

Environment Uncertainty – Business Performance Relationship: Mediating Effect of Entrepreneurial Orientation



Harpreet Singh Bedi, Gaurav Puri

Abstract: *The environment can be broadly described as the totality of social, ecological and economic factors that impacts the functioning of an organization and defines its strategic posture. The study explores the Environmental Uncertainty - Business Performance (EU-BP) relationship. The study applies Structure Equation Modelling on a purposive sample of 509 North Indian firms. Mediation Analysis examines the mediating role of entrepreneurial orientation in EU-BP relationship. The study reveals that environmental uncertainty negatively impacts business performance. Entrepreneurial orientation mediates in Environmental Uncertainty - Business Performance (EU-BP) relationship. The result reveals that entrepreneurial inclination equips a firm with the ability to face the uncertainty of environmental forces and to improve firm performance. The findings may help management practitioners and entrepreneurs in better strategizing the strategic posture of their firm.*

Keywords: *Entrepreneurial orientation, environmental uncertainties, business performance, mediation analysis, strategic posture.*

I. INTRODUCTION

The sustainability of business models is crucial in the dynamic and turbulent business environment nowadays. The difficulties of the VUCA world has not only shortened the business model lifecycle but it also makes future profit stream of existing ventures uncertain. Business organizations are more vulnerable to environmental challenges and are continuously looking for strategies for their survival.

The congruence between an enterprise strategy and its environment is a central theme in business studies [1]. A prevailing notion in management research is that a firm's environment designs its strategic posture (also referred to entrepreneurial orientation). However, in business management literature the functional relationship among environmental uncertainty, entrepreneurial orientation, and business performance have received limited attention. One set of studies [2] [3] assesses the direct effect of uncertain environment on the performance of an enterprise and

considers environmental context as a major element of firm's task environment. Another set of studies [4] [5] have considered entrepreneurial posture as a key determinant of firms' success. Behavior scientists have measured the effect of organizational strategy on business performance by considering environmental context as a control variable. The understanding of the functional relationship among environmental uncertainty, entrepreneurial orientation, and business performance is vital for achieving sustainable high performance. The conduct of the present study is an attempt to clarify the said relationship.

II. THEORETICAL FRAMEWORK

The environment can be broadly described as the totality of social, ecological and economic factors that impacts the functioning of an organization and defines its strategic posture. Factors such as customers, competitors, employees, suppliers etc. which directly impacts the functioning of an organization, constitute the task environment of an organization. Whereas, factors like social beliefs, rate of technological up-gradation, political unrest, regulatory framework, ecological factors, and international conditions etc which indirectly impact the performance of an enterprise, form the general environment of an organization. These factors sometimes are not explicitly taken into consideration while deciding the strategic posture of an organization.

An understanding of the firm's environment is crucial for the survival and growth of a firm. Although, various elements of a firm's external environment present a significant amount of information for decision-making however, it is the perception of the firm's top management about the uncertainty of environmental forces which shapes the strategic posture of an organization and consequently the performance of an enterprise. Managers only react and respond to what they perceive; environmental contexts that remain unnoticed do not influence the managers' behavior [6]. Further, it is generally seen that alike organizations, due to their perception, normally respond to similar environmental conditions differently [7]. Firms generally differ in characteristics, orientation and similarly, they respond to the external environment and apply different strategies. Firms in the same industry may have heterogeneous opinions regarding the similar environmental conditions due to their different market positions, dominant logics and resource endowments.

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In business studies, the construct of the perceptual environment is variously termed as environmental unpredictability [8], environmental uncertainty, environmental heterogeneity [10], environmental instability [7], environmental hostility [4], environmental munificence [11], environmental dynamism [12], environmental complexities [5], environmental turbulence [13] etc.

As far as the conceptualization of environmental uncertainty is concerned, conceptual and empirical arguments quoted in literature describe environmental dynamism and environmental complexities as two most cited constituents of environmental uncertainty [5]. Environmental dynamism entails the rate of change of technological advancements and innovations, absence of pattern and unpredictability of the competitive environment. It has also been operationalized in terms of the firm's perception regarding the unpredictability of customer tastes and competitors' capabilities [14]. Environmental complexities tend to encompass those phenomena of the firm's macro-environment that have an impact on the profitability of the entire industry [12]. Environmental complexities are generally being measured by looking at the hostility of macroeconomic factors like the pace of product/ process innovation, availability/ shortage of labor and raw materials, the speed of demographic trends change, political stability, and corporate legislations etc. [14].

