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IMPACT OF RISK MANAGEMENT ON THE PERFORMANCE OF PARTICIPATIVE BANKS IN MOROCCO: A STUDY IN THE CONTEXT OF ISLAMIC FINANCE

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Abstract:

This study explores the crucial link between risk management and the performance of participatory banks in Morocco, focusing on the context of Islamic finance. In an environment marked by the COVID-19 pandemic, increasing cyber-attacks, and regulatory changes, the issue of risk management is becoming paramount to guarantee the solvency of banks and maximize their profits.

Using a mixed-methods approach combining semi-structured interviews and quantitative research, we examined the differences between Islamic and conventional financial risks, the impact of risk severity on bank risk management, the influence of governance on risk management, and the effect of risk management on the performance of participatory banks. Our results highlight the specific challenges faced by these institutions, as well as the risk management strategies needed to ensure their long-term stability and success.

This research contributes to the literature on Islamic finance by providing valuable insights into risk management in this rapidly evolving sector.

Keywords: Banking performance, risk management, participative (Islamic) banks, Islamic finance.

Introduction

The current dynamics of the financial sector, marked in particular by the global pandemic of COVID-19, the rise of cyber-attacks, and the relentless changes in the regulatory framework, are sparking growing interest among researchers in exploring the fundamental link between risk management and the performance of banking institutions. This correlation is of paramount importance in identifying priority risks, ensuring the financial stability of banks, and optimizing their performance.

In the specific context of Islamic finance in Morocco, where participatory banks are emerging while committing to the ethical and legal principles of Islam, the establishment of an effective regulatory framework becomes all the more crucial. In the absence of specific regulation, these banks face a multitude of interrelated risks, exposing the system to potential crises.

This study aims to analyze the impact of risk management on the performance of participatory banks in Morocco. We will explore the relationship between risk management indicators, the determinants of banking performance, and macroeconomic factors while assessing the influence of governance on this risk management. Using a mixed methodology incorporating semi-structured interviews and quantitative analysis, we aim to add new perspectives to the existing literature on Islamic finance and provide practical recommendations for strengthening the stability and resilience of participatory banks in Morocco.

Hypotheses of the study:

H1: There are divergences between the two participatory (Islamic) and conventional banking systems in terms of the typology of financial risks;

H2: The degree of risk severity positively influences the risk management of Moroccan participatory banks;

H3: Governance and the quality of oversight of the risk management committee (RMC) positively impact the management of banking risks;

H4: The characteristics of the bank positively influence the performance of Moroccan participatory banks;

H5: Risk management influences positively the performance of participatory banks.

1- Revue de la littérature:

The field of risk management is expanding, and many researchers are enthusiastic about understanding risks and their behavior, cause, and implications. Risk research has shown a strong correlation between a return and risk, and the highest desired profit returns can only be achieved by more risks taken. Islamic and non-Islamic banks are knowledgeable in risk management and management and risk transformation. Risk management is the process of defining, identifying, measuring, and pricing the same, and finally, when appropriate risk measures are appropriately embodied, organizational culture and finally used a strategic partner.

Thus, risk management, according to Amansou (2019) [1], is a mechanism for creating added value for the management of risks to reduce likelihood and impact. Indeed, the studies of other authors like H. Al-Tamimi, (2007) [2] and K. Toumi, (2011) [3], revealed that the risk faced by Islamic banking is similar to conventional banks, and they face their own specific risk after taking into account Shariah jurisdiction. This result was confirmed by Meulbroek (2002) [4], who has demonstrated that risk management can create value by reducing likelihood and impact. Little research has examined the impact of risk criticality on risk management in Islamic banks. The findings of T. Khan and A. Habib's (2001) [5] work on 68 Islamic financial institutions showed a positive influence of risk criticality on risk management. Moreover, the Islamic Financial Services Board recommended an assessment of the risks of the product term and their counterparty. Toumi (2017) [6] conducted a more comprehensive study with a comparison of the impact of governance mechanisms on bank performance in France, Germany, and Japan. The findings reveal differences across these nations while also noting resemblances in certain instances. For instance, in Germany, an elevated frequency of audit committee meetings detrimentally affects bank performance, suggesting heightened conflicts of interest. Conversely, the frequency of audit committee meetings does not influence the performance of Japanese and French banks. Moreover, the work of Achibane, M., & Chakir, C. (2019) [7] highlights a positive relationship between the capital adequacy ratio and the profitability of Islamic banks, measured by the Return on Assets (ROA) and Return on Equity (ROE) indicators. Increasing capital ratios makes it possible to reconcile the interests of creditors and shareholders, guaranteeing the security of funds. However, investment deposits present a particular risk that may encourage moral hazard behavior and risk-taking. El Khattabi, M., Sabri, M., & Zahid, A. (2023) [8] have identified the essential components of risk management, stressing the need for a bank-wide quantitative and qualitative risk assessment for effective control of banking and financial risks.

