

The Impact of Big Five Personality Traits to Entrepreneurial Intention: An Empirical Study from China

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Abstract

What this research intended to do was to investigate the relationship of Chinese college students between the five most prominent characteristics and their entrepreneurial intention. For this purpose, we conducted quantitative research and collected original data using questionnaires. Secondary data are collected from materials such as articles that are currently published on the Internet. The population surveyed were all college students in southwest China. In addition, we randomly sampled 565 students from the target population. SPSS software was used to analyze the data as statistical tools. The tool includes descriptive statistics and path analysis. The results show that the agreeableness of the five personality traits has a remarkably negative influence on the entrepreneurial intention ($\beta=-1.795, p=0.005$); Conscientiousness has a prominently positive impact on entrepreneurial intention ($\beta=1.756, p=0.011$); Extraversion has a rather constructive effect on entrepreneurial intention ($\beta=0.809, P=0.113$), but not significant; Neuroticism also had a profound effect on entrepreneurial intention ($\beta=0.447, P=0.052$). Openness also has a responsible function on entrepreneurial intention but not significant ($\beta=-0.319, P=0.51$). The conclusion is that educating the conscientious spirit of college students is the key to shaping the innovation and entrepreneurship education among academicians. The personality of college students' agreeableness cannot improve their entrepreneurial intention, on the contrary, it will prevent the entrepreneurial intention of college students. Therefore, having a non-blind mind is the foundation of entrepreneurship.

Keywords

Big Five personality traits; Entrepreneurial intention; Chinese Context.

1. Introduction

Innovation and entrepreneurship play a decisive and key role in a country's economic growth. Entrepreneurial spirit often researched by scholars, there are a lot of studies have shown that entrepreneurial success is due to the ability of personal decision, and the ability to play to depend on their different personality traits, so to explore what personality traits in the process of entrepreneurial studies at the university is one of the many factors that can play a key role. Based on the figurability of undergraduates' personality, it provides theoretical support for innovation and entrepreneurship education and the cultivation of undergraduates' personality traits. Throughout the relevant researches on innovation and entrepreneurship of undergraduates, most scholars have realized that personal characteristics play a major role in innovation and entrepreneurship education of undergraduates, but the figurability of innovation and entrepreneurship education is related to various factors.[1] There are external factors, such as the need for a change in the living environment [2], The excitement of life's

major events [3, 4], The level of approval of those around you [5], There are also cultural influences [6], Entrepreneurial motivation for internal reasons [7], Emotional control [8], self-efficacy [9], Achievements need [10], Entrepreneurial attitude [11], self-discipline [12] factors such as, Although considerable progress has been made in the relevant research on the impact of personal characteristics on college students' entrepreneurial intention, there are still few relevant researches on how they directly affect college students' innovation and entrepreneurial intention. On the basis of previous studies, this research explores the effect of the Big Five personal characteristics on college students' innovation and entrepreneurship intention.

2. Literature Review

With the progress and development of science and technology, all countries have realized the strategic role of talents in national development. Talent is a major source of power to support social progress. Economic development cannot be separated from a large pool of talents. As the pillar of national development, college students' ability to innovate and start their own businesses determines the future development of a country.[13] It has become a consensus among educators to explore the innovation and entrepreneurship ability of undergraduates. The first idea is to train the innovation and entrepreneurship ability of contemporary academician by shaping their personality traits. The most famous study of personality traits is from the Big Five personal characteristics, also referred to as the OCEAN model, originally proposed by Ernest Tupes and Raymond Christal [14]. However, it didn't come to academic attention until 1980, when JM Digman put forward his five-factor personality model in 1990 and Lewis Goldberg expanded it to the highest organizational level.[15]. These five totality domains have been discovered to include and contain the most noted personal characteristics and are considered to be on behalf of the fundamental structure of all personality traits.[16] Over the decades, at least four groups of researchers have independently studied this question in the lexical hypothesis of personality theory, and have identified roughly the identical five factors: first Topes and Christal, then Goldberg of the Oregon Institute, Cuttle of the University of Illinois, and Costa and McCrae. [17] The four groups of researchers applied slightly disparate methods to discover the five characteristics, with each group of five factors having different names and definitions, but they found that all of these elements were highly correlated and consistent in factor analysis. [18]

That's why the Big Five is the best tool which people use to distinguish entrepreneurs from non-entrepreneurs. Because different people can be explained by different personality traits, and these personality traits are generally relatively stable and durable, which determines the important support of personality traits in maintaining the success of innovation and entrepreneurship of college students. When people study entrepreneurs and their spirit, distinguishing the success of entrepreneurs by introversion and extroversion is not convincing or predictive, so people have to explain this problem in terms of the most essential personality traits. After all, there are many characteristics of an entrepreneur, and the most commonly used and prominent qualities include the demand for achievement, control center, adventure, endurance for equivocality, creativity, the eager for autonomy, and self-sufficiency. Describes idealistic self-belief to accommodate a variety of tricky requests [19].

3. Theoretical Background

Personality traits are the tendency to show certain behavioral responses in a variety of situations [20], As time went on, This reaction is highly stable [21]. Because of the complexity of human characteristics, a thoroughly comprehensive model which called the Big Five Personality Model was put forward in order to explain the main personality traits in the five

major categories [22]. After the model appeared, it proposed sense of responsibility, experience openness, emotional stability, extroversion and favorable five factors were widely supported, making the big five factors the most extensive to referred to in the relevant study [23]. Whether the personality dimension of Big Five Model harbors an influence on entrepreneurial intention has always become the heated point of many researches [24, 25].

