

# Entrepreneurial Spirit and Characteristics of Higher Education Students

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Received June 13, 2026; Revised July 15, 2026; Accepted July 22, 2026

**Abstract** This study delves into evaluating the entrepreneurial spirit and personal traits of 210 BSOA students at QSU, gauging their perceptions on Achievement Orientation, Risk-Taking Behavior, and Innovation Characteristics. By examining the comparison of entrepreneurial spirit and personal traits across different profiles, it aims to discern notable patterns. Employing a quantitative cross-sectional research method, data was gathered and analyzed at a specific juncture, offering insights into the respondents' entrepreneurial spirit and characteristics. Ultimately, the study revealed that respondents tend to prioritize further education in entrepreneurship before venturing into business ownership, indicative of their inclination towards acquiring knowledge and skills. Additionally, the study found that the respondents showed a strong inclination towards independence, a trait that stood out among them. They also tended to strongly identify with Achievement Orientation, aligning closely with their overall disposition. However, their perception of Risk-Taking Behavior and Innovation Characteristics was not as strong. The study also uncovered significant differences in these entrepreneurial characteristics based on the respondents' gender. Specifically, there were notable variations in Achievement Orientation when considering socio-economic status, and in Risk-Taking Behavior when looking at the students' curriculum year. Based on these findings, the researcher suggests providing free educational programs aimed at bolstering entrepreneurial spirit and traits such as Achievement Orientation, Risk-Taking Behavior, and Innovation Characteristics. Furthermore, there's a call for further investigation into other aspects of entrepreneurial spirit and characteristics.

**Keywords:** *Entrepreneurship, Entrepreneurial Spirit and Characteristics, Achievement Orientation, Risk-Taking, and Innovation*

**Cite This Article:** Lorelie B. Marquez, Gilbren Jane C. Apostol, and Mary Joy E. Gumayagay, "Entrepreneurial Spirit and Characteristics of Higher Education Students." *International Journal of Econometrics and Financial Management*, vol. 13, no. 1 (2026): 1-8. doi: 10.12691/ijefm-13-1-1.

## 1. Introduction

Entrepreneurship has become an essential driver of economic growth, employment generation, innovation, and social development in both developed and developing countries. As economies continue to face rapid technological advancement, globalization, market uncertainties, and recurring economic disruptions, entrepreneurship has emerged as a sustainable strategy for promoting economic resilience and improving the quality of life. Entrepreneurs stimulate economic progress by creating new products, services, and business opportunities while contributing to national competitiveness and community development [1,2]. Consequently, governments and educational institutions have increasingly recognized entrepreneurship as a key component of national development and human capital formation.

The concept of entrepreneurship has likewise evolved from merely establishing new businesses to developing individuals who possess creativity, innovation, opportunity recognition, problem-solving abilities, and

resilience. Contemporary literature emphasizes that entrepreneurship is rooted in an entrepreneurial mindset characterized by initiative, calculated risk-taking, adaptability, and innovation rather than simply business ownership [3,4]. These entrepreneurial characteristics are considered learnable competencies that can be nurtured through formal education and experiential learning.

Numerous studies have emphasized the significant role of higher education institutions in cultivating entrepreneurial competencies among students. Entrepreneurship education positively influences entrepreneurial intention, self-efficacy, creativity, innovation, and opportunity recognition, thereby preparing graduates not only for employment but also for self-employment and business creation [5,6]. Universities are therefore expected to provide learning environments that foster entrepreneurial thinking across various academic disciplines, including business and office administration.

In the Philippine context, entrepreneurship has been identified as a national priority to address unemployment, poverty, and inclusive economic growth. The implementation of the K-12 Basic Education Program and the Commission on Higher Education [7], strengthened

entrepreneurship education by integrating entrepreneurial competencies into higher education curricula, particularly in the Bachelor of Science in Office Administration (BSOA) program. These reforms aim to develop graduates who are innovative, adaptable, and capable of responding to the evolving demands of the labor market and the business environment.

The entrepreneurial potential of Filipinos has also been recognized internationally. The Global Entrepreneurship Monitor (GEM) reported that Filipinos demonstrate high entrepreneurial intentions and confidence in their capabilities despite facing business-related challenges [8]. However, while entrepreneurial intentions remain high, sustaining and growing successful enterprises continue to be major concerns due to limitations in entrepreneurial competencies and business preparedness [9]. More recently, the COVID-19 pandemic encouraged many Filipinos to engage in entrepreneurial activities, particularly online businesses and small-scale enterprises, as alternative sources of income and livelihood. This phenomenon further highlighted the importance of entrepreneurial characteristics such as resilience, adaptability, creativity, and innovation in responding to economic crises [10].

