

## Article

# Entrepreneurial Initiatives, Education and Culture: Hubs for Enterprise Innovations and Economic Development

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**Abstract:** The purpose of this research was to investigate the effects of entrepreneurial initiatives, entrepreneurial education, and entrepreneurial culture on enterprise innovation and economic development. The research was driven by the fact that entrepreneurship is a remarkable force which drives the enterprise growth, societal development, and economic development of a nation. The research adopted the social exchange theory and the economic theory as the basis of the literature. Primary data were used, collected from people engaged in entrepreneurship in Russia. The study used quantitative research method, where empirical data were analyzed using Structural equation modelling (SEM). The findings of the study indicated that entrepreneurship initiatives, entrepreneurship education, and entrepreneurship culture have a significant effect on enterprise innovation. However, only entrepreneurship culture was found to have a direct effect on economic development, but entrepreneurial education and initiatives have indirect effects through enterprise innovation. Enterprise innovation was found to have significant effect on economic development. The research recommended that stakeholder should emphasize creating an entrepreneurial culture to encourage enterprise innovation and economic development. The search also advocates for providing entrepreneurs with the resources, support, and incentives to start businesses in addition to adopting policies that enable and facilitate enterprise innovation, both domestically and internationally, to boost their economic development.

**Keywords:** entrepreneurial initiatives; entrepreneurial educations; entrepreneurial culture; enterprise innovations; economic development



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## 1. Introduction

Modern entrepreneurship has been characterized by constant transformations, comprising constantly expanded entrepreneurial activities and initiatives, in the effort to develop new products and services and offer them to the market [1]. The development of new opportunities is the benchmark that must be achieved by the entrepreneurs to survive and remain competitive in the dynamic and technologically advancing business world. Therefore, the classic modern entrepreneurial concept combines two aspects, namely entrepreneurial initiatives and entrepreneurial innovation [2]. Entrepreneurial innovation is the concept that is put in to practice when entrepreneurs identify new opportunities, which when seized could be effective business activity. Entrepreneurial innovation is actualized through developed creativity that creates new products and services and introduces them in the market. It is therefore evident that entrepreneurial initiative is a critical component in the enterprise's innovation and its entrepreneurial practices.

Entrepreneurship is a remarkable force which drives the enterprise growth, societal development, and economic development of a nation. It comprises the aspects of innovation, employment generation and the social empowerment [3]. The incorporation of education in the entrepreneurship scope helps in the development of skills and knowledge among people which equips them with the relevant skills and knowledge relevant for

starting, organizing, and managing their own enterprises [4]. In the current entrepreneurial and business environment, an enterprising culture is needed to ensure and support the growth of an enterprise. According to Blokker and Dallago [5], for the emergence and proper development of entrepreneurial and enterprising behavior, especially among the young generation, such as university and college students, there needs to be more focus on entrepreneurial education. Entrepreneurial education should focus on what is known as 'learning by doing' [6]. The education should be available to all levels of students at the college and university, and not only to those in the business fields. The reason for this is that other students could become entrepreneurs in their area of expertise. This would equip the youth with necessary entrepreneurial skills and attitude [7–9].

The entrepreneurial culture has been considered to have entrepreneurial benefits that extend beyond the basic establishment of an enterprise and business activity. The entrepreneurial culture implies the inherent personal or organizational qualities, which are relevant for entrepreneurship, such as creativity, innovation, and the spirit of initiative. These are critical in the daily lives of the people, and their working environments. Among the various means that the entrepreneurial culture can be advanced is through entrepreneurial education [10]. According to Zhang et al., [5] the entrepreneurial culture needs to be nurtured in the effort to support the establishment of small and medium enterprises (SMEs) through aspects of values, beliefs, behavioral norms, and attitudes. Researchers have confirmed that both entrepreneurial culture and education are critical in fostering the development of entrepreneurial innovations and enterprise development.

There are various studies that have investigated the impact of the entrepreneurial education on the entrepreneurial spirit that accelerates the general economic growth and development in a nation. Arogundade [11] revealed that this education enhances creative thinking and supports a strong sense of self-worth and empowerment. In a similar breadth, researchers postulate that entrepreneurial culture promotes entrepreneurial activities in society, through influencing the mindset and behavior of a population in terms of the creation of risk-taking ability and willingness to develop new business ideas. According to Olugbola [12], an effective entrepreneurial culture is critical in affecting the career readiness of young people towards creating new business start-ups through entrepreneurship education. From the literature, it is established that entrepreneurial initiatives represent a critical component in the enterprise innovations and economic development of the society. The entrepreneurial initiative transforms ideas into actions through creativity, innovation, and risk taking [13]. Similarly, entrepreneurial education has been considered a critical contributor to fostering entrepreneurial culture, and the resultant enterprise development and growth. This research was driven by the fact that entrepreneurship is a remarkable force which drives enterprise growth, societal development and economic development of a nation. However, the contribution of the three aspects, namely entrepreneurial initiatives, education, and culture, has not been empirically investigated with regard to the effect on enterprise innovation and economic development. Therefore, the objective of this research is to investigate the effect of entrepreneurial initiatives, education, and culture on enterprise innovation and societal economic development in the context of a case study of Russia.

