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Article

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Personality traits and their impact on the social entrepreneurial intentions of management students: a test of big five personality approach

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Abstract

The focus of this study is to analyze the impact of big five personality traits (proxied by agreeableness, conscientiousness, extraversion, emotional stability, and openness and social support) on social entrepreneurship intention of the students of Tribhuvan University, with the objective to examine the effect of these five personality traits and social support on social entrepreneurship intention as also the moderating effect of gender. Most of the studies focused on the impact of personality traits on social entrepreneurial intention, but ignored the situational factors proxied here by the social support. There are contradictory and contractionary findings while examining impact of big five personality traits on SEI. Most of the studies (Nga & Shamuganathan in *Journal of Business Ethics*, 95(2), 259–282, 2010; Yusuf & Kamil in *Global Journal of Research in Social Sciences*, 2(1), 65–73, 2015; Hsu & Wang in *Innovations in Education and Teaching International*, 56(3), 385–395, 2018; Bernardino et al. in *International Journal of Gender and Entrepreneurship*, 10(1), 61–82, 2018; and Seyoum et al. in *Journal of Small Business and Enterprise Development*, 28(3), 337–359, 2021). Similarly, studies on these issues are almost ignored in Nepalese academics and therefore the researchers attempted to assess the impact of big five personality traits on SEI which is new in the Nepalese context. The sample size was determined using Cochran's (John Wiley & Sons Incorporated, 1977) formula. The data were collected based on five-point Likert scale questionnaire administered personally and online on 385 samples and were analyzed using SMART PLS software. Structure equation modeling was used to examine the impact of the big five personality traits and social support on social entrepreneurship intention and bootstrap multi-group analysis to check the moderating effect of gender. Cronbach Alpha and composite reliability (CR) were used to check reliability, variance inflation factor (VIF) to check multicollinearity, K-S and Shapiro–Wilk test to check the normality of the data, and Fornell and Larcker criterion and HTMT ratio to check the discriminant validity. The study found that all the proxies of big five personality traits and social support positively and significantly impact on social entrepreneurship intention, but gender does not moderate the relationship. The big five personality traits remain one of the major determinants in creating entrepreneurial intention among students. The reason why, university can adopt programs to educate

big five personality traits in order to develop entrepreneurial intention among graduate level students. Similarly, social support helps generate entrepreneurial intentions. The study findings confirm the effect of social support in creating entrepreneurial intention and create the scope to use TPB theory in creating entrepreneurial intention. As well, it helps university to develop programs and courses for the creating entrepreneurial intention among graduate level students.

Keywords: Tribhuvan University, Nepal, Social support, Social entrepreneurship

Introduction

The effect of personality traits on social entrepreneurship drive has increasingly been discussed in recent decades under a basic premise of business and economics literature as entrepreneurship with social cause aims to provide an innovative solution to social problems and creates social value to improve the lives of individuals (Luc et al., 2021). Social enterprises offer to reconceptualize the mission of the enterprise to bring the change desired by adopting an innovative approach and rethinking value-creating logic (Brown & Wyatt, 2012). An excellent technique to comprehend and predict entrepreneurship is entrepreneurial intention (EI), regarded as a predictor of entrepreneurship (Krueger et al., 2000). Social Entrepreneurial Intention (SEI) then refers to an individual's determination and self-belief toward establishing a social enterprise (Luc, 2020).

Individual characteristics—the traits of an individual that determine a person's behavior, emotion, and awareness (Nga & Shamuganathan, 2010), and situational factors are essential to understand SEI (Mair & Noboa, 2006). Individual characteristics help predict and understand the behavior of social entrepreneurs and their involvement in entrepreneurship for social causes and bringing transformational change in society (Hossain et al., 2021). Social entrepreneurs possess distinct traits that help in understanding their entrepreneurial behavior. Social entrepreneurs through their unique sets of individual characteristics realize their social mission, keep an interest in solving social problems, and explore and utilize the opportunities available to solve these problems (Ahmed et al., 2020).

