

# The Effect of Creativity and Innovation on Entrepreneurship

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**Abstract:** This study aimed to find out the relationship and impact of Creativity and Innovation on Entrepreneurship for foreign students at the Turkish Universities in Konya. The study used a questionnaire consisting of (44) items as a tool to collect data from respondents. Data has been collected from 252 respondents and analyzed by SPSS in order to present the statistical indicators for variables. This study found the relationship between Creativity, Innovation and Entrepreneurship is a mutually beneficial relationship. Each of them needs to other. Innovation is affecting Entrepreneurship more than Creativity. Because the main task of innovation is to add value to products and services by producing new products and services or improving them in order to meet customers' needs and expectations effectively and efficiently.

**Keywords—** Creativity; Innovation; Entrepreneurship; Foreign Students; The Turkish Universities.

## 1. INTRODUCTION

Companies need to be able to recognize issues and opportunities, as well as investigate, design, and execute innovative solutions in an increasingly dynamic environment to remain competitive, expand, and lead. These dynamic drives businesses to enhance their capacity to solve current and future issues in novel and valuable ways, i.e. to innovate. Organizations have grown more interested in exploring new, collaborative ways to obtain access to creative ideas as a result of growing pressure to innovate [1].

Because entrepreneurship plays such an important part in today's economy, it has garnered a lot of recent scholarly attention. For both theoretical and practical application, the fundamental aspects of entrepreneurship, as well as the circumstances for developing and sustaining it, are of special importance. Although the practical usage of such ideas differs widely, the terms "creativity" and "innovation" have long been associated with entrepreneurship [2].

Entrepreneurship is a dream that many aspire to, a goal pursued by the distinguished, which is the result of continuous hard work and continuous effort for an innovative project, where ideas for innovative projects and how to transform them into innovative products.

Despite the fact that entrepreneurship is frequently taught in a business school setting, research suggests that a disproportionate number of entrepreneurs have benefited from a liberal arts degree and have taken unconventional pathways. Point Judith Capital, a venture capital firm, looked into statistics on the number of entrepreneurs who graduated from Bowdoin College. They concluded that, as compared to other college graduates, liberal arts college graduates are distinctively inclined considerably above index in terms of entrepreneurial value creation and innovation. They go on to add that 'a liberal arts degree appears to be a strong link between being a successful entrepreneur.' [3].

Schwarzkopf [4] discusses the evolution of the entrepreneur concept, notably in religious literature, and offers a helpful foundation for comprehending a "theology of entrepreneurship." Entrepreneurship is thus a multistage occurrence that begins with a combination of human creativity, financial means, and technological equity, fosters the discovery and creation of new ways to organize production processes and institutional forms, and leads to outcomes such as venture growth and new ventures. The expansion of new businesses is a distinguishing feature of growing economies [5]. Another way to think about creativity or creative industries is as subgroups of or apart from other productive companies [6].

The present study concentrates on creativity and innovation, and how to affect entrepreneurship for foreign students in Konya Universities. The study discusses the literature reviews in detail to give the attention to study's variables. Data has been collected from respondents and analyzed by SPSS in order to present the statistical indicators for variables. Hypotheses are formulated and analyzed to show the relationship and influence between independent variables and dependent variable. Finally, the results and conclusions have been considered and indicated briefly.

## 2. CONCEPTUAL FRAMEWORK

### 2.1 CREATIVITY

Creativity, as a human ability or capacity, is predicated on the presence of some reality. Human behavior is dependent on an order of existence and a sphere of activity, whether from a religious or philosophical standpoint. As a result, human creativity may be considered to be derived from and reliant on reality's constructed or objective order. A past reality or creation must exist for people to be creative. The main point here is that the present order of reality contains fundamental possibilities that are inherent or entrenched in it. On the basis of this established order, human creativity finds and actualizes these possibilities in some way. Physical (material) and metaphysical factors have a role in the offered of objective reality or creation [2].

Creativity is a cognitive talent that is critical to our evolution as a species; nevertheless, understanding it solely in neurological terms is simplistic and ineffective when considering its effects on individual and communal well-being. When we realize that the objective of creativity is to gain creative insight and produce actionable ideas, the connection between creativity and innovation becomes both clear and perplexing. Despite the fact that contemporary culture appreciates innovation and recognizes it as a critical component of progress, how innovation is cultivated is frequently misunderstood, and the important role of creativity and its expression in the nurturing of innovation is largely neglected. If creativity is a human quality that is present in all of us, we may fairly expect invention to be widespread and simple to acquire in any sector of society. However, creativity might appear elusive and difficult to summon at whim, and the inherent creative capacity displayed by young children can be completely inhibited and rendered inaccessible by adults in the same culture [7].

