



# Unlocking Organizational Innovativeness: Exploring the Role of Entrepreneurial Orientation and Financing in an Emerging Economy

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**Abstract:** Organizations and small startups play a significant role in improving the economic progress of newly industrialized countries. Their contribution to economic growth depends mainly on their innovativeness. Based on the resource-based view theory, this study seeks to understand how these enterprises use internal and external resources to uncover opportunities for innovative practices. Specifically, we examine entrepreneurial orientation (innovativeness, autonomy, risk-taking, competitive aggressiveness and proactiveness) and external financing for ventures. Through a comprehensive survey encompassing 200 ventures in Pakistan, this study reveals the significant impact of three dimensions of entrepreneurial orientation (innovativeness, risk-taking, and competitive aggressiveness) and entrepreneurial finance on organizational innovativeness. This finding is important because it contributes to the growing body of literature on entrepreneurial finance and shows how financing influences innovativeness in startups, thus advancing knowledge within this field. Although the study uses a small sample, it serves as a launch pad for further studies to explore different forms of capital and their unique effects on organizational innovativeness.

**Keywords:** Organizational innovativeness, entrepreneurial orientation, entrepreneurial finance, resource-based view theory.

**JEL Classification:** D22, G32, L26, M21, O16, O31.

**Paper type:** Research paper

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## 1. Introduction

In dynamic modern economic environments, new ventures are seen as integral to growth, especially in developing countries. These entrepreneurial ventures are crucial for driving economic development and business expansion through competition and innovation (Pradhan et al., 2020). In particular, innovation is the connector through which they facilitate economic elements and act as agents of structural reform for organizational innovation (Setzke et al., 2023). The prevalent view states that the more innovations an organization adopts, the more innovative the work behavior of its employees becomes (Yousaf & Palazzo, 2023).

However, new startups must realize that internal and external factors should be used wisely to capture market opportunities while improving organizational innovativeness (OI) (Barney, 1991). This critical relationship between resources and innovation is consistent with the resource-based view (RBV) theory, which indicates that both internal and external organizational resources ensure competitive advantage. Therefore, organizations must protect and tactically use these resources to develop continuity and organizational innovation (Azeem et al., 2021).

Regarding internal resources, entrepreneurial orientation (EO) is considered essential as it influences managerial processes. EO involves intentionally embedding entrepreneurial leadership styles, institutional strategies and cultures geared toward maintaining a competitive advantage over rivals (Wales et al., 2020). In terms of external resources, finance becomes an important element, especially during the inauguration of a new venture. To guarantee the smooth operation of their ventures, entrepreneurs should have access to and secure adequate financial resources that can facilitate greater OI (van Rijnsoever, 2022).

EO is a major driver and determinant of performance and OI (Khan et al., 2023). It is described as an entrepreneurial decision-making mechanism that starts and encompasses venture activities, guiding groups toward higher levels of attention and effort directed at organizational inventiveness (Yang & Yu, 2022). In this study, EO is divided into five distinct dimensions:

autonomy, innovativeness, risk-taking, proactivity and competitive aggressiveness (Mamun et al., 2017). However, entrepreneurs may face inadequate internal resources when attempting to finance their initiatives. As a result, they search for external bankers to fund them. The manner in which entrepreneurial firms obtain external funding plays a significant role, especially in developing countries (Vaznyte & Andries, 2019). Research has shown that external financing may considerably impact an organization's functioning, survival and overall performance (Baah et al., 2021).

In recent decades, although research on the nexus between entrepreneurial orientation and entrepreneurial finance has increased (Raouf et al., 2021), there are still significant weaknesses. First, various conceptual restrictions in the measurement of OI have yielded conflicting results. These mismatches arise due to intersecting interpretations of an organization's creative abilities and entrepreneurial culture or a poor distinction between the two concepts. Second, a deeper analysis of EO and OI in such areas has not been thoroughly conducted. Although theoretical research has shed some light on different modes of finance in entrepreneurial ventures, empirical studies are lacking in this domain, which could be due to a lack of adequate data.

This study addresses these gaps by looking at the role of EO and entrepreneurial finance in affecting OI. Specifically, we focus on the impact of five dimensions of EO: proactiveness, competitive aggression, risk-taking, innovation and autonomy. Furthermore, this study contributes to the literature by deepening our understanding of entrepreneurial financing and exploring how different modes of procuring financing for new ventures can impact a firm's innovativeness. Consequently, this research adds to the increasingly active discipline of entrepreneurial finance (Block et al., 2021).

Although the literature provides helpful evidence on the relationships between OI, EO and funding, there is a lack of evidence from emerging economies. The literature provides a relatively general picture of these relationships without a thorough analysis of how EO and financing strategies interact with OI in emerging economies. Therefore, by studying this relationship in the context of an emerging economy, this research considers the challenges and opportunities available in such environments. Specifically, we conduct an exhaustive and comprehensive analysis of how financial tools and EO generate OI. Resultantly, we provide a deeper understanding of the determinants of OI by considering the context of developing countries.

This study highlights the factors that contribute to the dynamics of innovation in the organization, that is, how entrepreneurial finance and EO traits interact to enhance innovation. Thus, the results are valuable, especially in countries with high entrepreneurship rates but low stability and economic success. To this end, this study also covers the financial constraints faced by small-scale entrepreneurs that do not have internal resources and highlights the importance of accessing funding from external sources to enhance OI. The findings present interesting perspectives for businesses trying to overcome funding difficulties, specifically within business innovation.

This study is structured as follows. Section 2 addresses the theory and hypothesis formulation. Section 3 describes the research methodology. Section 4 provides the data analysis and results. Lastly, Section 5 discusses the conclusions and implications.

## **2. Literature Review**

The literature review provides a discussion of the theoretical background and existing empirical evidence.