In the theory of planned behavior, intention is thought to be the best predictor of planned behavior. If the behavior is not frequent, it is difficult to identify its behavior tendency [26]. The attribute of entrepreneurial intention is also one of the characteristics of entrepreneurship, which is considered as a deliberate behavior [27]. In the background of entrepreneurship, intention (EI) can be referred to as any individual's willingness to create a new business and continuously plan to realize this self-acknowledged belief sooner or later [28]. Entrepreneurial Intention (EI) is considered as the first procedure to start a new business [29]. Therefore, understanding EI is of great significance to predict entrepreneurial behavior tendency [30]. According to the research results of relevant literature, individual remains an influence on EI [24]. Personal characteristics have been well researched and explored by pioneer researchers [31-33]. However, there are many limitations to the trait-based approach and it has been criticized for its lack of explanatory nature.

Despite that personal characteristics have long been illustrated to keep statistical relationships with entrepreneurship, in previous studies, the predictive value of the prediction remains limited [34]. Therefore, the research direction turns to the cognitive model to describe the impact on entrepreneurial behavior. Therefore, from the cognitive perspective, it is found that perceptual behavioral control (PBC) and attitude have more excellent predictive value for EI. Ajzen [35, 36] proposed TPB social cognition model consists of such recent constructs. TPB model has been smoothly developed to college students' entrepreneurial attitude, PBC and SN to predict EI. Lee and Tsang et al. [37] believed that attitude, subjective norm and perceived behavior control have great influence on students' entrepreneurial intention. Such findings support Ajzen's affirmation of the importance of the three factors discussed [36]. However, their significance and extent of influence may differ from situation to situation and country to country. From this perspective, we believe that these three factors put forward by Ajzen ought to be taken into account when evaluating EI. TPB has a firm empirical evidence for EI prediction. A large number of past studies have found that behavioral attitudes, subjective norms and perceived action control remain a significance role in EI, but no researchers have explained the direct effect of the Big Five personal characteristics on entrepreneurial intention.

4. Methodology

4.1. Research Design

This research mainly adopts the quantitative method to carry on the research. To provide logical and evidence-based reasoning for the research by combining some evidence from the literature. One of the reasons why I choose this method is that in today's network society, quantitative data collection has become easier and more convenient, and also to save the cost of research. Because most data can be collected electronically.

4.2. Data Collection

Two types of data were collected in this study, namely, original data and secondary data. Original data are collected through questionnaires. The primary data comes from the university where the author works, and the personality traits and demographic characteristics of college students, as well as their attitudes and personal tendencies towards entrepreneurial intention. Secondary data are mainly electronic data related to this research collected through books, journal, articles and reports, such as electronic journal literatures and conference literatures in

Web of Science database, literatures in Science Direct database, and some literatures from Google scholars.

4.3. Sample and Population

The objects of this study are all college students from the border areas of southwest China. In addition, the sample from the target population was 565 college students, who were asked questions about entrepreneurial intentions, personality traits, and demographic factors. Samples were selected by random sampling to reduce biases and errors and to give each participant an equal opportunity to be selected. Only with the consent of students will we collect their personality traits and entrepreneurial intention information. If they disagree, they can withdraw from the relevant questionnaire survey immediately.

4.4. Data Instrument

As mentioned above, this study used network survey to collect personality trait data and entrepreneurial intention data of college students. The questionnaire was developed out of a 7-point Likert scale. The options ranged from strongly disagree to firmly nod, with scores ranging from 1 to 7.

4.5. Procedure

We provided informed consent forms to study participants to ensure their privacy. This is on line with the ethical requirements of the academic committee of the author's school, which ensures the confidentiality and anonymity of the data provided by the respondents. If they don't want to answer any questions during the survey, or they leave the study when they feel uncomfortable.

4.6. Data Analysis

Collect and collate data to describe statistics and inferential statistics with the help of analysis. Descriptive statistics include tools such as frequency distributions, correlation coefficients, multiple regressions, means, and standard deviations. Inference statistics included confirmatory factor analysis and path analysis.

5. Hypothesis

At present, great progress has been made in the research on the relationship between personal characteristics and entrepreneurial intention. Among them, the personality traits related to entrepreneurial intention also include conceit, optimism, tenacity and passion, etc., but the most convincing one is the Big Five personality to forecast entrepreneurial intention. These personality dimensions incorporate extraversion, neuroticism, conformity, responsibility and openness to experience. Use the Big Five Personality Traits Scale [38] It is found that agreeableness, extraversion to experience and openness have a prominent positive effect on entrepreneurial intention, while neuroticism has a prominent negative effect on entrepreneurship.

5.1. Agreeableness and Entrepreneurial Intention

As defined by John & Srivastava (1999), Agreeableness trait is defined as related to forgiveness, force, straightforwardness, modesty (not show off), sympathy toward others and helpfulness. Other scholars have given corresponding meanings to affinity, such as passivity, tradition, dependence, trust, care, selflessness and forgiveness [17, 22, 24]. This personality trait associates the individual with emotional dominance. Entrepreneurs themselves are cooperative, patient and friendly to a certain extent. Although patience, cooperation and friendship are helpful for entrepreneurship, their help is to a certain extent. Entrepreneurs' spirit and motivation should be brought into full play, which may interfere with their social

