

# The Impact of Risk Propensity and Risk Perception on Business Performance: Mediation Role of Entrepreneurial Orientation: Data from Algerian Entrepreneurial Companies

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**Abstract:** Risk propensity and risk perception are frequently seen as crucial factors in the success of entrepreneurs in entrepreneurship. Risk attitudes of entrepreneurs are well-established drivers of business performance. Therefore, the aim of this study is to examine effect of risk propensity and perception on business performance through the mediation role of entrepreneurial orientation. The study has used 200 entrepreneurs from Algeria. The study analyzed used AMOS software application. The results show that the worst performing entrepreneurs are those with low risk perception and high-risk propensity. Moreover, risk perception is positively associated with business performance. In addition, entrepreneurial orientation has mediated significantly on the relationship between risk propensity and risk perception with business performance.

**Keywords:** risk attitude; risk perception; risk propensity; entrepreneurship; business performance

## 1. INTRODUCTION

In the entrepreneurship literature, risk propensity and risk perception are usually viewed as essential elements in an entrepreneur's success. The bearing of or exposure to risk is a common scholarly criterion used to differentiate between business owners, workers, and managers. This study's primary focus is on how risk-related factors affect small firms' financial performance in Algeria. A particular area in which we are concerned is the connection between risk perception and corporate performance. The importance of this channel comes from the fact that appropriately assessing risk can improve successful entrepreneurship in emerging regions. The study fits in nicely with the expanding corpus of scholarship on entrepreneurship in developing countries.

A survey of Algerian business owners was used to collect data for the study. The impact of risk propensity on corporate performance is quantified using regression analysis. Our empirical methodology also addresses the methodological issue of multi-collinearity between risk propensity and risk propensity by categorizing four distinct groups of entrepreneurs based on their risk profiles. The combined effects of both components can therefore be examined. The poll indicates that the perception of risk among Algerian small company owners has a significant bearing on the success of their organizations. The perception of risk is positively associated with income, by one standard deviation. Business owners that have a propensity for taking risks but who don't perceive risk as a whole as a negative have lower revenues than other business owners. According to the study, the findings may be explained by the literature, which claims that a low risk perception is related to a miscalculation of threats. Under these conditions, taking a huge risk may lead to less than ideal decisions, which would then negatively impact corporate performance..

By combining both risk inclination and risk perception in the analysis of company performance, the study makes a theoretical contribution to the field. By doing this, we offer a more comprehensive method for estimating how two important risk factors may affect the performance of a corporation. Additionally, by examining company performance, we add to the rather scant body of knowledge on risk perception. Here is how this essay starts. Research on risk perception and risk inclination is connected to the literature review in Section 2's discussion of entrepreneurship. The technique for the data is described in Section 3. Results are presented in Section 4, which is followed by a discussion conclusion in Section 5.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1 Business Performance

Financial and non-financial performance are the two main components of business performance [1]. On the one hand, a company's financial performance refers to how well it performs in terms of its ability to generate revenue and manage its finances. While brand recognition, customer happiness, organizational performance, and innovation activities can all be quantified in terms of money value, non-financial performance refers to a company's performance in other ways. While non-financial performance is more likely to be concerned with long-term sustainable growth, it is generally linked to the short-term survival of businesses. Therefore, relative to non-financial success, financial performance is, to some extent, more important for startups or businesses in their early stages [2]. But for startup development, it's crucial to manage and mix the two forms of performance [1].

### 2.2 Entrepreneurial Orientation

Strategic focus, ability to seize certain market elements, and decision-making processes are all examples of an

organization's entrepreneurial attitude [3]. On the one hand, numerous studies highlight the association between an entrepreneurial mindset and superior business performance, suggesting that businesses that adopt this mindset would likely outperform their peers [4]. Similar to this, additional studies indicate that businesses with an entrepreneurial attitude are more likely to seize opportunities by making a commitment and exerting effort [5]. However, in some of them, the anticipated benefits did not materialize [6], which has highlighted the necessity to detail its different scenarios [7].

