

"Personality Traits and Sustainable Entrepreneurial Intention: Examining the Effect of Big Five Traits on Sustainability-Oriented Entrepreneurship"

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Abstract

Sustainable entrepreneurship plays a critical role in the advancement and progress of a nation in a sustainable and enduring manner. In addition to the overarching significance of sustainable entrepreneurship, it is important to acknowledge the role that the personality disposition of an individual can play in the formation of a sustainable outlook. This study attempts to examine the relationship between personality traits and sustainable entrepreneurship intention using big 5 traits personality classification. To attain the objective of the study, data was collected from 264 entrepreneurs and analysed using correlation and regression analysis. The results of the study reveal that Big 5 personality traits can impact sustainability-oriented entrepreneurial intentions. Agreeableness, conscientious and extraversion traits exhibit a positive association with sustainable entrepreneurship intentions, while neuroticism and openness demonstrated a weak relationship with Sustainability-Oriented Entrepreneurship intention. The findings of the research offer a valuable theoretical contribution and are poised to yield advantageous outcomes for the advancement of strategies pertaining to sustainable entrepreneurship. The study is the first to uncover the links between personality traits of Indian entrepreneurs and their sustainable entrepreneurship intention.

Keywords: Big 5 traits; Entrepreneurial Intentions; Personality Traits; Sustainable Entrepreneurship.

I. Introduction

The time has come for business owners to embrace a more holistic perspective on their industry that balances economic, social, and environmental values. Sustainable business owners who have a strong commitment to the social vision, an understanding of sustainable practices, innovation, the ability to create social networks, and the capability to generate profits that are both tenable and realistic can practice such an approach. Without placing an overwhelming emphasis on generating shareholder wealth, they can advocate for the synergistic derivation of social, economic, and environmental principles (Kurucz et al., 2008). With the emergence of sustainable entrepreneurship, scholarly interest in understanding the noneconomic effects of entrepreneurial activities has increased (Thompson et al., 2011; Lawal et al., 2016). Sustainable entrepreneurship analyzes the business prospects for a society that is socially, economically, and environmentally sustainable (Thompson et al., 2011; Binder & Belz, 2015). The new era of entrepreneurship pursuits and goals supports the way of life that prioritizes the future. Entrepreneurship with a focus on sustainability can make the world a better place for both present and future generations.

Sustainable business owners are likely to have a number of distinctive personality traits that define their behaviours or actions. The development of these crucial personality traits can be aided by business and management education if sustainable entrepreneurship is to be successful and significant. For societal growth, it is essential to recognize and encourage sustainable entrepreneurial intentions (Muñoz & Dimov, 2015; Vuorio et al., 2018). Entrepreneurs that are committed to sustainability take advantage of resources and opportunities to support any society's social, economic, and environmental causes (Yitshaki & Kropp, 2016; Belz & Binder, 2017). Sustainable entrepreneurship fosters job possibilities, innovation, productivity gains, and economic well-being (Galindo & Méndez, 2014; Park, 2017; Farrukh et al., 2018). Therefore, it is crucial to understand the driving forces behind entrepreneurial intentions that prioritize sustainability. This study aims to identify the personality traits that affect the intentions of sustainable entrepreneurs. Personality traits encourage internal cognitive processes and self-initiative, which can lead to significant contributions to the community (Wang et al., 2012). Which suggests that personality traits can be considered as significant motivators of business objectives that are sustainability-oriented (Vuorio et al., 2018; Arru, 2019).

The following sections provide a comprehensive and in-depth information regarding the literature that is directly relevant and related to the given topic, elucidating the intricate relationship between the variables of the study. The subsequent section, presents the specific objectives and hypotheses that have been formulated to define the purpose the study. Subsequently, a profound and detailed description will be provided regarding the methodological approach that was undertaken in order to carry out the aforementioned study. Furthermore, the results and findings of the study have been presented in a comprehensive manner, employing the use of tables to effectively convey the information that has been derived from the data analysis. Furthermore, a thorough and comprehensive discussion pertaining to the results and implications that are associated with the study will be expounded upon. Moreover, the limitations and constraints of this study will be discussed in order to provide a comprehensive understanding of the potential biases and limitations that may have influenced the results and findings. Finally, a comprehensive and conclusive conclusion will be presented, synthesizing all of the aforementioned information and summarizing the key findings and implications that can be derived from this study.

