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## **Exploring the Relationship between Entrepreneurial Orientation, Innovation Spirit, and Financial Performance: A Case Study of Tunisian Banks**

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**Abstract:**

**Purpose:** This article is focused on treating the impact of the entrepreneurial orientation and innovation spirit of the branch manager for a bank on the Tunisian banks' performance level.

**Design/methodology/approach:** We test these conjectures using data from a survey conducted among 107 Tunisian bank branches and analyzed using PLS (Partial Least Squares) analysis.

**Findings:** The results indicate that entrepreneurial orientation and innovation spirit significantly impact the financial performance of banks.

**Practical implications:** This study can assist banks in enhancing their performance by encouraging them to adopt a strategy that focuses on improving the entrepreneurial orientation and innovation spirit of their managers.

**Originality/value:** Previous research on this effect is nearly nonexistent in the Tunisian context.

**Keywords:** Entrepreneurial orientation, innovation spirit, financial performance.

**JEL codes:**

**Paper type:** Research article.

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## **1. Introduction**

Extensive and varied research has addressed the concept of entrepreneurial orientation and the spirit of innovation. Since the first studies by Khandwalla (1977), Miller and Friesen (1982), and Miller (1983), the notion of entrepreneurial orientation has continued to evolve to the present day.

According to Burgelman (1983), entrepreneurial orientation aims to describe an entrepreneurial posture embodied in decision-making processes, behavior, and company management practices (Cited in Bénézech Danièle *et al.*, 2013). According to Samier *et al.* (2018), the spirit of innovation is a mindset, an attitude, or an approach that fosters the creation, development, and application of new ideas, methods, or products in various fields. This involves a constant willingness to seek continuous improvement in processes and products.

Several studies demonstrate the positive effect of entrepreneurial orientation on company results (Wiklund and Shepherd, 2005; Bilal *et al.*, 2022; Bernoster *et al.*, 2020; Wahyuni and Sara, 2020; Dwumah *et al.*, 2024 ; Aftab *et al.*, 2024).

However, for entrepreneurial orientation to translate into performance, it must be successfully directed within the company itself, leading to the exploitation of opportunities through the development and optimal allocation of available resources. According to Wiklund and Shepherd (2005), entrepreneurial orientation requires examining the company's internal organizational process.

In the same vein, Floyd and Lane (2000) have proven that entrepreneurial orientation depends on the degree to which the company mobilizes its resources, such as knowledge and skills exchanges between functional departments.

Bilal *et al.* (2022) emphasize that entrepreneurial orientation enhances the ability to identify opportunities to access financial resources. This entrepreneurial orientation involves a dynamic mindset, a willingness to take calculated risks, and increased sensitivity to value creation opportunities.

Other studies highlight the importance of the spirit of innovation within the company to achieve its objectives (Anjum *et al.*, 2020; Zhang *et al.*, 2021; Jovic *et al.*, 2023; Hayajneh *et al.*, 2022; Somwethee *et al.*, 2023 ; Li *et al.*, 2024 ; Koomson, 2024).

Zhang *et al.* (2021) indicate that a spirit of innovation can lead to the identification and implementation of new methods or technologies to improve operational efficiency and reduce costs. According to Somwethee *et al.* (2023), the spirit of innovation stimulates the development of new products or services, which can help the firm, remain competitive in the market and respond to changing customer

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needs. Hayajneh *et al.* (2022) show that the spirit of innovation encourages research and in-depth understanding of business analytics capabilities to achieve better results.

Entrepreneurial orientation and the spirit of innovation are linked to the individual who has a specific profile. This profile is defined as a set of characteristics attributed to this individual that distinguish them from others. These characteristics can be explained either by factors related to the person (such as personality, autonomy, motivation...) or to their environment. Thus, the objective of our article is to explain the impact of entrepreneurial orientation and the spirit of innovation on financial performance within banks.

Our article is organized as follows: In the second part, we develop our theoretical framework and research hypothesis. In the third part, we review the research protocol's details, including the empirical steps and the measurement of our variables. In the fourth part, we analyze the results of our study. The conclusions of this research are presented in the fifth section.

## **2. Theoretical Foundation and Research Hypothesis**

### **2.1 Entrepreneurial Orientation and Financial Performance**

In recent years, entrepreneurial orientation has received significant theoretical and empirical attention to understand its effect on the financial performance of companies. Similarly, the concept of entrepreneurial orientation can be studied as a strategic driver for the company to discover and invest in new business opportunities and ensure the performance of establishments.