Most people associate creativity with the capacity to think of doing something unique, an originality or uniqueness that may be used to build something that didn't exist before [8]. Making differences between creative thinkers and non-creative thinkers is problematic, according to Weisberg [9], who claims that creative thinking is a common occurrence and that we all have the potential to do so.

The genius, as defined by Weisberg [9], is a creative person capable of making intellectual leaps. 'Outside the box': "the genius view shapes much of modern psychologists" thinking about creativity. Creativity should be distinguished from intelligence, which is sometimes referred to as divergent thinking, as opposed to convergent thinking, which is associated with the well-known general cognitive ability [10]. Castillo-Vergara, et al. [11] emphasized that the importance of creativity is linked to its influence on corporate competitiveness, citing research that shows a link between teams who do well in creativity tests and their success.

Managing creativity and managing innovation, according to Wilson and Stokes [12], are two distinct processes. They claim that creativity is "the production of new ideas," which is primarily an individual effort that eventually relies on interactions with others in the same area (evoking parallels with Bourdieu). In order to leverage resources, innovation is the effective commercialization of new ideas, which is usually a joint process including venture capitalists, attorneys, and industry specialists. If creativity is defined as a type of human activity that is especially reliant on basic reality, then innovation may be defined as human action that takes place within the framework of recent historical progress [2].

## 2.2 INNOVATION

Afuah [13] defines innovation as "the use of new knowledge to offer a new product or service that customers want". However, this definition excludes processes innovation (changing the way that business is conducted) and systems

innovation (changing the way processes are controlled and organized).

In both entrepreneurship and innovation, creativity is required, and it is via this process that a symbolic field in culture is altered [14]. Tschmuck [8] argues that innovation follows after invention: "an innovation has occurred only after the invention is successfully put on the market ... we must not equate the inventor with the innovator". The invention, the prototype or the ideas are precursors to the innovation.

Innovations flourish when the company and factories use scientific research and technology to produce products that are more responsive to the needs of their customers and clients, and in line with their expectations.

Weisberg [9] claims that innovation is the result of the creative process combined with other market factors affecting the product, service, system, or process. Unlike entrepreneurship, there is little debate on the typical traits of innovators, but there is an emphasis on models of innovation and the economic effect of diverse models on businesses.

In today's competitive world, innovation is vital to the survival and prosperity of creative individuals and inventive businesses. If innovation is lost, businesses are destined to degradation and destruction due to the rapid pace of global economic growth, high demand, and limited supply. The entrepreneurial process relies heavily on innovation. Entrepreneurial innovation is a method through which an entrepreneur generates new CSP or expands a pool of resources in order to enhance their wealth-generating potential. Entrepreneurs may turn their ideas into commercial products through the process of innovation. This necessitates their participation in hastening transformation [15].

More than a good concept, the innovation process is essential. Although the source of ideas is essential, and creative thinking may play a part in their creation, an idea derived through ideation differs from one derived from extensive thought, study, and job experience. More significantly, aspiring entrepreneurs invest time and money in developing a solid concept at various stages. As a result, innovation is a combination of good concept insights and assistance in putting the idea into action. From a managerial standpoint, innovation begins with idea and concludes with the introduction of new products or services [15].

## 2.3 ENTREPRENEURSHIP

Entrepreneurship may be defined as a process that solves critical societal needs without focusing just on immediate financial gain for the entrepreneurs while also catalyzing social change. Despite the widespread emphasis on "opportunity," there is no universally accepted definition of entrepreneurial ability. The key competency of entrepreneurship, according to the European Key Competence Framework, refers to a person's capacity to put ideas into action. This wide perspective involves being open-minded to opportunities, putting creativity, innovation, and

risk-taking into practice, as well as the capacity to plan and manage projects to meet goals. The dynamic process of identifying and/or creating opportunities is a social construct that does not exist outside of people's perspectives [16, 17].

Regardless of the restrictions, entrepreneurship is the process of bringing new ideas to market or implementing them extensively within companies. Entrepreneurs aren't born; they're people who have learned to be inventive, proactive, and risk-aware, and who can get things done regardless of the circumstances [18].