Concerning the nature of the risks incurred by Islamic banks, they face various risks such as credit risk, market risk, liquidity risk, and operational risks. These risks, which have been identified as major challenges, arise from the provision of financing, volatility in the financial markets, payment difficulties, and internal failures. Their effective management is essential to ensure the stability and sustainability of these Islamic financial institutions.

2- Méthodologie

- Mixed methodology: semi-structured interviews followed by a quantitative study using anonymous questionnaires (381 responses).
- Analysis of specific risks and the perception of participatory banks.
- Integration of risk management indicators and internal/macroeconomic variables from 2017 to 2021 (Study period).
- Data analysis with SPSS
- Evaluation of the measurement tools and correlation/regression tests of the overall model to reveal the key results.

3- Results and discussions

- The interviews highlighted a growing demand for participative financing, which has amplified liquidity and compliance risks. To manage cash flow, banks have introduced the Wakala Bil Istithmar, but this has led to a significant increase in the transformation ratio. The main risks identified include overdue receivables and the risk of death and disability, with no Takaful insurance cover until 2019. Challenges are also posed by maturity mismatches and lack of refinancing, as well as the international launch of products without Takaful protection, which is considered a major risk.
- According to the descriptive study carried out on our sample, bank executives indicate that 56% of customers of participative products are single, while 43% are married. A high

percentage of 97% of customers have a salaried status, with 73% expressing a strong desire to acquire participative financing and 89% frequently using these services. Around 76% of respondents understand the principles of equity crowdfunding contracts, with a 10% preference for contract performance, 38% for reputation, and 25% for value for money and religious belief respectively.

Table 1: Factors Impacting Participative (Islamic) Bank Performance.

Descriptive statistics				
	N	**Minimum**	**Maximum**	**Average**[1]
Problem 1: A low rate of return on deposits causes massive withdrawals.	381	1	5	2,80
Problem 2: Depositors will blame the bank for the low rate of return	381	1	5	3,26
Problem 3 The rate of return on deposits should be similar to that offered by other banks.	381	1	5	2,70
Problem 4: Lack of financial instruments that can be traded on the secondary market.	381	1	5	3,89
Problem 5: Lack of a money market to borrow money when needed	381	1	5	3,42
Problem 6: Inability to revalue fixed-income jobs when the benchmark rate changes.	381	1	5	3,78
Problem 7: Inability to use derivatives for hedging reasons.	381	1	5	3,58
Problem 8: Lack of a legal framework to protect against defaulting customers.	381	1	5	3,59
Problem 9: Lack of understanding of the risks associated with Islamic financing methods	381	2	5	3,96
Problem 10: Lack of a specific regulatory framework for Islamic banks.	381	1	5	3,85
N valide (liste)	381			

Source: Output SPSS

Participative banks have identified several risk management challenges, including the lack of tools to manage illiquidity, the absence of Islamic money markets, and the inability to use derivatives. They also express concerns about legal and regulatory risks due to the level of training of managers. As far as risk management is concerned, most banks have committees and guidelines, but only a third have an internal control system to deal with new risks. In addition, all the banks

[1] *The ranking is based on a scale of 1 to 5, with 1 corresponding to a "less serious" situation and 5 indicating a "seriously serious" situation.*

recognize the importance of complying with the Basel Committee standards and believe that the banking supervisory authorities can effectively assess the risks of Islamic banks.