### **2.1. Theoretical Background**

RBV theory, which provides a vantage point for studying how organizations capitalize on unique resources and capabilities to secure long-term competitive advantage, offers a theoretical background for understanding the issues explored in this paper (Barney, 1991). According to this theory, sustainable competitive advantages are created by strategically organizing and deploying essential, unique and valuable organizational resources (Barney, 1991). On the one hand, as demonstrated by the RBV perspective, EO can be considered a strategic resource. A stronger EO is a distinctive competence of organizations that enables them to search for and use opportunities, which is consistent with RBV theory's argument about valuable resources. This ability to be entrepreneurial makes the organization more agile in responding to market uncertainties and fosters a culture of innovation, enabling it to be innovative (Correia et al., 2023).

Financing practices, especially in a developing economy, can be considered separate competencies (Dako-Gyeke et al., 2023). Consistent with RBV theory, efficient financial strategies can create a competitive advantage for organizations. Specifically, understanding and utilizing financial

avenues becomes a unique capability that leads to OI. This is because the organization develops the ability to obtain and allocate its financial resources effectively.

## **2.2. Organizational Innovativeness**

In general, OI is considered a positive feature of organizations that can assume various forms, depending on the nature of the business (Moos et al., 2022). Lumpkin and Dess (1996) state that a firm's innovativeness is manifested in its tendency to invent new things or ideas and inspire innovation among all stakeholders within the company. This promotes innovation by involving, in one way or another, novelties such as acquiring various other products and services produced using modern technologies.

Garcia et al. (2003) highlight the issue of newness in the context of innovativeness by referring to how a newly delivered innovation influences or causes change in technological resources, marketing capabilities, capacities and knowledge available for use within the organization. These diverse definitions translate into many OI operationalizations whereby most choose to measure elements, such as how many innovations are implemented. As such, organizations are presumed to be more innovative conceptually and empirically when they adopt more innovations.

Duong (2019) considers innovativeness to be unrelated to specific product developments but instead to organizational culture and attitudes toward forging new paths. The level of creativity in any organization, as defined by Wang and Ahmed (2004), is an overall ability to produce creative outcomes through innovation. Innovativeness reflects the organization's propensity for and affirmation of fresh ideas; it is a novel creative experimentation approach that may generate new products, technological improvements or services (Colovic & Williams, 2020).

According to Chen et al. (2021), with an emphasis on innovation, newness can influence an organization's marketing strategy and technological capabilities. Based on the analysis presented by Ni et al. (2020), open innovation has been shown to increase organizations' profitability and other benefits while making them competitive in terms of stakeholder satisfaction. Lee et al. (2019) note that for emerging economies, several factors lead to the development of innovative businesses. Since innovation is a primary source of economic growth, numerous studies have been conducted to study factors that influence open innovation characteristics.

Various types of open innovation have been discussed, including process or product innovation, radical and incremental innovation services, and technology innovation (Cooper, 1998). Scholars have emphasized the importance of this idea. Miller and Friesen (1983) adopt four concepts: innovative products or services, new production methods or service delivery systems, and inventive approaches to addressing problems, and being entrepreneurial. OI is the capacity of an organization to either offer new products in a market or capitalize on existing opportunities by integrating creative processes with effective strategies. OI is an attractive feature of a firm, as recent studies show that it empowers employees by giving them more control and increasing their chances of success (Alalwan et al., 2023). EO is one of the pillars of the management reorganization process, which aims to embrace an economy driven by innovation.

By analyzing the connection between environmental enactment and green human resource management, Aftab et al. (2023) promote the theories under consideration. For developing countries such as Pakistan, the multiple functions of green innovations, ecological strategies and pro-environmental behavior mediate human resource management processes, innovation and sustainability. Aftab et al. (2022b) apply this knowledge at the national level, focusing on the relationships among innovation, entrepreneurial competencies and their mediating effects on different performance factors in Pakistani small or medium enterprises (SMEs). The study presents an instructive vision of how innovative approaches might augment a company's performance.

### ***2.3. Entrepreneurial Orientation***

Covin and Slevin's (1988) description of EO appears to capture its essence best: it is the position that follows from a policy resolution about the willingness of a firm's management to accept the risks relating to investment negotiations of a similar kind, uncertainty with the range of product development being produced by a particular company, which sometimes even becomes the reason for initiating aggressive competition between competitors and especially innovative leaders. With their focus on proactivity and innovation, Merz and Sauber (1995) narrow the concept, and by excluding risk-taking, they limit its widespread applicability. According to Merz and Sauber (1995), employees focus on new product or service development, not the advanced process.

On the other hand, Al-Mamary and Alshallaqi (2022) conceptualize it as a broader construct encompassing aspects such as autonomy, risky behavior, proactive innovativeness, and competitive aggression. Hassan et al. (2021) generate further ideas, suggesting that EO must indicate references regarding the procedures, practices and basics of the business processes that facilitate new entry into a business.

The literature establishes a strong relationship between the level of innovativeness in an organization and the emerging EO. In this situation, a proactive business is more likely than a rival company to introduce new products and services into the market, as it knows what must be adapted to changing market trends, and such changes should be made fast enough to make upgrading processes possible so that the business remains competitive (Madhoushi et al., 2011). This study on EO examines five categories: autonomy, proactivity, risk-taking, innovativeness, and competitive aggression. Aftab et al. (2022b) underscore the mediating effect of entrepreneurial competencies and the moderating impact of business environment dynamism on the EO and performance of SMEs. Therefore, innovation is a crucial engine for enhancing a company's efficiency.

Aftab et al. (2022a) set forth another dimension of what EO is, which refers to the following: innovativeness, risk-taking propensity, proactiveness, autonomy, and competitive aggression. Sarwar et al. (2023) study how corporate social responsibility and dynamic capabilities (as intervening variables) for green innovation and environmental performance lead to competitiveness in the emerging economy of Pakistan. These studies add value to the knowledge base by highlighting how sustainability, entrepreneurial orientation, and organizational outcomes are interconnected.