II. Literature Review

Personality traits are predictable aspects of behavior that help to explain why people behave differently in comparable circumstances (Llewellyn & Wilson, 2003). Personality traits make it possible to accurately forecast a person's behavior in a given situation (Kolb & Wagner, 2015) as they remain generally consistent over time (Roccas et al., 2002; Cobb-Clark & Schurer 2011). Entrepreneurship is fundamentally personal and largely concerned with people (Baum et al., 2007), is a self-motivated behavior that is produced by individual will, which in turn is considerably more susceptible to personality than to societal or economic limitations. Entrepreneurs are rather distinctive, and this distinctiveness is anchored in particular personality traits (Elfvig, 2008), Researchers have noted that personality traits affect the formation of entrepreneurial intentions (Leutner et al., 2014; Sušanjan et al., 2015). Personality traits are effective predictors of an individual's decision to become an entrepreneur (Leutner et al., 2014; Wang et al., 2016). An emerging topic of inquiry in the literature on entrepreneurial intentions is the study of sustainable business intentions (Líñán & Fayolle, 2015). Although several studies sought to study traits that affect entrepreneurial intention targeted towards sustainable business practices (Schaltegger & Wagner, 2011; Koe et al., 2014). There is still a dearth of research on the psychological components that look at the intentions and motivations of sustainable entrepreneurs (Majid et al., 2017), and how they relate to personality traits. Personality traits are persistent, predictable aspects of a person's

behavior that account for variations in how different people behave in situations (Llewellyn & Wilson, 2003). The Big Five framework is a hierarchical model that categorizes differences in human personality into five broad, empirically established dimensions. It reflects personality at the highest level of abstraction (John et al., 2008). The big 5 traits consist of openness, conscientiousness, extraversion, agreeableness and neuroticism.

2.1 Extroversion and Sustainability-Oriented Entrepreneurship

People that are extroverted typically exhibit social, outgoing, optimistic, and assertive traits (Llewellyn & Wilson, 2003; Ciavarella et al., 2004). According to numerous studies, individuals with entrepreneurial intention tend to be highly extraverted (Zhao et al., 2010; Brandstätter, 2011; Liang et al., 2015). According to research, the extraversion trait strongly influences the development of sustainable entrepreneurial intentions among college students (Yan et al., 2018).

2.2 Neuroticism and Sustainability-Oriented Entrepreneurship

The measure of a person's emotional stability is called neuroticism (Llewellyn & Wilson, 2003). High levels of neuroticism are largely characterized by mood swings, impulsivity, self-consciousness, low self-esteem, and depression (Costa & McCrae, 1992). Contrarily, business owners who face a variety of difficult situations requiring the management of limited resources as well as requirements to demonstrate legitimacy in the face of stakeholder pressures must demonstrate high levels of optimism and emotional intelligence (Crane & Crane, 2007; D'Intino et al., 2007). Introverts sometimes come across as reserved, silent, unfriendly, and less engaged in social settings (Zhao & Seibert, 2006; Ariani, 2013). Which suggests that people with low neuroticism, have strong intentions for sustainable enterprise (Zhao et al., 2010; Brandstätter, 2011). A higher level of entrepreneurial intention is linked to lower levels of neuroticism (Zhao et al., 2010; Liang et al. 2015). A study by Khan (2021) indicates that neuroticism has little impact on sustainable intentions. While another study indicates negative relationship between neuroticism and sustainable entrepreneurial intention (Yan et al., 2018)

2.3 Agreeableness and Sustainability-Oriented Entrepreneurship

The ability to promote social consensus, while maintaining respect and trust between people is what is meant by being agreeable (Llewellyn & Wilson, 2003). The capacity to empathize, be patient, listen well, and encourage harmony in social interactions is referred to as being agreeable (Caliendo & Kritikos, 2008). Sometimes those who are agreeable are perceived as naive or accommodative (Wang et al. 2016). The most crucial personality trait for the promotion and sustenance of social entrepreneurship, and the effective use of human resources can be linked to agreeableness (İrengün & Arikboğa, 2015). Positive entrepreneurial intentions and prospects for sustainability are positively correlated with agreeableness (İrengün & Arikboğa, 2015; Wang et al., 2016; Arru 2019).

2.4 Conscientiousness and Sustainability-Oriented Entrepreneurship

The meticulousness, adherence to rules and processes, and relentless fixation with upholding high standards of performance are all characteristics of the conscientious attribute (Llewellyn & Wilson, 2003). People who are conscientious are motivated by a strong sense of responsibility, work ethic, and need for success, all of which enhance their dependability at work (Ciavarella et al., 2004). A low level of conscientiousness, on the other hand, describes persons who, while not necessarily lacking in moral convictions, nevertheless apply them less rigorously (Rothmann & Coetzer, 2003). Entrepreneurs have a strong drive to succeed, which corresponds to high levels of conscientiousness (Collins et al., 2004; Stewart & Roth, 2004). Conscientiousness has a positive association with sustainability and financial returns (Nga & Shamuganathan, 2010).

