

# Mediative Role of Entrepreneurial Environment and Innovation in the Relationship between Entrepreneurial Competency and Performance in Nagaland, India

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## Abstract

Entrepreneurial competencies are specialized abilities, characteristics, and qualities an individual needs to launch, run, and expand a firm successfully. This article attempts to study the mediating role of entrepreneurial role and innovation in the correlation between entrepreneurial competency and the performance of micro, small & medium enterprises (MSMEs) in Nagaland, India. This study used a sample of 306 respondents in Nagaland, India. A five-point Likert scale was used for the measurement of the variables. Entrepreneurial Competency (EC) positively impacted Entrepreneurial Performance (PE), Innovation (IN), and Entrepreneurial environment (EV). IN and EV positively impacted PE. Further analyses indicated that EV and IN mediated the relationship between EC and PE in Nagaland. The types of mediation were partial and complementary. The mediating effects of innovation and a supportive environment are studied on EC in making a firm in Nagaland improve its performance. The outcomes may serve as a focal point for improving business performance.

## Keywords

Entrepreneurship, Entrepreneurial Competency, Entrepreneurial Performance, Entrepreneurial Environment, Innovation

## 1. Introduction

Entrepreneurial Competencies (ECs) are essential qualities, knowledge, and be-

haviors for individuals to identify, create, manage, and grow businesses (Ahmad et al., 2010), promoting entrepreneurship, economic growth, and innovation benefits from evaluating entrepreneurial competence (Arora, 2022). It aids in decision-making and efficient resource allocation for individuals, groups, and policy-makers, ultimately fostering the growth of dynamic entrepreneurial ecosystems and environments (Ianioglo, 2022). ECs are essential for identifying, creating, and managing new business opportunities. These competencies are crucial for initiating and managing innovative ventures, driving innovation, and navigating challenges (Pulka et al., 2021). They help navigate complexities, recognize opportunities, manage risks, and achieve sustainable growth for the firm. ECs are essential for fostering innovation and creating a conducive entrepreneurial environment (Ismail, 2022; Koliby et al., 2024).

The entrepreneurial environment is a set of external factors that shape the opportunities and challenges entrepreneurs face when starting or running their businesses. Key elements include market conditions, economic factors, technological advancements, government regulations, access to capital, infrastructure, cultural and social factors, education and support networks, globalization, industry-specific factors, environmental sustainability, social and demographic trends, and the competitive landscape (Commander & Svejnar, 2011; Arora, 2022). Understanding these factors is crucial for entrepreneurs to make informed decisions, formulate business strategies, and adapt to changing circumstances.

Environmental entrepreneurship is distinguished by its strong propensity for innovation. Innovation represents the core of competitive advantage and is an essential concept for today's businesses. Innovation and brand equity contribute to the competitive edge of companies, leading to their growth and success (Umar & Ngah, 2016). Evidence supports a considerable and robust association between innovation capabilities, innovation efforts, and a company's success; more efficient management of innovation capacity would assist the management by facilitating the delivery of more innovative results that improve performance. The performance of companies is affected by organizational or open innovation and innovation capabilities (Khafri et al., 2023). However, innovation may also be an expensive process, as the drawbacks can outweigh the benefits if performed improperly (Lartey et al., 2020).

Unlike large corporations, SMEs require non-formal project management, which can play a significant role in implementing innovations (Khafri et al., 2023). The growth rates of entrepreneurs depend upon their skillfulness and creativity, novel products and ideas, and means and methods identified in the background. According to the then Chief Secretary (late) Mr. Temjen Toy, the goal was to support the growth of "at least 500 startups in the next five years" with a focus on establishing cutting-edge "Made in Nagaland" goods and services when the "Startup India in Nagaland" portal was launched on August 16, 2019 (MorungExpress, 2019). Unquestionably, a person's characteristics and competencies are unique and challenging for competitors to copy (Tehseen et al., 2015). Updates

for more resources and marketing aspects in all business areas have also improved the competency of the Naga entrepreneurs. It increased due to modernizing new resources and marketing facets (Longkumar, 2022).