## 2. Literature Review

### 2.1. Theoretical Framework

Several theories have been consulted in this research, which are related to the aspect of entrepreneurship and the concepts evaluated in the study. Among the theories is the economic theory, which emphasizes that the entrepreneurial activity could be well understood through the abilities and inherent competencies of human beings to develop enterprises that contribute positively to the development of the economies. The social exchange theory presents psychological empowerment concepts, depicting actual interpersonal interactions while concentrating on the factors that influence how people engage with one another. Similar to this, the entrepreneurial education process involves interactions between instruc-

tors and students to raise student awareness and understanding about the procedure for starting their own firms [14–16].

With regard to an entrepreneurial culture and career preparedness, the human capital theory of entrepreneurship is most frequently applied [12,17]. The hypothesis contends that individuals with extensive entrepreneurial education are more likely to be prepared for careers in entrepreneurship [18]. According to the human capital theory in entrepreneurship, which is founded on the importance of education, people have a range of entrepreneurial abilities, mindsets, and behaviors that are geared toward job preparedness [19]. A person who possessed the appropriate set of talents or capacities may be strengthened by instruction and training [20]. Students who are also future business owners should develop their entrepreneurial culture as they build up their human capital through entrepreneurship education because they will be more willing to take risks, come up with fresh ideas for businesses, and be more creative. A student's preparation for an entrepreneurial profession should theoretically rise in proportion to the quantity of entrepreneurial educational abilities he or she obtains if human capital increases with further entrepreneurship education [12–18].

The theory faced harsh criticism because many students frequently pursue entrepreneurship courses to impress potential employers rather than want to become entrepreneurs [21]. Oosterlinck [22] proves, despite the criticism, that the human capital theory is pertinent in defining students' readiness for an entrepreneurial career who would have been exposed to entrepreneurial culture. Popescu et al. [23] contend that encouraging students' entrepreneurial ambitions through building an entrepreneurial culture leads to entrepreneurship activities. In order to bolster the claim, Qiao [24] demonstrates that the United States of America became the home of entrepreneurship by pointing out that their educational system is vibrant as a result of a number of pioneering entrepreneurial attitudes that are pervasive there. According to CIPE, [25] the United States of America has over 1600 universities and colleges with over 2200 entrepreneurship courses offered as well as over 100 entrepreneurship research hubs. This has led to the development of the country's current entrepreneurial culture, which supports young people's readiness for new business start-up. According to Oviawe and Anavberokha [26], who agree with the human capital concept, if in developing nations such as Russia students were well-equipped with a range of entrepreneurial skills, attitudes, and culture, such nations would undergo economic, technological, and industrial transformations. Therefore, the theory contends that entrepreneurial education should be prioritized in developing countries, particularly if they want to escape the troublingly high level of unemployment and stand out in the community of nations.

## *2.2. Empirical Literature and Hypothesis Development*

Entrepreneurial initiatives refer to the various ideas and projects that are generated and implemented in the process of supporting the starting a new venture and scaling up the existing ones [10]. It is the first phase of a project to bring together the strategic and conceptual elements that direct the project, define its goals and objectives, initiate a visionary effort, and shape it with visionaries. According to the research conducted by Keller et al., [27], it incorporates the efforts of seizing the market opportunities, and combination of resources, to remain competitive in the market. The entrepreneurial initiatives are designed to create customer value by creating new products, services, or new business models [28]. It also entails emphasis on partnerships and synergies between students, adult learners, businesses, community organizations, and government agencies, to promote economic empowerment by increasing educated skills, knowledge, and confidence in low-income populations.

Inferring from Mahringer and Renzl [29], the importance of entrepreneurial initiatives for a business is to increase the engagement and productivity of the employees through creativity, experimentation, and innovation. Entrepreneurial initiatives are essential to the development of any business, whether large or small, and are an indispensable part of their

success. Entrepreneurial initiatives provide a way to generate revenue, improve company performance, and enhance employee satisfaction. Keller et al. [27] argue that entrepreneurship initiatives are crucial for the economy of the country through fostering innovation and enterprise development. The initiatives enable the growth of small businesses which in turn help in attracting foreign investment. Entrepreneurship initiatives have a positive impact on the economy, encouraging the youth to be job creators rather than job takers.