Environmental uncertainty reflects: (i) the velocity and intensity of change of the factors like technology sophistication, customer expectations, and competitor's actions, (ii) environmental support or challenges in terms of resource availability and regulatory restrictions or facilitation, and (iii) the relative attractiveness of the industry and macroeconomic conditions.

A. Environmental Uncertainty – Business Performance (EU-BP) Relationship

In business studies, the construct of environmental uncertainty has emerged as one of the significant factors affecting the performance of an organization [12], [14], [15]. Environmental uncertainties, often conceptualized through the unpredictability of competitor's actions, frequent technological advancements, irregular customer behavior, and complex regulatory environment, are hard to predict and play a fundamental role in describing business success.

The advent of new technology improves the level of existing knowledge, generates new options, and result in the introduction of new and improvised products. The technological evolution and innovation facilitate quicker translation of conceived ideas into successful products and methods of operation. But at the same time, these environmental factors increase the rate of product obsolescence; enhance the customers' expectations and make business operations difficult for an enterprise [10] [15].

Environment dynamism and complexities are the primary sources of uncertainty and greater the degree of environmental uncertainty, higher the possibility of business failure. According to [5], the rate of change and unpredictability of factors likes: market trends, industry innovations, customer tastes, production or service technologies, and the modes of competition often erode information required by decision-makers for precise

prediction of future events as well as their impact on the organization. Environmental uncertainty negatively affects a firm's performance.

Hence, this study proposes that

H1: Environmental uncertainty impacts business performance.

The environmental dynamism and complexities often generate uncertainty in the firm's environment and adversely affects the ability of a firm to predict the future course of actions. The adoption of entrepreneurial posture is a deliberate strategic response to environmental constraints [12]. Without innovation and assumption of risk, a firm may fall short of their competitors and may lose its market share. According to [16], as the environment becomes more dynamic and complex, innovation becomes increasingly necessary to avoid product and service obsolescence. [13] spotlights the importance of entrepreneurial orientation in an uncertain environment by stating that the pursuit of entrepreneurship in the dynamic environment may lead to a higher market share. Conservative posture – a lesser inclination towards proactiveness, risk-taking, innovativeness, and competitive aggressiveness- is more appropriate for a stable environment, where taste and preference of customers are more or less constant and predictable [11].

Entrepreneurial Orientation is increasingly necessary to face the complexities of the modern business environment [17]. [18] reveals that "firms competing in a dynamic environment can cope up with various difficulties by adopting entrepreneurial posture". Likewise, [19] suggests that "in a dynamic environment, where changes are continuous and opportunities are numerous, firms which have the ability and courage to anticipate future demand and to commit a significant amount of resources in the name of pioneering behavior i.e. introduction of new product and services ahead of competitors, are likely to grow faster than non-entrepreneurial firms". Entrepreneurial behavior is a critical element for a firm's survival.

The monitoring and scanning of the firm's environment is essential [20]. According to [21], success in today's competitive, dynamic and complex environment requires a firm to quickly and effectively adjust its marketing and management activities as per the requirement of changing business environment. Perceived decline and high growth prospects often push companies into an increased level of entrepreneurship [22]. Entrepreneurial posture neutralizes the negative impact of environmental uncertainty and enables the firm to take advantage of the changing business environment.

Hence, the study assumes that

H2: The entrepreneurial orientation mediates environmental uncertainty – business performance relationship.

III. METHODOLOGY

This study relies on a cross-sectional research design. A purposive sample of 550 senior-level managers (key informants) of North Indian firms was collected through a personal survey.

Out of these, during the data cleaning process, few responses were found non-serious or incomplete. The responses of 509 firms were considered for analysis. The sample characteristics are described below (refer Table 1).