Although, naturally, most business owners are first-generation in Nagaland, and things may take time, it is also true that time is running out. Despite the dire circumstances surrounding Nagaland's employment situation, the rise of entrepreneurship has resulted in good development. On the other hand, the biggest problem has been a dearth of innovation, and it's time to spend more money on innovation (Dutta, 2021). Entrepreneurs only become more effective at what they do by networking and learning (Pulka et al., 2021). By planning fairs and celebrations, the local government can aid in encouraging interaction and education among business people. So, this research was undertaken to study the mediating effects of innovation and a supportive environment on EC in making a firm in Nagaland improve its performance. The outcomes may serve as a focal point for improving business performance. The Naga entrepreneurs are prompted to take note of the areas where the quality has improved and rectify those that need improvement.

#### Objectives

The objectives of the study were:

- 1) Ascertain the occurrence of a positive relationship between EC and IN, EC and EV, IN and EP, EV and EP, and EC and EP.
- 2) Determine the possible mediating roles of IN and EC in the relationship between EC and EP.

## 2. Literature Review and Hypothesis Construction

A literature review on the interplay between ECs, the entrepreneurial environment, innovation, and performance reveals a complex and dynamic relationship (Ibidunni et al., 2021; Kisubi et al., 2022). ECs can drive innovation, which, in turn, impacts EP (Ismail, 2022). The entrepreneurial environment is critical in nurturing or constraining these relationships. This complex interplay underscores the importance of understanding and managing these factors for the success of entrepreneurial ventures (Man & Lau, 2000). Researchers and practitioners continue to explore this multifaceted relationship for developing strategies that enhance entrepreneurial performance and foster innovation in diverse contexts.

### 2.1. Effect of EC on EP

Potential methods for assessing ECs have been summarized and described as fundamental attributes, including general and specialized knowledge, motivations, attributes, self-images, social roles, and abilities that contribute to the emergence, continued existence, and development of an enterprise. Entrepreneurial and strategic competencies both directly and indirectly impact an SME's long-term performance via competitive scope and organizational capabilities (Man et al., 2008). The enforcement/implementation and networking competencies markedly influ-

enced the EP of firms founded by women entrepreneurs in Malaysia (Ahmad et al., 2018). The ECs highly predict venture performance, and the relationship between the entrepreneurial climate and venture performance is significantly mediated by ECs (Lawal et al., 2018). Proficiency in entrepreneurship and adaptability to the business environment in Bima City, Indonesia, impacted the financial performance of SMEs (Huda et al., 2018). EC has a positive and significant impact on business performance in the crafts industry in West Sumatra, Indonesia (Ramanujam et al., 2019). Another study investigated the influence of ECs such as commitment competency and opportunity recognition competency on the EP of Malaysian micro-enterprises indicated by income and assets; commitment and opportunity recognition competencies markedly affected income positively, whereas only opportunity recognition competency affected the net worth of assets (Mustapha et al., 2020). A literature review analyzing the influence of EC and PE suggested that in an entrepreneurial role, the core competencies, such as personal traits and learners' skills, while in a managerial role, organizing and relationship competencies of an individual were positively related to a successful business. EC directly impacted the performance of SMEs in Nigeria (Pulka et al., 2021). A study in Kenyan MSMEs concluded that innovation, leadership, networking, and risk-taking competencies had a positive and significant effect on their growth; MSMEs can improve their development by embracing innovative competency, while owners should embrace networking, hone their leadership abilities, and thoroughly consider all of their options before taking any risks for enhancing PE (Gathoni et al., 2021). Both in the micro and small-scale business models, ECs impacted their performance (Aulia et al., 2021; Syahroni et al., 2021). Entrepreneurial skills significantly and favorably impacted the performance of Javan SMEs that deal in ornamental plants (Syahroni et al., 2021). ECs are essential for a firm's success (Koliby et al., 2024). A recent study suggested that the ECs of immigrants to the USA (specifically host-country language skills, general knowledge about the host country, and cultural intelligence) influenced the firm's performance (Li et al., 2023). EP was influenced by both innovation and entrepreneurial competence (Kamuri, 2023; Li et al., 2023). The entrepreneurial ability to successfully combine exploitative and exploratory knowledge processes is known as ambidexterity, which, on an individual basis, has a significant impact on business performance in Indonesia's life insurance sector (Dillianti et al., 2023). Dynamic managerial capabilities improve the business performance of German firms which are listed in DEX by encouraging R&D spending (Heubeck, 2023). The EC of system thinking has a positive and significant effect on the economic performance of startups in Nigeria and Indonesia (Riante & Utama, 2023). The entrepreneurial ability to leverage digital platforms is a potent strategic move that can revolutionize essential corporate processes and spur performance (Pigola et al., 2023).