Hypotheses related to each of the five EO dimensions are provided below:

### *2.3.1. Innovativeness*

According to Kuratko and Morris (2018), the most crucial characteristic of an entrepreneurial firm is innovation. It is a process that creates new products or methods. According to Lumpkin and Dess (2001), innovation means creatively destroying an 'old order' in creating a 'new order' as the result of new combinations. Although they operate in different ways, innovative organizations share the same perception of the world.



Innovation is the ability to change abstract ideas into physical, unique or new ideas and may be technological or product-market innovation.

Strategic changes or improvements made to existing systems, processes and products can also constitute innovative practices (Lassen et al., 2018). Scholars have found that innovation creates new markets, organizations, raw material sources as well as products and processes (Lassen et al., 2018). In an organization, innovation reinforces experimentation and innovativeness. Companies that must capitalize on opportunities that may lead to OI need such behavior (Madhoushi et al., 2011). As a result, we postulate the following:

**Hypothesis 1:** Innovation has a positive impact on organizational innovativeness.

### *2.3.2. Risk-taking*

To chase market possibilities that have a reasonable chance of losing money, one must be willing and prepared to devote resources, whether these are borrowed or owned. Being willing to take calculated, moderate risks rather than unmanageable, severe risks is what makes taking chances an essential aspect of entrepreneurship. Innovation and taking risks go hand in hand. This is because innovation necessitates risk-taking, and a business that innovates more tends to take greater risks (Kuratko et al., 2011). For businesses involved in radical changes to be successful, both systematic and nonsystematic risks must be taken (Madhoushi et al., 2011). As a result, we suggest the following:

**Hypothesis 2:** Risk-taking has a positive impact on organizational innovativeness.

### *2.3.3. Proactiveness*

This is associated with an organization's ability to identify market opportunities (foresight) and use resources efficiently to reap gains before competitors learn about their introduction. It is important to identify and benefit from market opportunities. A proactive organization has the ability to identify opportunities that others do not see. A firm can be proactive in the process of production and selling by predicting future needs in its markets and then taking the initiative to deliver such products according to consumer requirements, which also includes quality attributes. As Miller

(1983) claims, proactive business organizations not only respond to their environment but also self-actualize, which is a countertrend approach. Thus, we hypothesize the following:

**Hypothesis 3:** Proactiveness has a positive impact on organizational innovativeness.

#### *2.3.4. Autonomy*

Autonomy entails empowering employees to explore opportunities on market leads and make the best of them. Employees are a reservoir of ideation resources on which the organization can draw (Kuratko et al., 2011). Moreover, autonomy encourages innovation and invention (Madhoushi et al., 2011). The alternative style results from independent initiatives by individuals, not subject to any chain of command, compelling entrepreneurial activities to change consequences in their favor. Therefore, the study proposes the following hypothesis:

**Hypothesis 4:** Autonomy has a positive impact on organizational innovativeness.

#### *2.3.5. Competitive Aggressiveness*

Competitive aggressiveness refers to various strategies or techniques that a business implements to combat and outsmart others in the market (Lumpkin & Dess 2001). It is about directing resources to pursue opportunities that can be capitalized on before one's competitors. To achieve competitive aggressiveness, measures must be taken to defeat industry competitors (Madhoushi et al., 2011). Businesses with competitive aggressiveness may always identify and capitalize on many emerging opportunities in the market due to informational asymmetries in economies and technological innovation (Kiyabo & Isaga, 2020).

Competitive aggressiveness can help organizations define some of the management processes that will likely detect signals emanating from these asymmetries, helping them outperform their rivals. In addition, competitive aggressiveness requires organizations to find and utilize market opportunities (Baker & Sinkula, 2009). As a result, competitive aggressiveness energizes the creativity of an institution. Accordingly, we hypothesize the following:

**Hypothesis 5:** Competitive aggressiveness impacts organizational innovativeness.

#### ***2.4. Entrepreneurial Finance***

Entrepreneurs lack sufficient resources to finance their new pursuits internally and instead look for funds from external sources (Brown & Rocha, 2020). Debt financing is typically not an option for these businesses because they are usually not yet profitable and do not have any physical assets. As a result, venture capital funds, angel investors and corporate investors are the three main outside equity financing sources to which entrepreneurs typically turn.

Limited partnerships in which the managing partners make investments on behalf of the limited partners are referred to as venture capital funds. Individuals with a high net worth who invest their own money in a select group of small businesses are known as angel investors. Companies make investments for the benefit of their shareholders for both tactical and financial reasons. Prior research on entrepreneurial finance acknowledges that external funding may significantly impact an organization's growth and overall performance (Tenca et al., 2019). The effect of entrepreneurial finance on innovativeness has been a prominent area in the literature for the last two decades.

Many empirical studies at the industry level claim that entrepreneurial finance enhances innovative activities (Feng et al., 2022). Regardless of the possibility that entrepreneurial finance increases innovation at the industry level, it is uncertain whether it boosts the innovative activities of organizations (Li et al., 2019). While entrepreneurial finance can significantly influence industrial research and development (R&D) by increasing access to potential risky capital, innovation incentives might be curtailed once entrepreneurial ventures are financed (Roper & Turner, 2020).

In this context, studies that utilize information at the organization and industry levels do not offer opposing evidence. More efficient evidence is required to better understand how entrepreneurial finance is associated with innovation. Entrepreneurial finance is additionally connected with a significant reduction in the time needed to become successful, particularly for innovators. Ishaq et al. (2024) contribute to this discourse by investigating the role of entrepreneurial finance on the relationships between corporate

social responsibility, dynamic capabilities and business competitiveness. Therefore, the following hypothesis is proposed:

**Hypothesis 6:** Financing for entrepreneurial ventures positively impacts organizational innovativeness.

Table 1 summarizes these hypotheses and their support in the literature.