For Mahringer and Renzl [29], it is arguable that the need for entrepreneurship initiatives is widespread. The country's economy and every aspect of people's lives are affected by them. Entrepreneurship initiatives have the capacity to speed up development and change. By supporting entrepreneurship, the society can not only generate economic growth but also help improve people's quality of life through innovations [30]. The importance of entrepreneurship initiatives to boost economic growth and job creation has never been more apparent. Entrepreneurship is highly relevant in today's economy, where speed is at a premium and knowledge-based jobs are dwindling. Entrepreneurs are critical to developing new ideas, commercializing them, and bringing them to market. These aspects lead to the development of the following research hypotheses:

**Hypothesis 1 (H1).** *Entrepreneurial initiatives has a positive effect on the enterprise innovation.*

**Hypothesis 2 (H2).** *Entrepreneurial initiatives has a positive effect on the economic development.*

### 2.2.1. Entrepreneurial Culture

Entrepreneurial culture refers to the values, norms, and beliefs that guide entrepreneurs and their firms, as well as their employees. It encompasses more than just a set of business practices. It is also influenced by the societal context in which businesses operate. Jardim et al. [31] postulate that a culture of entrepreneurship develops when an organization's culture helps it execute its strategy as an entrepreneur. Danish et al. [32] describe that it is characterized by a willingness to take risks and innovate, relentless changes, bold moves, and action rather than contemplation. According to the study by Jardim et al. [31] entrepreneurial culture refers to an organizational environment that supports innovative efforts. The entrepreneurial process consists of three phases: initiating, mobilizing, and managing enterprises creatively and innovatively.

Entrepreneurial culture helps an organization to innovate, explore new ideas and build a long-term sustainable competitive advantage. The enterprise innovation and development are fostered by the beliefs and values shared by its members and reflects the way they think, behave towards each other, and support each other through stability [5]. According to Ruiz et al. [33], entrepreneurial culture cultivates the personal entrepreneurial attributes, entrepreneurial traits, and the relevant risk-taking and coping mechanisms, which are necessary for both starting a business venture and keeping it running. From the above analysis, the following two hypotheses were developed:

**Hypothesis 3 (H3).** *Entrepreneurial culture has a positive effect on the enterprise innovation.*

**Hypothesis 4 (H4).** *Entrepreneurial culture has a positive effect on the economic development.*

### 2.2.2. Entrepreneurial Education

Entrepreneurship is a concept that has been adopted and used by educational institutions to help students build the skills that they need to become successful entrepreneurs. Inferring from Secondo et al., [34] it is not just about giving information and knowledge to the entrepreneur, it is also about shaping the entrepreneur to be a capable leader who can manage risks and uncertainties, such as uncertainty associated with the market, competition, and technology. Entrepreneurship education aims at educating students on key skills, essential elements of entrepreneurial activity, entrepreneurial thinking, and problem-

solving as well as soft skills, including work teamwork communication skills, customer focus, and creativity.

As such, it promotes a mindset that includes both social and technical factors that have been related to creativity and innovation activities [13]. According to Ndou et al., [10] research indicated that entrepreneurship education is important because it teaches students to be problem solvers and encourages them to take risks. It also teaches individuals how to manage their time, set up a business plan and company structure, as well as how to draw up contracts. This education, as advocated by Hägg and Gabrielsson [34], has become more relevant as the need for an entrepreneurially skilled workforce is increasing. The success of entrepreneurs is directly related to the quality and quantity of their entrepreneurial education.

Entrepreneurial education is considered to contribute to enterprise innovativeness per Bae et al. [14] as the skills imparted to the students help them to increase their entrepreneurial abilities, spirit, influences their entrepreneurial perceptions, as well as assists them in initiating their own businesses. To execute the entrepreneurship practices in a professional manner, entrepreneurship education is a critical component [35]. There have been significant efforts by the stakeholders in global education systems to advocate for rigorous entrepreneurship education to young professionals, as this would foster their entrepreneurship spirit, future business establishment, as well as contribution to economic development [34]. From the analysis of this concept, the following hypothesis is developed:

**Hypothesis 5 (H5).** *Entrepreneurial education has a positive effect on the enterprise innovation.*

**Hypothesis 6 (H6).** *Entrepreneurial education has a positive effect on the economic development.*

### 2.3. Enterprise Innovation and Economic Development

Enterprise innovation is the process of creating new value in a competitive, dynamic, fast, and elastic market. Uvarova et al. [36] considered that a country's economic growth is closely connected with its capacity for innovation. Enterprise innovation is an important pillar of economic development as it creates wealth and lives better lives. Innovative enterprises have an important role to play in creating jobs, income, wealth and growth in their respective countries. If it is embraced by society as a whole, it can offer significant benefits to individuals and businesses, especially in terms of improving productivity and competitiveness, reducing costs, making processes more efficient and contributing to increased exports [37]. From these findings, the following hypothesis was developed:

**Hypothesis 7 (H7).** *Entrepreneurial innovation has a positive effect on the economic development.*

### 2.4. Conceptual Framework

The research comprised of three independent variables, as depicted in the Figure 1 below. Enterprise innovation and economic development are considered as the dependent variables. However, the enterprise innovation is also considered a dependent variable considering its effect on economic development is also evaluated. The relationship of these variables led to the development of the seven hypotheses used in the research.