Entrepreneurial orientation is one of the subjects that has attracted the attention of researchers, especially in the field of management. Indeed, it is a well-known phenomenon among authors as an asset that guarantees the survival and financial profitability of companies (Wiklund and Shepherd, 2005; Li *et al.*, 2009; De Clercq *et al.*, 2010; Lumpkin and Dess, 2001; Asad *et al.*, 2024).

This explains the crucial role of entrepreneurial orientation in the ability to detect and properly invest in opportunities and good business occasions (Wiklund and Shepherd, 2003; Lee *et al.*, 2001; Karami *et al.*, 2023). The empirical work of Zahra and Covin (1995) and Wiklund (1999) proposes arguments for the positive relationship between entrepreneurial orientation and the increase in company performance, especially financial performance.

Moreover, some authors (Hunt and Morgan, 1994) consider entrepreneurial orientation as an essential organizational resource for every company. Shane and Venkataraman (2000) take this consideration and add that entrepreneurial orientation is a heterogeneous resource from one company to another.

Similarly, it can also translate into economic dynamism and, by magnitude, wealth creation. However, to translate entrepreneurial orientation into performance, company leaders and managers must allocate resources well to establish a favorable climate for better utilization of opportunities (Floyd and Lane, 2000).

In the same line of research, the relationship between entrepreneurial orientation and performance has been demonstrated in entrepreneurship and strategic management research (Aydi and Jarboui, 2018; Aloulou, 2017; Wiklund and Shepherd, 2005; Lumpkin and Dess, 1996; Zahra and Covin, 1995; Guth and Ginsberg, 1990; Alshahrani and Salam, 2024).

In small or medium-sized enterprises, management power is more concentrated than in large firms, so managers are the main decision-makers. Indeed, the entrepreneurial orientation of decision-makers greatly influences the company's strategy. This affirms the hypothesis of Dwumah *et al.* (2024), where they observed that companies seeking higher profits must apply their limited resources to pursue opportunities in generally risky and uncertain situations.

Salih *et al.* (2024) categorize the factors of entrepreneurial orientation and conclude that proactivity and risk-taking are positively linked to generating innovation, while risk-taking is invigorated by environmental dynamism. In this context, the studies of Aloulou (2023) show that innovation and proactivity are two complementary and interrelated factors to ensure the financial improvement of the company.

However, risk-taking can pose an obstacle for managers since it depends on several factors such as personality, motivation, environment, etc. Thus, being in a moderate position regarding risk-taking is the best fit for the manager and their company. Similarly, being at a high level may raise the stakes of current activities, while being at a low level of risk-taking may discourage improving the goods and/or services offered to customers (Dai *et al.*, 2014).

Aftab *et al.* (2024) found that entrepreneurial orientation positively impacts firm performance. Firms with high entrepreneurial orientation are likely to develop such competencies and exploit them in strategy implementation, adaptation to market demands, and value creation for performance enhancement.

The study by Jogaratnam and Tse (2006) and another by Balan *et al.* (2011) on more than fifty companies show that the primary objective of the entrepreneurial orientation of a branch manager is to improve financial results rather than to pursue other possible objectives of their company.

Similarly, having good entrepreneurial orientation is an asset for the company, especially during crises. Therefore, to cope with market uncertainty and turbulence, the company must reconsider and rethink its behaviors and practices to renew, protect, and develop its market share.

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Based on all the above, we hypothesize the following to analyze its direct effect:

**H1:** *The entrepreneurial orientation of the branch manager has a positive effect on the financial performance of banks.*

## **2.2 The Innovation Spirit and Financial Performance**

The spirit of innovation impacts all activities and sectors within the financial institution. It intertwines with economic expansion, advances in banking services, and financial institutions, as well as business growth.

The first study conducted by Chaffai in 1998 examined the efficiency of commercial banks in Tunisia. By analyzing the experience of deregulating the Tunisian banking system, he found that the overall efficiency of banks increased due to the liberalization process implemented in 1986. However, he noted that the pace of technological advancement exceeded that of growth.

Furthermore, it was demonstrated that Tunisian banks generally became more efficient after the financial liberalization measures were introduced in the 1980s. A similar study was suggested by Chaffai and Dietsch (1998), focusing on the evolution of banking efficiency in Tunisia. They demonstrated that development banks did not perform as well as deposit banks. In summary, they found that in the absence of a competitive context, there was no trend in the evolution of efficiency between 1989 and 1995.