### 2.3 Effect of Risk Propensity on Business Performance

The majority of research on the significance of risk-related factors for business performance focuses on risk propensity, or an entrepreneur's propensity to take risks [8]. Entrepreneurs' overall predisposition to act riskier or less riskily, their evaluation of the risk-return trade-off, their propensity for or tolerance of calculated risk, or both are all examples of what is meant by risk propensity [9]. Since risk taking and risk propensity are so closely associated, the majority of empirical research focuses on the impact of risk propensity on entrepreneurial performance. Numerous research have found that taking risks is one of the traits of the entrepreneur that influences business success, although the magnitude and direction of this effect are unclear. In their meta-analysis of evidence of a significant influence of risk propensity on performance. The cause's sign is actually a contentious issue. One reason for the lack of consensus may be differences in the definitions and techniques used to calculate risk propensity. Another argument might be that, as [10] contend, the concept of taking risks is a more complex one that necessitates a more sophisticated technique.

The risk propensity has a detrimental effect on performance, according to numerous studies. When there is a larger propensity to take risks, family businesses do poorly, claim and risk propensity has a negative effect on performance, claim. Small enterprises experience negative effects. They claim that confounding factors could be to blame for this, as they make the relationship between risk propensity and performance nonlinear. The effect of risk inclination for small Icelandic firms that a high propensity for risk limits differentiation methods and cost leadership techniques, consequently lowering firm performance. Looks into the relationship between risk propensity and the success of Nepali microenterprises but finds no connection

H1: Risk Propensity has a positive and significant effect on business performance

### 2.4 Risk Perception and Business Performance

Risk propensity and risk perception are two key components of risk attitude, which we define as an all-encompassing description of how the decision maker approaches risk [11]. The premise that people differ both in their predisposition to take risks and in how they perceive and interpret dangers forms the theoretical basis for the distinction between risk perception and risk propensity. Individual

differences in risk perception are a result of the importance of emotive reactions [11]. This in turn is founded on many heuristics. Therefore, risk perception represents a different aspect of risk attitude than risk propensity. A decision maker's appraisal of the risk present in a circumstance is referred to as risk perception. The under- or overestimation of risks is generally regarded to have an impact on business outcomes. In fact, how the entrepreneur views the opportunity counts more than the opportunity itself. Entrepreneurs who frame the business situation too positively may reduce risk perception [12], this can result in inadequate risk reduction. Furthermore, it is believed that ineffective risk minimization lowers performance [13].

Although risk perception among entrepreneurs is acknowledged to be important in the research, its impact on business outcomes has not received much attention. Most empirical studies employ experimental methods and solely examine how risk perception affects a single, predetermined choice [14]. For instance, greater risk perception results in less hazardous entrepreneurial decision-making, but they do not examine the impact on business performance. Due to the ongoing nature of decision-making in entrepreneurship, the effect of risk perception may also vary in real-world business scenarios. Because they place more emphasis on the situation's prospects than its shortcomings, entrepreneurs tend to view business circumstances more favorably than non-entrepreneurs.

In this sense, a business's outcomes may be significantly impacted by changes in an entrepreneur's perception of risk. Numerous studies in the literature on entrepreneurship emphasize the significance of risk perception for entrepreneurs' start-up decisions [12]. [15] Cruz's research demonstrates that among immigrants in Spain, the perception of risk affects whether or not they decide to start their own business. They demonstrate that risk perception is a significant mediator of overconfidence, hence indirectly enhancing entrepreneurial outcomes. In a study that is closely comparable to our own, [16] discover that market salesmen who perceive risk as being higher have better earnings.

H2: Risk Perception has a positive and significant effect on company's business performance

### 2.5 Mediation Entrepreneurship orientation, Risk propensity and Business Performance

Risk-taking propensity (RTP) is the tendency to choose unorthodox approaches or to depart from established patterns in order to pursue unanticipated results risk-taking propensity has a direct and positive relationship with EC and aids in the survival of SMEs. Another study by [17] came to the conclusion that inclination for taking risks is one of the best indicators of entrepreneurial behavior and is closely associated to abilities. Regarding the relationship between risk-taking propensity and business performance, there is a positive correlation between the two. However, [18] conducted study

on Algeria stock exchange firms and tested the relationship between RTP and EP.