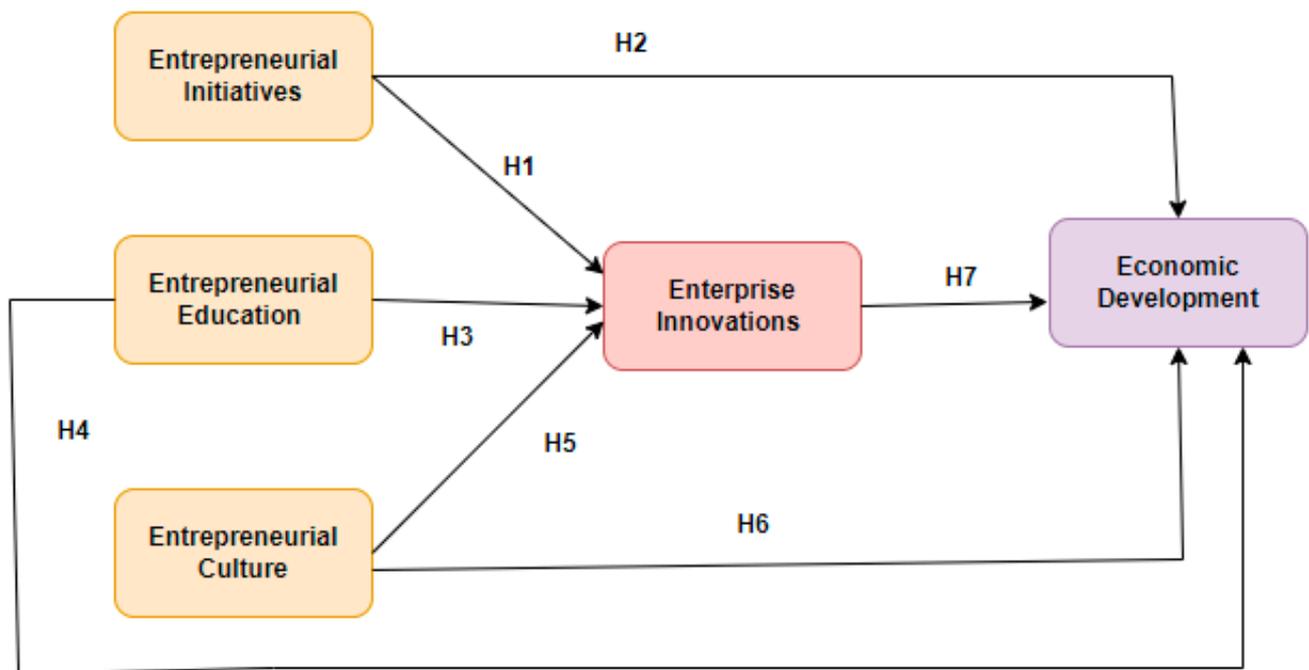


Figure 1. Conceptual framework [Source: Author's Data].

### 3. Methodology

The descriptive research design was adopted for the study. The target population of this study was the people running business and enterprises in Russia. The study focused on the people who had established businesses, whether large companies or small and medium enterprises. The specific people of interest were the people holding managerial or executive positions in different departments of the enterprises, since they were able to comprehensively address the questions. Since this population is large, a target sample representative of 450 respondents was developed. The probability sampling method was applied in coming up with the study sample. The random sampling technique was applied to obtain the sample size. The enterprises operating in the Russian capital were listed and from them, a sample of 340 were randomly selected. Then, an email was sent to them requesting their management personnel to participate in the study.

A structured and self-designed questionnaire was used to collect the primary data used for this research. The data were collected using item questions for each of the variables of the study. Before its use, the questionnaire was distributed to the experts for validity check, and was adjusted according to their recommendations. To test the reliability of the questionnaire, the internal consistency technique of the Cronbach's Alpha test was applied. The reliability criteria applied was borrowed from Mugenda and Mugenda [38] who recommended that the reliability is considered satisfactory if the absolute value of the Cronbach Alpha is equal to or greater than 0.7; otherwise, the reliability is low. A high coefficient implies high correlation between variables, indicating a high consistency among the variables.

To analyze the data, several techniques were adopted. The first was the descriptive statistics analysis to analyze the demographic characteristics of the respondents. The reliability and validity of the research instruments items were then evaluated by conducting the confirmatory factor analysis. In the confirmatory factor analysis, the reliability was evaluated using Cronbach's alpha, while the reliability was evaluated using average variance extracted (AVE). The study also evaluated the adopted conceptual framework model by running the model fitness tests. Some of the fitness tested include root mean square error of approximation (RMSEA), comparative fit index (CFI), and Tucker–Lewis index (TLI). The structural equation modelling (SEM) was applied as the main data analysis technique

to evaluate the hypothesis of the study. SEM was applied to bring out the relationship between the study variables.