## 2.2. Effect of EC on IN

Entrepreneurial competence was found through factor analysis to be a multi-dimensional, second-order latent construct that includes three sub-variables: pur-

suing, networking, and creating (Kamuri, 2023). SMEs with successful exploitation and execution of innovations were significantly influenced by ECs' extrovert competencies (e.g., open-mindedness), preparation competencies, and proactiveness in business operations (Taipale-Eräväla et al., 2019). The open innovation paradigm highlights that companies can work with others to enhance their innovation performance; the results of a recent meta-analysis demonstrated that although innovation and appropriation strategy, learning culture, and top management competency drive outbound open innovation, formal organizational structure, appropriation strategy, and learning culture drive inward open innovation (Zhang et al., 2023). In a recent study, ECs played a remarkable role in promoting innovation in Malaysian manufacturing SMEs (Koliby et al., 2024). However, a study from Nigeria reported that knowledge management capability insignificantly impacted innovation performance. The entrepreneurial ability to leverage digital platforms is a potent strategic move that can revolutionize essential corporate processes and spur innovation (Pigola et al., 2023).

### 2.3. Effect of EV on EC

The EV offers a significant assurance for the advancement of ECs. An influential component of entrepreneurial behavioral abilities is the EV. In particular, the EV can supply the necessary resources to launch a firm and offer enough assistance to foster the growth of ECs (Liu et al., 2020). Thus, a strong EE improves the ways in which the state, society, and educational institutions encourage entrepreneurial conduct and establishes advantageous external circumstances for the development of EC. The entrepreneurial environment has a major impact on EC (Luo et al., 2022). The digital economy is more effective in permeating entrepreneurial activities and contributes more to developing urban ECs under better commercial, legal, scientific, technological, financial, and regulatory environments (Zhao et al., 2023).

### 2.4. Effect of IN on PE

Through competitive scope and organizational capabilities, entrepreneurial innovation directly and indirectly impacts an SME's long-term performance (Man et al., 2008). The innovation capability of a business had a positive correlation with the performance of Malaysian SMEs. Competencies drive innovation and successfully implementing innovative ideas, products, or processes improves a firm's performance (Umar et al., 2018). Post-COVID-19, service innovation significantly affected the business performance of Indonesian P&C and life insurance companies (Widianto et al., 2023). In Indonesian motorcycle companies, innovation capability directly affects business performance and strategic agility (Purwanto et al., 2023). Product and process innovation in the Korean manufacturing sector has a favorable impact on innovative product sales, which are a measure of business performance (Shin, 2023). In Chinese business service SMEs, dynamic service innovation capabilities had marked positive effects on firms' financial and

market performance (Zhan et al., 2023). However, innovation had no appreciable impact on the performance of SMEs in the silk-weaving industry of Indonesia.

### **2.5. Effect of EV and PE**

PE encompasses various indicators of a firm's success, such as profitability, growth, market share, innovation, and customer satisfaction. The associations between entrepreneurial performance and the aspects of the entrepreneurially oriented initiative and competitive aggressiveness were examined. Regarding Kenyan manufacturing companies, factors like ownership of property rights, human capital, ISO certification, the easy availability of licenses and permissions, and the acquisition of patents for innovative products or processes all greatly enhanced firm and labor productivity (Amutabi, 2023). While an Information Technology company's intellectual capital positively affects both the present and future profitability, it cannot be used to forecast market performance (Medaghri & Machrouh, 2023).