Despite financial reforms, Tunisian banks were not motivated to increase their technological efficiency. According to Cook and Hababou (2000), the results for the period from 1992 to 1998 are almost identical, concerning the irregular trend in optimizing Tunisian financial institutions.

Moreover, various studies have evaluated the efficiency of Tunisian commercial banks over time, such as the study by Jelassi and Delhoumi (2021), using the methods of Data Envelopment Analysis (DEA) bootstrap, both radial and non-radial, of Tunisian commercial banks between 1995 and 2017, to determine their efficiency, economies of scale, and economies of scope. The results of this study indicate that post-revolution reforms improved the technical efficiency of private banks compared to public banks.

The study by Do *et al.* (2022) examined the impact of new technologies and innovations on the performance of Vietnamese commercial banks. They concluded that current technologies have a growing impact on the evolution of the banking industry, not only by accompanying change but also by acting as a catalyst for innovation initiatives. Localized banks compete through new technologies. Consequently, banks are increasingly becoming institutions focused on offering new services to manage risks in the capital market, driven by technological advances.

Li *et al.* (2024) indicate that the innovation spirit enhances firm performance through driving entrepreneurial activities and embedding a culture of continuous improvement in family enterprises.

Furthermore, Sghaier (2010) examined the relationship between efficiency and competition in the Tunisian banking sector using the stochastic frontier analysis method on a sample of ten deposit banks over a twenty-year period (between 1990 and 2009). His research found intense competition between Tunisian commercial banks during that period.

This rivalry resulted primarily from the reorganization of the Tunisian banking system at both the national and international levels. Additionally, during this period, banks undertook various financial reforms that marked the transition from a credit economy to a market economy and led to the liberalization of banking activity. With the arrival of international banks in direct competition with Tunisian banks, the latter began to fight to increase their market share while diversifying their activities and services and improving their efficiency.

Based on all the above, we hypothesize the following:

**H2:** *The innovation spirit of the branch manager has a positive effect on the financial performance of banks.*

### **3. Research Methodology**

#### **3.1 Sample**

To conduct the empirical study, management research frequently uses questionnaire surveys (Hung and Law, 2011) is described in Appendix I. Therefore, our data come from the questionnaire addressed to the branch managers under study. By visiting more than one hundred and fifty branches, we were able to distribute our questionnaires to their respective managers.

We distributed a total of one hundred and fifty-three questionnaires and got one hundred and seven responses - which mean a response rate of 69%, as several questionnaires were eliminated due to insufficient information collected from these branches. Financial data were gathered from the responses received from branch managers. The branch managers pertain to 11 commercial Tunisian banks listed on the Tunis Stock Exchange.

#### **3.2 Measurement of Variables**

The objective of this section is to define the measurement of variables.

*Dependent Variable: Financial Performance*

To measure financial performance, several studies (Quttainah *et al.*, 2013; Ahmad and Luo, 2010; Hassan, 2005; Hassan, 2002) rely on two indicators that have been recommended, namely ROA (Return on Assets) and ROE (Return on Equity) as presented in Table 1.

**Table 1. Measurement Items for the Variable "FINANCIAL PERFORMANCE"**

Variable measure		
ROA	Return on Assets	net income/total assets
ROE	Return on equity	net income/total equity

*Source: Own study.*

#### *Independent Variables: Entrepreneurial Orientation*

The concept of entrepreneurial orientation will be measured using multiple scales inspired by the works of Errays and Hattabou (2015); Dai *et al.* (2014); Mom *et al.* (2007); Bstieler (2006); De Clercq and Sapienza (2006); Van den Hooff and Van Weenen (2004); Dulac (2003); Wiklund and Shepherd (2003); Lee *et al.* (2001); Floyd and Lane (2000); Nahapiet and Ghoshal (1998); Meyer and Allen (1997); Lumpkin and Dess (2001). This dependent variable will be measured by seven questions in our questionnaire survey is described in Appendix I. Respondents must express their degree of importance, ranging from (1) "Strongly Disagree" to (5) "Strongly Agree" as seen in Table 2 .