## 4. Results and Data Analysis

### 4.1. Descriptive Analysis

The descriptive statistics presented in Table 1 show the results of the demographic variables for gender, where male respondents represented the majority comprising of 58% followed by female respondents comprising of 42%. For the age variable, the age bracket with the highest proportion was 31–40 years (38.3%) followed by those who were between 41–50 years (31%), then those who were 20–30 years comprising 18% and lastly those who were 50 and above years comprising 12.2%. The other variable that was evaluated was the education levels of the respondents. The results indicated that the majority education level was undergraduate (39.1%), then diploma and below (34.2%), then masters (15.7%), and lastly Ph.D. (11%). The experience of the respondents was also evaluated in terms of the years in which they have been working in the managerial positions. A majority indicated that they have been working 6–10 years, followed by those that have been working 1–5 years (27.5%), then those who have been working 10–15 years (24.9%), and lastly those with experience of 15+ years (16.2%).

**Table 1.** Descriptive Analysis.

| Variables  |                   | Frequency<br>(n) | Percent<br>(%) |
|------------|-------------------|------------------|----------------|
| Gen        | Male              | 200              | 58             |
|            | Female            | 145              | 42             |
| Age        | 20–30 years       | 62               | 18             |
|            | 31–40 years       | 134              | 38.8           |
|            | 41–50 years       | 107              | 31             |
|            | 50 and above      | 42               | 12.2           |
| Education  | Diploma and below | 118              | 34.2           |
|            | undergraduate     | 135              | 39.1           |
|            | Masters           | 54               | 15.7           |
|            | Ph.D.             | 38               | 11             |
| Experience | 1–5 years         | 95               | 27.5           |
|            | 6–10 years        | 108              | 31.3           |
|            | 10–15 years       | 86               | 24.9           |
|            | 15+ years         | 56               | 16.2           |

### 4.2. Model Evaluation

The model evaluation techniques were applied to check whether the required threshold was achieved before conducting the hypothesis analysis. The model fitness test conducted were normed fit index (NFI), Tucker Lewis index (TLI), comparative fit index (CFI), and goodness of fit (GFI). The required threshold for these fit indices should be 0.90 and above [37–39]. Other fit indices used included the root mean square error of approximation which should be 0.08. From the results presented in the Table 2 below, these thresholds were met.

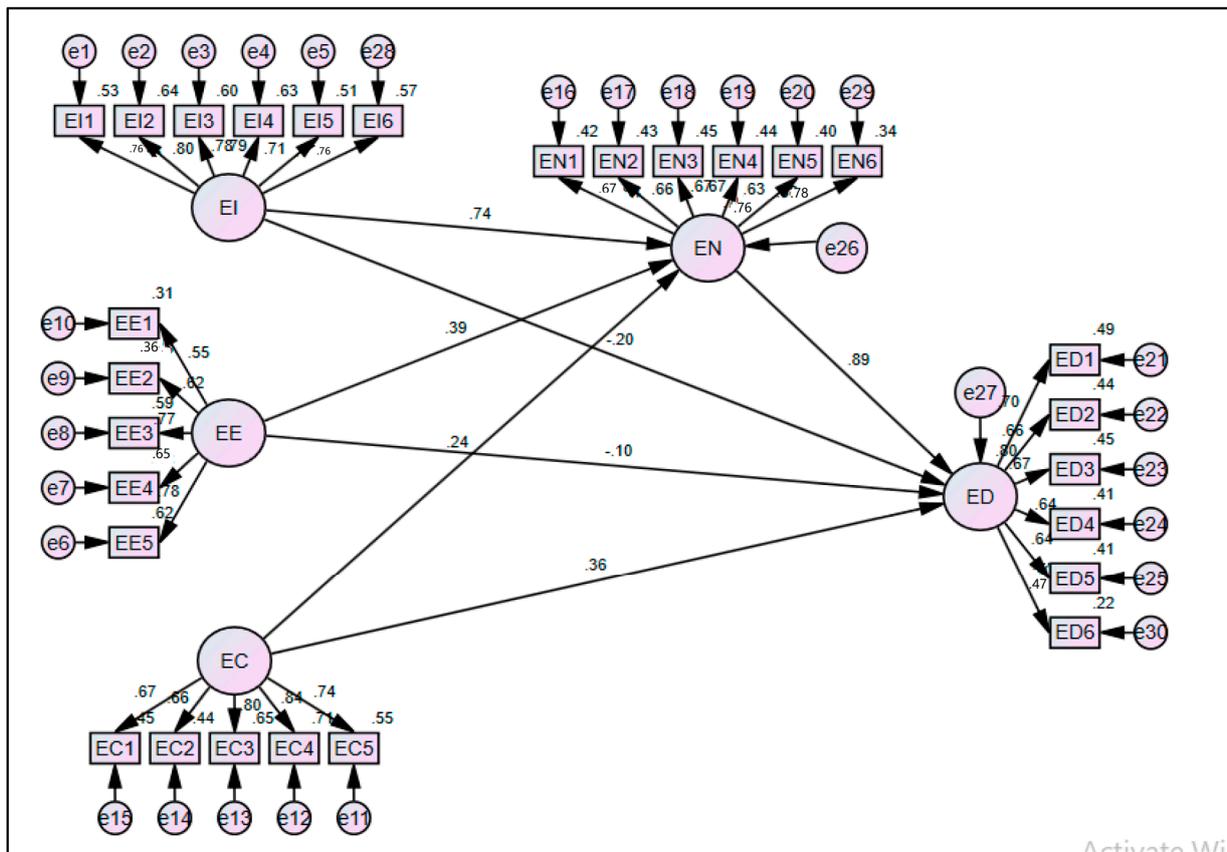
In addition to the model fitness indices test, the reliability and validity tests were conducted as shown in Table 3. The validity analysis was evaluated using two metrics, the factor loadings and the average variance extracted (AVE). According to the threshold established by Hair et al. [39] and Fornell and Larcker [40], these two measures should be greater than 0.50. According to the results presented in Table 3 and Figure 2, this threshold was met, which satisfied the validity or internal consistency requirement of the model. The reliability of the model was also evaluated. The reliability was evaluated using construct reliability (CR) and Cronbach's Alpha. The required threshold for these two measurements is 0.70 [41]. These thresholds we achieved, which led to the conclusion that the reliability of the constructs was achieved.