2.5 Openness or Intellect and Sustainability-Oriented Entrepreneurship

A liberal value system that encourages individual intellectual curiosity and an inclination for the novelty of new experiences is characterized by openness (McCrae & Costa, 1986). People that score well on the openness component are adaptable, innovative, and frequently show a high degree of creativity (Llewellyn & Wilson, 2003; Yong, 2007). Due to their need to be resourceful in their use of limited resources, entrepreneurs have been found to score higher on openness traits (Nordvik & Brovold, 1998). Openness is found to have lowest correlation with sustainable entrepreneurial intention (Arru, 2019). The long-term sustainability of a business enterprise is observed to be inversely correlated with openness (Ciavarella et al., 2004).

III. Objective and Hypothesis

The objective of the study was to investigate the impact of big 5 personality traits on Sustainability oriented entrepreneurship intentions, accordingly the following hypothesis have been framed:

H₀₁: Extraversion negatively affects sustainability-oriented entrepreneurial intentions.

- H₀₂: Neuroticism negatively affects sustainability-oriented entrepreneurial intentions.
H₀₃: Agreeableness negatively affects sustainability-oriented entrepreneurial intentions.
H₀₄: Conscientiousness positively affects sustainability-oriented entrepreneurial intentions.
H₀₅: Openness positively affects sustainability-oriented entrepreneurial intentions.

IV. Methodology

The sample of the study comprised of entrepreneurs hailing from the state of Jammu and Kashmir in India. In order to collect data from these entrepreneurs, the researchers opted for convenience sampling, a non-probability sampling technique that seeks to include participants who are easily accessible and willing to participate. To gather the necessary data, a survey method was utilized, wherein a total of 264 respondents were selected to complete a survey form created using Google survey tools. The survey questionnaire was thoughtfully designed and divided into two distinct sections. The first section focused on gathering information related to the demographic profile of the respondents such as their age, gender, and educational background. The second section was dedicated to eliciting information about the respondents' personality traits and their intentions towards sustainable entrepreneurship. To measure the personality traits of the respondents, a scale comprising of 25 items was adopted, which had been derived from the renowned International Personality Item Pool (IPIP) developed by Goldberg. In order to assess the respondents' intentions towards sustainable entrepreneurship, a scale consisting of six items was employed, which had been specifically developed by Vuorio et al. in 2018. It is important to note that careful consideration was given to ensuring that the questionnaire did not include any sensitive questions that would make the respondents uncomfortable or unwilling to answer. Once the data collection phase was complete, the collected data was subjected to analysis using the widely used statistical software known as SPSS. After analysing the data, it was found that the sample consisted of 129 female respondents and 135 male respondents. The age group of the respondents covered in the study were within the range of 18 to 35 years old. A larger proportion of respondents (228 individuals) belonged to the age group of 18 to 26, while the remaining 36 respondents fell within the age group of 27 to 35. Furthermore, the educational background of the respondents varied, with 79 individuals reporting to have a bachelor's degree, while a larger group of 185 respondents claimed to possess a master's degree.

V. Data Analysis

To check the reliability of the questionnaire, cronbach alpha scores were calculated. Cronbach alpha was recorded above (.7) for all variables which are presented in table 1. Factor analysis was conducted using principal component analysis and varimax rotation. Kaiser-Meyer-Olkin (KMO) test for the scale was obtained as .859 with df (465) and sig. (000). 77.83% variance was explained by 6 variables (1=33.77; 2=14.84; 3=10.49; 4=7.19; 5=6.13; 6=5.41).

Table 1: Reliability Test.

| Variables | No. of Items | Cronbach's α |
|--|--------------|---------------------|
| Extraversion | 5 | .938 |
| Neuroticism | 5 | .916 |
| Agreeableness | 5 | .892 |
| Conscientiousness | 5 | .924 |
| Openness | 5 | .925 |
| Sustainable Entrepreneurship Intention | 6 | .924 |

Source: Author

Mean scores and standard deviation of variables was examined and is presented in table 2. Mean scores for all variables were recorded above 3. Highest mean was observed for agreeableness (M=4.136) and lowest for extraversion (M=3.223). Standard deviation was lowest for agreeableness (SD=.7312), and highest for neuroticism (SD=1.0024) which suggests that data has a lot of variance around the mean.

