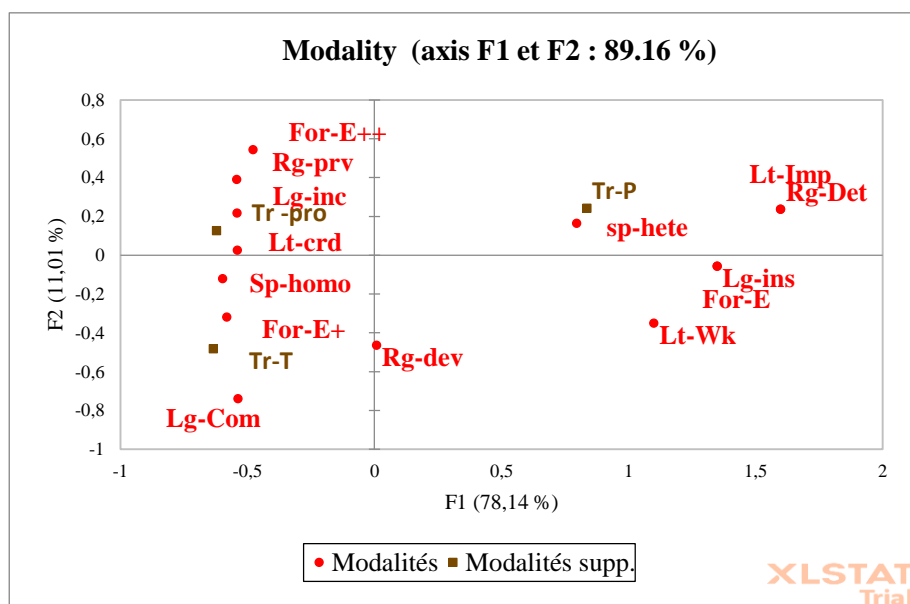
The second main component is characterized by: Strong positive correlation with variables: Lg-Com / Rg-dev / Rg-prv / For-E++ Moderately correlated with the variable: For-E+ / Lg-inc, and Low

positive correlation between variables: Lg-ins / Rg-Det / Sp-hete / Sp-homo / Lt-Wk / Lt-crd / Lt-imp / For-E.

3.1.5. Analysis of the circle of correlations and interpretation of the position of individuals

This resulting correlation circle allowed us to confirm the results obtained from the table of variables and main components. Obtaining 89.157% of the total dispersion of the cloud on the first two factor axes is a criterion for a good representation of this two-dimensional cloud.

Fig.2. Representation of variables on the plane (1.2)



Source: made it by a researcher (XL-STAT).

The variables Lg-ins; For-E; Lt-imp; Rg-Det; Lt-Wk Sp-hete are strongly correlated with axis 1 because it is close to the edge or behind the circle of correlations, which allows us to deduce that they are well represented in the factorial plane.

- The variables Lg-ins with For-E and Lt-imp with Rg-Det are strongly correlated with each other.

- Lg-Com is not correlated with the other variables but is well represented on the plane as it is close to the circumference in relation to Axis 2.

Looking at the graph, we can see that axis 1 discriminates between Total (Tr-T) and Progressive (Tr-Pro) a transformation on the right and Partial Transformation (Tr-P) on the left. It can therefore be interpreted essentially between the Total/Progressive Transformation and the Partial Transformation to the composition of the frame. The modalities identified above (strong contributions to axis 1) and close to Transformation-Partial (Tr-P) are Lg-ins; For-E; Lt-Imp; Rg-Det; Lt-Wk; Sp-hete

It is deduced that the partial transformation quality of Islamic financial institutions requires just an insufficient legal framework (Lg-ins), a weak and incompatible legitimacy (Lt-Wk) (Lt-Imp), a heterogeneous supervisory system (Sp-hete) and a minimal formative framework (For-E). In other words, this composition of frameworks is unsuitable for total transformation

There is still a clear discrimination, according to axis 2, between Progressive Type Transformation (Tr-Pro), at the top, and Direct Total Type Transformation (Tr-T), at the bottom. It can be said that in order to have a better composition of Total Transformation Frameworks at Islamic financial institutions, it can therefore be interpreted essentially as the axis of opposition between Direct and a Progressive transformation

We can deduce that Progressive Transformation needs an inclusive legal framework (Lg-inc), privileged regularities (Rg-Prv), and an exceptional formative framework (For-E++). whereas Direct Transformation takes complicated legal, developed regularities (Rg-Dev), and strong learning (For-E+)

We observe that both modalities: the credibility of legitimacy (Lt-Crd), a homogeneous supervisory system (Sp-hete) i.e. these two

frameworks are well adapted to both total, direct and progressive transformation circles.