The Big Five Personality (BFP) model is often used for studying the personality traits that divide an individual characteristic into emotional stability (neuroticism), openness, conscientiousness, extraversion, and agreeableness (Costa & McCrae, 1992). Studies suggest that personality traits are relevant in predicting entrepreneurial intentions and performance (Ip et al., 2018). Several studies have been undertaken to understand relationship between the BFP and SEI. Nga and Shamuganathan (2010), and Preethi and Priyadarshini (2018) studied the relationship between BFP traits and social entrepreneurship dimensions, while Hossain et al. (2021) and Luc (2020) tested the direct relationship of BFP on SEI and to conclude that agreeableness, extraversion, and openness leave a positive impact on SEI.

In order to understand the influence of situational factors on SEI, social support, which plays a vital role in encouraging an individual toward social work, for guidance and financial help, and influencing them to get into social entrepreneurship (Nga & Shamuganathan, 2010), has been recognized in the course of several studies as an influential factor in SEI (Hossain et al., (2021); Akhter et al., 2020; Hockerts, 2017; Seyoum et al., 2021). Social support is essential for an individual to get the desired social outcome and

is strongly associated with SEI (Hockerts, 2017). Social entrepreneurs expect funding opportunities, encouragement for social work, and appreciation from the environment around to launch a social venture (Hossain et al., 2021). Social support is thus an enabling factor in explaining SEI (Mair & Noboa, 2006).

While the scholarship on personality traits and their effects on social entrepreneurship remains a mature issue among practitioners and academics in developed economies, it is relatively new in the Nepal's context, and the discourse on the theme is increasingly been gaining ground with the practice of social entrepreneurship on the rise in recent years (Pathak et al., 2018). Altogether there are 50 major social entrepreneurs in Nepal. However, social entrepreneurship as a sub-sector of the economy is impeded by the lack of conceptual clarity and legal arrangements in the national context. This, perhaps, is the reason why there are only 50 social entrepreneurs so far here. The policy and social constraints notwithstanding, a number of startups are entering the field every year (Giri, 2020), who want to be change agents in the society, become role models for the youth, and create equality in society through their entrepreneurship (Pandey, 2019). Social entrepreneurship is thus about combining the passion for social change with business (Pandey, 2019).

Boiling down the concept of personality traits and their effects on social entrepreneurship in the Nepal's context, this study employed an integrated model incorporating individual factors proxied by personality traits, and situational factors such as social support on the SEI to get a better understanding of social entrepreneurship intention. Despite numerous studies that generally take gender into account as a moderating variable, the literature currently lacks an in-depth, fine-grained examination of how students' gender affects their aspirations to pursue social entrepreneurship. It is essential to understand the role that gender can play in moderating the relationship between individual characteristics, social support, and SEI. This study, therefore, aims to probe whether the impact of individual characteristics and social supports on social entrepreneurial intentions differs across gender and thereby help in clarifying our understanding of entrepreneurship prevalence rates between men and women. The main objective of this study is thus to examine the impact of individual characteristics of management students on social entrepreneurship.

Literature review

Social entrepreneurship

Social entrepreneurship implies creating a new venture or business, focused on earning profit along with rendering social benefits. It creates economic value tooled up to address social issues that government initiatives and the private sector have failed to address (Akhter et al., 2020). Social entrepreneurship can thus be defined as the initiative of an entrepreneur to solve a social problem through innovative and sustainable solutions aware of the social problem (Irengun & Arikboga, 2015). Social entrepreneurship is of critical important for the economic growth and development of a country, particularly in the developing and least-developed countries where growth remains slow or moderate (Tiwari et al., 2018). Social entrepreneurship offers innovative and sustainable solutions to social, cultural, and environmental problems (Tiwari et al., 2018) in addressing

issues of critical concerns such as social vision, sustainability, social networks, innovation, and financial returns.