Study concluded that there was a less significant association between both variables. In another research, conducted study on middle level managers, which were operating in different business departments. Their results also showed less significant outcomes of risk taking propensity with the firm's performance. Furthermore, as per [19], entrepreneurs with high-risk taking propensity leads to better SMEs performance in developing economies. Similar study was done on SMEs in Nigeria using SEM model by [20] to determine the relation between risk taking propensity and SMEs performance and study concluded with high positive relationship between said variables. Aforementioned discussion leads to the formulation of following hypotheses;

H3: Entrepreneurial orientations has significantly mediates the relationship between risk propensity and Business performance

## 2.6 Mediation entrepreneurship orientation, risk perception and business performance

The perception of risk is another factor that influences risk taking in the EO literature [12], although it receives very less empirical attention. We contend that the use of a limited definition of risk taking may probably account for the contradictory findings in the EO literature regarding risk inclination. When attempting to explain company performance, it is necessary to take into consideration both risk inclination and risk perception. Numerous research indicate that the idea of taking risks is more complicated and that risk perception is just as significant as risk inclination [21].

H4: Entrepreneurial orientations has significantly mediates the relationship between risk perception and Business performance.

## 2.7 Entrepreneurial orientation and Business Performance

The entrepreneurial attitude is a widely established strategy to improve corporate innovation and performance [22]. That entrepreneurial orientation demonstrates inventiveness, forethought, and the willingness to take a risk all at once [23]. In particular, the first characteristic, innovativeness, shows up when a company is motivated to support original concepts, distinct approaches, and revolutionary goods and services [24].

The ability of a company to take advantage of market possibilities and outperform rivals on initiative is described by the second characteristic, reactivity [25]. Last but not least, risk-taking reveals a company's propensity to devote significant resources to high-risk ventures [26]. In order for a company to thrive and adapt to environmental changes, entrepreneurial mindset is crucial. The behaviors and attitudes are significantly influenced by entrepreneurial orientation, with a focus on actively seeking out entrepreneurial possibilities [27]. Entrepreneurial attitude improves a firm's capacity to respond to external changes by establishing various

forms of innovations [28]. In general, entrepreneurial orientation can be defined as the business's tendency to veer from the beaten path and venture into uncharted territory [29].

As EO refers to entrepreneurial attitudes and techniques that encourage businesses to launch new projects or make investments in emerging market prospects. It has been shown to have an impact on a company's profitability and reputation [30]. This leaves SMEs with limited access to resources of all types with no other options except a strong incentive to adapt and develop. Interestingly, because they are tiny and flexible, SMEs with EO have various benefits in restructuring their enterprises to respond to changes in a business environment. There is also some empirical support for EO having a significant positive effect on the performance of SMEs [31]. There is no denying that companies using EO appear to outperform their intra-industry competitors. Since they persistently innovate and develop to please their main stakeholders and customers, they aggressively seek out new chances and enhance their reputation, product/service quality, and customer satisfaction [32]. As a result, we provide the following second hypothesis.

H5: Entrepreneurial orientation has a positive and significant effect on business performance

Therefore based on the above relationships the study has drawn the following conceptual framework model in figure 1 as follow.