**Table 2. Measurement Items for the Variable "ENTREPRENEURIAL ORIENTATION"**

<b>Propositions</b>	1	2	3	4	5
The opinions and behavior of others can influence my decisions					
We always seek to improve the quality and quantity of shared knowledge in our branch					
I evaluate my different behaviors both positively and negatively					
I feel that the branch belongs to me					
I feel that most of the staff trust me					
My staff can make some decisions without referring to the branch manager					
In our branch, interpersonal relationships are informal rather than formal					

*Source: Own study.*

#### *Innovation Spirit*

The concept of innovation spirit will be measured using multiple scales inspired by the works of Golovko and Valentini (2011); Wu (2011); Gasse (2004); Rogers (2004); Pil and Holweg (2003); Danjou (2002); Christensen (2000). This dependent variable will be measured by four questions in our questionnaire survey. Respondents must express their degree of importance, ranging from (1) "Strongly

Disagree" to (5) "Strongly Agree" as seen in Table3.

**Table 3. Measurement Items for the Variable "INNOVATION SPIRIT"**

Propositions	1	2	3	4	5
The opinions, behavior, and instructions of colleagues can influence your spirit to innovate some products or/and services					
Are you determined to create a project in your branch in the future?					
Do the results of other branches inspire you to do better than them?					
Are you able to work intensely and with effort to succeed in your branch?					

*Source: Own study.*

*Control Variable: Branch Size*

Other studies have also demonstrated the evident relationship between the agency's scale and bank performance; the works by Paradi and Zhu, (2013), and Wang and Lee, (2023), are just two examples. We will add the following variable: Branch size, understood as the overall number of staff working in each branch.

The branch size will be assigned one of two possible scores:

- A score of 1 will be assigned if the number of employees at a bank branch is deemed significant, surpassing 20 individuals.
- A score of 0 will be assigned if the branch size falls below this threshold.

By doing so, this approach allows us to take into account the effect of branch size on our analysis, consistent with previous findings, and enables us to investigate in detail the drivers of bank performance.

*Control Variable: Branch Organizational Complexity*

Banks' operational unit size has previously been linked with mechanisms of organizational architecture; see, for example, Correa and Goldberg (2022a; Frame *et al.* (2001). Therefore, large and complex operating units may significantly lead to wide differences in financial performance among banks. We therefore propose one more measurement criterion, namely organizational complexity regarding branch structures. This refers to the number of levels that exist within each branch.

This criterion will be assessed using the following scoring system:

- A score of 1 will be assigned if the number of hierarchical levels within a branch is deemed significant.
- A score of 0 will be assigned if the branch's hierarchical structure is perceived as less complex or does not exceed a predetermined threshold.



### 3.3 Data Analysis Methodology

We opted for a structural equation model that minimizes the variation of residuals, specifically a method labeled PLS (Partial Least Squares), which estimates parameters close to basic components with multiple regression. In what follows, we present and interpret the results of the structural equations tested using the PLS approach.

## 4. Analysis and Interpretation

Table 4 presents a descriptive analysis of the variables in our model. The financial performance variables as measured by ROA and ROE have a mean value of approximately 0.5 with a standard deviation of 0.5. For entrepreneurial orientation, the mean values lie between 2.794 and 3.168, indicating moderate entrepreneurial orientation across the sample. The standard deviations are between 1.429 and 1.551.

Mean values of innovation spirit variables range between 2.832 and 3.037, reflecting a moderate level of innovation in the sample. Standard deviations range from 1.279 to 1.426, showing that there is considerable but relatively consistent variation in perceptions of innovation efforts. Branch size has a mean of 0.318 with a standard deviation of 0.466. Organizational complexity had a mean of 0.467 and a standard deviation of 0.499.

*Table 4. Descriptive Statistics of Variables*

VL	VM	Observations	Minimum	Maximum	Mean	Std Dev.
Financial performance	ROA	107	0,000	1,000	0,514	0,500
	ROE	107	0,000	1,000	0,486	0,500
Orientation entrepreneuriale	OE1	107	1,000	5,000	2,879	1,551
	OE2	107	1,000	5,000	3,065	1,429
	OE3	107	1,000	5,000	3,047	1,531
	OE4	107	1,000	5,000	3,112	1,455
	OE5	107	1,000	5,000	3,168	1,450
	OE6	107	1,000	5,000	2,794	1,471
Esprit d'innovation	ESIN1	107	1,000	5,000	3,037	1,420
	ESIN2	107	1,000	5,000	2,832	1,279
	ESIN3	107	1,000	5,000	2,944	1,426
	ESIN4	107	1,000	5,000	3,037	1,380
Size of the branch	SIZEB	107	0.000	1.000	0.318	0.466
Organizational complexity of the branch	OCB	107	0.000	1.000	0.467	0.499

*Source: Own study.*

#### 4.1 Model Results

In this respect, our analysis was based on XLSTAT 2015 and especially on the approach PLSPM. Chin, 1998 identified a set of criteria to check the partial model structure. The systematic check of these criteria provides a two steps process: measurement model assessment and structural model assessment.