### **2.6. Effect of the Entrepreneurial Competencies, Innovation, and Entrepreneurial Environment on the Performance of a Firm**

The mediating role of the entrepreneurial environment in the relationship between ECs and the performance of a firm suggests that the environment in which a business operates can influence how ECs impact a firm's overall performance (Aftab et al., 2022; Pulka et al., 2021). In a situation where ECs are a mediating variable, entrepreneurial education is the precursor to ECs that can influence the performance of SMEs in Oman (Kanaan-Jebna et al., 2022). The relationship between the entrepreneurial environment and entrepreneurial self-efficacy that leads to more outstanding PE is mediated by entrepreneurial competence. According to the knowledge spillover theory (KST), entrepreneurs are essential conduits for the commercialization and spread of knowledge, and knowledge spillovers positively impact business performance through the innovation and digital skills of entrepreneurs (Ferreira et al., 2024).

In these SMEs, a positive and marked correlation between ECs and innovation on business success was observed, while the product and process innovations partially mediated the association between ECs and business success (Umar et al., 2018). The three entrepreneurial orientations of innovativeness, proactiveness, and autonomy moderate the association between the firms' success and their ECs (Ibidunni et al., 2018).

On the contrary, EC and EV have little bearing on the operational success of women-owned SMEs in Jakarta and the neighboring areas. However, the link between entrepreneurial competence and EP was not mediated by innovation (Kamuri, 2023). Even though EC and IN regulated PE, IN did not mediate the entrepreneurial competence-performance link in the Kenyan leather industry (Kamuri, 2023). However, the association between ECs and the performance of African micro and small enterprises was minimal, despite the political-legal features of the

entrepreneurial ecosystem considerably impacting both EC and performance; EC plays a negligible role in mediating the linkage between business/policy environments and business performance (Chane & Atwal, 2023).

The propose hypothesis base on the above conceptual framework are given below:

H1: EC positively impacts the performance of a firm.

H2: EC positively impacts IN.

H3: EV positively impacts EC.

H4: IN positively impacts PE.

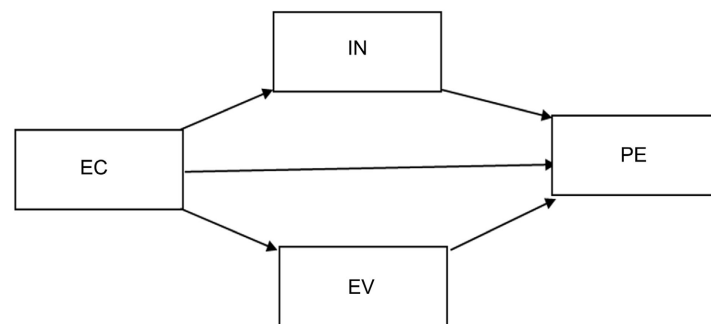
H5: EV positively impacts the PE.

H6: IN mediates the relationship between EC and PE.

H7: EV mediates the relationship between EC and PE.

### 3. Methodology

The study aimed to examine the roles of EC on the PE, the mediating roles of IN and EV, and the type of mediation if it occurs, i.e., competing or complimentary. The research design used was descriptive, and the research framework under investigation is depicted in **Figure 1**.



**Figure 1.** The conceptual model under investigation.

#### 3.1. Sampling Design

The sample frame includes a list of the MSME owners registered in the DCMCME database, Dimapur, Nagaland. There are 5573 MSMEs, and a group of 440 individuals were selected from the sample frame through a lottery. After the lottery, the chosen individual was contacted over the phone. However, 65 could not be reached as their contact numbers were out of service. The remaining 365 prospective respondents were sent the questionnaire through email or in person, of which only 329 responded. The data collected underwent preliminary screening to remove outliers and missing data, after which 306 questionnaires were usable (**Table 1**).