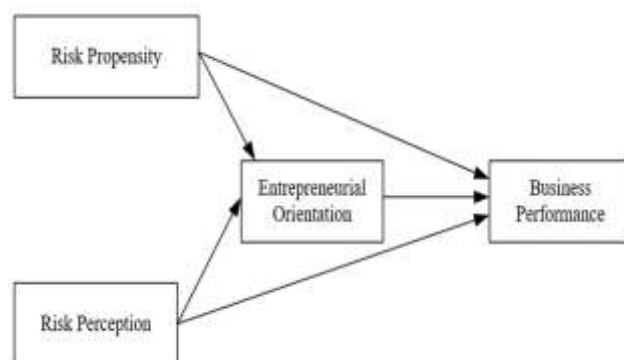


Figure 1. Conceptual framework Model

## 3. METHOD AND DATA

The relationship between risk-taking behavior, measurement, and theoretical literature is examined in this work in order to propose a structural equation model. The information examined using AMO's software in this work; a multivariate statistical approach is used to determine the relationships between the latent variables. The measurements in this study come from a survey that was used to collect primary data, and preceding research is used to help create the model. In addition, the measurements are risk propensity; perception, business performance, and entrepreneurial orientation are the four latent factors. The research technique

to address company’s performance. Many small business owners prepare for personal or corporate taxes, not accounting reports. The questions were encouraged to be answered on seven-point Likert scales, with a lower score indicating less agreement with a statement and a higher score indicating more dealing with it.

**3.1 DATA ANALYSIS THE RESULTS**

The measurement models must have internal consistency and convergent validity. To examine the concurrent validity in this study, average variance extracted (AVE) is used. The values of AVE ranged from 0.619 to 0.891 in Table 2, indicating that the specific constructs share a sizable amount of variance. A similar consistency between the corresponding indicators and values greater than 0.7 can be seen in the outer loadings (Table 2). The latent variables' Cronbach's alpha coefficients range from 0.902 to 0.98, showing higher reliability. This standard definition of internal consistency. The C.R. coefficient range that is commonly accepted as C.A. in exploratory research is 0.919 to 0.983. In order to prevent estimation bias brought on by collinearity, it is necessary to check for this. The Fornell-Lacker criterion and cross loading are also employed in this study to assess discriminant validity. The path coefficient for the structural model and the calculation of loads and weights for the relationships in the measurement models are provided by the algorithm computation. The three constructs work together to explain 33% of the variation in the endogenous construct (R2 = 0.33).

**Table 1.** Reliability and validity test analysis

Constructs	Items	Factor .L	Cronbach's Alpha	CR	(AVE)
BP	BP1	0.939	0.98	0.98	0.891
	BP 2	0.957			
	BP 3	0.963			
	BP4	0.968			
	BP 5	0.899			
	BP 6	0.906			
	BP 7	0.974			
RTP	RTP 1	0.919	0.936	0.95	0.759
	RTP 2	0.887			
	RTP 3	0.816			
	RTP 4	0.904			
	RTP 5	0.9			
	RTP 6	0.793			
	RTP 6	0.793			
RP	RP1	0.848	0.902	0.902	0.619
	RP2	0.809			
	RP3	0.811			

RP	RP4	0.841	0.92	0.93	0.672
	RP5	0.831			
	RP6	0.839			
	RP7	0.755			
	EO1	0.771			
	EO2	0.805			
	EO3	0.866			
EO	EO4	0.748	0.902	0.91	0.619
	EO5	0.783			
	EO6	0.823			
	EO7	0.702			

Note: BP =Business Performance; RTP = Risk taking Propensity; RP = Risk Perception: EO = Entrepreneurial Orientation

**Table 2.** Correlations Matrix and discriminant validity results analysis

	BP	EO	RP	RTP
BP	0.944			
EO	0.472	0.787		
RP	0.489	0.577	0.82	
RTP	0.479	0.542	0.57	0.871

Note: Business Performance; RTP = Risk taking Propensity; RP = Risk Perception: EO = Entrepreneurial Orientation

**3.2 Structural Equation Model Estimate**

To evaluate the impacts of the response variables on the dependent variables, this study used a structural equation model with a supporting route diagram. According to the summary and demonstration provided by the structural equation (SEM) model estimation, the goodness of model fit indices are acceptable as long as they all exceed the cutoff points of fundamental assumptions. The GFI fits at 0.841, greater than the 0.90 criterion, while the model's chi-square is less than 3.0 at 1.80. The IFI for the model is 0.955, which is above the suggested value of greater than 0.90, and the AGFI is acceptable at 0.947, which is also above the suggested value of 0.90. Also above 0.90, at 0.915, is the NFI value. The model's TLI is 0.951, or 0.90, and its CFI is 0.941. Consequently, model fit