Most definitions imply that entrepreneurial competence is a system with several "aspects," "issues," and "dimensions" that relate to different sets of skills, talents, and competences. Fiet [19] discovered 116 distinct themes in an examination of 18 syllabi, with a high level of agreement in six major topical covering areas. They are: strategy/competitive analysis, managing growth, idea development, risk and rationality, funding (mostly business angels), and creativity. As in this case, allusions to "idea creation" and "problem-solving" are frequently followed by mentions of "creativity" and/or "innovation," with no explanations of what these terms imply.

Entrepreneurship is a relatively new academic field. Despite decades of scholarly effort, the definition of an entrepreneur remains difficult. It's a controversial phrase that means different things to different individuals [20].

There is a big difference between the normal businessman and the entrepreneur who depends on the perception and taking the initiative, Microenterprises that follow well-established trends are not entrepreneurship, as well as refined work is not entrepreneurship. What separates the businessman from the entrepreneur is their perceptions and initiatives. The entrepreneur sees things that others cannot see and acts before others interact. Entrepreneurship is neither an attribute nor a character. Rather, it is a systematic search aimed at changing and exploiting the opportunity. It looks to the established market, ignoring what was there while seeing what the market is missing to satisfy what it needs.

According to Man, et al. [21], entrepreneurial competence is divided into six 'domains,' which include opportunity, relational, conceptual, organizational, strategic, and commitment skills. Erikson [16] considers that entrepreneurial competence is the 'ability to recognize and envision taking advantage of opportunity combined with the ability to acquire and utilize resources'. Lans, et al. [22] emphasize the social contexts where individuals act, describing entrepreneurial competencies as 'new pathways for achieving innovation-related business targets'.

The Praeger perspective series on entrepreneurship [23] considers entrepreneurship from three perspectives; People, Process and Place. The section on 'People' adopts a broad view of the existing academic literature around entrepreneurial character traits and signals the 'cognitive, economic, social and institutional factors that influence entrepreneurial behavior' [24]. 'Process' refers to the decision-

making processes and decisions made by entrepreneurs throughout their careers, with a focus on idea creation and new venture start-ups, whereas 'Place' refers to the contextual, environmental elements that affect the entrepreneur. These three elements give a wide framework within which to examine entrepreneurship studies in terms of the potential to influence a student or entrepreneur in training [20].

There is widespread agreement that entrepreneurship encompasses not just the conventional focus on the development of new enterprises, but also the generation of self-employment and the identification of possibilities, such as intrapreneurship, corporate, sustainable, and social entrepreneurship [22, 25]. Individuals can operate as entrepreneurs independently or as part of a corporate structure, forming new businesses or initiating renewal or innovation within existing businesses, generating economic, social, and cultural value [26, 27].

## 2.4 THE RELATIONSHIP BETWEEN CREATIVITY, INNOVATION AND ENTREPRENEURSHIP

Creativity, innovation, and entrepreneurship have become critical values for the survival and development of businesses in this era of constant change and rising volatility [28]. The growing topic of creative entrepreneurship examines the relationships between innovation, creativity, and entrepreneurship; most of the literature focuses on the self-managed artist, or creative persons who find themselves doing both creative and business-related activities [20].

The relationship among creativity, innovation and entrepreneurship is pointed out by [11] who emphasizes the importance of creativity in the entrepreneurial process and innovation in the discovery of new business possibilities. Along these lines, According to Boza, et al. [29], the terms creativity, innovation, and entrepreneurship refer to the mindsets and talents connected with these concepts, as well as the traits and behaviors associated with successful enterprise. Entrepreneurship, for example, is the capacity of an individual to put ideas into action. It includes the capacity to plan and direct action toward the attainment of goals, as well as creativity, innovation, and risk-taking. It's important to think about how these mindsets and abilities may be applied in the workplace.

Creativity, innovation, and entrepreneurship are widely regarded as engines for fostering an entrepreneurial culture and propelling socioeconomic growth forward [30, 31]. Integration of these issues into educational programs' "core competencies" has become a major theme in dealing with volatile markets and the complicated demands of technology and societal developments [32-34].

The relationship between creativity and entrepreneurship is a mutually beneficial relationship. Creativity is financed and marketed by entrepreneurship, without the emergence of new technological innovations, entrepreneurship will reach a dead end. Without entrepreneurship, Creativity will remain just

ideas stored in the mind of the creator, which may be neglected and forgotten.

Perhaps one of the most significant roadblocks to developing entrepreneurial mindsets and competencies is that, like entrepreneurship, innovation and creativity are regularly interpreted (and considered) as characteristics in the educational field, which tends to assign that humans are born with certain personality traits that make them creative/innovative/entrepreneurial [35, 36].