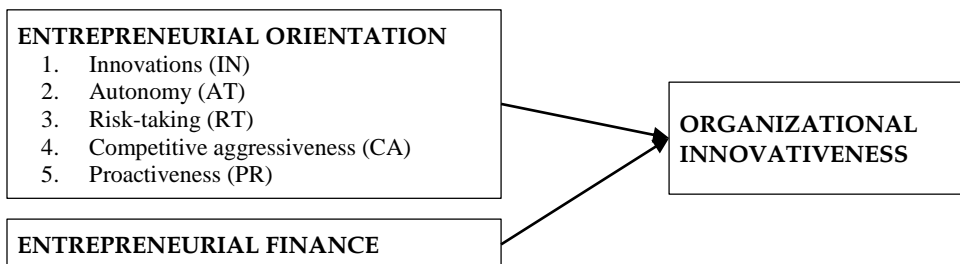
**Table 1: Hypotheses Summary**

Hypothesis	Focus	Literature support
H1	Innovation has a positive impact on organizational innovativeness	(Porter, 1990)
H2	Risk-taking has a positive impact on organizational innovativeness	(Kuratko et al., 2011)
H3	Proactiveness has a positive impact on organizational innovativeness	(Miller, 1983; Kiyabo & Isaga, 2020)
H4	Autonomy has a positive impact on organizational innovativeness	(Ireland et al., 2009; Kuratko et al., 2011)
H5	Competitive aggressiveness impacts organizational innovativeness	(Madhoushi et al., 2011)
H6	Financing for entrepreneurial ventures positively impacts organizational innovativeness	(Li et al., 2019; Feng et al., 2022)

### 2.5. Theoretical Framework

Figure 1 illustrates a research model consistent with RBV theory, which shows how an organization's resources (assets, skills, organizational procedures, firm attributes and knowledge) act as sources of the competitive edge needed to sustain the organization (Barney, 1991). Things that are useful, scarce, unique and cannot be replaced enable companies to develop and implement strategies that help them boost their innovativeness (Huang & Knight, 2017).

**Figure 1: Theoretical Framework**



Companies need to retain their competitive human capital resources, which are strategic assets, to increase organizational competitiveness (Azeem et al., 2021). In business and management practices, an entrepreneurial orientation is implemented to develop a company's strategy. This includes unique aspects of small business decision-making and technical practices that help pave the way without direct competition. According to RBV theory, finance is considered a key resource because the beginning of an entrepreneurial venture requires adequate capital to provide the organization with the possibility of innovative development. Therefore, this study argues that entrepreneurial finance leads to OI.

### **3. Research Methodology**

This study examines the main links between dimensions of EO and OI, showing the influence of entrepreneurial finance in the context of emerging economies. To enhance the validity of our research, we use a systematic method to balance quantitative and qualitative data-gathering processes.

#### **3.1. Data Collection**

This section describes the sampling process, survey design and the econometric equation used to test the hypotheses.

##### *3.1.1. Sample Selection*

To achieve a high level of diversity, 200 highly heterogeneous entrepreneurs were selected for the survey. These entrepreneurs operate with the aim of overcoming the constraints faced in developing countries, therefore ensuring that both industry and location factors are considered. To ensure that the population was represented fairly, the sample size and structure were determined using the stratified random sampling technique. Sectoral disparities and geographical economic variances were also taken into consideration.

##### *3.1.2. Survey Instrument*

Our main data source is the survey instrument, which is composed of a series of questions. An undefined framework of OI is drawn from Wang and Ahmed (2004). Furthermore, the Miller/Covin and Slevin (1989) scale is used to measure the following EO concepts:

- Proactiveness (PR)
- Risk-taking (RT)
- Innovativeness (IN)
- Competitive aggressiveness (CA)
- Autonomy (AT).

The questionnaire was also used to gauge the effectiveness of financial resources and methods related to entrepreneurship practices, adapted from OECD (2012). A five-point Likert scale was used with 'always' assigned a value of 1 and 'never' a value of 5. This allowed respondents to be more specific about the implications of financing strategies and entrepreneurial orientation. A group of ten sample investors and entrepreneurs were interviewed to signify the subtleties and diversities of entrepreneurial funding and direction. The interviews also provided an opportunity to explore the unique fundraising and entrepreneurial challenges of these institutions in the context of developing economies.

### ***3.2. Econometric Equation***

The data collected through the survey was analyzed using sophisticated statistical methods. To ensure data quality, we initially deployed data cleaning and descriptive data analysis techniques. Furthermore, a correlation analysis was conducted to investigate the association between PR, RT, IN, CA, AT, entrepreneurial finance (EF) and OI.

$$OI = \beta_0 + \beta_1(PR) + \beta_2(RT) + \beta_3(IN) + \beta_4(CA) + \beta_5(AT) + \beta_6(EF) + \varepsilon$$

where OI is organizational innovativeness, PR stands for proactivity, RT signifies risk-taking, IN indicates innovativeness, CA is competitive aggressiveness, AT denotes autonomy, EF represents entrepreneurial finance, and  $\varepsilon$  is the error term accounting for unexplained variance.

This regression model aims to quantify the impact of each dimension of EO (PR, RT, IN, CA, AT) and EF on OI.

### ***3.3. Ethics and Boundaries***

The processes followed during the investigation were consistent with ethical principles. Respondents were selected for the study after

obtaining their consent and it was ensured that their identities were preserved and remained confidential. Furthermore, the research was approved by an ethics committee, which ensured that ethical research practices were followed. It is vital to highlight that the results of the study may not be generalizable outside developing countries and that there is uncertainty in survey information due to response bias. Despite these shortcomings, the techniques and approaches used in this study make the results accurate and reliable.

#### 4. Data Analysis

This section discusses the response rate, factor analysis and reliability of the questionnaire, correlation analysis, and regression analysis results obtained using statistical techniques.

##### 4.1. Response Rate

Table 2 illustrates the rate of study response. A total of 300 respondents were selected for the study, out of which 200 respondents agreed to participate. According to Sekaran and Bougie (2016), 30 percent is the ideal survey response rate. These results show that participants' engagement level in the drawn sample group was high. Such a figure enhances the reliability of the data and the significance of the study's findings.