Table 2: Description of variables

	Built	Code items	Hypotheses
Dependent variable	Severity of financial risks	Severity of Credit Risk (SCR)	H1: There are divergences between the two participatory and conventional banking systems regarding the typology of financial risks.
		Severity of Market Risk (SMR)	
		Severity of Operational Risk (SOR)	
		Severity of Liquidity Risk (SLR)	
		Seriousness Of the Risk of Non-Compliance With Sharia (SRNC)	
	The Gravity of Credit Risk in Crowdfunding	Credit Risk Severity on Financing (SCR_MOURABAHA)	
		Credit Risk Severity on Financing (SCR_MOUCHARAKA)	
		Credit Risk Severity on Financing (SCR_SALAM)	
		Credit Risk Severity on Financing (SCR_IJARA)	
		Credit Risk Severity on Financing (SCR_ISTISNAA)	
	Market risk Severity in crowdfunding financing	Severity of Market Risk on Murabaha Financing (SMR_MOURABAHA)	
		Severity of Market Risk on Mucharaka Financing SMR_MOUCHARAKA	
		Severity of Market Risk on Salam Financing (SMR_SALAM)	
		Severity of Market Risk on Ijara Financing (SMR_IJARA)	
		Severity of Market Risk on Istisnaa Financing (SMR_ISTISNAA)	
	Severity of operational risk in crowdfunding	Severity of Operational Risk on Murabaha Financing (SOR_MOURABAHA)	
		Severity of Operational Risk on Mucharaka Financing (SOR_MOUCHARAKA)	
		Severity Of Operational Risk on Salam Financing (SOR_SALAM)	
		Severity of Operational Risk on Ijara Financing (SOR_IJARA)	

		Severity of Operational Risk on Istisnaa Financing (SOR_ISTISNAA)	H2: The degree of severity of risks positively influences the risk management of Moroccan participative banks
	Gravity of liquidity risk on crowdfunding financing	The Severity of Liquidity Risk on Murabaha Financing (SOR_MOURABAHA)	
		Severity Of Liquidity Risk on Mucharaka Financing (SOR_MOUCHARAKA)	
		The severity of Liquidity Risk on Salam Financing (SOR_SALAM)	
		Severity of Liquidity Risk on Ijara Financing (SOR_IJARA)	
		Severity of Liquidty Risk on Istisnaa Financing (SOR_ISTISNAA)	
	The seriousness of the risk of non-compliance in crowdfunding	The severity of non-compliance risk on Murabaha Financing (SRNC_MOURABAHA)	
		The severity of non-compliance risk on Mucharaka Financing (SRNC_MOUCHARAKA)	
		The severity of non-compliance risk on Salam Financing (SRNC_SALAM)	
		The severity of non-compliance risk on Ijara Financing (SRNC_IJARA)	
		The severity of non-compliance risk on Istisnaa Financing (SRNC_ISTISNAA)	
	Governance and committees	Risk Management Committee (RMC)	H3: Governance and the quality of risk management committee (RMC) oversight positively impact bank risk management
		Governance	
Independent variable	Internal performance of the bank	Capital Adequacy Ratio (CAR)	H4: The characteristics of the bank positively influence the performance of Moroccan participatory banking.
		Non-Performing Loans (NPL)	
		The Size of The Bank (Size)	
		The Ratio of Loans To Total Assets (PLA)	
		The Deposit Ratio (Deposits)	
		The Personnel Expense Ratio (Depa)	
	The Macroeconomic Performance of the Bank	Inflation (INF)	
		Gross Domestic Product (GDP)	

H5: Risk management positively influences the performance of participatory banks.

Source: Authors

It is also important to mention that the specific variables used in this study have already been tested, as demonstrated in the literature, which confers adequate validity.

- **Instrument testing**

The main indicators we used to test the measurement tools we used (Table 3):

Table 3: Reliability test

Built	Code items	Purification	Final scale	
		Number of items	Items conserve	Alpha de Cronbach
Gravity of risk	SCR	5	SCR	0.918
	SMR		SMR	
	SOR		SOR	
	SLR		SLR	
	SRNC		SRNC	
Credit risk severity in crowdfunding	SCR_MOURABAHA	5	SCR_MOURABAHA	0.918
	SCR_MOUCHARAKA		SCR_MOUCHARAKA	
	SCR_SALAM		SCR_SALAM	
	SCR_IJARA		SCR_IJARA	
	SCR_ISTISNAA		SCR_ISTISNAA	
Market risk Severity in crowdfunding	SMR_MOURABAHA	5	SMR_MOURABAHA	0.848
	SMR_MOUCHARAKA		SMR_MOUCHARAKA	
	SMR_SALAM		SMR_SALAM	
	SMR_IJARA		SMR_IJARA	
	SMR_ISTISNAA		SMR_ISTISNAA	
Operational risk severity in crowdfunding	SOR_MOURABAHA	5	SOR_MOURABAHA	0.83
	SOR_MOUCHARAKA		SOR_MOUCHARAKA	
	SOR_SALAM		SOR_SALAM	
	SOR_IJARA		SOR_IJARA	