The innovator needs the entrepreneur to push his ideas to the market, the entrepreneur needs the innovator's ideas that shake the market. It is common to see an innovative entrepreneur, but most executives become a combination of both within a short period. In order for innovators to attract entrepreneurs, their ideas must be attractive and useful, so that the entrepreneur believes that they will make the target market old and non-productive, whereas entrepreneurs should be the fastest in their industry, and aim to lead or dominate a new market. They need to be open to change and to make decisions if market conditions are ready for innovation to succeed. They are the generators of luck and the tool that innovators need to bring their ideas to market.

Carayannis, et al. [37] also connects creativity with entrepreneurship, especially in the context of change that is both achievable and useful given the present framework. Fayolle and Klandt [25] believe that entrepreneurship may be regarded (and executed) from three perspectives in modern entrepreneurship education: as a matter of culture or state of mind, as a matter of conduct, or as a matter of creating specific conditions. Developing an entrepreneurial mentality in graduates requires an education that emphasizes the values, beliefs, attitudes, and emotional components of entrepreneurship, as well as creativity and invention. However, the amount of attention devoted to these factors and how they are included into entrepreneurship taxonomies and syllabi might vary greatly.

According to Gumusluoğlu and Ilsev [38], innovation via creativity is a critical component of organizational success and competitive advantage, as well as a healthy economy. However, there is a significant link between creativity and invention [39] as well as between creativity and entrepreneurship [40]. Creativity has been highlighted as a source of innovation [41]. Individual creativity serves as a foundation for corporate creativity and innovation, and the outcomes have been related to company success and survival [11, 42]. As a result, creativity is associated with the individual level, whereas innovation is associated with the organizational level [43].

Furthermore, innovation is seen as a key factor in achieving entrepreneurial success [40]. Entrepreneurs pool resources in order to create something new, which might be a company, a product, or a service. Entrepreneurs could only contribute about a future outcome by translating their ideas into practice [44]. As a result of its active contribution to economic growth,

entrepreneurship is a subject of rising interest for economic study [45].

Aggestam [46] points out that describing and identifying entrepreneurs is still a challenge. It's much more difficult to define a creative entrepreneur. The entrepreneurial development of ideas and creative works is the emphasis of creative entrepreneurship. The primary focus of the creative entrepreneur is the production and strategic commercialization of creative or intellectual capital. Eikhof and Haunschild [47] claim that because of the clash between art and business, most creative entrepreneurs are forced to combine two personality traits: "their identification as an artist, which gives them with work drive and creative energy, and their identification as a small enterprise."

In terms of character traits used to describe creative entrepreneurs, Harper Perennial Howkins [48] describes them as tenacious, even when others don't believe in their abilities. They get completely and passionately involved in their job as a result of their perseverance, even at the price of really generating a profit. Bilton and Leary [49] claim that creative firms require creative managers because they are "the brokers who contribute value to the creative process by managing the flow of ideas and resources, as well as by connecting ideas, persons, and organizational responsibilities." While they ignore efforts by psychiatrists to evaluate or anticipate similar features discovered in creative entrepreneurs as "never resulting in a consistent pattern or personality," they do acknowledge that the creative financial adviser will have "an eye for the market," and that, while not always creative themselves, they will know how to buyout other cognitive capacity.

### 3. RESEARCH MODEL AND HYPOTHESES FORMULATION

Based on the literature review, the research model can be developed to link creativity and innovation to entrepreneurship. Figure 1 below shows the correlation between independent variables and dependent variable. In addition, based on the study framework, the main hypothesis can be formulated.

**H1:** There is a significant effect of Creativity on Entrepreneurship.

**H2:** There is a significant effect of Innovation on Entrepreneurship.

### 4. METHOD

This study chose a systematic random sample in which 252 respondents were identified at the Turkish Universities in Konya. The sampling frame for this study consisted of bachelor, master and Ph.D. students who studied at the Turkish universities in Konya. Thus, a total of 252 responses were usable and used for subsequent analysis. The questionnaire is divided into two parts: the first part contains demographic variables (5 items). The second part contains

independent and dependent variables which are: Creativity (9 items) all of them adapted by Çelik, et al. [50]. Innovation (15 items) all of them adapted by Hurt, et al. [51]. Entrepreneurship (20 items) all of them adapted by Koh [52].