**Table 2: Response Rate**

Response	Total
Number of selected respondents	300
Number of agreed respondents	200
Number of respondents excluded	100
Response rate	67%

##### 4.2. Factor Analysis and Reliability

The results of the principal component analysis (PCA) with varimax rotation and Kaiser normalization are shown in Table 3. The table summarizes the underlying relationships between various concepts that are critical to our study. Table 3 illustrates factor loadings that reveal the intensity and direction of the relationships between individual survey questions and the underlying factors of those questions. A product associated with a construct that has high factorial loadings is an indication

that there is a strong correlation between the two. For instance, the high factor loadings of PR1, PR2, PR4, and PR5 in the proactiveness construct show that they are strongly linked to proactive behavior. This is also true for the pattern of other constructs. For instance, a high association exists between factors such as RT4 and RT6, and the risk-taking construct. Furthermore, EF1, with its high factor loading, may reflect entrepreneurial finance in more detail.

Table 3 also reports the Cronbach's alpha values of the items, which are useful for determining the consistency of the internal structure of each construct. These values show the extent to which the components within each construct exhibit a consistent connection. A higher Cronbach's alpha indicates the internal consistency and reliability of the items used.

Proactiveness and OI have high Cronbach's alpha coefficients (0.865 and 0.864, respectively), which reflect the strength of the constructs and the reliability of the items. Autonomy has a somewhat less reliable Cronbach's alpha (0.775), while risk-taking, innovativeness, competitive aggressiveness, and entrepreneurial finance have slightly lower—but still impressive—internal consistency (0.838, 0.841, 0.805, and 0.777, respectively). These results therefore ensure the constructs' validity and provide a sound foundation for their use in subsequent data analysis. Table 3 helps to confirm the reliability and validity of the measurement scales used in the research, ensuring that the research is robust.

**Table 3: Results of PCA and Cronbach's Alpha**

	Factor loadings
Proactiveness (0.865)	
PR1	0.839
PR2	0.832
PR3	0.577
PR4	0.897
PR5	0.757
Risk taking (0.838)	
RT1	0.556
RT2	0.618
RT3	0.619
RT4	0.897
RT5	0.757
RT6	0.834



	Factor loadings
Innovativeness (0.841)	
IN1	0.867
IN2	0.781
IN3	0.615
IN4	0.702
Competitiveness aggressiveness (0.805)	
CA1	0.816
CA2	0.787
CA3	0.649
CA4	0.824
Autonomy (0.775)	
AT1	0.595
AT2	0.758
AT3	0.673
AT4	0.593
Organizational innovativeness (0.864)	
OI1	0.711
OI2	0.767
OI3	0.589
OI4	0.700
OI5	0.644
Entrepreneurial finance (0.777)	
EF1	0.966
EF2	0.746
EF3	0.814
EF4	0.797
EF5	0.771

### 4.3. Sample Demographics

Table 4 gives participants' demographic statistics. Approximately 75 percent are middle managers and directors, while 25 percent are sole proprietors. A total of 37 percent of the companies are administrative companies, namely, those in the transportation, communication and information technology sectors. Approximately 57 percent of the organizations are manufacturing firms, which includes food, drugs and other manufacturing categories, while 6 percent fall in the services sector.

**Table 4: Demographic Statistics**

<b>Job title</b>	<b>Number of participants</b>	<b>Percentage</b>
Managers/directors	150	75%
Sole proprietors	50	25%
<b>Industry sector</b>		
Administration	74	37%
Manufacturing	114	57%
Service	12	6%
Total participants	200	100%

#### **4.4. Correlation Analysis**

Table 5 presents descriptive statistics for the study variables, such as the means, standard deviations and Pearson correlation coefficients among OI, proactiveness (PR), risk-taking (RT) innovativeness (IN), competitive aggressiveness (CA), autonomy (AT), and entrepreneurial finance (EF). The mean values allow an average for each variable to be drawn to better understand the central tendency of the responses.

For instance, the mean value for OI is 2.25. The standard deviation expresses the extent of the data units' dispersion—or variability—around the mean. The standard deviation of OI is 0.936, suggesting a range of variance around the averaged scale rating by the respondents. The correlation coefficients indicate how pairs of variables are related to each other.

A large positive correlation with values close to (or at) 1 occurs when an increase (decrease) in one variable increases (decreases) the other to the same extent. For instance, OI has a strong positive relationship with proactiveness (PR) at 0.734\*\*, meaning that individuals who score high on OI also have high PR. There is also a strong positive correlation between OI and risk-taking (RT) at 0.762\*\* and between OI and innovativeness (IN) at 0.834\*\*. Furthermore, a positive relationship exists between OI and autonomy (AT) at 0.616\*\*. In contrast, the correlation coefficients relating OI to CA and OI to EF (0.458\* and 0.122\*, respectively) are less substantial and statistically significant at the 5 percent level, which indicates weaker associations.

**Table 5: Descriptive Statistics and Correlation Coefficients**

	Mean	SD	OI	PR	RT	IN	CA	AT	F
OI	2.25	0.936	1						
PR	2.20	0.756	0.734**	1					
RT	2.54	0.894	0.762**	0.680**	1				
IN	2.00	1.114	0.834**	0.642**	0.598**	1			
CA	2.70	0.975	0.458*	0.349	0.167	0.426*	1		
AT	2.33	0.557	0.616**	0.327	0.331	0.612**	0.362	1	
EF	3.25	0.630	0.122*	0.155**	0.153**	0.337**	0.378**	0.211**	1

Note: \*\* Correlation is significant at the 0.01 level (2-tailed), \* correlation is significant at the 0.05 level (2-tailed). SD = standard deviation, OI = organizational innovativeness, PR = proactiveness, RT = risk-taking, IN = innovativeness, CA = competitive aggressiveness, AT = autonomy, EF = entrepreneurial finance.