Despite the growing body of literature on entrepreneurship education and entrepreneurial intention, existing studies have primarily focused on business students, entrepreneurship majors, or individuals engaged in business ventures. Comparatively few studies have examined the entrepreneurial characteristics of Bachelor of Science in Office Administration students, particularly within state universities in rural settings such as Quirino State University. Furthermore, previous research has largely emphasized entrepreneurial intention and business creation while giving limited attention to entrepreneurial spirit, personal traits, and entrepreneurial characteristics as distinct yet interconnected dimensions that influence students' entrepreneurial potential. This gap in the literature limits the understanding of whether Office Administration students possess the entrepreneurial attributes envisioned by the BSOA curriculum and national educational policies.

Addressing this gap is important because Office Administration graduates are increasingly expected to become innovative professionals capable of creating employment opportunities, managing organizations effectively, and adapting to changing workplace demands. Understanding their entrepreneurial characteristics can provide valuable insights for curriculum enhancement, instructional strategies, and student development programs that strengthen entrepreneurship education within the BSOA program.

Therefore, this study aims to determine the entrepreneurial characteristics of Bachelor of Science in Office Administration students at Quirino State University. Specifically, it examines the students' entrepreneurial spirit, personal traits, and entrepreneurial characteristics and determines whether significant differences exist across selected profile variables. The findings of this study are expected to contribute to the existing body of knowledge on entrepreneurship education while providing empirical evidence that may guide curriculum improvement, policy formulation, and the design of

interventions to strengthen entrepreneurial competencies among future Office Administration professionals.

## 2. Methodology

This study employed quantitative research design using cross-sectional approach, collecting and analyzing data at a specific moment to assess the entrepreneurial spirit and characteristics of the respondents. This method involves gathering information from a diverse sample of participants to examine their attitudes, behaviors, and other relevant variables, providing a snapshot of the population at that particular time.

A total of 210 BSOA students participated in the study, chosen through stratified random sampling across different year levels to ensure representation. The sample size was determined using the RaoSoft sample size calculator with a power of 95% and a margin of error of 5%.

The research instrument used in this study was adapted from Bautista and Marcelo's 2015 study [11]. The instrument demonstrated reliability with alpha values of .71, .78, and .82 for entrepreneurial spirit, personal characteristics, and entrepreneurial characteristics, respectively, in the original study. In the current study, the instrument showed improved reliability with alpha values of .82, .91, and .94 for the same variables.

Data analysis included frequency counts, mean calculations, rankings, independent t-tests, and F-tests. Post hoc analysis was conducted using the Scheffe' test to further examine the data.

## 3. Results and Discussion

### Entrepreneurial Spirit and Personal Characteristics of the Respondents

Table 1. Entrepreneurial Spirit of the Respondents

|                                                                                               | Freq | Rank |
|-----------------------------------------------------------------------------------------------|------|------|
| I will put-up my own business, even a small-scale business.                                   | 64   | 2    |
| I will look for a gainful employment.                                                         | 14   | 3    |
| I will study further as I want to learn more on entrepreneurship before I will put-up my own. | 112  | 1    |
| I will study further and resort to a part-time job.                                           | 8    | 5    |
| I will look for a gainful employment and find a part-time business.                           | 11   | 4    |

It can be noted that statements regarding seeking gainful employment or part-time jobs (items 2, 4, and 5) received lower frequencies, while those about studying further or starting one's own business (items 1 and 3) had higher frequencies. This suggests that most respondents prioritize gaining knowledge through education or research before venturing into entrepreneurship.

In line with this, research by Badawi et al. (2019) highlights the importance of learning specific entrepreneurial skills such as risk-taking, critical thinking, problem-solving, and innovation. Students majoring in business recognize these skills as essential for launching their own ventures [12]. This underscores the significance of integrating these skills into business education curricula, ensuring that students are adequately prepared to pursue

their entrepreneurial aspirations.