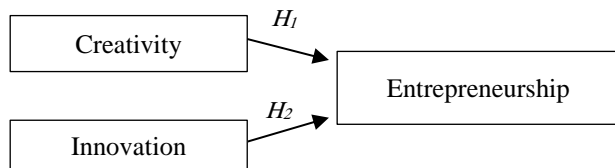


Fig. 1: Study Model

5. RELIABILITY AND VALIDITY

Table 1: Cronbach’s Alpha Reliability Coefficients

| Variables        | No. of items | Cronbach’s alpha | Split Half   |
|------------------|--------------|------------------|--------------|
| Creativity       | 9            | 0.833            | 0.772        |
| Innovation       | 15           | 0.863            | 0.830        |
| Entrepreneurship | 20           | 0.793            | 0.820        |
| <b>Total</b>     | <b>44</b>    | <b>0.789</b>     | <b>0.795</b> |

According to (table 1), the results show that the values of Cronbach’s Alpha were in the range of 0.793 and 0.863. This range is considered high; the result ensures the reliability of each field of the questionnaire. Cronbach’s Alpha equals 0.789 for the entire questionnaire which indicates excellent reliability of the entire questionnaire.

Table 2: Pearson Correlation Structural Validity Coefficients

| Variables        | Pearson Correlation Coefficient | P-value (sig.) |
|------------------|---------------------------------|----------------|
| Creativity       | 0.786                           | 0.000          |
| Innovation       | 0.727                           | 0.000          |
| Entrepreneurship | 0.910                           | 0.000          |

According to (table 2), the results show that the p-values (Sig.) are less than 0.05. So, the correlation coefficients of all the fields are significant at  $\alpha = 0.05$ . It can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study.

6. DATA ANALYSIS

Table 3: Respondents’ characteristics by “Gender”

| Gender       | Frequency  | Percentage |
|--------------|------------|------------|
| Male         | 180        | 71.4       |
| Female       | 72         | 28.6       |
| <b>Total</b> | <b>252</b> | <b>100</b> |

Table 4: Respondents’ characteristics by “Age”

| Age                | Frequency  | Percentage |
|--------------------|------------|------------|
| 18 – 23            | 116        | 46.0       |
| 24 – 29            | 104        | 41.3       |
| 30 years and older | 32         | 12.7       |
| <b>Total</b>       | <b>252</b> | <b>100</b> |

Table 5: Respondents’ characteristics by “Education Level”

| Education Level | Frequency  | Percentage |
|-----------------|------------|------------|
| TÖMER           | 8          | 3.2        |
| Bachelor Degree | 128        | 50.8       |
| Master Degree   | 68         | 27.0       |
| PhD Degree      | 48         | 19.0       |
| <b>Total</b>    | <b>252</b> | <b>100</b> |

Table 6: Respondents’ characteristics by “University”

| Years of Service             | Frequency  | Percentage |
|------------------------------|------------|------------|
| Selcuk University            | 120        | 47.6       |
| Konya Teknik University      | 60         | 23.8       |
| Necmettin Erbakan University | 60         | 23.8       |
| KTO Karatay University       | 12         | 4.8        |
| <b>Total</b>                 | <b>252</b> | <b>100</b> |

Table 7: Respondents’ characteristics by “Nationality”

| Level of Management | Frequency  | Percentage |
|---------------------|------------|------------|
| Palestine           | 124        | 49.2       |
| Yemen               | 52         | 20.6       |
| Syria               | 20         | 7.9        |
| Lebanon             | 8          | 3.2        |
| Jordan              | 4          | 1.6        |
| Iraq                | 16         | 6.3        |
| Tunisia             | 8          | 3.2        |
| Algeria             | 8          | 3.2        |
| Morocco             | 4          | 1.6        |
| Sudan               | 4          | 1.6        |
| Mauritania          | 4          | 1.6        |
| <b>Total</b>        | <b>252</b> | <b>100</b> |

7. FINDINGS:

Table 8: Means and Standard Deviations for “Creativity” factor

| Creativity  | Mean | SD   | Relative Weight | P-value | Rank |
|---|------|------|-----------------|---------|------|
| By evaluating existing solutions, I come up with new solutions.             | 7.41 | 1.92 | 74.13           | 0.00    | 8    |
| I can find original solutions to problems.                                  | 7.46 | 2.16 | 74.60           | 0.00    | 7    |
| I can reach a solution by seeing the positive sides of negative situations. | 7.76 | 1.74 | 77.62           | 0.00    | 6    |
| I can make synthesis by   | 7.95 | 1.91 | 79.52           | 0.00    | 4    |