#### 3.2. Research Instruments

The survey instrument consisted of 29 questions, seven items each for IN, nine for EV and EC, and five for PE. The seven items of the EC were constructed using the

**Table 1.** Demographic variables.

Variables	Items	Frequency	Percentage
Age	18 - 25 years	39	12.74
	26 - 35 years	121	39.54
	36 - 45 years	86	28.10
	45 years above	60	19.60
Gender	Male	172	56.20
	Female	134	43.79
Marital Status	Married	174	56.86
	Single	132	43.13
Education	Below 10 grade level	59	19.28
	12 grade level	68	22.22
	Graduate	124	40.52
	Master degree and above	55	17.97
Type of Enterprise	Service	213	53.1
	Manufacturers	188	46.9
Income	Rs. 50,000 below	72	23.52
	Rs. 50,000 to 1 lakh	81	26.47
	Rs. 1 lakh to 1.5 lakh	45	14.70
	Rs. 2 lakhs above	108	35.29
District	Chumukedima	37	12.09
	Dimapur	135	44.11
	Kohima	57	18.62
	Mokokchung	27	8.82
	others	50	16.33
Tribe	Angami	54	17.64
	Ao	108	35.29
	Chakhesang	34	11.11
	Lotha	28	9.15
	Rengma	10	3.26
	Sumi	26	8.49
	Others	46	15.03

Concept of [Man \(2001\)](#) and [Ahmad et al. \(2006\)](#). They were as follows: “Competition in the Market is Manageable,” “My products have innovation and creativity,” “My businesses are skillfully improved,” “There is economic stability in my Business,” “There is product development in my business,” and “There is a need for more training, the risk factor has greatly reduced.” A five-point Likert scale was used for the measurement. The scale for IN was adapted from [Shin et al. \(2022\)](#). The items for the EV were constructed based on the framework by [Gnyawali and Fogel \(1994\)](#). The items built were, “In Nagaland, most people consider becoming an entrepreneur as a desirable career choice,” “Naga families are very supportive and value entrepreneurial activity more than other activities and ca-

reers,” “Procedural requirements for registration and licensing for new and growing businesses were easy in Nagaland,” “It is easy to sell the goods and services of a business in the Nagaland market,” “Naga customers can pay a high price for goods and services,” “There is a good funding support for startups (Venture Capital) for new entrepreneurs,” “The underground tax has no impact on my business,” “Banks motivate new and growing businesses in getting financial support,” “There are enough organizations in Nagaland which mentor and guide entrepreneurs during the startup phase,” and “The government supports new and growing businesses by purchasing their goods and services.” Lastly, the researcher adapted from the five items: employment, turnover, productivity, profits/profitability, and firm survival to measure firm performance (Siepel & Dejardin, 2020).

### 3.3. Data Reliability and Validation

**Table 2.** Description of items.

Items	Factor score	Mean	SD	AVE	CR	CA
IN1	0.747	2.03	0.887	0.60	0.91	0.902
IN2	0.808	1.8	0.834			
IN3	0.772	1.61	0.832			
IN4	0.733	1.9	0.800			
IN5	0.754	1.98	0.921			
IN6	0.804	2.01	0.896			
IN7	0.822	1.97	0.897			
EV1	0.761	2.43	0.791	0.53	0.87	0.899
EV2	0.771	2.36	0.790			
EV3	0.761	2.39	0.791			
EV4	0.723	2.65	0.768			
EV5	0.626	1.98	0.889			
EV6	0.627	2.17	0.808			
EV7	0.763	2.46	0.861			
EV8	0.774	2.53	0.790			
EC1	0.698	2.49	0.935	0.54	0.89	0.881
EC2	0.774	2.4	1.061			
EC3	0.741	2.32	1.047			
EC4	0.742	2.92	1.018			
EC5	0.753	2.75	1.144			
EC6	0.732	2.94	0.982			
EC7	0.703	2.67	1.133			
PE1	0.638	2.33	0.897	0.55	0.86	0.852
PE2	0.702	2.4	0.954			
PE3	0.777	2.42	0.895			
PE4	0.805	2.63	0.957			
PE5	0.78	2.94	1.140			