In what follows, we present step by step the results of our analysis:

At the beginning of this process, the evaluation of the model focuses on the measurement models. A systematic evaluation of PLS estimates reveals the reliability and validity of the measures according to certain criteria associated with the formative and reflective external model. It is logical to evaluate the internal path model estimates only when the latent variable scores calculated demonstrate sufficient reliability and validity.

**Table 5. Block Effectiveness (Composite Reliability)**

Latent Variable	Cronbach Alpha	Rho DG	First VP	Second VP
Entrepreneurial Orientation	0.938	0.952	4.597	0.452
Financial Performance	0.785	0.903	1.646	0.354
Innovation Spirit	0.866	0.910	2.867	0.553

*Source: Own study.*

Cronbach's Alpha tends to provide a severe underestimation of the internal consistency reliability of latent variables in PLS path models. Therefore, it is more appropriate to apply a different measure: composite reliability (Werts *et al.*, 1974). An internal consistency reliability value greater than 0.7 is considered satisfactory (Nunnally and Bernstein, 1994). However, a value below 0.6 indicates a lack of reliability. We can observe that both Cronbach's Alpha and Dillon's Rho values are satisfactory across all scales, indicating the effectiveness of these variable blocks as seen in Table 5.

In PLS path modeling, two measures of discriminant analysis have been proposed: the Fornell- Larcker criterion (Average Variance Extracted - AVE) and cross-loadings. The Fornell-Larcker criterion (Fornell and Larcker, 1981) suggests that a latent variable shares more variance with its assigned indicators than with any other latent variable. A popular approach to establishing discriminant validity is evaluating cross-loadings, also known as "item-level discriminant validity."

**Table 6. Cross Loadings**

Variables	EO1	EO2	EO3	EO4	EO5	EO6	SIN1	SIN2	SIN3	SIN4	ROA	ROE	SIZE B	OCB
EO1	<b>1.000</b>	0.699	0.762	0.747	0.657	0.665	0.507	0.607	0.618	0.539	0.522	0.544	0.493	-0.446
EO2	0.699	<b>1.000</b>	0.857	0.733	0.734	0.598	0.528	0.594	0.635	0.510	0.517	0.556	0.390	-0.502
EO3	0.762	0.857	<b>1.000</b>	0.786	0.801	0.668	0.519	0.644	0.682	0.539	0.547	0.558	0.438	-0.481

EO4	0.747	0.733	0.786	<b>1.000</b>	0.757	0.657	0.518	0.588	0.633	0.542	0.599	0.612	0.430	-0.420
EO5	0.657	0.734	0.801	0.757	<b>1.000</b>	0.643	0.501	0.550	0.633	0.473	0.529	0.543	0.391	-0.367
EO6	0.665	0.598	0.668	0.657	0.643	<b>1.000</b>	0.308	0.488	0.551	0.464	0.426	0.447	0.437	-0.366
SIN1	0.507	0.528	0.519	0.518	0.501	0.308	<b>1.000</b>	0.533	0.550	0.505	0.557	0.556	0.364	-0.262
SIN2	0.607	0.594	0.644	0.588	0.550	0.488	0.533	<b>1.000</b>	0.748	0.729	0.529	0.510	0.482	-0.477
SIN3	0.618	0.635	0.682	0.633	0.633	0.551	0.550	0.748	<b>1.000</b>	0.647	0.513	0.511	0.519	-0.410
SIN4	0.539	0.510	0.539	0.542	0.473	0.464	0.505	0.729	0.647	<b>1.000</b>	0.463	0.435	0.432	-0.378
ROA	0.522	0.517	0.547	0.599	0.529	0.426	0.557	0.529	0.513	0.463	<b>1.000</b>	0.866	0.366	-0.435
ROE	0.544	0.556	0.558	0.612	0.543	0.447	0.556	0.510	0.511	0.435	0.866	<b>1.000</b>	0.378	-0.454
SIZEB	0.493	0.390	0.438	0.430	0.391	0.437	0.364	0.482	0.519	0.432	0.366	0.378	<b>1.000</b>	-0.358
OCB	-0.446	-0.502	-0.481	-0.420	-0.367	-0.366	-0.262	-0.477	-0.410	-0.378	-0.435	-0.454	-0.358	<b>1.000</b>

*Source: Own study.*

The loadings reveal the strength of the relationship between the manifest and latent variables. The results presented in Table 6 show that all loadings are above 0.7 and that each indicator has the highest loading on its intended variable; therefore, the measurement models meet the desired quality criteria (Chin, 1998).