#### 4.5. Regression Analysis

The regression analysis results presented in Table 6 show the relationships among different independent variables and OI. First, the results reveal both 'confirmed' and 'not confirmed' results, indicating the statistical importance of the independent variables' influence on OI. The coefficients for proactiveness and autonomy are 0.223 and 0.231, with t values of 1.344 and 1.378, respectively. However, both these variables lack any statistical significance. This suggests that these variables do not have a statistically significant impact in predicting OI. Therefore, the results are 'not confirmed'.

In contrast, risk-taking, innovativeness and competitive aggressiveness significantly impact OI. With a coefficient of 0.318 and a t-statistic of 3.826\*, risk-taking has a positive and strong relationship with OI, which indicates that as risk-taking increases, OI also increases. Additionally, innovativeness (coefficient of 0.297 and a t-statistic of 2.722\*) positively affects OI. Competitive aggressiveness, with a regression coefficient of 0.078 and a t-statistic of 1.946\*, is also positively related to OI.

Furthermore, entrepreneurial finance, with a regression coefficient of 0.060 and a t-statistic of 2.164\*, positively impacts OI. The results suggest that EO and entrepreneurial finance significantly explain 33.4 percent of the variance in OI. All constructs of EO, except proactiveness and autonomy, are significantly related to OI. The most significant impact of EO on OI (as suggested by the beta values) is caused by risk-taking, innovativeness, and competitive aggressiveness. Overall, H1, H2, H5 and H6 are accepted.

**Table 6: Regression Analysis Results**

Independent variables	Beta	t-statistics	Results
Proactiveness	0.223	1.344	Not confirmed
Risk taking	0.318	3.826*	Confirmed
Innovativeness	0.297	2.722*	Confirmed
Competitive aggressiveness	0.078	1.946*	Confirmed
Autonomy	0.231	1.378	Not confirmed
Entrepreneurial finance	0.060	2.164*	Confirmed
Variance explained R <sup>2</sup>	33.4%		

Note: Dependent variable = OI. \* Significant at  $p < 0.05$ . Durbin-Watson value is 2.15.

**Table 7: Summary of Regression Results**

Constructs of EO related to OI	Significant relationships
Proactiveness	Not significant
Risk-taking	Significant
Innovativeness	Significant
Competitive aggressiveness	Significant
Autonomy	Not Significant
Relationship significance order	Risk taking > Innovativeness > competitive aggressiveness
Hypotheses tested	Hypotheses 1, 2, 5 and 6 are accepted

As summarized in Table 7, the regression results show to some extent that a relationship exists between specific factors in EO and OI. More prominently, the findings that risk-taking and innovativeness positively and strongly impact OI imply that a high degree of risk-taking and innovativeness increases OI. This also confirms a link between the orientation toward innovation and keenness to take risks, which seems significant for building an organization's innovative performance, as Correa et al. (2022) have suggested.

In contrast to Kiss et al. (2022), proactiveness does not have a significant association with OI, given that the effect of proactiveness on innovativeness may fluctuate with organizational behavior. On the other hand, competitive aggressiveness is found to have a strong positive connection with OI, implying that it is one of the factors that encourages innovative performance.

Interestingly, autonomy does not demonstrate a substantial association with OI, as previously revealed by Shakil et al. (2023). The EO

dimensions that consistently influence OI are shown through the order of their criticality, where risk-taking and innovativeness bear greater weight than competitive aggressiveness. These results echo what Azeem et al. (2021) conclude. Finally, this study contributes to the knowledge of how EO aspects are responsible for OI, providing relevant information for researchers and industry.

## **5. Conclusion and Discussion**

The positive link between EO and OI concerning new ventures in Pakistan is an important conclusion of this study. Our research findings highlight the importance of risk-taking, competitive aggressiveness and innovativeness as key elements of promoting OI. However, our investigation shows that autonomy and proactiveness do not significantly influence OI. For example, Pakistan's cultural framework, characterized by greater power distance and collectivism, may make autonomy and proactiveness less practicable, as these dimensions may threaten current organizational structures as well as cultural norms. Thus, they have a limited influence on OI. Additionally, entrepreneurial mindset plays a crucial role in how a company innovates. It shows how the skills and background of the company owner, such as abilities and ethnicity, can affect how likely the firm is to innovate.

An ongoing challenge that entrepreneurial firms face is financing innovation, which involves the acquisition of external funds. The issue of the availability of external financing for new emerging ventures and OI is an important question. Our results reveal that external funding has a distinct effect on firms' innovativeness. This has crucial implications not only for organizational approaches but also for policy deliberations. This result points to the importance of external financing, which ensures innovation in the entrepreneurial arena, and supports the introduction of favorable policies in this context.

### **5.1. Theoretical Implications**

The study provides a deeper understanding of the link between EO and OI in developing countries. The multidimensional concept of EO allows us to obtain more comprehensive information on the different factors that promote OI. This provides more accurate information on theories of innovation in the entrepreneurial context. Future researchers could analyze the underlying mechanisms and factors that impact the EO-OI relationship

by contributing to theory-building in relation to the innovation process in emerging economies.

### ***5.2. Practical Implications***

This study produces results that entrepreneurs and business managers can use. For instance, the findings related to external sources of funding may be useful for entrepreneurs. In the same vein, the research provides more detailed instruction on which financing mechanisms are more effective at stimulating OI. This could allow managers to make informed borrowing and external financing decisions that could be used strategically in innovation. These practical implications are essential for helping entrepreneurs meet resource and innovation challenges in emerging countries.

### ***5.3. Methodological Implications***

Stratified random sampling was used to recruit participants because the 200 entrepreneurs chosen represent entrepreneurship collectives from different industries and regions, thus improving the study's generalizability. However, possible methodological modifications could help address a more extensive list of biases and potential weaknesses in data collection. Another important aspect is to conduct a thorough review of the qualitative data through in-depth interviews. This could help gain a deeper understanding of the consequences. One of the reliability-enhancing contributions of this method is the timely disclosure of the detailed and local features that appear in interviews.