| Creativity  | Mean        | SD          | Relative Weight | P-value      | Rank      | Innovation   | Mean | SD   | Relative Weight | P-value | Rank |    |
|---|-------------|-------------|-----------------|--------------|-----------|--|------|------|-----------------|---------|------|----|
| combining my daily life experiences with the newly learned information. I capitalize on my prior experiences to find a solution to a problem. I can propose new ideas that can lead to the solution of a problem. I can adopt a point of view of a problem different from the viewpoints of others. I work spontaneously without making plans. I can motivate myself. | 8.59        | 1.72        | 85.87           | 0.00         | 1         | information and suggestions from me. I like to try new things. When I do something, I look for new ways. I often find new ways to solve problems. I am skeptical of new perspectives and new inventions. I don't embrace new ideas until I see people around me accept it. I think that I am a person who easily influences people when it comes to innovation. I think my thoughts and behaviors are creative and original. I think I am a creative person. I enjoy leading the group on innovations. I think that I encourage those around me to be original with my thoughts and behaviors. I think the old way of life and doing | 8.33 | 1.72 | 83.33           | 0.00    | 2    | 2  |
|   |             |             |                 |              |           |  |      |      |                 |         |      | 3  |
|   |             |             |                 |              |           |  |      |      |                 |         |      | 7  |
|   | 8.27        | 1.69        | 82.70           | 0.00         | 2         |  |      |      |                 |         |      | 12 |
|   |             |             |                 |              |           |  |      |      |                 |         |      | 15 |
|   | 7.92        | 1.73        | 79.21           | 0.00         | 5         |  |      |      |                 |         |      | 11 |
|   |             |             |                 |              |           |  |      |      |                 |         |      | 9  |
|   | 6.32        | 2.42        | 63.17           | 0.04         | 9         |  |      |      |                 |         |      | 10 |
|   |             |             |                 |              |           |  |      |      |                 |         |      | 4  |
|   | 8.14        | 1.83        | 81.43           | 0.00         | 3         |  |      |      |                 |         |      | 14 |
| <b>All statements of the field</b>  | <b>7.76</b> | <b>1.17</b> | <b>77.58</b>    | <b>0.000</b> | <b>--</b> |  |      |      |                 |         |      |    |

According to (table 8), the "Creativity" statements were analyzed using descriptive analysis, it is seen that the statement "I capitalize on my prior experiences to find a solution to a problem" has the highest rank with a mean (8.59), it refers to the power of respondents to solve every problem they meet. The respondents have a strong experience from their life which live it in their countries. These countries suffer from many crises and problems, and some of them fought wars. This resulted in the formation of strong creative personalities among the respondents to be creatives.

**Table 9:** Means and Standard Deviations for "Innovation" factor

| Innovation   | Mean | SD   | Relative Weight | P-value | Rank |
|--|------|------|-----------------|---------|------|
| Since I follow the innovations, my friends often get | 7.40 | 2.06 | 73.97           | 0.00    | 8    |

| Innovation  | Mean        | SD          | Relative Weight | P-value      | Rank      |
|---|-------------|-------------|-----------------|--------------|-----------|
| things the old way is the best way. Before considering innovations, I would like to see other people use that innovation. | 5.37        | 2.78        | 53.65           | 0.00         | 13        |
| I am open to new ideas.   | 8.35        | 2.03        | 83.49           | 0.00         | 1         |
| Unanswered questions lead me to find solutions.   | 7.73        | 2.08        | 77.30           | 0.00         | 5         |
| <b>All statements of the field</b>  | <b>6.89</b> | <b>1.26</b> | <b>68.94</b>    | <b>0.000</b> | <b>--</b> |

According to (table 9), the “Innovation” statements were analyzed using descriptive analysis, it is seen that the statement “I am open to new ideas” has the highest rank with a mean (8.35), it refers to the openness of the respondents. As they come from many countries and speak more than one language. They have lived through many cultures. Some of them visited more than one country and understood its culture, customs, and people's attitudes. So, innovative respondents can understand people and their culture very well.