contact.[39], Consistency in interpersonal relationships incorporates the capability to be an excellent listener, patience, empathy, and the talent to promote further harmony during social interactions (Caliendo & Kritikos, 2008). Entrepreneurs must also construct relationships of trust with stakeholders and teammates (Eisenhardt and Schoonhoven, 1990; Shane and Cable, 2002) An environment of trust and cooperation builds good relationships in alliances, promotes technological exchanges and raises funds for growth (Ciavarella, Buchholtz, Riordan, Gatewood, & Stokes, 2004). Too agreeableness personality, however, shows that entrepreneurs have no ideas. The survival of entrepreneurs requires entrepreneurs to be self-centered, and even to be good at manipulating the whole business situation of the ability and wisdom [24]. If entrepreneurs rely too much on others, they have a herd mentality [40]. Conformists do not welcome new ideas. They suppress their beliefs and passions in order to stabilize the situation [41]; Therefore, it will undoubtedly render a negative influence on entrepreneurial intention. An overly accommodating personality may probably result in compromising in order to win acceptance by others and reduce the tendency to take unpopular risks. Empirical evidence shows that agreeableness is negatively correlated with entrepreneurial intention [42]. However, it can be seen from some studies that this relationship is not necessarily significant [25]. Therefore, we propose the following hypothesis.

H1: Agreeableness is negatively correlated to entrepreneurial intentions.

5.2. Conscientiousness and Entrepreneurial Intention

According to John & Srivastava (1999), the degree to which a person does a job thoroughly, is reliable, and persists until the job is done. Many researchers have linked "conscientiousness" to reliability and achievement motivation [24, 43], Achievement has been studied widely in the context of entrepreneurship [39, 44], Conscientiousness is thus described as competent, purposeful, orderly, careful, self-disciplined, and determined. It is a set of behavioral traits derived from levels of achievement motivation, self-control, hard work, and responsibility to others [17, 45]. Conscientious traits are associated with conscientiousness, adherence to rules, procedures, and an ongoing addiction to maintaining splendid performance standards (Llewellyn & Wilson, 2003; Yong,2007), These entrepreneurial spirits are largely down to self-control [40]. Responsible individuals are inclined to work hard, be carefully planned and organized, and be reliable in carrying out their responsibilities and obligations (Costa and McCrae, 1992; Zhao and Seibert, 2006; Ariani, 2013). They have higher requirements for their business, which is what distinguishes entrepreneurs from ordinary businessmen. (McClelland, 1961; Baum and Locke, 2004), Thus, ambition is one of the defining characteristics of entrepreneurs, often ostensibly achievement-oriented and persistent [46, 47]. Entrepreneurs are people who dislike repetition and routine work, who take personal responsibility and expect to see concrete results of their decisions (Antoncic et al., 2015). McClenahan reasoned that if college students have a high acquirement for accomplishment, they will gravitate toward entrepreneurship as it renders more opportunities than conventional employment,[48] Conscientiousness was found to have a positive effect on the cognitive structure of specific problem solving. Zhao, Seibert [25] found that conscientiousness is one of the strongest and most consistent predictors of entrepreneurial intention. Sahin, Karadag [49] 's findings are similar. Hence, the following hypothesis is proposed.

H2: Conscientiousness is positively correlated with entrepreneurial intentions.

5.3. Extraversion and Entrepreneurial Intention

As defined by John & Srivastava (1999), extraversion refers to what extent a person is talkative, energetic and emotionally expressive, which contributes to the entrepreneurial instincts and proactive personality needed to drive a charismatic vision [50]. Entrepreneurs are more extroverted than executives (Nordvik & Brovold, 1998). Extraverted personality traits are characterized by strong, sociable, energetic, positive and talkative emotions and characteristics

[17]. Extroversion has been postulated to have an active and immediate relationship with the formation of entrepreneurial intent, since it has been shown to be strongly correlated with interest in entrepreneurial careers (Brice, 2002). People with extroversion traits are in a positive mood because they are optimistic, enthusiastic, and confident [24]. Such confidence has a positive impact on entrepreneurial success (Caliendo & Kritikos, 2008). Expressing confidence and dominance in social relationships. Extroversion drives the entrepreneur to take risks and creates a positive source of perceptual control for the entrepreneur (McCarthy, 2003). These characteristics of entrepreneurs help to improve their management and communication skills. Entrepreneurs need to construct and manage their teams and promote their new entrepreneurial ideas to employees, investors and customers (Shane, 2003), which may be easier for the extroverted than the introverted. Starting a business may seem more exciting than a traditional job, so your own business may be more attractive to outsiders. Still, the inconsistent results for this trait do not fully support the relationship [24, 25]. Zhao and Seibert [24] meta-analysis discover that the relationship between extraversion and entrepreneurial intention was not significant, while Rauch and Frese [20]'s meta-analysis reported a significant relationship between the two structures. Zhao, Seibert [25] Similar findings have been made. In addition, Sahin, Karadag [49] In a study conducted by Antoncic (2015), entrepreneurs and non-entrepreneurs showed significant differences in extroversion and openness to experience (Antoncic et al., 2015). It implies that there exists a positive relationship between extraversion and entrepreneurial intention. Thus, by comparing the personality traits of extroverts and entrepreneurs, we could predict that people who scored high on extroversion would have a greater willingness to start their own businesses. Therefore, we assume that:

H3: Extraversion is positively correlated with entrepreneurial intentions.