### ***5.4. Limitations***

This study is subject to certain weaknesses associated with its small scale and design. Future researchers could elaborate and improve on the current study, for instance, by exploring the origin of the types of capital in more detail and their roles. In addition, researchers should look at the benefits and limitations of other sources of capital and compare their roles in improving OI.

## References

- Aftab, J., Abid, N., Cucari, N., & Savastano, M. (2023). Green human resource management and environmental performance: The role of green innovation and environmental strategy in a developing country. *Business Strategy and the Environment*, 32(4), 1782–1798.
- Aftab, J., Veneziani, M., Sarwar, H., & Ishaq, M. I. (2022a). Entrepreneurial orientation, entrepreneurial competencies, innovation, and performances in SMEs of Pakistan: Moderating role of social ties. *Business Ethics, the Environment and Responsibility*, 31(2), 419–437.
- Aftab, J., Veneziani, M., Sarwar, H., & Ishaq, M. I. (2022b). Entrepreneurial orientation and firm performance in SMEs: The mediating role of entrepreneurial competencies and moderating role of environmental dynamism. *International Journal of Emerging Markets* (ahead of print).
- Alalwan, A. A., Baabdullah, A. M., Fetais, A. H. M., Algharabat, R. S., Raman, R., & Dwivedi, Y. K. (2023). SMEs entrepreneurial finance-based digital transformation: towards innovative entrepreneurial finance and entrepreneurial performance. *Venture Capital*, 1-29.
- Al-Mamary, Y. H., & Alshallaqi, M. (2022). Impact of autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness on students' intention to start a new venture. *Journal of Innovation and Knowledge*, 7(4), 100239.
- Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635.
- Baah, C., Opoku-Agyeman, D., Acquah, I. S. K., Agyabeng-Mensah, Y., Afum, E., Faibil, D., & Abdoulaye, F. A. M. (2021). Examining the correlations between stakeholder pressures, green production practices, firm reputation, environmental and financial performance: Evidence from manufacturing SMEs. *Sustainable Production and Consumption*, 27, 100-114.
- Baker, W. E., & Sinkula, J. M. (2009). The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses. *Journal of Small Business Management*, 47(4), 443–464.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.

- Block, J. H., Groh, A., Hornuf, L., Vanacker, T., & Vismara, S. (2021). The entrepreneurial finance markets of the future: A comparison of crowdfunding and initial coin offerings. *Small Business Economics*, 57(2), 865–882.
- Brown, R., & Rocha, A. (2020). Entrepreneurial uncertainty during the Covid-19 crisis: Mapping the temporal dynamics of entrepreneurial finance. *Journal of Business Venturing Insights*, 14, e00174.
- Chen, Q., Wang, C. H., & Huang, S. Z. (2021). Effects of organizational innovation and technological innovation capabilities on firm performance: Evidence from firms in China's Pearl River Delta. In *Inside the changing business of China* (pp. 72–96). Routledge.
- Colovic, A., & Williams, C. (2020). Group culture, gender diversity and organizational innovativeness: Evidence from Serbia. *Journal of Business Research*, 110, 282–291.
- Cooper, J. R. (1998). A multidimensional approach to the adoption of innovation. *Management Decision*, 36(8), 493–502.
- Correa, V. S., Queiroz, M. M., Cruz, M. A., & Shigaki, H. B. (2022). Entrepreneurial orientation far beyond opportunity: The influence of the necessity for innovativeness, proactiveness and risk-taking. *International Journal of Entrepreneurial Behavior and Research*, 28(4), 952–979.
- Correia, R. J., Dias, J. G., Teixeira, M. S., & Campos, S. (2023). Building competitive advantages and business success: The role of learning orientation, reward systems and entrepreneurial orientation. *European Business Review*, 35(1), 92–119.
- Covin, J. G., & Slevin, D. P. (1988). The influence of organization structure on the utility of an entrepreneurial top management style. *Journal of Management Studies*, 25(3), 217–234.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75–87.
- Dako-Gyeke, M., Abekah-Carter, K., Hervie, V. M., & Boateng, D. A. (2023). Delivering financial capability and asset building curriculum: Strengthening the competencies of social work faculty. *Global Social Welfare*, 10(1), 61–69.
- Duong, L. (2019). *Significant factors contributing to organization innovativeness, and the role of stakeholder communication in building an innovative corporate brand: A case study of a Finnish packaging company* (Unpublished Master's thesis). Aalto University School of Business.



- Feng, S., Zhang, R., & Li, G. (2022). Environmental decentralization, digital finance and green technology innovation. *Structural Change and Economic Dynamics*, 61, 70–83.
- Garcia, R., Calantone, R., & Levine, R. (2003). The role of knowledge in resource allocation to exploration versus exploitation in technologically oriented organizations. *Decision Sciences*, 34(2), 323–349.
- Hassan, A., Anwar, I., Saleem, I., Islam, K. B., & Hussain, S. A. (2021). Individual entrepreneurial orientation, entrepreneurship education and entrepreneurial intention: The mediating role of entrepreneurial motivations. *Industry and Higher Education*, 35(4), 403–418.
- Huang, L., & Knight, A. P. (2017). Resources and relationships in entrepreneurship: An exchange theory of the development and effects of the entrepreneur-investor relationship. *Academy of Management Review*, 42(1), 80–102.
- Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing corporate entrepreneurship strategy. *Entrepreneurship Theory and Practice*, 33(1), 19–46.
- Ishaq, M. I., Sarwar, H., Aftab, J., Franzoni, S., & Raza, A. (2024). Accomplishing sustainable performance through leaders' competencies, green entrepreneurial orientation, and innovation in an emerging economy: Moderating role of institutional support. *Business Strategy and the Environment*, 33(2), 1515–1532.
- Khan, N. R., Ameer, F., Bouncken, R. B., & Covin, J. G. (2023). Corporate sustainability entrepreneurship: The role of green entrepreneurial orientation and organizational resilience capacity for green innovation. *Journal of Business Research*, 169, 114296.
- Kiss, A. N., Cortes, A. F., & Herrmann, P. (2022). CEO proactiveness, innovation, and firm performance. *The Leadership Quarterly*, 33(3), 101545.
- Kiyabo, K., & Isaga, N. (2020). Entrepreneurial orientation, competitive advantage, and SMEs' performance: Application of firm growth and personal wealth measures. *Journal of Innovation and Entrepreneurship*, 9, 1–15.
- Kuratko, D. F., & Morris, M. H. (2018). Corporate entrepreneurship: A critical challenge for educators and researchers. *Entrepreneurship Education and Pedagogy*, 1(1), 42–60.
- Kuratko, D. F., Hornsby, J. S., & McMullen, J. S. (2011). Corporate entrepreneurship with a purpose: Exploring the antecedents to social business. *Academy of Management Proceedings*, 2011(1), 1–6.