Social entrepreneurial intention

Social entrepreneurial intention was introduced as a concept by Mair and Noboa (2006) who suggested that the antecedents of perceived desirability are empathy and moral judgment, perceived feasibility is influenced by self-efficacy and social support arguing that the theory of planned behavior requires adaptation to the social entrepreneurial context and in that context also proposed three antecedents of social entrepreneurship: empathy as a proxy for attitude toward behavior, moral judgment as a proxy for society's norms, and social support and self-efficacy as a proxies for perceived behavior control.

Entrepreneurship intention is the desire and determination of a person to start a business in the future (Akhter et al., 2020) with intention as one of the predictors in knowing a person's move in the future (Ajzen, 1991). A person may have the potential to be an entrepreneur, but entrepreneurial behavior is formed only when a person has an intention in explicit terms (Bazkiaei et al., 2020). Entrepreneurial intention helps in understanding the inclination and tendency of a person to become an entrepreneur (Krueger et al., 2000). Various studies have been undertaken to identify the factors that influence the formation of entrepreneurial intention, and the impact that personality traits leave that on process. Entrepreneurial intention is the first step in the journey toward starting the entrepreneurial venture (Ahmed et al., 2020) and social entrepreneurial intention is an individual behavior directed toward becoming a social entrepreneur that involves making plans and generating innovative solutions to social problems (Mair & Noboa, 2006). SEI thus refers to the determination of an individual to generate a financial return by solving social issues through innovative solution, which lay the foundation for establishing social ventures (Hossain et al., 2021).

Theoretical overview

Five-factor model

The five-factor model of personality defines an individual's characteristics, patterns of thinking, feeling, behavior, and how s/he reacts to environmental changes in terms of the five dimensions—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Udayanganie et al., 2019). Entrepreneurs and non-entrepreneurs can be distinguished by their personality traits using the BFP model (Goldberg, 1990). The big five factors are:

Openness

It is the degree to which an individual is creative, original, and tries to do new things (Goldberg, 1990). People who are open to experience and explore new things, are in search of novelty, are imaginative and are always ready to try unusual experiences (Jarboui & Chikha, 2018). Individuals who are open to new experiences are more likely to have imagination, unconventionality, autonomy, creativity, and possess a divergent mode of thinking (Costa & McCrae, 1992). Individuals who score high marks on openness to experience show broad intellectual interest with a unique and creative way of thinking

compared to individuals scoring low on openness to experience who prefer familiarity with a narrow intellectual focus (Migliore, 2011).

Conscientiousness

Conscientiousness is the degree to which a person is efficient, systematic, and organized (Goldberg, 1990). A conscientious person trait is goal-directed, who plans his/her actions before carefully taking them up and monitors them (Jarboui & Chikha, 2018). Highly conscientiousness people are also focused, careful, reliable, and well organized, whereas the less conscientious ones are easily distracted, disorganized, flexible, and causal (Migliore, 2011). Conscientiousness reflects individual motivation, diligence, and persistence, with an aspiration for success (Goldberg, 1990).

Extraversion

An individual with extraversion personality trait is social, friendly, talkative, and energetic (Goldberg, 1990), outgoing, active, and has a positive mood, who encourages other individuals to act, shows optimism and social interaction (Costa & McCrae, 1992). In contrast, a person who likes to stay in the background is less talkative, is also reserved in speech and is less action-oriented scoring low on extraversion, whereas an individual with high extraversion likes attention, and interacts with a group and is full of energy (Migliore, 2011).

Agreeableness

Agreeableness is the degree toward which a person is forgiving, is ready to help others, thinks about others and is trusted by people (Goldberg, 1990). Agreeableness inclines people toward forgiveness, warmth, straightforwardness, modesty, sympathy toward others, and helpfulness (Ahmed et al., 2020). Those who are agreeable appear to be kind-hearted, compassionate, and tolerant, as opposed to those who are less agreeable and appear to be manipulative, self-centered, and suspicious (Goldberg, 1990). People with a trait of agreeableness can adapt easily with a propensity for involvement with others, whereas an individual who is skeptical, challenges others' ideas, and is reluctant to get involved are low on the agreeableness trait (Migliore, 2011).