**Table 2.** Fit Indices Analysis.

| Fit Indices              | Statistic | Threshold? |
|--------------------------|-----------|------------|
| Absolute Fitness         |           |            |
| • CMIN/DF                | 2.906     | Satisfied  |
| • GFI                    | 0.9001    | Satisfied  |
| • AGFI                   | 0.892     | Satisfied  |
| Comparative Index        |           |            |
| • NFI                    | 0.927     | Satisfied  |
| • CFI                    | 0.931     | Satisfied  |
| • TLI                    | 0.946     | Satisfied  |
| Parsimonious Fit Indices |           |            |
| • RMSEA                  | 0.057     | Satisfied  |

**Table 3.** Reliability and Validity tests.

| Variables | Factor Loadings | CR    | AVE   | Cronbach Alpha |
|-----------|-----------------|-------|-------|----------------|
| <b>EC</b> |                 | 0.863 | 0.559 | 0.799          |
|           | EC1             | 0.697 |       |                |
|           | EC2             | 0.695 |       |                |
|           | EC3             | 0.783 |       |                |
|           | EC4             | 0.811 |       |                |
|           | EC5             | 0.744 |       |                |
| <b>ED</b> |                 | 0.861 | 0.510 | 0.823          |
|           | ED1             | 0.773 |       |                |
|           | ED2             | 0.743 |       |                |
|           | ED3             | 0.747 |       |                |
|           | ED4             | 0.721 |       |                |
|           | ED5             | 0.72  |       |                |
|           | ED6             | 0.558 |       |                |
| <b>EE</b> |                 | 0.838 | 0.511 | 0.785          |
|           | EE1             | 0.617 |       |                |
|           | EE2             | 0.676 |       |                |
|           | EE3             | 0.71  |       |                |
|           | EE4             | 0.767 |       |                |
|           | EE5             | 0.791 |       |                |
| <b>EI</b> |                 | 0.892 | 0.580 | 0.769          |
|           | EI1             | 0.746 |       |                |
|           | EI2             | 0.791 |       |                |
|           | EI3             | 0.765 |       |                |
|           | EI4             | 0.784 |       |                |
|           | EI5             | 0.719 |       |                |
|           | EI6             | 0.763 |       |                |
| <b>EN</b> |                 | 0.868 | 0.524 | 0.823          |
|           | EN1             | 0.726 |       |                |
|           | EN2             | 0.739 |       |                |
|           | EN3             | 0.749 |       |                |
|           | EN4             | 0.744 |       |                |
|           | EN5             | 0.716 |       |                |
|           | EN6             | 0.666 |       |                |



**Figure 2.** Factor loadings, path coefficient, and R-square result (PLS-Algorithm) (Source: Author’s data).

Fornell–Lacker and heterotrait–monotrait (HTMT) are used for discriminant validity. Table 4 shows the discriminant validity, indicating that the square root of the variable constructs is higher than their corresponding inter-correlation values, which confirms that their values are consistent with those recommended. Hence the measurement model holds the status to proceed for the further processes.