- Lassen, A. H., McKelvey, M., & Ljungberg, D. (2018). Knowledge-intensive entrepreneurship in manufacturing and creative industries: Same, same, but different. *Creativity and Innovation Management*, 27(3), 284–294.
- Lee, J., Suh, T., Roy, D., & Baucus, M. (2019). Emerging technology and business model innovation: The case of artificial intelligence. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(3), 44.
- Li, L., Chen, J., Gao, H., & Xie, L. (2019). The certification effect of government R&D subsidies on innovative entrepreneurial firms' access to bank finance: Evidence from China. *Small Business Economics*, 52, 241–259.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135–172.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry lifecycle. *Journal of Business Venturing*, 16(5), 429–451.
- Madhoushi, M., Sadati, A., Delavari, H., Mehdivand, M., & Mihandost, R. (2011). Entrepreneurial orientation and innovation performance: The mediating role of knowledge management. *Asian Journal of Business Management*, 3(4), 310–316.
- Mamun, A. A., Nawati, N. B. C., Mohiuddin, M., Shamsudin, S. F. F. B., & Fazal, S. A. (2017). Entrepreneurial intention and startup preparation: A study among business students in Malaysia. *Journal of Education for Business*, 92(6), 296–314.
- Merz, G. R., & Sauber, M. H. (1995). Profiles of managerial activities in small firms. *Strategic Management Journal*, 16(7), 551–564.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770–791.
- Miller, D., & Friesen, P. H. (1983). Successful and unsuccessful phases of the corporate lifecycle. *Organization Studies*, 4(4), 339–356.
- Moos, M. N., Lombard, L., Yap, N. G., Yap, T. M., & Fubah, C. N. (2022). Comparing the effectiveness of public and private support to youth entrepreneurs: A qualitative inquiry. *Journal of Contemporary Management*, 19(2), 341–377.
- Ni, G., Xu, H., Cui, Q., Qiao, Y., Zhang, Z., Li, H., & Hickey, P. J. (2020). Influence mechanism of organizational flexibility on enterprise competitiveness: The mediating role of organizational innovation. *Sustainability*, 13(1), 176.

- OECD. (2012). *Financing SMEs and entrepreneurs 2012: An OECD scoreboard*. OECD Publishing.
- Porter, M. E. (1990). The competitive advantage of nations. *Harvard Business Review*, 73–91.
- Pradhan, R. P., Arvin, M. B., Nair, M., & Bennett, S. E. (2020). The dynamics among entrepreneurship, innovation, and economic growth in the Eurozone countries. *Journal of Policy Modeling*, 42(5), 1106–1122.
- Raof, R., Basheer, M. F., Shabbir, J., Hassan, S. G., & Jabeen, S. (2021). Enterprise resource planning, entrepreneurial orientation, and the performance of SMEs in a South Asian economy: The mediating role of organizational excellence. *Cogent Business and Management*, 8(1), 1973236.
- Roper, S., & Turner, J. (2020). R&D and innovation after COVID-19: What can we expect? A review of prior research and data trends after the great financial crisis. *International Small Business Journal*, 38(6), 504–514.
- Sarwar, H., Aftab, J., Ishaq, M. I., & Atif, M. (2023). Achieving business competitiveness through corporate social responsibility and dynamic capabilities: An empirical evidence from emerging economy. *Journal of Cleaner Production*, 386, 135820.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Setzke, D. S., Riasanow, T., Böhm, M., & Krcmar, H. (2023). Pathways to digital service innovation: The role of digital transformation strategies in established organizations. *Information Systems Frontiers*, 25(3), 1017–1037.
- Shakil, R. M., Memon, M. A., & Ting, H. (2023). Inclusive leadership and innovative work behavior: the mediating role of job autonomy. *Quality and Quantity*, 57(Suppl. 4), 707–721.
- Tenca, F., Croce, A., & Ughetto, E. (2019). Business angels research in entrepreneurial finance: A literature review and a research agenda. *Journal of Economic Surveys*, 32(5), 183–214.
- van Rijnsoever, F. J. (2022). Intermediaries for the greater good: How entrepreneurial support organizations can embed constrained sustainable development startups in entrepreneurial ecosystems. *Research Policy*, 51(2), 104438.
- Vaznyte, E., & Andries, P. (2019). Entrepreneurial orientation and startups' external financing. *Journal of Business Venturing*, 34(3), 439–458.

- Wales, W. J., Covin, J. G., & Mosen, E. (2020). Entrepreneurial orientation: The necessity of a multilevel conceptualization. *Strategic Entrepreneurship Journal*, 14(4), 639–660.
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organizational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, 7(4), 303–313.
- Yang, J., & Yu, M. (2022). The influence of institutional support on the innovation performance of new ventures: The mediating mechanism of entrepreneurial orientation. *Sustainability*, 14(4), 2212.
- Yousaf, Z., & Palazzo, M. (2023). Influential role of homophily on innovative work behavior: Evidence from innovation management of SMEs. *International Entrepreneurship and Management Journal*, 1–18.