4. Conclusion:

With the onset of the financial crisis that affected Algeria since mid-2014 with the drop in oil prices, it has become necessary to open up future horizons for Islamic finance in Algeria, so some have been introduced to adapt to the new situation of the Algerian banking system, which still suffers from many problems and challenges in different terms.

Algeria realized the need to provide an appropriate environment for Islamic banks and has recently taken its first steps to create the appropriate legal framework for Islamic banks. However, in order to transform itself into a dual banking system suitable for Islamic banking, Algeria needs to adhere to a set of foundations that allow for the construction of appropriate legal, supervisory, and regulatory frameworks. It can benefit from the experiences of all countries, Egypt, Sudan, Kuwait, Saudi Arabia, Malaysia, Indonesia and United Arab Emirates, which have had successful experiences despite its difference in the type of transformation and mechanisms used.

The study showed that *the flexibility and adaptability of governance frameworks to accommodate changes and innovations in the financial sector is positively associated with the successful integration of banks* Where Islamic banking has become a successful experiment in many banking systems, due to the provision of an appropriate environment for the activity of this type. These countries have in common the interest in the legal framework, supervision, training, and learning of Sharia and regulation of Islamic banks, despite the difference in the banking system of each country, also each of the countries has legitimized Islamic banking according to laws to facilitate the activity of Islamic banks. It has also paid attention to all this governance frameworks, which has positively reflected the expansion of Islamic banking activity and the improvement of the financial indicators of

Islamic banks in each of the countries studied. Both the total assets of Islamic banking and the total deposits and Islamic bank financing continue to increase.

It is relatively true that *the composition of the governance frameworks has an important role in the realization of the type of banking financial transition*, to the dual banking system based on Islamic and traditional financial institutions in Algeria is through the promulgation of legislation regulating its work, in addition to providing the appropriate regulatory and institutional framework governance. From the adoption of appropriate regulatory and precautionary standards, the provision of institutions and bodies supporting Islamic banking, attention must also be paid to the formation of an effective legal framework through a higher legitimate body and internal legitimate bodies and the adoption of appropriate legal standards. Through our study, it has been shown that it is a key and common element in achieving a complete banking transformation gradually or directly. It is a credible force of Islamic financial institutions through internal legitimate committees working on further financial disclosure and a Supreme Sharia Supervisory Board according to Sharia unified standards. Second, the supervisory framework is by means of quantitative instruments such as liquidity deficits and determination of profit margins and qualitative tools such as directing funding to target sectors and direct tools such as direct inspection, sanctions, and penalties, moral persuasion.

In this study, we recommend a proposal to enact a law in Algeria on Islamic banks, or the allocation of a section on Islamic banking transactions within the monetary and loan law, and start amending the Tax Code and the Commercial Code to be compatible with Islamic finance. Provide monetary policy tools adapted to the nature of Islamic banking activity so as to provide the appropriate supervisory framework for make balance in the market. Working to take internal legitimate control by a legitimate supervisory body within each Islamic bank, and higher legitimate control by a central higher body

that ensures the legitimacy of transactions, creating institutions that support Islamic banks activities in Algeria, such as Islamic Takaful institutions, and collaborating with international bodies supporting Islamic banking, in order to benefit from its expertise. Training and formation of human capital in the field of Islamic finance with practice through the opening of University specializations with a professional diploma , and the establishment of a Research Center in Islamic finance that is interested in research and development of Islamic financial products and their adaptation to Algerian economic realities. The limitations of our study are that we overlook a technological advance that has had a significant impact on the banking sector, making banks more vulnerable to changes in financial technology and the financial market environment (Fenniche & Nedjar, 2024), therefor our future study will attempt to measure the model on the basis of quantified data.

5. Bibliography List:

- A.J.Yesuf,. (2017). *Islamic Economics and Finance in Sudan: An Overview*. RESEARCH CENTER FOR ISLAMIC ECONOMICS.
- Aladağ, Ö. (2023). *International Strategies of Islamic Financial Institutions: Current Challenges and Future Trends*. *Kocatepe İslami İlimler Dergisi*. doi:10.52637/kiid.1352334
- Al-Afif, W. (2024, 09 17). *An Empirical evaluation of the impact of Islamic financing on economic growth in Saudi Arabia (Doctoral Thesis)*. Effat University. Retrieved from <http://hdl.handle.net/20.500.14131/272>
- Alhuzali, T., Beh, E., & Stojanovski, E. (2022). *Multiple correspondence analysis as a tool for examining Nobel Prize data from 1901 to 2018*. *PLoS ONE*. doi:10.1371/journal.pone.0265929
- ANDREANI, J., & CONCHON, F. (2005). *Méthodes d'analyse et d'interprétation des études qualitatives: état de l'art en marketing*. *Actes du 4e Congrès international sur les tendances du marketing en Europe* (pp. 21-22). Paris: ESCP-EAP.
- ARMAND, C. (2021, 10 24). *Mapping the press in 1930s China: A Multiple Correspondance Analysis*. Retrieved from [hypotheses.org: https://advertisinghistory.hypotheses.org/5921](https://advertisinghistory.hypotheses.org/5921)