**Table 2. Personal Characteristics of the Respondents**

|                                | Freq | Rank |
|--------------------------------|------|------|
| I am independent               | 82   | 1    |
| I am persistent                | 28   | 3    |
| I am a goal-setter             | 64   | 2    |
| I am self-reliant              | 22   | 4    |
| I am an action-oriented person | 14   | 5    |

The data suggests that respondents exhibit certain personal characteristics. Items 2, 4, and 5, with lower frequencies (28, 22, and 14, respectively), indicate traits such as persistence, self-reliance, and action-oriented behavior. Conversely, items 1 and 3, with higher frequencies (82 and 64, respectively), reveal characteristics of independence and goal-setting among respondents.

However, it's important to note that the prevailing notion of independent learning, which emphasizes self-reliance and autonomy, may be influenced by gender biases and cultural norms. This may not fully align with the diverse needs and aspirations of students within a mass higher education system. Nevertheless, students' drive for independence often motivates them to set and achieve their goals [13].

**Table 3. General Entrepreneurial Characteristics of the Respondents as to Achievement Orientation**

| Achievement Orientation                                                          | Mean | Description     |
|----------------------------------------------------------------------------------|------|-----------------|
| My life's conditions challenge me to dream for something definite.               | 3.39 | Very true of me |
| I am inspired of seeing successful businessmen in the area.                      | 3.43 | Very true of me |
| I am willing to be trained on putting up small business and livelihood projects. | 3.35 | Very true of me |
| I am eager to start a small livelihood project even with a meager capital.       | 2.92 | Much true of me |
| I set plans of actions to realize my dreams.                                     | 3.32 | Very true of me |
| Grand Mean                                                                       | 3.28 | Very true of me |

Legend: 3.26–4.00=Very True of Me  
1.76–2.50=True of Me  
2.51–3.25=Much True of Me  
1.00–1.75=Not True of Me

The table displays the mean responses of the respondents regarding Achievement Orientation. Notably, only item number 4, "I am eager to start a small livelihood project even with a meager capital," received a response of "much true of me," while the rest were rated as "very true of me."

Despite the overall grand mean indicating "very true of me," item 4 has the lowest mean of 2.92. This suggests that respondents do not feel particularly eager to initiate a small livelihood project with limited capital. This reluctance may stem from a fear that insufficient funds could lead to business failure. This sentiment resonates with the findings of Wirth (2022), who highlights the daunting prospect of acquiring funds for entrepreneurial endeavors. Indeed, the adage "it takes money to make money" rings true, underscoring the importance of adequate funding for business growth and sustainability [14].

**Table 4. General Entrepreneurial Characteristics of the Respondents as to Risk Taking**

| Statements                                                                      | Mean | Description     |
|---------------------------------------------------------------------------------|------|-----------------|
| I immediately consider a new plan when my first move does not materialize.      | 2.91 | Much true of me |
| I use all what I have once I get into a business.                               | 2.90 | Much true of me |
| I am willing to try new methods, techniques, strategies to improve my business. | 3.31 | Very true of me |
| I am willing to get into new business although I am not sure about it.          | 2.40 | Much true of me |
| I use new knowledge and information immediately.                                | 2.97 | Much true of me |
| Grand Mean                                                                      | 3.28 | Very true of me |

Legend: 3.26–4.00=Very True of Me  
1.76–2.50=True of Me  
2.51–3.25=Much True of Me  
1.00–1.75=Not True of Me

The data highlights that respondents were most inclined towards statement number 3, indicating their willingness to explore new methods, techniques, and strategies to enhance their businesses. This suggests a strong desire among respondents to ensure they are well-prepared and equipped with diverse approaches for business improvement.

Conversely, statement number 4, "I am willing to get into a new business although I am not sure about it," received the least consideration, with a mean of 2.40. This indicates that respondents are hesitant to take risks in launching a new business venture if they are uncertain about its viability.

This reluctance to venture into uncertain territories aligns with the findings of Grome (2021), who suggests that companies are more likely to succeed when they embrace innovation and explore uncharted paths. Indeed, trying new things in business is essential for discovering untapped opportunities and expanding one's horizons [15].