**Table 10:** Means and Standard Deviations for “Entrepreneurship” factor

| Entrepreneurship   | Mean | SD   | Relative Weight | P-value | Rank |
|--|------|------|-----------------|---------|------|
| If the success rate is 60% or more, I can take the risk.   | 7.41 | 2.28 | 74.13           | 0.00    | 8    |
| I can perceive work-related opportunities even though other people do not see anything out of the ordinary in the environment. | 7.25 | 1.99 | 72.54           | 0.00    | 12   |
| I like competition because competition makes me work harder.   | 7.86 | 2.37 | 78.57           | 0.00    | 6    |

| Entrepreneurship  | Mean | SD   | Relative Weight | P-value | Rank |
|---|------|------|-----------------|---------|------|
| I influence the outcome of events in my life, not luck and fate.                        | 7.54 | 1.95 | 75.40           | 0.00    | 7    |
| Thanks to my intelligence and capacity, I can cope with the difficulties I encounter.   | 7.32 | 2.13 | 73.17           | 0.00    | 11   |
| I like to make decisions and lead when there is uncertainty.                            | 6.92 | 2.64 | 69.21           | 0.00    | 13   |
| I always believe that there are better methods than the existing ones.                  | 8.22 | 1.67 | 82.22           | 0.00    | 3    |
| Instead of waiting or watching things happen, I do things myself.                       | 7.94 | 1.79 | 79.37           | 0.00    | 5    |
| I accept the positive or negative consequences of my decisions and actions.             | 8.24 | 1.89 | 82.38           | 0.00    | 2    |
| If I don't feel successful, I don't like doing that job, even if it's highly paid.      | 7.40 | 2.54 | 73.97           | 0.00    | 9    |
| I would not hesitate to invest in a partnership whose shares I know will make a profit. | 8.08 | 2.27 | 80.79           | 0.00    | 4    |
| Continuity and safety of the business is more important to me than profit.              | 7.38 | 2.41 | 73.81           | 0.00    | 10   |
| I am confident in my ability to succeed.  | 8.35 | 1.53 | 83.49           | 0.00    | 1    |
| I think success is a result of luck and destiny   | 3.87 | 2.88 | 38.73           | 0.00    | 19   |

| Entrepreneurship  | Mean        | SD          | Relative Weight | P-value     | Rank      |
|---|-------------|-------------|-----------------|-------------|-----------|
| rather than personal effort.  |             |             |                 |             |           |
| I just want to earn enough money to live comfortably.   | 5.35        | 3.08        | 53.49           | 0.00        | 15        |
| Although I am talented, ambitious and hardworking, I cannot start a business unless I have money. | 6.44        | 2.84        | 64.44           | 0.01        | 14        |
| I doubt that I can cope with new and unconventional situations.                                   | 5.29        | 2.84        | 52.86           | 0.00        | 16        |
| I find it difficult to come up with new, interesting, or even crazy ideas.                        | 4.78        | 2.63        | 47.78           | 0.00        | 17        |
| I avoid changing the way things are done.   | 4.71        | 2.33        | 47.14           | 0.00        | 18        |
| People's unhappy states are caused by bad luck.   | 3.86        | 2.87        | 38.57           | 0.00        | 20        |
| <b>All statements of the field</b>  | <b>6.71</b> | <b>1.03</b> | <b>67.10</b>    | <b>0.00</b> | <b>--</b> |

According to (table 10), the “Entrepreneurship” statements were analyzed using descriptive analysis, it is seen that the statement “I am confident in my ability to succeed” has the highest rank with a mean (8.35), it refers to high self-confidence and strong initiative for respondents to make a big success. The obstacles and difficulties make them more suitable to take a chance for designing the success, so it’s the most important trait for an entrepreneur person.

**Table 11:** Means and Standard Deviations for study variables

| Study Variables | Mean | Standard Deviation | Relative Weight | Test value | P-value (sig.) |
|-----------------|------|--------------------|-----------------|------------|----------------|
| Creativity      | 7.76 | 1.17               | 77.58           | 23.79      | 0.000          |
| Innovation      | 6.89 | 1.26               | 68.94           | 11.30      | 0.000          |

|                  |      |      |       |       |       |
|------------------|------|------|-------|-------|-------|
| Entrepreneurship | 6.71 | 1.03 | 67.10 | 10.92 | 0.000 |
|------------------|------|------|-------|-------|-------|

According to (table 11), the results show that the mean of creativity equals 7.76 (77.58%), Test value= 23.79, and p-value (sig.) is less than the significance level  $\alpha=0.05$ . while Innovation equal 6.89 (68.94%), Test value= 11.30 and p-value (sig.) is less than significance level  $\alpha=0.05$ . The results also show that the mean of Entrepreneurship equal to 6.71 (67.10%), Test value= 10.92, and p-value (sig.) is less than the significance level  $\alpha=0.05$ .