	SOR_ISTISNAA		SOR_ISTISNAA	
Severity of liquidity risk in crowdfunding financing	SLR_MOURABAHA	5	SLR_MOURABAHA	0.813
	SLR_MOUCHARAKA		SLR_MOUCHARAKA	
	SLR_SALAM		SLR_SALAM	
	SLR_IJARA		SLR_IJARA	
	SLR_ISTISNAA		SLR_ISTISNAA	
The gravity of the risk of non-compliance on crowdfunding	SRNC_MOURABAHA	5	SRNC_MOURABAHA	0.764
	SRNC_MOUCHARAKA		SRNC_MOUCHARAKA	
	SRNC_SALAM		SRNC_SALAM	
	SRNC_IJARA		SRNC_IJARA	
	SRNC_ISTISNAA		SRNC_ISTISNAA	
Governance and committees	RMC	2	RMC	0.904
	Governance		Governance	
Internal bank performance	CAR	7	CAR	0.935
	NPL		NPL	
	SIZE		SIZE	
	(PRA)		(PRA)	
	Bank_loans		Bank_loans	
	Deposits		Deposits	
	DEPA		DEPA	
Bank's Macroeconomic Performance	Inflation	2	Inflation	0.607
	GDP		GDP	

Source : Output SPSS

The alpha index, evaluated at 0.8, demonstrates strong internal consistency of the scale, confirming the reliability of the items in the model. Cronbach's alphas are considered a measure of scale reliability, indicating that the data are reliable. Reliability is measured by internal consistency.

Table 4: Inter-element correlation matrix

Items	F_R	S_C_R	S_M_R	S_O_R	S_L_R	S_R_NC	Governance_Committee	PERF_I	PERF_M

F_R	,893	-	-	-	-	-	-	-	-
S_C_R	,925	,925	-	-	-	-	-	-	-
S_M_R	,924	,925	,916	-	-	-	-	-	-
S_O_R	,826	,893	,880	,880	-	-	-	-	-
S_L_R	,781	,853	,851	,964	,821	-	-	-	-
S_R_NC	,828	,788	,759	,750	,733	,805	-	-	-
Governance_Committee	,851	,916	,855	,861	,821	,805	,834	-	-
PERF_I	,969	,899	,904	,808	,760	,792	,834	,834	-
PERF_M	,679	,749	,657	,740	,701	,595	,730	,662	,925

Source: Output SPSS

The correlation of the items in the model is highly significant at the 1% level. The Pearson correlation coefficient r has a positive value of 0.828** with a significance of 0.000.

The exploratory analysis of participatory banks in Morocco highlights major challenges relating to operational, financing, market, and liquidity risks. These challenges are exacerbated by the lack of specialized Islamic financial instruments, such as sovereign Sukuk and derivatives, as well as regulatory and Sharia compliance constraints.

Among the specific risks identified, financing methods based on profit and loss sharing (PPP) and buy/sell transactions are recognized as accentuating credit risks. Although aligned with Islamic principles, these financing methods pose challenges in terms of managing counterparties and renegotiating debts, especially in the event of default.

Specific contracts such as Murabaha, Salam, Istisnaa, Musharaka, and Mudaraba also present particular risks in terms of delivery, compliance, payment, and partner performance. To mitigate these risks, participatory banks deploy strategies that include guarantees, insurance, sanctions, and internal risk management procedures.

Governance and the quality of risk management committees are also highlighted as key factors in effective risk management. The application of the Basel Committee's prudential standards and the availability of adequate capital and reserves are also mentioned as essential elements for dealing with the specific risks of the Islamic banking sector.

4- Conclusion:

The research highlights the crucial importance of effective risk management in ensuring the stability and success of participatory banks in Morocco, as they face a variety of challenges such as operational, market, and liquidity risks. Highlighting the positive impact of internal and macroeconomic factors on the performance of these banks, the study calls for innovative and adaptive strategies to meet the specific characteristics and challenges of the sector, while respecting the ethical and legal principles of Islamic finance.

However, the study has several limitations, including a study period limited to five years, a focus on the Moroccan context, and difficulties in accessing certain data. To enrich the field of research, it would be relevant to replicate the study in other countries, to analyze the risks associated with other Islamic financial products, and to study the impact of regulation on the performance of participatory banks.

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