- Ayub, M., Saba, I., & Kamran, S. (2023, 03 16). *Revisiting the Conceptual and the Operational Frameworks for Shari'ah Governance of the Islamic Banks*. *World Scientific Annual Review of Islamic Finance*. doi:10.1142/s2811023423500053
- Baccini, A. (2010, Mai). *Statistique Descriptive Multidimensionnelle*. (31062). (I. d.—U.-u. Sabatier, Éd.) Toulouse , France: institut de Mathématiques De Toulouse.
- Bank of Algeria. (18-02, of November 4). *No Regulation. Rules for the Practice of Banking Operations Related to Participatory Banking by Banks and Financial Institutions*, 73. Algeria: Official Gazette C Algerian DCH. Retrieved 2018
- Bank of Algeria. (20-02, of Mars 15). *Regulation No. Determining Banking Operations Related to Islamic Banking and the Rules for Their Practice by Banks and Financial Institutions*, 16. Algeria: Official Gazette C Algerian DCH.
- Bank of England. (2022, November 16). *What is Islamic finance?* Retrieved from [bankofengland.co.uk: https://www.bankofengland.co.uk/explainers/what-is-islamic-finance](https://www.bankofengland.co.uk/explainers/what-is-islamic-finance)
- Ben meshish , H. (2020). *The application of the dual banking system suitable for Islamic banking in Algeria-a study of the experiences of some countries - (PhD thesis)*. Setif, Algeria: Setif University.
- Biancone, P., & Secinaro, S. (2022). *Framework and Functioning of the Islamic Bank and Differences with Conventional Banks*. In *Contemporary Issues In Islamic Law, Economics And Finance* (1 ed., p. 13). Routledge. Retrieved from 9781003155218
- Bouaita, A., & Benahcene, A. (2019, 03 01). *Theoretical foundations of the Conversion Towards the Islamic Banking System*. (JIEG, Ed.) *Journal of International Economy and Globalization*, pp. 01-10.
- Choudar, H. (2015). *The Islamic financial industry in Algeria between international experiences and local legal obstacles: a survey of the reality and developments of the financial industry*. *Journal of economic and Management Sciences*(15), pp. 332-348.
- Djeudja, R., Matejang, L., & Tchatchoua Nya, M. (2023). *Digitalization as a lever of innovation for smes: an exploratory study in the cameroonian context*. *Copernican Journal of Finance & Ac*, 12(1), pp. 65–82. doi:http://dx.doi.org/10.12775/CJFA.2023.004
- Feller, J. (1977). *L'analyse de contenu*. (L. Bardin, Ed.) *Communication & Langages*, 35(1), pp. 123-124.

- Fenniche, I., & Nedjar, H. (2024). *The Impact of Financial Technology Innovations on Liquidity Risks in Islamic Banks – Digital Payments as a model: Standard Study of a Sample of Saudi Islamic Banks during the Period (2015-2021)*. *Journal of Economic & Financial Research*, 1(11), pp. 775-800. Retrieved from <https://www.asjp.cerist.dz/en/article/250335>
- G.Deslondes, Hadi, M., Dhruv, R., Mohamed, D., & Khalid, A. B. (2022). *Islamic Finance Outlook*. S&P Global Inc.
- H. Abdi, & D, V. (2006). *Multiple Correspondence Analysis*. wileylibrary. doi:10.1002/9780470973196.ch8
- Heba , A. (2016). *The implications of the growth of the Islamic banking industry on the management of monetary policy in the Arab countries*. Economic and technical department. Abu Dhabi-United Arab Emirates: Arab Monetary Fund.
- Hossein, H. (2002). *Research on the plan of transformation of a traditional bank into an Islamic Bank requirements of this plan and solutions to its problems experience of National Bank of Sharjah*. Conference on the role of Islamic banking institutions in investment and development. Sharjah: University of Sharjah Faculty of Sharia, United Arab Emirates.
- Jan, A., Lai, F., & Tahir, M. (2021). *Developing an Islamic Corporate Governance framework to examine sustainability performance in Islamic Banks and Financial Institutions*. *Journal of Cleaner Production*, p. 315. doi:<https://doi.org/10.1016/J.JCLEPRO.2021.128099>.
- Maàrif, M., Sheikhi, m., & Znaki, B. (2019, 03). *Governance and its role in managing banking risks in banks*. *Journal of economic integration*, 7(1), 40.
- Mejia, A. L., Aljabrin, S., Awad, R., Norat, M., & Song, I. (2014, 12 12). *Regulation and Supervision of Islamic Banks*. *IMF Working Paper*, 2014(219), 33. doi:10.5089/9781498361590.001.A001
- Merriam, S. B., & Tisdell, E. (2015). *Qualitative research: A guide to design and implementation*. San Francisco: CA: John Wiley & Sons.
- Mimouni, B., & KALOUNE, D. (2017, 12 31). *Evaluation of the performance of commercial banks "case study of the Bank of Agriculture and Rural Development and the National Bank of Algeria" for the period 2015-2017*. *Journal of economic integration*, 5(4), 173-199.