5.4. Openness to Experience and Entrepreneurial Intention

Openness to experience is a personality trait that describes an individual's curiosity, openness and creativity. Schumpeter (1934) believes that entrepreneurs are people with innovative spirit and creativity. Entrepreneurs are more open than executives because they need to innovate [51]. The dimensions of personality that are open to experience are considered to be the most indicative of those that form a stronger entrepreneurial intention than others (Brice, 2002). This dimension of the Big Five model is defined as an individual's intellectual curiosity for new concepts, ideas and beliefs, as well as their willingness to try something new and be pioneering (Zhao and Seibert, 2006; Ariani, 2013). Individuals with high open dimensions show no fear of new challenges; They are versatile and imaginative and often exhibit a tremendously high degree of creativity [52]. Open individuals have curiosity and a willingness to discover new and novel ideas [17], Like an entrepreneur [24, 25]. Such people seek out new ideas because their intelligence is related to aspects of creativity - mental ability. A person who scores high on openness to experience is supposed to harbor vivid imagination and creativity, a unique way of thinking and a desire to explore new ideas (Liang et al., 2013). Entrepreneurship may require entrepreneurs to explore ideas through their creativity [53]. Openness to experience is one of the pivotal structures that distinguish entrepreneurs from non-entrepreneurs, along with emotional stability and extraversion [45]. Zhao, Seibert [25] 's meta-analysis confirmed the findings of other studies that the openness of experience is prominently correlated to entrepreneurial intention. Therefore, this indicates that these people will have more willingness to start businesses and experience unconventional lifestyles. So, let's assume that

H4: Openness is positively correlated with entrepreneurial intentions.

5.5. Neuroticism and Entrepreneurial Intention

John & Srivastava (1999) defined neuroticism as a person's level of nervousness. Neurotic individuals often exhibit mood swings, impulsivity, self-awareness, low self-esteem, and

depression (Costa & McCrae, 1992). On the contrary, a person who remains calm or even relaxed in a stressful situation is considered to be emotionally stable. Therefore, neuroticism is based on emotional stability to explain individual differences. Negative emotions such as depression, low self-esteem, hostility, anger, or fear that led to high neuroticism are also associated with low emotional stability (Costa & McCrae, 1992). Individuals who score high on neuroticism are exposed to many negative emotions, such as hostility, nervousness, self-awareness, depression, vulnerability, and impulsivity [17]. Neurotic trait people don't have confidence. Confidence and an affinity for innovation are the catalytic characteristics of entrepreneurs. As a result, people who are emotionally stable score lower on the neuroticism scale. Such people are described as stable, calm, tenacious, relaxed and low-tempered. Entrepreneurs are described in the literature as optimistic and hardy [54, 55]. Scholars and practitioners generally agree that so as to establish and manage a new business, one must have a high degree of self-confidence, perseverance and resilience, and be capable to conduct successful stress management under difficult conditions (Baron and Markman, 1999; Zhao and Seibert, 2006). They take the emotional burden and move on when others are discouraged. They are insensitive to negative feedback (Llewellyn & Wilson, 2003; Yong, 2007). Academics and practitioners generally agree that entrepreneurs bear a great deal of personal responsibility for the success or failure of their new ventures [24, 25, 56]. From this perspective, people with low neuroticism indeed want to start a business, and people with high neuroticism don't want to start a business very much. Research on this personality trait has had mixed results. In the empirical study, Antoncic, Kregar [39] found no remarkable difference in neuroticism between entrepreneurs and non-entrepreneurs, while the Meta-analysis of Zhao and Seibert [24] found a positive correlation between emotional stability and willingness to become entrepreneurs. Therefore, assume the following.

H5: Neuroticism is negatively correlated to entrepreneurial intentions.

6. RESULTS

6.1. Demographics: Frequency Distribution

All the participants (100%) in this study were college students from China's southwest border areas. Results of this study showed that 83.9% of the participants were between freshmen and juniors. In addition, 16.1% of the participants were senior and fifth graders. 27.1% of the study participants were male and 72.9% female.

6.2. Questionnaire Test Results

Goldberg (1990) and John & Srivastava (1999) designed the Big Five Personality Inventory. There were 44 items in total, but in this study, only 17 items were valid. According to Mohajan and Haradhan research result, deleting items that do not reach the corresponding reliability and validity is helpful to improve the reliability and validity of the measurement. Therefore, we will ensure the validity of the research on items that do not reach the corresponding reliability and validity. Specific valid items are shown in the table below:

Table 1. Effective items in the Big Five personality traits and entrepreneurial intentions

| Factors | Question Number | X±SD | variance | Factor loading | CR(Cronbach α) | AVE |
|---------------------------|-----------------|-------------|----------|----------------|------------------------|-------|
| Agreeableness | Q11.5 | 4.888±1.185 | 1.404 | 0.723 | 0.857 | 0.601 |
| Agreeableness | Q11.11 | 4.858±1.167 | 1.363 | 0.796 | | |
| Agreeableness | Q11.16 | 5.062±1.234 | 1.523 | 0.803 | | |
| Agreeableness | Q11.22 | 4.681±1.113 | 1.239 | 0.775 | | |
| Conscientiousness | Q11.19 | 4.791±1.186 | 1.407 | 0.810 | 0.852 | 0.615 |
| Conscientiousness | Q11.23 | 4.604±1.049 | 1.101 | 0.857 | | |
| Conscientiousness | Q11.28 | 4.333±1.086 | 1.180 | 0.673 | | |
| Extraversion | Q11.8 | 4.756±1.210 | 1.465 | 0.758 | 0.845 | 0.579 |
| Extraversion | Q11.10 | 4.501±1.128 | 1.272 | 0.764 | | |
| Extraversion | Q11.17 | 4.552±1.112 | 1.237 | 0.831 | | |
| Extraversion | Q11.26 | 4.322±1.118 | 1.251 | 0.683 | | |
| Neuroticism | Q11.9 | 4.487±1.148 | 1.318 | 0.719 | 0.667 | 0.501 |
| Neuroticism | Q11.13 | 4.430±1.252 | 1.568 | 0.698 | | |
| Openness | Q11.3 | 4.448±1.296 | 1.680 | 0.614 | | |
| Openness | Q11.14 | 4.487±1.065 | 1.133 | 0.805 | 0.833 | 0.555 |
| Openness | Q11.21 | 4.582±1.123 | 1.261 | 0.738 | | |
| Openness | Q11.29 | 4.572±1.045 | 1.093 | 0.863 | | |
| Entrepreneurial Intention | Q12.15 | 3.658±1.372 | 1.881 | 0.744 | | |
| Entrepreneurial Intention | Q12.16 | 3.512±1.353 | 1.832 | 0.841 | 0.949 | 0.756 |
| Entrepreneurial Intention | Q12.17 | 3.996±1.390 | 1.933 | 0.778 | | |
| Entrepreneurial Intention | Q12.18 | 3.692±1.329 | 1.767 | 0.955 | | |
| Entrepreneurial Intention | Q12.19 | 3.763±1.338 | 1.791 | 0.937 | | |
| Entrepreneurial Intention | Q12.20 | 3.704±1.308 | 1.712 | 0.954 | | |