Neuroticism

The degree to which a person is tense, moody, worried, and easily experiences negative or unpleasant emotions (Goldberg, 1990) explains the state of nervousness, a behavior outside the control of a person (Costa & McCrae, 1992). Neurotic individuals are extremely irritable, depressed, distrustful, temperamental, uneasy, and have low self-efficacy (Ahmed et al., 2020). High score in neuroticism is related to negative feelings such as anxiety, anger or depression, whereas low score implies resilience, calmness, and the ability to control urges and stress (Migliore, 2011).

Situational factor

Social support

Social support, the support one receives from the surroundings (Mair & Noboa, 2006) and is very important for achieving the social outcome is strongly related to social

entrepreneurial intention (Hockerts, 2017) because it helps in creating a network and bond with the local community which encourages the person to get involved in social activities (Seyoum et al., 2021). Supports from the family, friends, and relatives help individuals in believing in their own abilities and seeing that the venture they take up is feasible (Akhter et al., 2020).

Theory of planned behavior

Theory of planned behavior (TPB), widely used to explain entrepreneurial intentions, explains how behavior is formed with the help of three elements—subjective norm, attitude towards behavior, and perceived behavior control. TPB offers a model for the direction of human behavior. Attitude toward behavior refers to a positive or negative feeling that a person has on a particular behavior. In the context of TBP, subjective norm refers to the judgment a person makes due to perceived social pressure to perform or not to perform the behavior (Ajzen & Fishbein, 1980). The term "perceived behavior control" describes how someone perceives how easy or difficult it is to carry out a behavior. (Ajzen, 1991). In this model, intentions are the immediate precursors to the performance of a behavior. In general, the stronger the intention to perform a given behavior, the more likely it will be performed (Ajzen, 1991). The social support, built the entrepreneurial intention, which by and large, orients students toward entrepreneurial thinking is affected by the personality traits. Thus, the study maps big five model with TPB.

Relationship between individual characters and social entrepreneurship intention

Nga and Shamuganathan (2010) investigated the influence of demographic factors and personality traits on social entrepreneurial start-up intentions. The study focused on finding the impact of personality traits on social entrepreneurial dimensions. Social vision, sustainability, social networks, innovation, and financial return include social entrepreneurial dimensions. To identify the impact, the authors designed a framework for purposive judgmental sampling to select the sample. Altogether two hundred responses were collected from undergraduate students through questionnaires. Multiple linear regression was used for testing the hypotheses. Openness is negatively related with only the innovation part of the social entrepreneurship dimensions. Agreeableness exerts a significant influence on all the four dimensions of social entrepreneurship. Conscientiousness has a significant influence on sustainability and financial return. Neuroticism exerts a negative relationship on the fostering of social networks.

Kedmenec et al. (2015) studied the impact of individual characteristics on intentions to pursue social entrepreneurship. The purpose of the study was to identify the individual characteristics that influence a person to become a social entrepreneur. Creativity, proactivity, compassionate love for humanity, hardship in life, and moral competence regarded as individual characteristics based on scientific literature, were compared between three groups of students: those who want to become social entrepreneurs, those who want to become commercial entrepreneurs, and those who have no entrepreneurial intention. The questionnaire was collected from 133 students who were studying entrepreneurship. The ANOVA and factor analysis were used to analyze data. Almost 70 percentage of the students intended to start entrepreneurship. The results showed that proactivity is roughly at the same level between commercial

entrepreneurship intention and SEI. The main driving force behind social entrepreneurial intention was compassionate love for humanity. The respondents with the SEI showed a higher level of compassion. Hardship, moral competence, and creativity did not significantly differ between the groups.