**Table 4.** Discriminant Validity (Fornell Larcker).

| Constructs | EC    | EI    | EN    | ED    | EE    |
|------------|-------|-------|-------|-------|-------|
| EI         | 0.82  |       |       |       |       |
| ED         | 0.409 | 0.890 |       |       |       |
| EN         | 0.510 | 0.364 | 0.613 |       |       |
| EC         | 0.316 | 0.682 | 0.827 | 0.781 |       |
| EE         | 0.289 | 0.648 | 0.441 | 0.188 | 0.874 |

EE= Entrepreneurial education; ED = Economic development; EC = Entrepreneurial culture EI: Enterprise innovation, and EN: Entrepreneurial initiatives.

### 4.3. Hypothesis Testing

The model and construct evaluation were the first step, before conducting the actual hypothesis analysis. The model fitness, reliability, and validity were considered satisfactory. Hence, hypothesis evaluation was subsequently performed.

The results are summarized in Table 5.

**Table 5.** Hypothesis Testing.

| Hypothesis |    | Relationship |    | $\beta$ | S.E.  | C.R.   | <i>p</i> -Value |
|------------|----|--------------|----|---------|-------|--------|-----------------|
| H1         | EI | →            | EN | 0.718   | 0.071 | 10.067 | ***             |
| H2         | EI | →            | ED | −0.167  | 0.107 | −1.562 | 0.118           |
| H3         | EC | →            | EN | 0.189   | 0.037 | 5.160  | ***             |
| H4         | EC | →            | ED | 0.244   | 0.044 | 5.515  | ***             |
| H5         | EE | →            | EN | 0.290   | 0.040 | 7.331  | ***             |
| H6         | EE | →            | ED | −0.063  | 0.051 | −1.232 | 0.218           |
| H7         | EN | →            | ED | 0.788   | 0.147 | 5.363  | ***             |

\*\*\*: *p* value is less than 0.001.

The first hypothesis (H1) that entrepreneurial initiatives have a positive effect on the enterprise innovation was confirmed since the path coefficient between the two variables was positive and significant ( $\beta = 0.718, p < 0.000$ ). However, the path coefficient between entrepreneurial initiative and economic development was not significant ( $\beta = -0.167, p > 0.05$ ). Hence, hypothesis 2 (H2) was not supported. While evaluating the effects of entrepreneurial culture, the results indicated that its path coefficient with entrepreneurial innovation was significant ( $\beta = 0.189, p < 0.05$ ), similar to its path with the economic development ( $\beta = 0.244, p < 0.05$ ). These results supported the third hypothesis (H3) that entrepreneurial culture has a positive effect on the enterprise innovation, as well as the fourth hypothesis (H4) that entrepreneurial culture has a positive effect on the economic development. The path coefficient between entrepreneurial education and enterprise innovation was positive and significant ( $\beta = 0.290, p < 0.05$ ). As a result, the fifth hypothesis (H5) was supported, namely that entrepreneurial education has a positive effect on the enterprise innovation. The path coefficient between entrepreneurial education and economic development was negative and insignificant ( $\beta = -0.063, p > 0.05$ ). As a result, the sixth hypothesis (H6) was not supported. In addition, the effect of enterprise innovation on economic innovation was tested. The results indicated that enterprise innovation significantly influences economic development ( $\beta = 0.788, p < 0.05$ ). This confirmed the seventh hypothesis (H7) of the study.

#### 4.4. Discussions

The purpose of this research was to investigate the contribution and the extent to which entrepreneurial initiatives, entrepreneurial education, and entrepreneurial culture are used as hubs for enterprise innovation and economic development. Considering the entrepreneurial initiatives, these are the efforts and support given to the entrepreneurs, or the people aspiring to become entrepreneurs, for them get started, support existing business owners with startup funds, and assist small manufacturers promote their products [31]. From the results of this analysis, entrepreneurship initiative significantly and influences enterprise innovations in Russia. In other words, if the enterprise initiatives are adopted and implemented among the entrepreneurs in Russia, the enterprise innovation activities would be encouraged. These findings are in line with those of Lindner, [3], who indicated that initiatives, such as education programs, entrepreneurial research and training programs, and public policy that supports entrepreneurship and assistance to new entrepreneurs, facilitate and encourage entrepreneurship. Similarly, for Ruiz et al. [33], these initiatives are important to stimulate innovation, which is the process by which ideas are turned into new and improved products, processes, or services. They also promote entrepreneurs' ability to innovate and help them continue their work by providing the necessary support. However, these initiatives were not found to have a significant influence on economic development.