Reliable and valid estimations of the external model allow for the evaluation of the internal path model estimates. To assess the structural model, we examine the path coefficients as well as the  $R^2$  for each latent variable. Chin (1998) describes  $R^2$  values of 0.67, 0.33, and 0.19 in PLS path models as substantial, moderate, and weak, respectively.

*Table 7. Structural Model*

	$R^2$	F	Pr > F	$R^2$ (Bootstrap)	Stand. Dev.	Critical ratio (CR)
<b>Financial Performance</b>	<b>0.476</b>	<b>23.176</b>	<b>0.000</b>	<b>0.491</b>	<b>0.083</b>	5.717

*Source: Own study.*

In Table 7, the  $R^2$  measures the percentage of variance in a construct explained by the model. The  $R^2$  ( $R^2 = 0.491$ ) is at a substantial level.

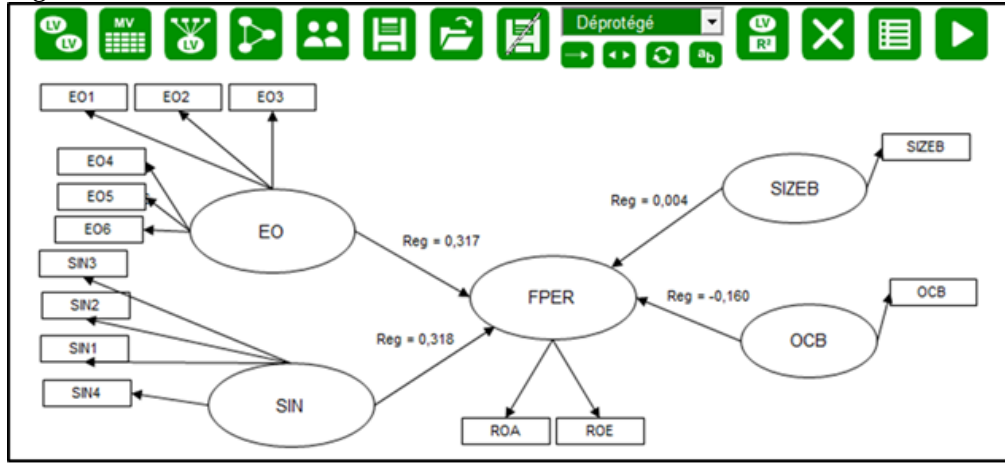
## 4.2 Interpretation of Results

In our study, we focused on variables that can influence the financial performance of a bank branch. We attempted to study the effect of entrepreneurial orientation on the financial performance (FP) of the branch. Theoretically, the literature suggests that the entrepreneurial orientation of the branch manager does not have a significant effect on the financial performance of the branch (George, 2011).

However, several other theoretical studies show that entrepreneurial orientation has a

positive effect on the financial performance of the branch (Wiklund and Shepherd, 2005; Hult *et al.*, 2003).

Figure 1. Model Results



Source: Own study.

Table 8. Coefficients Paths

Dependent Variable	Latent variable	value	Deviation standard	t	Pr >  t
Financial Performance	Orientation entrepreneurial	0.317	0.113	2.815	0.006
	Innovation spirit	0.318	0.113	2.812	0.006
	Size of the branch	0.004	0.086	0.050	0.960
	Organizational complexity of the branch	-0.160	0.084	-1.912	0.059

Source: Own study.

Therefore, we tested this relationship practically through an investigation in the banking sector in Tunisia (see Figure 1). We found that entrepreneurial orientation has a positive effect on the financial performance of the bank branch (H1 is validated), consistent with several studies, such as Salih *et al.* (2024) and Alshahrani and Salam (2024). For instance, Mrabet and Barka (2023) found that entrepreneurial orientation positively influences innovation performance, which in turn enhances financial success.

We can conclude, with the help of the results manipulated through PLS, that our hypothesis is validated (see Table 8). However, this effect of entrepreneurial orientation on financial performance is very fragile, meaning that with a low level of entrepreneurial orientation, one can achieve good financial results if other determinants besides entrepreneurial orientation (e.g., innovation, risk-taking, proactivity) are well allocated.