**Table 5. General Entrepreneurial Characteristics of the Respondents as to Innovation**

| Statements                                                                                               | Mean | Description     |
|----------------------------------------------------------------------------------------------------------|------|-----------------|
| I am willing to try new methods, techniques, strategies to improve my business.                          | 3.36 | Very true of me |
| I am willing to attend livelihood training and seminars to gain new ideas in doing a new small business. | 3.28 | Very true of me |
| I can try new commodities and introduce it to my colleagues and friends.                                 | 3.06 | Much true of me |
| I am open to cooperative partnership.                                                                    | 3.07 | Much true of me |
| I am artistic.                                                                                           | 2.58 | Much true of me |
| Grand Mean                                                                                               | 3.05 | Much true of me |

Legend: 3.26–4.00=Very True of Me  
1.76–2.50=True of Me  
2.51–3.25=Much True of Me  
1.00–1.75=Not True of Me

The gathered data highlights that statements number 1 and 2, "I am willing to try new methods, techniques, strategies to improve my business," and "I am willing to attend livelihood training and seminars to gain new ideas in doing a new small business," received the most

favorable responses, with mean scores of 3.26 and 3.28 respectively. Respondents strongly agreed with these statements, indicating that they are very willing to explore new approaches and attend relevant training sessions.

This suggests that the majority of respondents are open to experimentation and continuous learning in order to sustain and enhance their businesses. This aligns with a key characteristic of successful entrepreneurs: the willingness to experiment and adapt. Successful entrepreneurs understand the importance of structured experimentation, using tests to determine the viability of their business ventures [16].

Furthermore, as successful innovators, attending formal education or training sessions is essential for recognizing new opportunities and effectively interpreting market dynamics. Without expertise in their field, entrepreneurs may struggle to discern relevant information and opportunities. Thus, entrepreneurship training programs play a crucial role in equipping individuals with the necessary skills and knowledge to identify and capitalize on promising business prospects [17].

## II. Comparative Analysis on the Entrepreneurial Characteristics of the Respondents

### A. Achievement Orientation

The data from the table indicates a difference in

responses between male and female respondents, particularly in the grand mean, where males indicated "Much true of me" and females indicated "Very true of me." Additionally, there is a notable disparity in responses to items 3, 4, and 5, suggesting that more females are inspired by successful businessmen, more willing to undergo training for starting businesses, and more proactive in setting plans to achieve their dreams compared to male respondents.

This implies that female respondents perceive items 3, 4, and 5 as highly relevant to them, whereas male respondents find them to be somewhat less so. This aligns with findings from Elting (2021), which indicate that even before the pandemic, women were more inclined to seek training and start businesses at rates significantly higher than the national average. Moreover, women-owned businesses generated more revenue annually. During the pandemic, women also launched more enterprises and displayed a greater propensity to start their own businesses [18].

Furthermore, in terms of goal setting, women tend to excel compared to men. Studies have shown that women have stronger emotional connections to their goals, although they may be more likely to procrastinate while working towards them. Additionally, women often set more challenging goals for themselves to accomplish [19].

**Table 6. T-test on the Achievement Orientation of the Respondents when grouped by Sex**

| Achievement Orientation                                                             | Male |                 | Female |                 | t-value | p-value |
|-------------------------------------------------------------------------------------|------|-----------------|--------|-----------------|---------|---------|
|                                                                                     | M    | D               | M      | D               |         |         |
| 1. My life's conditions challenge me to dream for something definite.               | 3.31 | Much true of me | 3.43   | Very true of me | -1.584  | .122    |
| 2. I am inspired of seeing successful businessmen in the area.                      | 3.07 | Much true of me | 3.49   | Very true of me | -2.425  | .021*   |
| 3. I am willing to be trained on putting up small business and livelihood projects. | 3.00 | Much true of me | 3.41   | Very true of me | -2.846  | .005*   |
| 4. I am eager to start a small livelihood project even with a small meager capital. | 2.80 | Much true of me | 2.94   | Much true of me | -.730   | .470    |
| 5. I set plans of actions to realize my dreams.                                     | 2.97 | Much true of me | 3.38   | Very true of me | -2.185  | .036*   |
| Grand Mean                                                                          | 2.99 | Much true of me | 3.33   | Very true of me | -2.118  | .042*   |

\*Significant at .05 level

Legend: 3.26–4.00=Very True of Me  
1.76–2.50=True of Me  
2.51–3.25=Much True of Me  
1.00–1.75=Not True of Me