Yusuf and Kamil (2015) examined the relationships between big five personality traits and locus of control on entrepreneurial intentions. The sample for this study was a group of final-year undergraduate students enrolled in University Malaysia Perli's School of Business Innovation and Technopreneurship. Random sampling was used for this study. Questionnaires were distributed to 200 students but only 170 questionnaires were returned. Descriptive analysis, correlation, and regression analysis were used to analyze data. The study found that openness, agreeableness, and locus of control have a strong positive relationship with entrepreneurial intentions, with conscientiousness, extraversion, and neuroticism, but no significant relationship with entrepreneurial intention.

Murugesan and Jayavelu (2017) examined the influence of big five personality traits and self-efficacy on entrepreneurial intention, focusing on the role of gender in moderating the relationship between big five personality traits, self-efficacy, and entrepreneurial intention. Convenient sampling was used for sample selection and questionnaires were distributed to 248 B.Tech. students, and multinomial logistic regression and factor analysis were used to analyze the data. The study concluded that openness, neuroticism, conscientiousness and agreeableness, and self-efficacy have a positive impact on entrepreneurial intention, whereas extraversion has a negative impact on entrepreneurial intention. The study further revealed that the gender partially moderated the relationship between big five personality traits and self-efficacy in entrepreneurial intention. Women scored significantly higher levels of neuroticism, agreeableness, extraversion, and conscientiousness than men. The relationship between self-efficacy and entrepreneurial intention was positive.

Hsu and Wang (2018) conducted a study to know the influential factor of social entrepreneurial intention. The influence of personality traits, social capital, and creativity on the SEI was examined and compared between the students of Hong Kong and Taiwan. A total of 448 responses were collected through online and paper surveys to collect data which were analyzed using multiple regression. The result revealed that creativity and social capital positively influenced SEI in both countries, but a negative relationship between conscientiousness and social entrepreneurial intention among the Taiwanese students. Openness, agreeableness, extraversion, and neuroticism have a positive impact on SEI among Taiwanese students. In the case of students from Hong Kong, openness negatively affected social entrepreneurial intentions, but agreeableness, extraversion, conscientiousness, and neuroticism positively affected the social entrepreneurial intention of students.

Jarboui & Chikha, 2018 examined the influence of personality traits on social entrepreneurship intention. The BFP and specific personality traits studied in this study. Self-efficacy, locus of control, risk-taking, personal initiative, and responsibility were studied under specific personality traits. Questionnaires were distributed to 317 students through email and structural equation modeling method known as PLS-SEM was used. The study concluded that self-efficacy, locus of control, risk-taking,

personal initiative, and responsibility leave a positive influence on SEI as also the openness, agreeableness, extraversion, conscientiousness, and neuroticism.

Ip et al. (2018) examined the influence of personality traits, creativity, and social capital on SEI. For that, the data were collected through offline and online surveys from a sample of 331 students. Factor analysis supported that personality traits could be divided into extraversion, openness to experience, neuroticism, conscientiousness, and agreeableness, creativity into originality and usefulness, and social capital into bridging and bonding. Multiple regression analysis used to analyze the relationship between personality traits, social capital, creativity, and SEI, showed that openness negatively predicted social entrepreneurial intentions and extraversion, neuroticism, conscientiousness, and agreeableness positively, but negative relationship between originality and SEI.

The study undertaken by Bernardino et al. (2018), who sought to determine the extent to which various personality factors can account for gender variations in setting up a social entrepreneurial venture, focused on finding whether male and female social entrepreneurs exhibit similar or different personalities. Data collected through questionnaires and emailed to the entrepreneurs engaged in social venture creation, using descriptive tools, correlation analysis, one-way ANOVA, and binary logistic regression showed that both female and male social entrepreneurs have a high level of agreeableness, extraversion, emotional stability, openness to experience, and conscientiousness, but agreeableness is the feature that most strongly distinguishes females from male social entrepreneurs.

Likewise, Udayanganie et al. (2019) examined the impact of the big five personality traits on the entrepreneurial intention of engineering students in a sample of 202 final-year engineering undergraduate students from three engineering faculties of Sri Lankan University using exploratory factor analysis, multiple regression, and structural equation modeling to analyze the data concluded that Emotional Stability and Openness to Experience have a positive relationship with Entrepreneurial Intention and Extraversion, Agreeableness, and Conscientiousness are a negatively related.