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Our findings regarding the positive relationship between innovation spirit and financial performance are supported by recent literature. Lin *et al.* (2023) investigated the link between entrepreneurial orientation and product innovativeness, focusing on how a strong entrepreneurial orientation leads to better innovation outcomes, which in turn is closely linked to financial performance.

The non-significant effect of branch size on financial performance in our study has been supported by recent works. Kruglov and Shaw (2024) analyzed SandP 500 companies over 25 years and found that firm size is not a consistent predictor of innovation output or financial success; rather, other factors such as strategic orientation and positioning in the marketplace seem much more important.

While our study revealed a marginally significant negative association between organizational complexity and financial performance, the literature adds more light. According to Suder (2023), organizational complexity might badly hamper decision-making and agility and therefore negatively impact financial performance. At the same time, however, the study suggests that active management practices might counteract the challenges related to these issues, which would mean the impact of complexity is moderated by both internal capabilities and external environmental contingencies.

## **5. Theoretical and Practical Implications of the Study**

Theoretically, this study enhances current literature on entrepreneurial orientation and innovation in the financial sector in general, and Tunisia in particular. It adds to resource-based theory by proving that entrepreneurial and innovative capabilities are intangible resources contributing to competitive advantages and better performance among banks.

Moreover, it also corresponds to the dynamic capabilities theory of Teece *et al.* (1997), where banks, by adapting, innovating, and adopting entrepreneurial practices, increase their financial performance in highly competitive and fast-changing markets. The findings also enrich the resource-based view of the firm, as proposed by Barney (1991), by underlining that entrepreneurial orientation and innovation spirit represent valuable, rare, inimitable, and non-substitutable resources.

Entrepreneurial capability and a culture of innovation represent those strategic resources driving banks toward superior financial performance within a volatile and competitive sector of finance. This paper finds that these intangible resources are extremely important for acquiring a competitive advantage, further reaffirming the basis behind our paper. Therefore, this is empirical proof connecting and supporting each other: an entrepreneurial orientation to innovation and eventually financial performance.

While prior literature often examined entrepreneurial orientation or innovation as separate variables, this research emphasizes the interaction of these two constructs and how they complement each other in regard to financial performance. The results show that entrepreneurial orientation causes innovative behavior, which enhances financial performance, a very important lesson for the development of integrative theoretical models in strategic management and entrepreneurship research.

The practical implications of this study are highly relevant for bank managers, policymakers, and financial sector stakeholders. First, the findings underline the development of an entrepreneurial culture in banking institutions. Bank managers should encourage proactive decision-making, calculated risk-taking, and innovation to enhance their competitive position and drive financial performance. Specific initiatives such as incentives for innovative projects, flexible decision-making structures, and support for entrepreneurial initiatives can help create an enabling environment for entrepreneurial orientation.

Secondly, the high impact of innovation spirit indicates that banks have to give priority to technological and service innovation. They need to invest in digital transformation, collaboration with fintech companies, and innovative customer-centric solutions for their businesses to meet the evolving market demands and operational efficiency. Innovation-driven strategies will help them achieve not only customer satisfaction but also profitability and long-term growth.

The study is important for policy makers since it calls for the establishment of enabling regulatory frameworks to promote enterprising and innovative behavior inside financial institutions. Regulatory reform that promotes innovation with stability can make banks even more efficient to compete globally.

Finally, this provides stakeholders in emerging markets, such as Tunisia, with actionable insights in order to enhance financial sector performance through strategic entrepreneurial and innovative approaches. Accordingly, banks leveraging entrepreneurial orientation and innovation as key strategic imperatives will thus be better positioned to adapt against market challenges and contribute to economic growth.

## **6. Conclusion**

In conclusion, we studied the effect of entrepreneurial orientation, which has a significant impact on the financial performance of the bank branch. Given our current economic situation in Tunisia, we sought to find solutions, especially in the banking sector, which is characterized by a delicate financial situation to varying degrees.

The following are some key recommendations to improve the financial performance of the banking sector:

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First of all, the state along with bank headquarters and officials should take concrete steps toward strengthening the level of entrepreneurial orientation among branch managers through increased freedom for innovation and proactiveness, even in the form of moral support and recognition.

It is also necessary to establish a good working environment based on trust where competence is the basis on which staffs are appraised. The grant of adequate autonomy to the branch managers over their respective functions should yield better results both at the strategic and operational levels. Their involvement in decisive choices and future strategic directions of the bank would bring them closer to organizational objectives.