Table 2: Descriptive Statistics.

| Variables | Mean | Std. Deviation | N |
|-------------------|-------|----------------|-----|
| Extraversion | 3.223 | .9831 | 264 |
| Neuroticism | 3.233 | 1.0024 | 264 |
| Agreeableness | 4.136 | .7312 | 264 |
| Conscientiousness | 3.898 | .8225 | 264 |
| Openness | 3.660 | .7834 | 264 |

| | | | |
|--|-------|-------|-----|
| Sustainable Entrepreneurship Intention | 3.874 | .7788 | 264 |
|--|-------|-------|-----|

Source: Author

Pearson correlation (r) was employed to examine the correlation between personality variables and sustainable entrepreneurship intention. Varying degree of correlation was observed between variables ranging from (-.042) to (.511). For sustainable entrepreneurship highest correlation was observed with agreeableness (.509; sig=.05) and lowest with neuroticism (.124; sig=.01).

Table 3: Correlation analysis.

| Variables | | EXT | NEU | AGR | CON | OPE | SUS |
|--|---------------------|---------|--------|--------|--------|--------|-----|
| Extraversion | Pearson Correlation | 1 | | | | | |
| | Sig. (2-tailed) | | | | | | |
| | N | 264 | | | | | |
| Neuroticism | Pearson Correlation | -.322** | 1 | | | | |
| | Sig. (2-tailed) | .000 | | | | | |
| | N | 264 | 264 | | | | |
| Agreeableness | Pearson Correlation | .217** | .029 | 1 | | | |
| | Sig. (2-tailed) | .000 | .643 | | | | |
| | N | 264 | 264 | 264 | | | |
| Conscientiousness | Pearson Correlation | .449** | -.100 | .511** | 1 | | |
| | Sig. (2-tailed) | .000 | .104 | .000 | | | |
| | N | 264 | 264 | 264 | 264 | | |
| Openness | Pearson Correlation | .382** | -.042 | .373** | .485** | 1 | |
| | Sig. (2-tailed) | .000 | .498 | .000 | .000 | | |
| | N | 264 | 264 | 264 | 264 | 264 | |
| Sustainable Entrepreneurship Intention | Pearson Correlation | .337** | -.124* | .509** | .462** | .287** | 1 |
| | Sig. (2-tailed) | .000 | .045 | .000 | .000 | .000 | |
| | N | 264 | 264 | 264 | 264 | 264 | 264 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Author

Test of collinearity was conducted to check tolerance and VIF scores which is presented in table 4. All tolerance values were above (>0.50) and VIF values below (<2) which suggests no problems concerning multi-collinearity.

Table 4: Test of collinearity.

| Independent Variables (Personality Traits) | Tolerance | VIF |
|--|-----------|-------|
| Extraversion | .684 | 1.461 |
| Neuroticism | .882 | 1.133 |
| Agreeableness | .711 | 1.406 |
| Conscientiousness | .572 | 1.747 |
| Openness | .706 | 1.417 |

Source: Author

The significant influence of a group of independent variables (predictors) on the dependent variables is demonstrated through regression analysis (Hair, 2011). By demonstrating the degree to which the variance in a continuous dependent variable can be explained by a group of predictors, this statistical tool enables the identification of the influence of personality traits on the intention to engage in sustainable entrepreneurship.

Table 5: Multiple Regression Analysis.

| Independent variables (Personality Traits) | β | T | Sig. |
|---|----------|----------|-------------|
| Extraversion | .148 | 2.417 | .016 |
| Neuroticism | -.067 | -1.253 | .211 |
| Agreeableness | .382 | 6.367 | .000 |
| Conscientiousness | .199 | 2.975 | .003 |
| Openness | -.011 | -.177 | .860 |
| R Square | .341 | | |
| Adjusted R Square | .328 | | |
| F Statistics | 26.715 | | |
| P Value | .000 | | |

Source: Author

Regression results for the variables are presented in table 5. To reject the null hypothesis F statistic of at least 3.95 is required with an alpha level of (0.1) which suggests that F for the model is significant. Variance explained by personality traits in sustainable entrepreneurship intention was obtained as (r square=.328), indicating low correlation. Two personality traits agreeableness and conscientiousness have an influence on sustainable entrepreneurship intention (P value <0.01). Best predictor among the personality traits was agreeableness (Beta=.382; T=6.367) and after that was conscientiousness (Beta=.199; T=2.975) and extraversion (Beta=.148; T=2.417) at Sig<0.05.