**Table 7. T-test on the Achievement Orientation of the Respondents when grouped by Socio-economic Status**

| Achievement Orientation                                                             | <10,957 |                 | 10,957-21,914 |                 | t-value | p-value |
|-------------------------------------------------------------------------------------|---------|-----------------|---------------|-----------------|---------|---------|
|                                                                                     | M       | D               | M             | D               |         |         |
| 1. My life's conditions challenge me to dream for something definite.               | 3.37    | Very true of me | 3.45          | Very true of me | -.554   | .580    |
| 2. I am inspired of seeing successful businessmen in the area.                      | 3.42    | Very true of me | 3.45          | Very true of me | -.213   | .832    |
| 3. I am willing to be trained on putting up small business and livelihood projects. | 3.33    | Very true of me | 3.45          | Very true of me | -.858   | .392    |
| 4. I am eager to start a small livelihood project even with a small meager capital. | 2.89    | Much true of me | 3.09          | Much true of me | -1.224  | .222    |
| 5. I set plans of actions to realize my dreams.                                     | 3.28    | Very true of me | 3.55          | Very true of me | -2.008  | .050*   |
| Grand Mean                                                                          | 3.26    | Very true of me | 3.40          | Very true of me | -1.232  | .219    |

The data from the table reveals that both socio-economic groups did not significantly differ in their responses, with neither group indicating "Very true of me" in the grand mean. However, there was a notable discrepancy in item 5: "I set my plans of actions to realize my dreams." Respondents with a monthly income of 10,957-21,914 were more inclined to perceive setting plans of action to achieve their dreams compared to those earning 10,957 and below.

This suggests that individuals with higher incomes are more likely to proactively set plans of action to pursue their dreams than those with lower incomes. This finding aligns with research by Azizi et al. (2017), which indicates that higher income levels facilitate the fulfillment of goals and contribute to a more comfortable lifestyle. Consequently, individuals with greater income typically experience less stress and anxiety, allowing them to focus more on setting and achieving their long-term aspirations [20].

#### B. Risk-Taking Behavior

The data from the table indicates that both sex groups did not significantly differ in their responses to "much true of me," as reflected in the grand mean. However, there was a notable difference in responses to items 3 - "I am willing to try new methods, techniques, strategies to improve my business" and item 5 - "I use new knowledge and information immediately." It revealed that more females perceived themselves as risk-takers compared to male respondents.

This suggests that female respondents are more inclined to take risks by experimenting with new methods, techniques, and strategies to enhance their businesses, and they are quicker to utilize new knowledge and information. This finding aligns with research indicating that females are often considered better-calculated risk-takers who are unafraid to embrace uncertainty. Female entrepreneurs tend to consult with others when making decisions, which can lead to more informed and less overconfident decision-making processes. Additionally, females are often more realistic about the risks involved and are better able to identify opportunities within those risks [21].

The data from the table reveals that all groups did not significantly differ in their responses to "Much true of me," as indicated by the grand mean. However, there was

a notable difference in responses to item 4 - "I am willing to get into a new business although I am not sure about it," and item 5 - "I use new knowledge and information immediately." Specifically, the risk-taking behavior of respondents, when grouped by their curriculum year, was found to be significant.

Given that there were more than two groups with similar results from the analysis of variance, the Scheffe Test was utilized for comparable items. This suggests that students in their first year (I), third year (III), and fourth year (IV) perceive themselves as more inclined to take risks compared to those in their second year (II) of the curriculum. Freshmen and students in higher curriculum levels demonstrate a greater propensity to take risks by engaging in new business ventures despite uncertainty and promptly utilizing new knowledge and information.

This finding aligns with the research of Mata et al. (2012), which indicates that older adults tend to be more risk-seeking compared to younger adults. In terms of decision from experience, age-related differences in risk taking were a function of decreased learning performance. While decision from description, younger adults and older adults showed similar risk-taking behavior for the majority of the tasks, and there were no clear age-related differences as a function of gain/loss framing. [22]

The data from the table indicates that both sex groups did not significantly differ in their responses to "much true of me," as reflected in the grand mean. However, there was a notable difference in responses to item 1 - "I am willing to try new methods, techniques, strategies to improve my business." It revealed that more females perceived themselves as having innovation characteristics compared to male respondents.

This suggests that female respondents are more inclined to exhibit innovation by actively trying new methods, techniques, and strategies to enhance their businesses compared to male respondents. This finding is supported by research indicating that females are more likely than males to introduce new products and services that are novel to customers and not commonly offered by competitors. Additionally, females tend to demonstrate resourcefulness, often opting for slower growth or less risky business ventures [23].