Ahmed et al. (2020) also undertook a study on personality traits and entrepreneurial intention with the mediating role of risk aversion. The purpose was to examine the influence of personality traits on entrepreneurial intentions and find the mediating role of risk aversion. This study, conducted with a convenience sample of 274 Pakistani students through survey questionnaires and using structural equation modeling through AMOS to analyze the relationships among the variables, conscientiousness has a significant positive influence on entrepreneurial intentions but extroversion, openness to experience, neuroticism, and agreeableness are not significantly influenced by entrepreneurial intentions. The findings further revealed that risk aversion has a significant influence on entrepreneurial intention. The relationship among neuroticism and openness to experience and entrepreneurial intention is fully mediated by risk aversion. In the case of conscientiousness, risk aversion partially mediated the relationship with entrepreneurial intention, but played no mediating role in the case of extroversion and agreeableness.

Liu et al. (2020) tested the model proposed by Heckerts by adding personality traits along with entrepreneurial creativity to study SEI. An online and offline survey of 1930 participants done using both descriptive and confirmatory factor analysis, found that openness positively predicted SEI through entrepreneurial creativity, but

conscientiousness is inversely associated through originality. Extraversion and agreeableness positively predicted SEI through moral obligation. Neuroticism could not predict self-efficacy and the effect of self-efficacy on SEI was non-significant. Openness and agreeableness positively predicted SEI through perceived social support, but extraversion is inversely associated with SEI through perceived social support. Openness and agreeableness positively predicted SEI through entrepreneurial creativity, and so did extraversion through usefulness, while neuroticism and conscientiousness were seen inversely associated through originality. Neuroticism and agreeableness positively predicted SEI through empathy. Neuroticism and agreeableness positively predicted moral obligation, but moral obligation could not predict SEI. Extraversion positively predicted SEI through perceived social support, while conscientiousness was inversely associated with SEI through perceived social support.

In Bangladesh, Akhter et al. (2020) focused on finding the factors that influence students' intention to choose social entrepreneurship as a career choice. Entrepreneurial self-efficacy, social support, prior experience, and educational support on SEI were examined. The questionnaire was distributed for data collection to 231 students. Correlation analysis was done to examine the relationship between the dependent and independent variables. To test the hypothesis, multiple regression analysis was used. The study found that social support, educational program, and self-efficacy are crucial factors for students to become social entrepreneurs and that prior experience does not influence SEI.

Luc et al. (2021) investigated the effects of personality traits on social entrepreneurial intention and to find the mediating effect of perceived desirability and perceived feasibility. Data were collected from 503 individuals and questionnaires were sent through Google forms to individuals who had attended social entrepreneurship courses. The personality traits investigated in this study are the need for achievement, risk-taking propensity, innovativeness, proactiveness, empathy, and moral obligations. SMART PLS was used for analyzing data and simple regression analysis to test the mediating effects. The findings showed that there was not a significant impact of risk-taking propensity and the need for achievement on SEI which was found related significantly with empathy, innovativeness, and moral obligation. The effects of proactiveness on SEI were fully mediated by both mediators. In the case of moral obligations, the effect of SEI is partially mediated by both mediators. Perceived feasibility fully mediated the effects of innovativeness on SEI and partially mediated the effects of empathy.

Polas and Jahanshahi (2021) examined the effects of individual characteristics on women's intention to become social entrepreneurs. The purpose was to find the impact of problem-solving skills, networking ability, and entrepreneurial knowledge on SEI. Self-efficacy was used as a mediating variable in the study. Data were collected from a sample of 234 women through a questionnaire. Smart PLS 3.0 was used to test the hypothesis. The results showed a positive impact of problem-solving skills, networking ability, and entrepreneurial knowledge on SEI disclosing moreover that self-efficacy mediated the relationship of problem-solving skills, net-working ability, and entrepreneurial knowledge on SEI.