Table 6: Summary of results related to hypothesis

| Hypothesis | Independent Variable | Dependent Variable (Sustainable Entrepreneurship Intention) | Reason |
|-------------------|-----------------------------|--|---|
| H1 | Extraversion | Supported | Sig. value <.05, high Beta and T value |
| H2 | Neuroticism | Not Supported | Sig. value >.05, low Beta and T value |
| H3 | Agreeableness | Supported | Sig. value < .05, high Beta and T value |
| H4 | Conscientiousness | Supported | Sig. value <.05, high Beta and T value |
| H5 | Openness | Not Supported | Sig. value > .05, low Beta and T value |

Source: Author

VI. Discussion, Future Scope and Limitations

The growing need for a sustainable environment necessitates entrepreneurial initiatives to be sustainable. Sustainable business practices take into account societal requirements and environmental issues. Encouraging sustainable business practices can lead to a better future for current and future generations. An entrepreneur with sustainable entrepreneurship intentions can build an enterprise that is focused on sustainability. An entrepreneur is not isolated from the effects of various cognitive and personality variables. Personality has a significant impact on the intentions and behavior of an individual. This study made an attempt to study the relationship between personality and sustainable entrepreneurial intentions and found that a relationship does exist between the variables (Arru, 2019; Khan et al., 2021). The results signify a higher relationship between agreeableness trait and sustainable entrepreneurship intention which is consistent with other studies (İrengün & Arikboğa, 2015; Nga & Shamuganathan 2010). People who are agreeable prioritize

others above themselves, which may account for the strongest link between personality traits and sustainable entrepreneurial intention. After agreeableness, the conscientiousness and extraversion trait also indicated a positive association with sustainable entrepreneurship intention. Individuals who are conscientious are driven by a strong sense of responsibility (Ciavarella et al., 2004), which may compel them to engage in sustainable entrepreneurship. Entrepreneurs usually score high on extraversion (Brandstätter, 2011; Liang et al., 2015) and the same has been observed in case of sustainable entrepreneurship intention (Yan et al., 2018).

This study has implications for business education, where the element of social and sustainable entrepreneurship can be integrated within education to make entrepreneurs realize the value and impact they can have on society. The personality traits most closely connected with being a sustainability oriented entrepreneur can be strengthened through education, as personality traits are also subject to change (Wagner et al., 2020). Future business leaders need to have a revolutionary mindset that combines social, environmental, and economic values for a better tomorrow. The study contributes to the literature on sustainable entrepreneurship and would prove to be beneficial for future studies. The limitations of study constitute the inclusion of small sample size, also the study was conducted in an Indian context which limits the applicability of the results to other countries. This study only examined the effect on intention while other variables such as attitude and desirability can also be included in future studies. There is scope for inclusion of further variables as the research on sustainable entrepreneurship is still emerging. A comparison analysis may also be carried out to determine whether there are any gender-based differences. Research on women in particular can be done with an emphasis on sustainability (Borkar et al., 2023).

VII. Conclusion

In conclusion, this study aimed to investigate the relationship between personality traits and sustainability-oriented entrepreneurial intention. The results revealed that personality traits have a significant impact on entrepreneurial intentions related to sustainability. Specifically, agreeableness, conscientiousness, and extraversion showed a positive association with sustainable entrepreneurship intentions. The findings highlight the importance of considering personality traits when examining entrepreneurial intentions, especially in the context of sustainability. Entrepreneurs with higher levels of agreeableness are more likely to prioritize others and engage in sustainable entrepreneurial activities. Similarly, individuals with conscientiousness traits demonstrate a strong sense of responsibility, which motivates them to pursue sustainable entrepreneurship. Moreover, extraversion, which is commonly observed in entrepreneurs, also positively influences sustainable entrepreneurial intentions.

It is important to acknowledge the limitations of this study, including the small sample size and the particular focus on the Indian context, which limits the generalizability of the findings to other countries. Future research could expand on these limitations by including larger and more diverse samples, as well as considering additional variables such as attitudes and desirability in relation to sustainable entrepreneurship. Overall, this study contributes to the growing body of literature on sustainable entrepreneurship by highlighting the role of personality traits in shaping sustainable entrepreneurial intentions. Understanding the connection between personality traits and sustainability-oriented entrepreneurial intention can inform the development of strategies and policies to promote sustainable entrepreneurship for the betterment of society and the environment.

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