Table I: Sample Characteristics (N = 509)

Sr. No.	Parameter	Details	Firm Count	Percentage
1.	Age of Firm	15 years or more	337	66%
		Less than 15 years	172	34%
2.	Size of Firm	More than 50 employees	266	52%
		Upto 50 employees	243	48%
3.	Annual Turnover	More than Rs. 50 crores	136	27%
		Upto Rs. 50 crores	373	73%
4.	Nature of Industry	Non- Manufacturing	153	30%
		Manufacturing	356	70%

A. Measures

To operationalize environmental uncertainty, an eight-item seven-point scale refined by [13] has been adopted. The first five items gauge environmental dynamism. The next three items measure the complexities of environmental forces.

A nine-item seven-point scale of [4] has been adopted to operationalize entrepreneurial orientation. First three scale items assess the dimension of Innovativeness, the next three items disclose the inclination of an enterprise towards acceptance of risk and the last three items reveal the proactiveness of a firm in taking advantage of a market place opportunity.

The inventory of the business performance scale has been taken from the [23] scale of business performance. The relative business performance has been measured on dimensions like service quality, employee satisfaction, customer satisfaction, product innovation, process innovation, sales growth, return on investment, and net profit margin.

IV. RESULT ANALYSIS

A. Psychometric Testing

The confirmatory theory has been adopted for the psychometric testing of the latent constructs of environmental uncertainty, business performance, and entrepreneurial orientation. Environmental uncertainty has been considered as a second-order construct. Five items load on environmental dynamism and three items load on environmental complexities. Then these dimensions load on the latent construct of environmental uncertainty. Business performance has been assumed as a second-order construct, having financial and non-financial performance as its integral parts. Five items (i.e. employee satisfaction, product innovation, process innovation, service quality, and customer satisfaction) load on the first-order construct of non-financial performance and remaining three items (i.e. net profit margin, sales growth, and return on investment) load on the first-order construct of financial performance; then these two sub-construct load on the latent construct of business performance. Entrepreneurial orientation has been defined as

a second-order factor having risk-taking, innovativeness, and proactiveness as its integral parts.

Table II: Model Fit Indices and Psychometric Properties of Environmental Uncertainty, Business Performance and Entrepreneurial Orientation

Parameters	Environmental Uncertainty	Business Performance	Entrepreneurial Orientation
Chi-square	50.9	29.63	34.11
Degree of Freedom	18	17	25
Normed Chi-square	2.68	1.74	1.42
GFI	.970	.983	.983
AGFI	.944	.965	.969
NFI	.983	.990	.980
CFI	.989	.996	.994
RMR	.043	.020	.062
RMSEA	.061	.040	.030
AVE	.672	.718	.539
CR	.941	.953	.910

Table 2 presents the model fit indices and psychometric properties of measurement models. All constructs present a good model fit. The goodness of fit indices (i.e. NFI, CFI, GFI, and AGFI) meets the cut-off of 0.90. RMR and RMSEA, the badness of fit indices, fall below the threshold of 0.08. Normed chi-square meets the cut-off of 3. All the empirical indicators are significant. The indices for AVE and CR remain high and acknowledge the convergent validity and reliability of scale items.

B. Hypotheses Testing

A Structural model (refer Figure 1) has been conceptualized and tested to assess the EU-BP relationship.

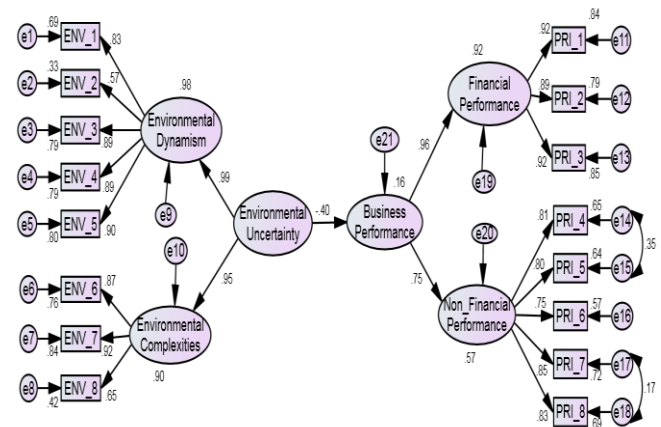


Figure 1 Structural Model of EU-BP Relationship.