6.3. Differentiation of Latent Variables in the Big Five Personality Traits

Among The 6 latent variables in this study, the discrimination degree (The square root of AVE) between them is all greater than the combination between themselves and other items, indicating that the latent variables in this study have inter-group discriminative validity.

Table 2. Discriminative validity: Pearson correlation and AVE square root value

| | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------------|-------|-------|-------|-------|-------|------|
| Agreeableness 1 | 0.775 | | | | | |
| Conscientiousness 2 | 0.754 | 0.784 | | | | |
| Extraversion 3 | 0.76 | 0.755 | 0.761 | | | |
| Neuroticism 4 | 0.367 | 0.204 | 0.196 | 0.708 | | |
| Openness 5 | 0.713 | 0.737 | 0.761 | 0.259 | 0.745 | |
| Entrepreneurial Intention 6 | 0.134 | 0.306 | 0.26 | 0.044 | 0.301 | 0.87 |

Note: the diagonal blue number is the square root of AVE

6.4. The Regression Coefficient Between the Big Five Personality Traits and Entrepreneurial Intention

As can be clearly discovered from the table 4: when Agreeableness has an influence on entrepreneurial intention, the standardized path coefficient value is $-1.795 < 0$, and the pathway was significant at the level of 0.05 ($Z = -2.811$, $P = 0.005 < 0.05$), indicating that agreeableness remains a significant negative influence on entrepreneurial intention; In the

same way, Conscientiousness had a significant positive impact on entrepreneurial intention; Extraversion did not have an effect on entrepreneurial intention. Neuroticism did not have an effect on entrepreneurial intention; Openness does not have an impact on entrepreneurial intention.

Table 3. Summary of model regression coefficients

| X | → | Y | Unstandardized path coefficient | SE | z (CR) | p | Standardized path coefficient |
|-------------------|---|----|---------------------------------|-------|--------|-------|-------------------------------|
| Agreeableness | → | EI | -1.795 | 0.639 | -2.811 | 0.005 | -1.515 |
| Conscientiousness | → | EI | 1.756 | 0.689 | 2.549 | 0.011 | 1.137 |
| Extraversion | → | EI | 0.809 | 0.51 | 1.587 | 0.113 | 0.729 |
| Neuroticism | → | EI | 0.447 | 0.23 | 1.945 | 0.052 | 0.359 |
| Openness | → | EI | -0.319 | 0.485 | -0.659 | 0.51 | -0.25 |

Notes:→Indicates the path impact relationship, Entrepreneurial Intention(EI)

7. Discussion

Agreeableness has a negative impact on entrepreneurs. In our common sense, agreeableness is considered to be a passive, traditional, non-innovative, trustworthy and forgiving personality trait. Theoretically, they should be able to help managers solve some interpersonal management problems. However, to our surprise, this study proves that agreeableness has a negative effect on college students' entrepreneurial intention, and this effect is remarkable. This is related to Costa, McCrae [57] Zhao and Seibert [24]'s studies are consistent. Although the patience, cooperation and friendliness of entrepreneurs are helpful to entrepreneurship, their help is limited [39]. Managers and individuals who are too easy-going may not be recognized by others. In the process of starting a business, entrepreneurs need to be good at controlling the strategy and strategy of the operation of the enterprise. An agreeableness personality is not conducive to unifying the thinking and strategy of managers and concentrating on a certain direction to fight. [24]. People who are agreeableness generally lack their own opinions, over-rely on others' opinions, inhibit their own beliefs and easily reject new ideas [41]. Responsible influence on the entrepreneur's search for ideas. Relevant empirical evidence also shows that affinity has a significant negative correlation with enterprise engagement. [42].

Conscientiousness to Entrepreneurial intention has positively significant to the Entrepreneurial intention path. Among the Big Five, conscientiousness describes a person's level of achievement motivation, self-discipline, hard work and commitment to business. [17, 45] According to the research of Costa, McCrae [57], the pronoun of conscientiousness is self-discipline, the ability to control one's own thoughts and behaviors, and make efforts for one's own goals [46, 47]. Conscientiousness represents ambition, persistence, and pursuit, and a high score indicates that conscientiousness has high requirements for entrepreneurship, which is consistent with McClenahan's research results. Conscientiousness represents reliability and achievement motivation [24, 43]. In solving practical entrepreneurial problems, conscientiousness has a positive influence on the cognitive structure of specific problem solving, which is also consistent with the research of Zhao, Seibert [25], Sahin, Karadag [49] have all confirmed that responsibility is the core of whether students' entrepreneurial achievements are achieved. This is a very important revelation for innovation and entrepreneurship education. The most important core of entrepreneurship education to cultivate college students

is to cultivate their responsible personality traits, pursue perfection for things, and do their best to fulfill their responsibilities for any details in the entrepreneurial process.