**8. HYPOTHESES ANALYSIS**

**8.1 H1: THERE IS A SIGNIFICANT EFFECT OF CREATIVITY ON ENTREPRENEURSHIP.**

**Table 12:** Simple Regression results for “Creativity”

|                   | R     | R <sup>2</sup> | F      | P-value (sig.) | Decision  |
|-------------------|-------|----------------|--------|----------------|-----------|
| <b>Creativity</b> | 0.386 | 0.149          | 43.739 | 0.000          | Supported |

According to (table 12), the results of multiple regression show that (F= 43.739, P< 0.05) which indicates that the null hypothesis is rejected and the alternative hypothesis is accepted, and there is a significant effect of Creativity on Entrepreneurship. The results show that (R= 0.386), while (R<sup>2</sup>= 0.149) indicate that Creativity explains 14.9% of the variance in the dependent variable. The remaining 85.1% is due to other factors affecting the dependent variable. The result of R<sup>2</sup> for Creativity is the lowest score between the other variable, and that may return to the importance of creativity to entrepreneurial enterprises. Creativity focuses on new ideas that are produced out of the box for competitive advantage. also thinking of novel ways to develop products and improve the business in the entrepreneurship area. the entrepreneur can use entrepreneurial skills to bring those creative ideas into business projects in order to increase market competition.

This result is supported by Turunç and Mert [53] who confirmed that the relationship between Creativity and entrepreneurial behavior was positive and significant, so creativity emerges as a factor that increases entrepreneurial behavior. The results are also compatible with Ndofirepi [54] that found there is a statistically significant relationship between technological creativity level and entrepreneurial intention.

**8.2 H2: THERE IS A SIGNIFICANT EFFECT OF INNOVATION ON ENTREPRENEURSHIP.**

**Table 13:** Simple Regression results for “Innovation”

|                   | R     | R <sup>2</sup> | F       | P-value (sig.) | Decision  |
|-------------------|-------|----------------|---------|----------------|-----------|
| <b>Innovation</b> | 0.727 | 0.528          | 279.831 | 0.000          | Supported |



According to (table 13), the results of multiple regression show that ( $F= 279.831$ ,  $P< 0.05$ ) indicate that the null hypothesis is rejected and the alternative hypothesis is accepted, and there is a significant effect of Innovation on Entrepreneurship. The results show that ( $R= 0.727$ ), while ( $R^2= 0.528$ ) indicates that Innovation explains 52.8% of the variance in the dependent variable. The remaining 47.2% is due to other factors affecting the dependent variable. The result of  $R^2$  for Innovation is the highest score between the other variable, and that may return to the importance of innovation in entrepreneurship is shown by coming up with a new way to produce a product or a solution. by innovation can produce new products and services or improve them in order to meet customers' needs. the main task of innovation is to add value to products and services effectively and efficiently. therefore, innovation has a vital role in entrepreneurial enterprises.

This result is supported by Ensari and Alay [55] who confirmed that there is a positive significant relationship between innovativeness tendency and entrepreneurial potential. The results are also compatible with Aydin [56] that found there is a significant and positive relationship between innovativeness, one of the personality traits, and entrepreneurial tendencies of students.

## 9. RESULTS

Creativity is simply the ability of imagination. Using imagination, an entrepreneur can put aside the practical norms and think of something creative. An entrepreneur assesses the requirements of how to execute an idea by analyzing available and required resources, how to establish a new enterprise, and how to manage it. An entrepreneur designs business models that can support and execute creative ideas in a suitable place.

A creative gives the entrepreneur unlimited unthinkable ideas, but can the entrepreneur use those ideas in the current situations in a changeable environment, especially the new level of life that gives the most importance to Pandemic diseases.

Entrepreneurship produces financial gain and keeps the economy afloat, which gives rise to the importance of innovation in entrepreneurship. Entrepreneurs are innovators of the economy. Companies and enterprises keep innovation as part of their organization. Innovations contribute to the success of the company. Entrepreneurs, as innovators, see not just one solution to a need. They keep coming up with ideas and do not settle until they come up with multiple solutions. Innovation is extremely important that companies often see their employees' creativity as a solution. Another factor that raises the importance of innovation in entrepreneurship is competition. It stimulates any entrepreneur to come up with something much better than their competition at a lower price, in order to still be cost-effective and qualitative.

This study founds the relationship between Creativity, Innovation and Entrepreneurship is a mutually beneficial relationship. Each of them needs to other. Innovation is

affecting Entrepreneurship more than Creativity. Because the main task of innovation is to add value to products and services by produce new products and services or improve them in order to meet customers' needs and expectations effectively and efficiently.

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