Four constructs were extracted from the exploratory factor analysis and item set. The factor loading  $< 0.4$  was excluded from the analysis. Hence, two items from the IN construct were removed. The total number of items analyzed was 27. The sample adequacy test using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy indicated that the sample was adequate with a value of 0.878. The respective factory loading for each item is depicted in **Table 2**. The internal consistency of each item in the construct was measured by Cornbach's Alpha in SPSS, and a measure  $> 0.7$  was considered good and reliable (Mohajan, 2017). These findings indicated that the constructs EC, IN, EV, and PE were reliable as each measure was respectively (**Table 2**). As researchers work through the maze of data collection, analysis, and interpretation, the certainty that their findings accurately reflect reality becomes crucial.

The Fornell-Lacker criterion was used when evaluating the discriminant validity. The finding depicted in **Table 3** indicates the discriminant validity of the data. For congruent validity, the criterion was that AVE should be  $> 0.5$ .

**Table 3.** Discriminant validity.

	PE	EC	IN	EV
PE	0.7429			
EC	0.415**	0.7351		
IN	0.305**	0.281**	0.7281	
EV	0.439**	0.408**	0.307**	0.7777

## 4. Findings

### 4.1. Demographic Profile of the Respondents

Of the total data collected, age category items 1, 2, 3, and 4 include 39, 121, 86, and 60 individuals from age 18 - 25, 26 - 35, 36 - 45, and  $>45$ , respectively. The male and female entrepreneurs were 172 and 134, respectively, 174 of whom were married and 132 of whom were nonmarried. Concerning ethnicity, entrepreneurs from all the tribes of Nagaland were represented in 7 groups, among which 54, 108, 34, 28, 10, 26, and 46 are from the Angami tribe, Ao tribe, Chakesang tribe, Lotha tribe, Rengma tribe, Sumi tribe, and from all the other tribes combined, respectively. All the demographic data is represented in **Table 1**.

### 4.2. Analysis of the Model Proposed

The model depicted in **Figure 1** is complex and requires testing the causal chain linking mediators i.e. innovation, and entrepreneurial environment. The model proposed was validated using Confirmatory Factor Analysis (CFA) in the Analysis of Moment Structures (AMOS) 22 of the SPSS software (IBM, NY, USA) and was found to be both reliable and valid. The statistical parameters investigated fulfilled the required criteria:  $CMIN/DF = 2.173$ ,  $RMSE = 0.063$ ,  $GFI = 0.895$ ,  $CFI = 0.925$ , and  $TLI = 0.910$  for model fitting and further analysis.

H1: EC positively impacted PE.

The analysis of the data suggested that EC impacted PE with a coefficient of 0.256 (indicating that PE was expected to increase by an average of 0.256 units for every unit increase in EC). A t-value of 4.948 pointed to the statistical significance of the results (Table 4). This study underscoring the importance of developing entrepreneurial skills to achieve superior performance outcomes (Kovid et al., 2021; Syahroni et al., 2021; Heubeck, 2023).

**Table 4.** Summary of the assumptions made.

Sl. No.	Hypothesis	Coefficient	t-value	P-value	LLC1	ULC1
1	EC→IN	0.205	4.188	**	0.108	0.301
2	EC→EV	0.318	7.800	***	0.238	0.398
3	EC→PE	0.256	4.948	**	0.154	0.358
4	IN→PE	0.184	3.182	**	0.070	0.297
5	EV→PE	0.337	4.887	**	0.202	0.473
6	EC→IN→PE	0.038	2.107	**	0.008	0.078
7	EC→EV→PE	0.107	3.662	**	0.054	0.167

H2: EC positively impacted IN.

The results obtained suggested a positive impact of EC on the entrepreneur's innovation. The coefficient for EC was 0.205 and a t-value of 4.188 (Table 4), which was relatively high, indicating that the relationship between EC and IN was statistically significant. Specifically, a unit increase in EC corresponds to a 0.205 unit rise in IN, demonstrating the critical role that entrepreneurial skills play in driving innovation. This underscores the broader implication that enhancing entrepreneurial competencies can significantly contribute to fostering innovative practices in organizations (Mohammadkazemi et al., 2016; Taipale-Eräväla et al., 2019).