**Table 8. T-test on the Achievement Orientation of the Respondents when grouped by Socio-economic Status**

| Achievement Orientation                                                          | <10,957 |                 | 10,957-21,914 |                 | t-value | p-value |
|----------------------------------------------------------------------------------|---------|-----------------|---------------|-----------------|---------|---------|
|                                                                                  | M       | D               | M             | D               |         |         |
| My life's conditions challenge me to dream for something definite.               | 3.37    | Very true of me | 3.45          | Very true of me | -.554   | .580    |
| I am inspired of seeing successful businessmen in the area.                      | 3.42    | Very true of me | 3.45          | Very true of me | -.213   | .832    |
| I am willing to be trained on putting up small business and livelihood projects. | 3.33    | Very true of me | 3.45          | Very true of me | -.858   | .392    |
| I am eager to start a small livelihood project even with a small meager capital. | 2.89    | Much true of me | 3.09          | Much true of me | -1.224  | .222    |
| I set plans of actions to realize my dreams.                                     | 3.28    | Very true of me | 3.55          | Very true of me | -2.008  | .050*   |
| Grand Mean                                                                       | 3.26    | Very true of me | 3.40          | Very true of me | -1.232  | .219    |

\*Significant at .05 level

Legend: 3.26–4.00=Very True of Me

1.76–2.50=True of Me

2.51–3.25=Much True of Me

1.00–1.75=Not True of Me

**Table 9. T-test on the Risk-Taking Behavior of the Respondents when grouped by Sex**

| Risk-Taking Behavior                                                               | Male |                 | Female |                 | t-value | p-value |
|------------------------------------------------------------------------------------|------|-----------------|--------|-----------------|---------|---------|
|                                                                                    | M    | D               | M      | D               |         |         |
| 1. I immediately consider a new plan when my first move does not materialize.      | 2.63 | Much true of me | 2.96   | Much true of me | -1.695  | .122    |
| 2. I use all what I have once I get into a business.                               | 2.73 | Much true of me | 2.93   | Much true of me | -.994   | .021*   |
| 3. I am willing to try new methods, techniques, strategies to improve my business. | 2.97 | Much true of me | 3.37   | Very true of me | -2.684  | .005*   |
| 4. I am willing to get into new business although I am not sure about it.          | 2.13 | Much true of me | 2.44   | Much true of me | -1.680  | .470    |
| 5. I use new knowledge and information immediately.                                | 2.70 | Much true of me | 3.02   | Much true of me | -2.006  | .036*   |
| Grand Mean                                                                         | 2.63 | Much true of me | 2.94   | Much true of me | -2.118  | .041*   |

\*Significant at .05 level

Legend: 3.26–4.00=Very True of Me  
 1.76–2.50=True of Me  
 2.51–3.25=Much True of Me  
 1.00–1.75=Not True of Me

**Table 10. F-test on the Risk-Taking Behavior of the Respondents when grouped by Curriculum Year**

| Risk-Taking Behavior                                                               | I     |                 | II    |                 | III   |                 | IV    |                 | f     | p     |
|------------------------------------------------------------------------------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-------|
|                                                                                    | M     | D               | M     | D               | M     | D               | M     | D               |       |       |
| 1. I immediately consider a new plan when my first move does not materialize.      | 2.97  | Much true of me | 2.78  | Much true of me | 3.12  | Much true of me | 2.87  | Much true of me | 1.492 | .218  |
| 2. I use all what I have once I get into a business.                               | 3.00  | Much true of me | 2.74  | Much true of me | 3.05  | Much true of me | 3.07  | Much true of me | 1.906 | .130  |
| 3. I am willing to try new methods, techniques, strategies to improve my business. | 3.33  | Very true of me | 3.27  | Very true of me | 3.32  | Very true of me | 3.40  | Very true of me | .158  | .925  |
| 4. I am willing to get into new business although I am not sure about it.          | 2.62A | Much true of me | 2.22B | Much true of me | 2.54A | Much true of me | 2.77A | Much true of me | 2.778 | .042* |
| 5. I use new knowledge and information immediately.                                | 3.23A | Much true of me | 2.83B | Much true of me | 2.93B | Much true of me | 2.80B | Much true of me | 3.515 | .016* |
| Grand Mean                                                                         | 3.03A |                 | 2.77B |                 | 2.99A |                 | 2.84A |                 | 2.504 | .218  |

\*Significant at .05 level; Cells with similar letters within rows are comparable through Scheffe Test

Legend: 3.26–4.00=Very True of Me  
 1.76–2.50=True of Me  
 2.51–3.25=Much True of Me  
 1.00–1.75=Not True of Me