Extraversion demonstrates a Positive effect on Entrepreneurial Intention, but not noteworthy. Extroversion refers to the extent to which an individual is dominant, confident, enthusiastic and talkative. [17]. If the entrepreneur has the Extraversion personality trait, it shows that he has confidence and control of his own ability. Therefore, he is filled with a positive complex from the bottom of his heart: optimism, enthusiasm and self-confidence. Zhao and Seibert [24] can get more excitement when working, and entrepreneurship is more attractive to them, which is consistent with the research results of Zhao and Seibert [24], but not as significant as the research results of Rauch and Frese [20]. It may be because the personality trait of being too extroverted will not be recognized by other colleagues, which can be regarded as a manifestation of blind confidence and inexperience. Therefore, in the process of entrepreneurship education, it is necessary to cultivate the extrovert personality of college students, but there must be a certain degree. Keeping a certain sense of tension and anxiety is conducive to improving the entrepreneurial intention of college students.

Neuroticism presents a Positive association with Entrepreneurial Intention, but no significant effect on the outcome, contrary to the hypothesis. In the hypothesis, we have obtained a lot of literature evidence that neuroticism has a Negative significant effect on entrepreneurial intention, and individuals with surprisingly high neuroticism scores are exposed to many Negative emotions, such as hostility, nervousness, self-awareness, depression, vulnerability and impulsiveness [17]. Studies have shown that neurotic people often have no self-confidence at all. People with unstable complex score low in neuroticism, which represents neurotic personality and emotional unrest. This is similar to Baron and Kenny [54], Blickle, Schlegel [58] described entrepreneurship. Optimism is the opposite of being hard-working. In the early stage of entrepreneurship, it is necessary for entrepreneurs to maintain a certain sense of distress, self-awareness and entrepreneurial momentum, which can promote entrepreneurial intention. This is why people are surprised by the personalities of startups. They seem to be fantastic and whimsical. Neurotic people also quietly bear the emotional burden of entrepreneurial frustration, can move on when others are discouraged, are insensitive to negative feelings in the team, and can lead the team out of difficulties. This could also explain why neurotic entrepreneurs display a positive effect on entrepreneurial intention.

Openness to Entrepreneurial intention has Negative association, but not significant, contrary to the hypothesis of Positive association. In a large number of literatures, there is evidence that open personality has a positive effect on the entrepreneurial intention of college students. For example, the research of McCrae and Costa [59] shows that openness helps students release their curiosity and willingness to discover novel ideas (Costa & McCrae, 1992, and entrepreneurs' personal curiosity and open mind are conducive to the improvement of creativity. [24, 25] Entrepreneurs also need their creativity to explore new ideas and solutions. Previous studies of Liang, Chang [53] have shown that openness is positively correlated with entrepreneurial intention, which has not been confirmed in this study, contrary to the Meta-analysis results of Zhao, Seibert [25]. It shows that curiosity can help them solve problems in starting a business. On the contrary, entrepreneurs who are too curious are prone to produce all kinds of immature ideas. Although these ideas are very novel, they have not been proved, and they are easy to get themselves involved in the predicament of starting a business. On the other hand, college students attach more importance to their current study life and don't want to experience an unconventional life style.

8. Conclusions

Starting a business is an activity that requires great risk. Entrepreneurial intention has different personality traits. Students with strong and confident personalities have a vision of an independent person's future success. Among them, agreeableness displays a negative and noteworthy influence on entrepreneurial intention, conscientiousness remains a positive and significant impact on entrepreneurial intention, extroversion renders a negative impact on entrepreneurial intention, neuroticism has a positive impact on entrepreneurial intention, and openness has a positive impact on entrepreneurial intention.

The enlightenment for educators is to overcome the agreeableness of college students in entrepreneurship education, because agreeableness is obedience. In order to avoid problems, college students often do what they see others do and agree with the majority of questions and opinions. Such personality cannot have a positive impact on college students' entrepreneurship. On the contrary, entrepreneurship needs a heart unwilling to mediocrity. College students need to be taught to think differently; Cultivate college students' sense of responsibility. Doing every little thing well is of great help to improve college students' entrepreneurial willingness. Because the sense of responsibility is a necessary quality for the company to operate all kinds of offices in the start-up period, which is also an important reason why modern enterprises like to recruit responsible college students. Establishing an open mind, even if one is neurotic to a certain extent, is also beneficial to starting a business. After all, starting a business is a brain-wasting task, and openness is not conducive to starting a business, because college students who are too open can't keep some business secrets well, which may be a big taboo in the business field.

Acknowledgments

Thanks for the Undergraduate Teaching Reform Project of Higher Education in Guangxi in 2021, Exploration on the Innovation and Integration Teaching Reform in Medical Colleges under the Background of New Medicine, Project No: 2021JGA282. 2021 Guangxi College Students Innovation and Entrepreneurship Training Program, Ethnic Medical Intellectual Property Incubation Platform, No:202110599033S.

REFERENCES

- [1] Nowinski, W., et al., The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, 2019. 44(2): p. 361-379.
- [2] Shirokova, G., O. Osiyevskyy, and K. Bogatyreva, Exploring the intention-behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics. *European Management Journal*, 2016. 34(4): p. 386-399.
- [3] Bleidorn, W., C.J. Hopwood, and R.E. Lucas, Life Events and Personality Trait Change. *Journal of Personality*, 2018. 86(1): p. 83-96.
- [4] Caci, B., M. Cardaci, and S. Miceli, Autobiographical memory, Big five personality traits and personal life events on Facebook. *Personality and Individual Differences*, 2020. 157: p. 2.
- [5] Al-Swidi, A., et al., The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, 2014. 116(10): p. 1561-1580.
- [6] Beugelsdijk, S., Entrepreneurial culture, regional innovativeness and economic growth. *Journal of Evolutionary Economics*, 2007. 17(2): p. 187-210.