H3: EC positively impacted EV.

The findings reveal a positive impact of EC on EVs. The coefficient was 0.256, with a t-value of 4.948, indicating a statistically significant relationship (Table 4). The finding highlighting the importance of the competencies in fostering and exploiting a conducive entrepreneurial environment (Sakib et al., 2022).

H4: IN positively impacted PE.

The analysis of the data indicated that IN had a direct correlation with PE. The coefficient was 0.1835, with a t-value of 3.1822, indicating statistical significance (Table 4). Indicating that innovation has a meaningful impact on driving performance outcomes. This underscores the importance of promoting innovative practices to boost organizational or entrepreneurial success (Mohammadkazemi et al., 2016; Umar & Ngah (2016).

H5: EV positively impacted PE.

The findings of this study indicated a positive influence of EV on PE with a

coefficient of 0.337 and a t-value of 4.887, indicating statistical significance (**Table 4**). These studies underscore the importance of a supportive entrepreneurial environment in fostering business success. A conducive environment can provide the necessary resources, reduce uncertainties, and offer opportunities that enhance performance (Hazlina Ahmad et al., 2010; Kovid et al., 2021; Liu et al., 2024).

H6: IN mediated the relationship between EC and PE.

A mediating impact of IN on the correlation between EC and PE was observed with a coefficient of 0.038. Thus, IN enacted a partial complementary mediation on the correlation between EC and PE. This study collectively emphasizes the critical role of innovation in mediating the relationship between entrepreneurial competencies and business performance. Developing strong innovation capabilities enables entrepreneurs to effectively leverage their competencies, leading to enhanced performance outcomes (Hwang et al., 2019; Lartey et al. 2020; Aftab et al., 2022).

H7: EV mediated the relationship between EC and PE.

As shown in **Table 4**, the coefficients for the direct and indirect effects of EV on the association between EC and PE were 0.256 and 0.107, respectively. These values suggest a partial complementary mediation by EV on the interaction between EC and PE. This suggests that while EC directly influences PE, a portion of this effect is channelled through the entrepreneurial environment. This study indicates the importance of both entrepreneurial competencies and a supportive entrepreneurial environment in driving business performance. A favourable environment not only enhances the direct effects of EC on PE but also provides the necessary conditions for entrepreneurial competencies to be effectively applied, leading to improved performance outcomes (Liu et al., 2024; Pulka et al., 2021).

## 5. Discussion

The findings of this study reaffirm ECs as critical abilities that allow people to recognize and seize opportunities, address issues, make informed decisions, and effectively manage resources. Developing ECs can significantly enhance the entrepreneurial environment, increasing customer satisfaction, competitive advantage, resource attraction, knowledge transfer, ecosystem development, and economic growth. Entrepreneurs can explore uncharted territory and test novel concepts by taking calculated risks. While networking and collaboration give access to fresh ideas and resources, problem-solving abilities assist in recognizing and overcoming obstacles. These skills enable people to spot opportunities, overcome obstacles, and implement innovative ideas. The results obtained confirmed the H1, suggesting that EC positively impacts the PE.

Through factor analysis, EC was identified to be a multi-dimensional, second-order latent construct that includes the three sub-variables of pursuing, networking, and creating (Kamuri, 2023). In addition to those mentioned above, ECs measured as entrepreneurial skills, extrovert (e.g., open-mindedness), preparation, and proactiveness directly and positively interacted with process, product,

and open innovation in SMEs and manufacturing industries (Zhang et al., 2023; Koliby et al., 2024). Further, this study also established the H3 put forward, which propounded that EV positively impacts EC. This study has supported the assumption H4 that innovation positively impacts the growth and performance of the firm. The results confirm those of previous studies that organizational, process, product, marketing service, and dynamic service innovations enhance the PE of SMEs, telecommunication, baking, services, and manufacturing firms (Widianto et al., 2023; Kamuri, 2023).