### C. Innovation Characteristics

**Table 11. T-test on the Innovation Characteristics of the Respondents when grouped by Sex**

| Innovation Characteristics                                                                                  | Male |                 | Female |                 | t-value | p-value |
|-------------------------------------------------------------------------------------------------------------|------|-----------------|--------|-----------------|---------|---------|
|                                                                                                             | M    | D               | M      | D               |         |         |
| 1. I am willing to try new methods, techniques, strategies to improve my business.                          | 2.93 | Much true of me | 3.31   | Very true of me | -2.076  | .045*   |
| 2. I am willing to attend livelihood training and seminars to gain new ideas in doing a new small business. | 2.93 | Much true of me | 3.34   | Very true of me | -2.238  | .032*   |
| 3. I can try new commodities and introduce it to my colleagues and friends.                                 | 2.90 | Much true of me | 3.08   | Much true of me | -1.071  | .291    |
| 4. I am open to cooperative partnership.                                                                    | 2.83 | Much true of me | 3.11   | Much true of me | -1.413  | .166    |
| 5. I am artistic.                                                                                           | 2.57 | Much true of me | 2.58   | Much true of me | -.076   | .940    |
| Grand Mean                                                                                                  | 2.83 | Much true of me | 3.09   | Much true of me | -1.967  | .050*   |

\*Significant at .05 level

Legend: 3.26–4.00=Very True of Me  
 1.76–2.50=True of Me  
 2.51–3.25=Much True of Me  
 1.00–1.75=Not True of Me

## 4. Conclusions and Future Works

The study reveals several key findings regarding the entrepreneurial spirit and characteristics of the respondents. Firstly, the majority of the respondents are female, aged 18 to 22, and predominantly single. Secondly, it's evident that respondents prefer to pursue further studies in entrepreneurship before venturing into their own businesses, showcasing a personal characteristic of independence. Thirdly, while respondents strongly identify with Achievement Orientation in terms of entrepreneurial characteristics, they exhibit less confidence in Risk Taking Behavior and Innovation Characteristics.

Furthermore, the study highlights significant gender differences in entrepreneurial attitudes and behaviors. Females are notably more inspired by successful businessmen, more willing to undergo training for entrepreneurship, and more proactive in setting plans to achieve their entrepreneurial dreams compared to their male counterparts. Additionally, respondents with higher incomes find it easier to set plans of action to pursue their goals.

Moreover, female respondents display a greater propensity for risk-taking in business endeavors, actively trying new methods, techniques, and strategies to improve their ventures and readily utilizing new knowledge and information. Interestingly, freshmen and students in higher curriculum levels show a heightened willingness to take risks in initiating business ventures despite uncertainties, indicating a proactive approach to entrepreneurship education.

Lastly, female respondents emerge as more innovative, displaying a willingness to experiment with new methods and strategies to enhance their businesses. This finding underscores the importance of gender-responsive approaches in fostering entrepreneurial growth and innovation. Overall, the study sheds light on various aspects of entrepreneurial behavior and characteristics, providing valuable insights for future research and entrepreneurial education initiatives.

Based on the results of the study, the following recommendations are made:

1. Higher education institutions might consider to offer free educational programs to further enhance the entrepreneurial skills of students.
2. The Department of Trade and Industry may conduct trainings and seminars for entrepreneurial endeavors and assist funding those with low-income entrepreneurial enthusiasts.
3. Respondents may keep up their entrepreneurial spirit on Achievement Orientation and may be encouraged to develop their Risk-taking behavior and Innovation Characteristics.
4. Male respondents may be motivated more to be trained for putting up business and set plans of action to achieve their dreams. Further, they may also be inspired to take risk in trying new methods, techniques, strategies to improve their business and utilized new knowledge and information instantly.
5. Students on all curriculum year may prepare themselves to take risk in getting into business despite of uncertainty and instantly use new

knowledge and information.

6. Further study may be done on other areas of entrepreneurial spirit and characteristics that needs to be improve among students and graduates.

## ACKNOWLEDGEMENTS

The researchers are grateful to the following individuals: to the Bachelor of Science in Office Administration students for their participation in this study; to Dr. Romiro G. Bautista for the assistance and interpretation of the necessary data and publication of this study; to the administration of Quirino State University Diffun, Quirino, for all the support; above all, to God for all the blessing of knowledge and strength to complete this study successfully.

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