The results reveal a normed chi-square of 2.14 (chi-square = 212.18, degree of freedom = 99); CFI = 0.981; NFI = .965; GFI = 0.944, AGFI = 0.923; RMSEA = 0.050; and RMR = 0.081. All these indices are significant and affirm the claim that the model specified in theory reproduces itself through observed data. Environmental uncertainty significantly explains business performance (R-Square = 0.16), however, the strength of this relationship is low and negative (beta coefficient = -0.40). Findings provide sufficient evidence in the support of hypothesis 1.

Environment Uncertainty – Business Performance Relationship: Mediating Effect of Entrepreneurial Orientation

To see how a business organization ensures its survival and growth in an uncertain environment, mediation analysis has been applied. The entrepreneurial orientation has been described as a mediating variable in the EU-BP relationship (refer Figure 2). The summated score of environmental uncertainty, business performance, and entrepreneurial orientation have been considered for mediation analysis.

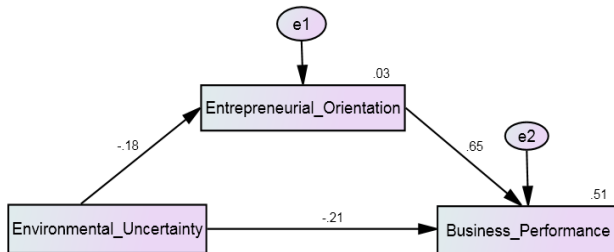


Figure 2: Mediating role of entrepreneurial orientation in EU-BP Relationship.

Hypothesis	Direct Beta (without Mediation)	Direct Beta (with Mediation)	Indirect Beta	Type of Mediation
Environmental Uncertainty → Entrepreneurial Orientation → Business Performance	-.40***	-.21***	-.12**	Partial

Results reveal that entrepreneurial orientation partially mediates in the EU-BP relationship. This study reveals that environmental uncertainty accounts for negative variance in business performance. Environmental uncertainty also hurts entrepreneurial orientation (beta coefficient = -0.18, significant at .001). The relationship between entrepreneurial orientation and business performance was found positive and significant (beta coefficient = 0.65, significant at .001). More specifically environmental uncertainty affects business performance both directly (beta coefficient = -0.40, significant at .001) and indirectly (beta coefficient = -0.12, significant at .01).

V. CONCLUSION

The study reveals a significant negative effect of environmental uncertainty on the performance of an enterprise. The study finds the mediating role of entrepreneurial orientation in the EU-BP relationship. The study suggests that as the external environment becomes more complex and dynamic, the adoption of entrepreneurial posture becomes necessary. Entrepreneurial posture equips entrepreneurial firms with the capability not only to face environmental challenges but also helps them in shaping their strategy as per environmental dynamism and complexities. Proactive behavior broadens a firm's vision and helps them in exploring new possibilities. It equips an entrepreneurial firm with the ability to anticipate future needs and demands before their competitors. Innovativeness revises a firm's knowledge base and allows it to generate and introduce new products, services, processes, and technologies - ahead of its competitors. Innovativeness helps a firm to take advantage of

the changing business environment. Risk-taking ability provides the necessary courage to act upon the insights generated through proactive behavior. It encourages a firm to take a business-related chance. All these actions help entrepreneurial firms in converting environmental opportunities into successful business ventures and results in sustained rather than temporary high performance.

The study is of vital significance for the researchers, management practitioners, and entrepreneurs. The findings suggest that in a dynamic and complex environment, where traditional management practices become inappropriate, an organization that adopts entrepreneurial posture performs better and ensures their survival. The study contributes to the literature by producing empirical evidence in the support of EU-BP relationship in the Indian context. The study extends the literature on the EU-BP relationship by revealing the intervening role of entrepreneurial posture in the said relationship.

The static findings of this study carry all limitations of cross-sectional research design and may be infected with response bias of the survey method. Further, the heterogeneous sample presents the generalized view of the EU-BP relationship. The industry-specific understanding of the EU-BP relationship may generate better insights for decision-makers. Future research may study the moderating effect of firm characteristics on said relationship by adopting a longitudinal research design.

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