The positive impact of an EV on the PE may vary depending on the type of industry, specific characteristics, and a broader economic context. Additionally, not all entrepreneurial ventures are successful, and entrepreneurship has risks. However, an entrepreneurial mindset and environment can contribute significantly to a firm's success and growth when managed effectively. The findings of this study buttress H5, which suggests that EV positively impacts PE. The EV markedly influences PE by providing relevant opportunities, optimum resources, support systems, and favorable market conditions (Commander & Svejnar, 2011; Lawal et al., 2018). For instance, an environment favoring the gain of intellectual capital positively affected both the present and future profitability of an Information Technology company (Medaghri & Machrouh, 2023). The findings of this study support the H6, which advocated that innovation mediates the relationship between EC and PE. A conceptual, empirical study ascertained the mediative impact of innovation on the correlations between ECs and success in Malaysian SMEs (Umar & Ngah, 2016), where the product and process innovations partially mediated the association between ECs and business success (Umar et al., 2018). The entrepreneurial orientations of innovativeness moderated the association between the firms' success and their ECs (Ibidunni et al., 2018). Tanzanian SMEs showed that innovation partially influenced the positive and significant impact of ECs on SME sustainability (Ismail, 2022). In a very recent study, innovation partially mediated the association between ECs and the sustainable performance of Malaysian manufacturing SMEs (Koliby et al., 2024).

The entrepreneurial environment serves as a mediating factor between ECs and firm performance. It acts as an intermediary through which the competencies of entrepreneurs are translated into tangible business outcomes. The results of this report confirm H7, which suggests that EV mediates the relationship between EC and PE. Several previous studies have indicated that the EV in which a firm is established directly influences the interaction between ECs and PE. This trend was more evident under unfavorable and dynamic environments than in more favorable and stable environments (Ahmad et al., 2010), as external factors and EV conditions can either enhance or hinder the firm's success. The EC highly predict the venture performance of SMEs, and this correlation is remarkably affected by the EV (Ramanujam et al., 2019; Kisubi et al., 2022; Kanaan-Jebna et al., 2022).

## 6. Conclusion

ECs are evolving qualities and abilities for every entrepreneur that build many

dimensions of efficiency in entrepreneurship. It demonstrates the effectiveness of carrying out tasks more effectively with a broader perspective on entrepreneurial traits. This study indicated that EC influenced specific variables highlighted in this research. The EC of the Nagas are related to creating new firms in areas of technology development, small-scale production of indigenous goods, and creativity in various domains. The inventions of this Naga entrepreneur sparked an entrepreneurial revolution in the corporate world. The framework for ensuring economic stability has been constructed, and rapid advancements are being made. The discovery of growth in the entrepreneurial environment led some Naga entrepreneurs to display the results of their work more effectively. However, many hurdles must be overcome, and many more entrepreneurs must perform similarly. However, there has been an improvement in terms of entrepreneurship competencies.

## 7. Suggestions and Implications for Policymakers

**Fostering Entrepreneurial Competencies (ECs):** One of the key findings from the study is that EC has a positive relationship with the performance of the firms, so the skill building programs taken up by government of Nagaland through agencies like YouthNet, The Entrepreneurs Associates (tEA), Nagaland Skill Development & Entrepreneurship Society (NSDES) and Educentre Livelihood and Entrepreneurship Skills Centre etc. need to be given extra priority so that more help would reach to nurture and develop ECs among aspiring entrepreneurs.

**Support for Innovation and Technology Development:** The study indicates that Innovation capability has a positive impact on performance of the Naga entrepreneurs, so, policymakers should create an enabling environment for these types of innovations by offering financial incentives, grants, and technical assistance for research and development.

**Building a Supportive Entrepreneurial Ecosystem:** The study notes that the entrepreneurial environment is key for increasing the performance of the firms in Nagaland. Policymakers should focus on creating a more comprehensive and supportive ecosystem that includes access to finance, mentorship, infrastructure, and a robust legal framework. Special attention should be given to creating platforms for networking and knowledge-sharing among entrepreneurs, investors, and other stakeholders in the business ecosystem incorporating private-public-NGOs in Nagaland.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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