The other important factor influencing better performance is improvement in governance within the bank's steering committees. Motivating staff with financial incentives, like performance-based bonuses, can increase productivity and encourage profit improvement. Besides, exploiting new methods and techniques by embracing technology will help banks to stay competitive and productive.

Finally, developing collaboration with university research units could offer banks academic insights and innovative solutions to the current challenges banks face, bridging the gap between research and practice toward better financial outcomes.

## **7. Limitations and Directions for Future Studies**

While this study provides valuable insights into the relationship between entrepreneurial orientation, innovation spirit, and financial performance in the banking sector, it is not without limitations, which open opportunities for future research.

First, this research focuses on the Tunisian banking industry only, which has limited generalizability across other industries and contexts. The nature of the relationships among entrepreneurial orientation, innovation, and financial performance may be susceptible to the unique regulatory, economic, and cultural environment in Tunisia; thus, one should be cautious when generalizing these findings to other emerging or developed markets.

The study adopted a cross-sectional research design—a point-in-time data collection method. This approach gives but a snapshot of the relationships under investigation. Thus, it cannot be generalized for all times since it cannot allow the tracking of changes in the entrepreneurial orientation, innovation, or financial performance.

There is a need for a longitudinal study that can determine causality and the possible modification of entrepreneurial and innovative strategies in response to dynamic market conditions.

In this study, financial performance is measured by using some accounting-based indicators: ROA and ROE. Though these measures are widely used and reliable, they cannot show all the dimensions of financial performance, such as market-based measures like stock performance or qualitative performance indicators like customer satisfaction and employee engagement. The use of a wider range of performance measures in future studies would yield a more complete view of the financial outcome.

Finally, entrepreneurial orientation and innovation spirit were assessed based on self-reported measures in the study, which might imply certain biases, such as those related to social desirability or subjectivity. Merging self-reported data with objective measurements-like patent counts or innovation expenditures-or the evaluation of third-party persons could add strength to future studies.

Building on these limitations, future research could investigate how the relationships among entrepreneurial orientation, innovation, and financial performance vary across different industries, such as manufacturing, services, and technology, and across different economies, such as developed versus developing. Such comparative studies would underscore the role of contextual factors, such as institutional frameworks and cultural norms, in influencing these relationships.

Longitudinal research allows researchers to examine just how entrepreneurial orientation and innovation change longitudinally and how such changes in both elements influence financial performance over time. This approach would enable the establishment of causality and long-term trends.

Investigation of possible moderators and mediators, such as leadership behaviors, organizational culture, or environmental uncertainty, would allow deeper insights into the mechanisms by which entrepreneurial orientation and innovation influence financial performance.

For example, it may be important to investigate how leadership styles foster innovation or how competitive pressure strengthens the impact of entrepreneurial orientation on actionable managerial implications.

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## **Appendix I: Questionnaire**

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### **Questionnaire for branch manager**

Dear Sir/Madam,

I have the honor of requesting your kind cooperation in answering the questions. Your responses will remain strictly confidential.

**Agency Head**

Please indicate your gender: M F

What is your age?  20-30 years  31-40 years  41-50 years  Over 50

**Agency Identification**

The number of branches in your bank: .....

Number of employees:

Executives \_\_\_\_\_ Administrative employees \_\_\_\_\_ Workers \_\_\_\_\_

What type of bank is it?

Commercial Development Investment Offshore Islamic

Is your company listed or not? Yes No

**Innovation spirit**

Please express the importance of the potential of internal knowledge in your agency with the following propositions: 1= strongly disagree 2= disagree 3= neutral 4= agree 5= strongly agree

propositions	1	2	3	4	5
Can the opinions, behavior, and instructions of colleagues influence your spirit to innovate new products or services ?					
Are you determined to create a project in your agency in the future?					
Do the results of other agencies inspire you to do better?					
Are you capable of working intensely and with effort to succeed in your agency?					

**Entrepreneurial Orientation**

On a scale of 1 to 5, where 1 is 'Strongly disagree', 2 'Disagree', 3 'Neutral', 4 'Agree', and 5 'Strongly agree', please indicate your level of agreement with the following statements:

propositions	1	2	3	4	5
The opinions and behaviors of others can influence my decisions.					
We are always looking to improve the quality and quantity of shared knowledge in our agency.					
I evaluate my behavior both positively and negatively.					
I feel that the agency is mine.					
I feel that most of the staff trust me.					
My staff can make some decisions without referring to the agency head.					
In our agency, interpersonal relationships are more informal than formal.					