- Minaryanti, A., & Mihajat, M. (2024). A systematic literature review on the role of sharia governance in improving financial performance in sharia banking. *Journal of Islamic Accounting and Business Research*, 15, pp. 553-568. doi:<https://doi.org/10.1108/JIABR-08-2022-0192>
- Mohamed, M. I. (2006). *Evaluation of the Phenomenon of the Transformation of Traditional Banks of Islamic Banking (MA Thesis)*. p92. Cairo, Department of Economics American Open University, Egypt.
- Moschidis, S., Markos, A., & Athanasios, C. (2022, 10 5). "Automatic" interpretation of multiple correspondence analysis (MCA) results for nonexpert users, using R programming. *Applied Computing and Informatics*. doi:10.1108/aci-07-2022-0191
- Munir , S. A.-H., & Yazane, K. A.-A. (2009). *Transformation of traditional banks to operate in accordance with the provisions of Islamic Sharia (First edition ed.)*. Jordan: Dar Al Nafees publishing and distribution.
- Munir , S.-H., & Yazane, K.-A. (2009). *The impact of the transformation of Islamic banking on the development of mechanisms and tools for attracting and employing financial resources. The second Islamic Financial Services Conference*, (pp. 01-46).
- Nawaz, T. (2019, 06 30). *Exploring the Nexus Between Human Capital, Corporate Governance and Performance: Evidence from Islamic Banks*. *Journal of Business Ethics* 157, pp. 567–587. doi:<https://doi.org/10.1007/s10551-017-3694-0>
- Rafay, A., & Sadiq, R. (2015). *Problems and issues in transformation from conventional banking to Islamic banking: Literature review for the need of a comprehensive framework for a smooth change*. *City University Research Journal*, 5, pp. 315-326.
- Roux, B., & Rouanet, H. (2009). *Multiple Correspondence Analysis*. SAGE Publications. doi:10.4135/9781412993906
- Rustam, M. (2014). *Evaluation of the entrances to the transformation of traditional banks into Islamic banks a proposed model for application to Syrian banks(PhD thesis)*. University of Aleppo, Syria.
- S. Appiah-Kubi, K, M., J, P., M, M., S, K., Mach, J., & Sirohi, J. (2023, 12 07). *THE IMPACT OF GOVERNANCE STRUCTURES ON ECONOMIC GROWTH IN AFRICA: A PANEL DATA ANALYSIS*

- OF 47 AFRICAN COUNTRIES. Technological and Economic Development of Economy, pp. 1708–1727. doi:https://doi.org/10.3846/tede.2023.20394*
- S.Farook, Kawsarn, N., Basit, A., & Rafi-Uddin. (2022). *Global Islamic Fintech Report. Elipses and DinarStandard.*
- Saoud Mohammed, A.-R. (1989). *The transformation of the usury bank into an Islamic Bank and its requirements (Master thesis). 324-348. Makkah Al-Mukarramah, Umm Al-Qura University.*
- Shereen, M., & Tayyab, A. (2022). *REFINITIV ISLAMIC FINANCE DEVELOPMENT REPORT 2022: EMBRACING CHANGE. London Stock Exchange Group business.*
- Tatiana, N., Igor, K., & Liliya, S. (2015). *Principles and instruments of Islamic financial institutions. Procedia Economics and Finance, pp. 479-484.*
- VELTEN Michel, P. A. (2021, 09 19). *Investigation en santé publique : analyse de données qualitatives et quantitatives (MA Thesis) . 1.2, 1-38. (UE, Éd.) Dijon,Bourgogne, campus paramédical , CHU Dijon,Bourgogne, France: Promotion De Gasparin.*
- Zahi, S., & Achchab, B. (2019). *Clustering of the population benefiting from health insurance using K-means. SCA '19: Proceedings of the 4th International Conference on Smart City Applications, (pp. 1 - 6). doi:https://doi.org/10.1145/3368756.3369103*
- Zidan, M. (2023). *The Legal Framework of Islamic banks. Al-Kitab Journal for Human Sciences, 161. doi:https://doi.org/10.32441/kjhs.4.6.9*
- Zubair, H. (2023). *Islamic Banking and Finance (2 ed.). London: Routledge India. doi:https://doi.org/10.4324/9781003366973*