**3.3 Regression Analysis**

The proposed research model was independently tested against each identified variable to make sure it adhered to the presumptions. The predictor variables risk propensity and business performance ( $\beta = 0.236, p= 0.000$ ), and risk perception on business performance ( $\beta = 0.236$ , with a p-value of 0.007) had a positive and substantial impact on the outcome variable, business performance. Additionally, the mediator variable of entrepreneurial attitude had a substantial and favorable impact on the dependent variable of company performance at ( $\beta = 0.212, p = 0.036$ ). (BP). This demonstrates that there are some similarities among the study variables'

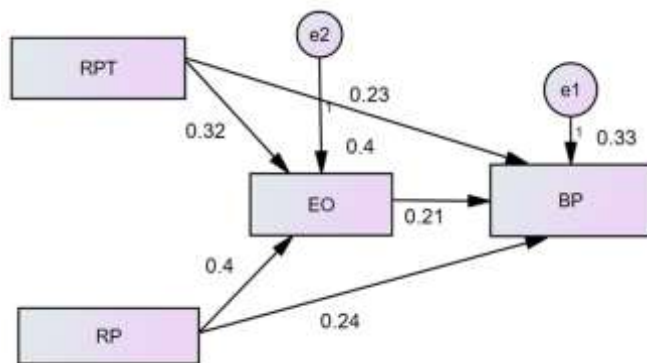
variances across all dimensions. As a result, Table 3 below shows that entrepreneurial orientation (EO) is more likely to have a favorable and significant impact on business performance (BP).

**Table 3.** Regression weights for significant and critical ratio levels.

Path	Measurements	(β)	SE.	CR.	Sig.
EO	<--- BP	0.212	0.010	2.1020	0.036
RP	<--- BP	0.236	0.087	2.7	0.007
RP	<--- EO	0.398	0.067	5.95	0.000
RTP	<--- BP	0.23	0.061	3.795	0.000
RTP	<--- EO	0.315	0.055	5.768	0.000

Note: Business Performance; RTP = Risk taking Propensity; RP = Risk Perception; EO = Entrepreneurial Orientation

However, every constraint variable's effect on business performance has increased. Therefore, business performance (BP) significantly improves by an estimated factor of (β=0.23) with a p-value of 0.000 when the impact of the risk propensity (RPT) increases by one unit. Business performance (BP) significantly improves by an estimated factor of (β= 0.24 with a p-value of 0.007) when the impact of risk perception (RP) increases by one unit. Due to the fact that all the variables greatly amplify the mediating effect of entrepreneurial orientation on the independent variables, they all have a considerable impact on how well businesses function. The recommended conceptual model fit indices in Figure 2 demonstrate that entrepreneurial orientation therefore acts as a mediator between the independent and dependent variables.



**Figure 2.** Standardized path coefficients and significance of the structural equation model

**3.4 Mediating Effects of Entrepreneurial Orientation**

In this study, corporate governance has been employed as a mediator variable to examine how risk propensity and perception affect business success. The mediating variables' effects were investigated, and their efficiency as catalysts for other established predictors and outcome variables was evaluated using the Sobel test. As a result, mediating effects happen when the Z-score is higher than 2.00. (absolute value). The Sobel test's Z-score value met the 2.00 threshold requirement, and Table 6 shows that the mediating effects of

entrepreneurial orientation in their intervening role strongly supported the other research variables.