- [7] Abbate, C.S. and S. Di Nuovo, Motivation and personality traits for choosing religious tourism. A research on the case of Medjugorje. *Current Issues in Tourism*, 2013. 16(5): p. 501-506.
- [8] Anastasiei, B. and N. Dospinescu, A model of the relationships between the Big Five personality traits and the motivations to deliver word-of-mouth online. *Psihologija*, 2018. 51(2): p. 215-227.
- [9] Andreea Mortan, R., et al., Effects of emotional intelligence on entrepreneurial intention and self-efficacy. *Revista de Psicología del Trabajo y de las Organizaciones*, 2014. 30(3): p. 97-104.
- [10] Mammadov, S., T.L. Cross, and T.J. Ward, The Big Five personality predictors of academic achievement in gifted students: Mediation by self-regulatory efficacy and academic motivation. *High Ability Studies*, 2018. 29(2): p. 111-133.
- [11] Belas, J., et al., Attitude of University Students toward entrepreneurship environment and toward entrepreneurship propensity in Czech Republic and Slovak Republic - International Comparison. *Economic Research-Ekonomska Istrazivanja*, 2019. 32(1): p. 2500-2514.
- [12] Chen, Y.T., G.H. Wang, and G.X. Xu, RELATIONSHIP AMONG PERSONALITY, LOCUS OF CONTROL, AND ECONOMIC CONFIDENCE OF CHINESE MIGRANT WORKERS. *Social Behavior and Personality*, 2016. 44(3): p. 415-430.
- [13] Caggese, A., Entrepreneurial risk, investment, and innovation. *Journal of Financial Economics*, 2012. 106(2): p. 287-307.
- [14] Tupes, E.C. and R.E. Christal, Recurrent personality factors based on trait ratings. *J Pers*, 1992. 60(2): p. 225-51.
- [15] Goldberg, L.R., The structure of phenotypic personality traits. *Am Psychol*, 1993. 48(1): p. 26-34.
- [16] O'Connor, B.P., A Quantitative Review of the Comprehensiveness of the Five-Factor Model in Relation to Popular Personality Inventories. *Assessment*, 2002. 9(2): p. 188-203.
- [17] Costa, P.T. and R.R. McCrae, 4 WAYS 5 FACTORS ARE BASIC. *Personality and Individual Differences*, 1992. 13(6): p. 653-665.
- [18] Goldberg, L.R., et al., The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality*, 2006. 40(1): p. 84-96.
- [19] Hirschfeld, G., R. von Brachel, and M. Thielsch, Selecting items for Big Five questionnaires: At what sample size do factor loadings stabilize? *Journal of Research in Personality*, 2014. 53: p. 54-63.
- [20] Rauch, A. and M. Frese, Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 2007. 16(4): p. 353-385.
- [21] Baum, J.R. and B.J. Bird, The Successful Intelligence of High-Growth Entrepreneurs: Links to New Venture Growth. *Organization Science*, 2010. 21(2): p. 397-412.
- [22] Goldberg, L.R., AN ALTERNATIVE DESCRIPTION OF PERSONALITY - THE BIG-5 FACTOR STRUCTURE. *Journal of Personality and Social Psychology*, 1990. 59(6): p. 1216-1229.
- [23] Gosling, S.D., P.J. Rentfrow, and W.B. Swann, A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 2003. 37(6): p. 504-528.
- [24] Zhao, H. and S.E. Seibert, The big five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 2006. 91(2): p. 259-271.
- [25] Zhao, H., S.E. Seibert, and G.T. Lumpkin, The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review. *Journal of Management*, 2010. 36(2): p. 381-404.