The entrepreneurial culture was found to be a critical factor, for both enterprise innovation and economic development. The results suggested that if entrepreneurial culture is promoted and improved, then the enterprise innovation as well as economic development would be boosted. In line with this, Olugbola [12] suggested that entrepreneurship culture is a way of thinking and behaving that helps an organization to be innovative, adaptable

and creative in order to thrive in an uncertain world. Jardim et al. [31] also suggested that it is also responsible for an organization's innovation, which leads to economic development and better job opportunities within the company. It is therefore arguable that entrepreneurship culture could be considered as an economic engine that drives economic development. It is the process of taking advantage of opportunity to create new businesses, products and services. Entrepreneurship culture helps organizations in developing markets. It contributes to and fosters transforming and enhancing existing businesses, creating new ones, and facilitating their growth by improving business processes, increasing efficiency and ensuring quality control.

Entrepreneurial education was found to be a significant influence of enterprise innovation but not economic development. Entrepreneurship education was considered to be an education that fosters and educates the young people about entrepreneurship practices. These findings are supported by Secundo et al. [42], whose work indicated that entrepreneurship education boosts innovation by enabling students to learn from each other and from professionals, who can provide guidance and referrals. Combined with mentoring programs, an entrepreneurial education can help new ventures become more sustainable and profitable. Further, Fairley and Lloyd [37] indicated that entrepreneurship education has been shown to boost student performance, entrepreneurial attitudes and outcomes, and innovation. This study therefore supports the argument that entrepreneurial education creates a spirit that drives innovation. It helps create entrepreneurs who are creative and resilient, constantly seeking new opportunities and ways to bring ideas to fruition. In this respect, entrepreneurship education plays a key role in promoting innovation [43].

In addition to the above three aspects, this research found out that enterprise innovation is a significant influencer of economic development. Additionally, enterprise innovation was found to significantly mediate the effect of entrepreneurial initiatives, entrepreneurial education, and entrepreneurial culture on economic development. Though entrepreneurial initiatives and entrepreneurial education were not found to have a direct influence on economic development, they were found to have an indirect influence through enterprise innovation. These findings were supported by Olugbola [12] who indicated that enterprise innovation fosters entrepreneurial and creative abilities of entrepreneurs that lead to economic growth in an organization.

## 5. Policy Recommendations and Future Research

Several recommendations could be drawn, with specific consideration of the Russia as the study region. This research first emphasizes the importance of entrepreneurial culture, as far as enterprise innovation and economic development is concerned. It is a good way to foster innovation and creativity, which can enhance the bottom line. It plays a vital role in creating a strong entrepreneurial environment where team members know what they're getting into and are comfortable with the idea of starting an independent business. Therefore, this research recommends that all stakeholders, from the small enterprise to the government officials, should work towards promoting entrepreneurial culture, as a means of fostering innovation and economic development. This research also recommends that to boost enterprise innovation, entrepreneurial initiatives and entrepreneurial education should be considered critical aspects. This is because they boost enterprise innovation, which in turn has an effect on economic development. Through them, a focus should be made that provides entrepreneurs with the resources, support, and incentives to start businesses. Entrepreneurs develop new product markets, create jobs, and fund local economic growth by acquiring entrepreneurial education. Enterprise innovation has been advocated as the aspect to consider in order to achieve economic growth. Innovation and technology are important in economic development. Governments and other policy makers should adopt policies enabling and facilitating enterprise innovation, both domestically on one hand and internationally on the other. New policies should incubate corporate classifications into research, development, marketing, and sales firms; establish an environment that supports high levels of transformational technological capability within industry by

encouraging the sharing of knowledge between organizations; encourage private sector participation in science-based initiatives; establish linkages between discoveries at international conferences as well as industrial applications through inter-industry collaborative efforts; and build an innovation ecosystem through a strong commitment to entrepreneurship education. It is recommended that future research should elaborate on this model and incorporate additional latent variables. Future research could also consider applying a different methodology other than SEM for the comparison of results.

## 6. Conclusions

The purpose of this research was to find out how the entrepreneurial initiatives, entrepreneurial education, and entrepreneurial culture influences enterprise innovations and economic development. The research was conducted under a case study of Russia, using primary data of people actively involved in entrepreneurship activities. The findings of the research indicated that entrepreneurial initiatives have a significant influence on the enterprise innovation and not economic development. The entrepreneurial education was found to have a significant influence on the enterprise innovation and an insignificant influence on the economic development. For the entrepreneurial culture, it was found to have a significant influence on both enterprise innovation as well as economic development. Enterprise innovation was found to be a significant influencer of economic development, and a mediator of the effects of entrepreneurial initiatives, entrepreneurial education, and entrepreneurial culture on economic development. This study recommends that entrepreneurial culture should be cultivated to encourage enterprise innovation and economic development. It is important to provide entrepreneurs with the resources, support, and incentives to start businesses. Governments and other policy makers should adopt policies enabling and facilitating enterprise innovation, both domestically on one hand and internationally on the other, to boost their economic development.

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