**Table 4.** Results of the mediation effects of entrepreneurial orientation

Mediation Effects	Coefficient	Standard Error	Sobel Test (z-score)	p-value
RTP -> EO	0.32	0.055	4.657	0.000
-> BP	0.21	0.010		
RP -> EO	0.40	0.067	5.743	0.007
-> BP	0.21	0.010		

Note: BP = Business Performance; RTP = Risk taking Propensity; RP = Risk Perception; EO = Entrepreneurial Orientation

**3.5 Hypothesis Testing**

Each one has a p-value of less than 1%, making them all statistically significant (Figure 2). The outcome demonstrates that risk-taking propensity has a significant positive impact on company performance at (β = 0.23, t-value = 3.795, p-value = 0.00), indicating that H1 is accepted. With a coefficient at (β = 0.236, t-value = 2.7, p-value = 0.007), the risk perception has a favorable impact on firm performance. As each path has a significant p-value of less than 1%, the data further support the validity of H2. The association between risk-propensity and firm performance is finally mediated by entrepreneurial orientation at the coefficient findings (β= 0.315, t-value = 5.768, p-value = 0.000). Likewise the association between risk-perception and firm performance is finally mediated by entrepreneurial orientation at the coefficient findings (β= 0.398, t-value = 5.95, p-value = 0.000). Hence, H3 and H4 also supported. Since both entrepreneurial orientation and interaction terms have a sizable impact on firm performance, hypothesis H5 is reasonable. The outcome suggests that entrepreneurial orientation has a significant impact on the impact of risk-propensity on business performance. The impact of risk perception on business performance is sliding because of the rising entrepreneurial orientation. The mediation influence reveals that, depending on the entrepreneurial orientation, the link between risk propensity and business performance. Therefore, the whole path effect of the study has shown in Table 5 as follow.

**Table 5.** Summary of hypothesized results.

Hypotheses	Paths	β	T-value	P-value	Decision
H1(+)	RTP -> BP	0.23	3.795	0.000	Supported
H2 (+)	RP -> BP	0.236	2.700	0.007	Supported
H3 (+)	RTP -> EO	0.315	5.768	0.000	Supported
H4 (+)	RP -> EO	0.398	5.95	0.000	Supported
H5 (+)	EO -> BP	0.212	2.12	0.0036	Supported

Note: BP = Business Performance; RTP = Risk taking Propensity; RP = Risk Perception; EO = Entrepreneurial Orientation, p-value< 0.05.

#### 4. DISCUSSION AND CONCLUSION

The idea that risk-taking behavior is an important factor in business performance is one that is largely accepted in the entrepreneurial orientation literature. By concentrating on the understudied topic of risk perception in addition to the well-researched idea of risk propensity, this study adds conceptually to the body of literature. It is widely acknowledged that risk perception can impact firm performance since under- or over-estimating risks can result in unfavorable business outcomes and insufficient application of risk mitigation strategies [33]. A more thorough understanding of the connection between risk attitude and company performance may be possible by extending the definition of risk attitude beyond the idea of willingness to take risk.

The empirical findings of this study demonstrate the significance of risk inclination as well as risk perception as a factor in business outcomes. It is demonstrated that risk perception is an important notion in analyzing company performance using data from small enterprises in Tanzania. Entrepreneurs who perceive risk as being higher in general make more money. Prior research on risk perception demonstrates that greater risk perception results in less risky decision-making. Our findings so imply that this lower risk decision-making has a positive impact on Algerian entrepreneurs' revenue. This might be the outcome of improved risk mitigation strategies or the effect of entrepreneurs who have a low risk perception underestimating risk. Especially in high risk contexts, risk mitigation strategies including inventory management, product diversification, direct cash transfers, and insurance can promote long-term business growth [12].

Therefore, future studies should examine how risk perception affects decision-making and how that affects company performance. Only then does it become evident how risk perception functions. The theoretical articles' assertion that risk attitude is more than just risk propensity and that risk perception is a crucial factor is supported by the empirical findings. We discover that entrepreneurs who are willing to take significant risks but who often perceive few hazards perform the least well. This can be the result of poor risk perception leading to a lack of compensation for higher risk taking and a lack of risk mitigation strategies. Future study should directly analyze this association. Additionally, despite being more thorough than just focusing on risk propensity. Therefore, a more thorough evaluation of risk attitude may further advance our comprehension of how it affects company performance.

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