- [26] Krueger, N.F., M.D. Reilly, and A.L. Carsrud, Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 2000. 15(5-6): p. 411-432.
- [27] Bird, B., IMPLEMENTING ENTREPRENEURIAL IDEAS - THE CASE FOR INTENTION. *Academy of Management Review*, 1988. 13(3): p. 442-453.
- [28] Thompson, E.R., Individual Entrepreneurial Intent: Construct Clarification and Development of an Internationally Reliable Metric. *Entrepreneurship Theory and Practice*, 2009. 33(3): p. 669-694.
- [29] Kautonen, T., M. van Gelderen, and E.T. Tornikoski, Predicting entrepreneurial behaviour: a test of the theory of planned behaviour. *Applied Economics*, 2013. 45(6): p. 697-707.
- [30] Krueger, N. and P.R. Dickson, HOW BELIEVING IN OURSELVES INCREASES RISK-TAKING - PERCEIVED SELF-EFFICACY AND OPPORTUNITY RECOGNITION. *Decision Sciences*, 1994. 25(3): p. 385-400.
- [31] Karabulut, A.T., Personality Traits on Entrepreneurial Intention, in 5th International Conference on Leadership, Technology, Innovation and Business Management 2015, Icltibt 2015, C. Zehir and E.E. Ozdemir, Editors. 2016. p. 12-21.
- [32] Leutner, F., et al., The relationship between the entrepreneurial personality and the Big Five personality traits. *Personality and Individual Differences*, 2014. 63: p. 58-63.
- [33] Mustafa, M.J., et al., Entrepreneurial intentions of university students in an emerging economy The influence of university support and proactive personality on students' entrepreneurial intention. *Journal of Entrepreneurship in Emerging Economies*, 2016. 8(2): p. 162-179.
- [34] Reynolds, P., et al., Global Entrepreneurship Monitor: Data collection design and implementation 1998-2003. *Small Business Economics*, 2005. 24(3): p. 205-231.
- [35] Ajzen, I., ATTITUDES, TRAITS, AND ACTIONS - DISPOSITIONAL PREDICTION OF BEHAVIOR IN PERSONALITY AND SOCIAL-PSYCHOLOGY. *Advances in Experimental Social Psychology*, 1987. 20: p. 1-63.
- [36] Ajzen, I., THE THEORY OF PLANNED BEHAVIOR. *Organizational Behavior and Human Decision Processes*, 1991. 50(2): p. 179-211.
- [37] Lee, D.Y. and E.W.K. Tsang, The effects of entrepreneurial personality, background and network activities on venture growth. *Journal of Management Studies*, 2001. 38(4): p. 583-602.
- [38] Cheng, C.F., et al., Fan participation behaviour in baseball: an application of the theory of planned behaviour. *International Journal of Sports Marketing & Sponsorship*, 2012. 14(1): p. 22-33.
- [39] Antoncic, B., et al., The Big Five Personality-Entrepreneurship Relationship: Evidence from Slovenia. *Journal of Small Business Management*, 2015. 53(3): p. 819-841.
- [40] Judge, T.A., et al., What I Experienced Yesterday Is Who I Am Today: Relationship of Work Motivations and Behaviors to Within-Individual Variation in the Five-Factor Model of Personality. *Journal of Applied Psychology*, 2014. 99(2): p. 199-221.
- [41] Judge, T.A. and C.P. Zapata, THE PERSON-SITUATION DEBATE REVISITED: EFFECT OF SITUATION STRENGTH AND TRAIT ACTIVATION ON THE VALIDITY OF THE BIG FIVE PERSONALITY TRAITS IN PREDICTING JOB PERFORMANCE. *Academy of Management Journal*, 2015. 58(4): p. 1149-1179.
- [42] Wooten, K.C., T.A. Timmerman, and R. Folger, The use of personality and the five-factor model to predict new business ventures: From outplacement to start-up. *Journal of Vocational Behavior*, 1999. 54(1): p. 82-101.
- [43] Mount, M.K., et al., Higher-order dimensions of the big five personality traits and the big six vocational interest types. *Personnel Psychology*, 2005. 58(2): p. 447-478.

- [44] Nofle, E.E. and P.R. Shaver, Attachment dimensions and the big five personality traits: Associations and comparative ability to predict relationship quality. *Journal of Research in Personality*, 2006. 40(2): p. 179-208.
- [45] Chan, K.-Y., et al., Personality and entrepreneurial, professional and leadership motivations. *Personality and Individual Differences*, 2015. 77: p. 161-166.
- [46] Baum, J.R. and E.A. Locke, The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 2004. 89(4): p. 587-598.
- [47] McClenahan, C., et al., Testicular self-examination: a test of the health belief model and the theory of planned behaviour. *Health Education Research*, 2007. 22(2): p. 272-284.
- [48] Carver, C.S. and J. Connor-Smith, Personality and Coping. *Annual Review of Psychology*, 2010. 61: p. 679-704.
- [49] Sahin, F., H. Karadag, and B. Tuncer, Big five personality traits, entrepreneurial self-efficacy and entrepreneurial intention A configurational approach. *International Journal of Entrepreneurial Behavior & Research*, 2019. 25(6): p. 1188-1211.
- [50] Crant, J.M., THE PROACTIVE PERSONALITY SCALE AND OBJECTIVE JOB-PERFORMANCE AMONG REAL-ESTATE AGENTS. *Journal of Applied Psychology*, 1995. 80(4): p. 532-537.
- [51] Kornor, H. and H. Nordvik, Five-factor model personality traits in opioid dependence. *Bmc Psychiatry*, 2007. 7.
- [52] Heller, D., J. Komar, and W.B. Lee, The dynamics of personality states, goals, and well-being. *Personality and Social Psychology Bulletin*, 2007. 33(6): p. 898-910.
- [53] Liang, C., C.-C. Chang, and Y. Hsu, Personality and psychological factors predict imagination: Evidence from Taiwan. *Learning and Individual Differences*, 2013. 27: p. 67-74.
- [54] Baron, R.M. and D.A. Kenny, The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *J Pers Soc Psychol*, 1986. 51(6): p. 1173-82.
- [55] Collins, C.J., P.J. Hanges, and E.A. Locke, The relationship of achievement motivation to entrepreneurial behavior: A meta-analysis. *Human Performance*, 2004. 17(1): p. 95-117.
- [56] Baron, R.A., The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of Business Venturing*, 2004. 19(2): p. 221-239.
- [57] Costa, P.T., R.R. McCrae, and D.A. Dye, FACET SCALES FOR AGREEABLENESS AND CONSCIENTIOUSNESS - A REVISION OF THE NEO PERSONALITY-INVENTORY. *Personality and Individual Differences*, 1991. 12(9): p. 887-898.
- [58] Blickle, G., et al., Some personality correlates of business white-collar crime. *Applied Psychology-an International Review-Psychologie Appliquee-Revue Internationale*, 2006. 55(2): p. 220-233.
- [59] McCrae, R.R. and P.T. Costa, DISCRIMINANT VALIDITY OF NEO-PIR FACET SCALES. *Educational and Psychological Measurement*, 1992. 52(1): p. 229-237.