Hossain et al. (2021) examined the influence of BFP traits, social self-efficacy, and social support on SEI and how gender moderated the relationship between the

variables, based on a sample of 354 students and data collected through a questionnaire using a simple random sampling technique and applying structural equation modeling (SEM) with a partial least squares method for data analysis. The findings revealed that agreeableness, conscientiousness, extraversion, emotional stability, openness, social self-efficacy, and social support positively influence SEI, but extraversion and emotional stability were not significantly moderated by gender whereas, in the case of agreeableness, conscientiousness, openness, social support, and social self-efficacy, gender significantly moderated the relationship with SEI.

Milanovic et al. (2021) investigated the influence of personality traits on SEI. Questionnaires were distributed through the Internet using google forms and data using convenience sampling collected from 350 students studying economics at the University of Nis during the Covid-19 pandemic which analyzed to see the relationship between SEI and BFP using bivariate correlation analysis (two-tailed) as also descriptive statistics for assessing the minimum, maximum, mean, and standard deviation of the researched variables plus multiple linear regression analysis to analyze the influence of socio-demographic characteristics and big five personality traits on SEI perceived during the Covid-19 pandemic indicated that extroversion, conscientiousness, and neuroticism have a positive influence on SEI, but agreeableness and openness do not have a statistically significant influence on SEI.

In order to examine the relationship between social support and SEI, Seyoum et al. (2021) took up entrepreneurial education and physical proximity as moderating variables with a sample size of 1245 respondents intending to start a business. The study which adopted a quantitative methodological approach to see the relationship between social support and SEI using factor analysis and multiple regression analysis found a positive relationship between social support and SEI and entrepreneurial education and physical proximity positively influencing the relationship between social support and SEI. This study concluded that social support encourages entrepreneurial intention and entrepreneurial intention is stronger with entrepreneurial education and physical proximity.

Luc (2020) investigated the relationship between the BFP traits and social entrepreneurial intentions to test and discuss the relationship between BFP traits and SEI using convenience sampling for 753 undergraduate students, hypotheses were analyzed through structural equation modeling as also SPSS and AMOS to run SEM. The findings revealed that agreeableness, extraversion, and openness to experience have positive effects on SEI, and neuroticism and conscientiousness negative effects on SEI.

To investigate the relationship between five-factor personality traits and social entrepreneurial tendency, Kumcu and Cetinel (2022) used convenience sampling to collect data from 229 college students via questionnaires created with the help of google forms and sent through email and WhatsApp. The data analyzed using correlation and confirmatory factor analysis revealed a moderately positive significant relationship between agreeableness, extraversion, openness to experience, and conscientiousness, and SEI. In the case of neuroticism, personality traits do not have significant impact on the sub-dimensions of SEI.

Research gap

Most of the studies focused on the impact of personality traits on social entrepreneurial intention, but ignored the situational factors proxied here by the social support. There are contradictory and contractionary findings while examining impact of big five personality traits on SEI (Bernardino et al., 2018; Hsu & Wang, 2018; Nga & Shamuganathan, 2010; Seyoum et al., 2021; Yusuf & Kamil, 2015). Similarly, studies on these issues are almost ignored in Nepalese academics and therefore the researchers attempted to assess the impact of big five personality traits on SEI which is new in the Nepalese context.

Conceptual framework

Based on the foregoing literature review is the conceptual framework developed for this study (Fig. 1).

The author chose big five personality traits because most of the authors (Hsu & wang, 2018; Jarboui & Chikha, 2018; Muruges & Jayavelu, 2017; Nga & Shamuganathan, 2010; Yusuf & Kamil, 2015) used those five variables to measure entrepreneurial intention. Therefore, the personality traits were selected as dependent variable for the study. Zhao et al. (2005) revealed that men, in comparison to women, have higher personal efficacy for the task and higher performance for firm creation. Gender differences have high

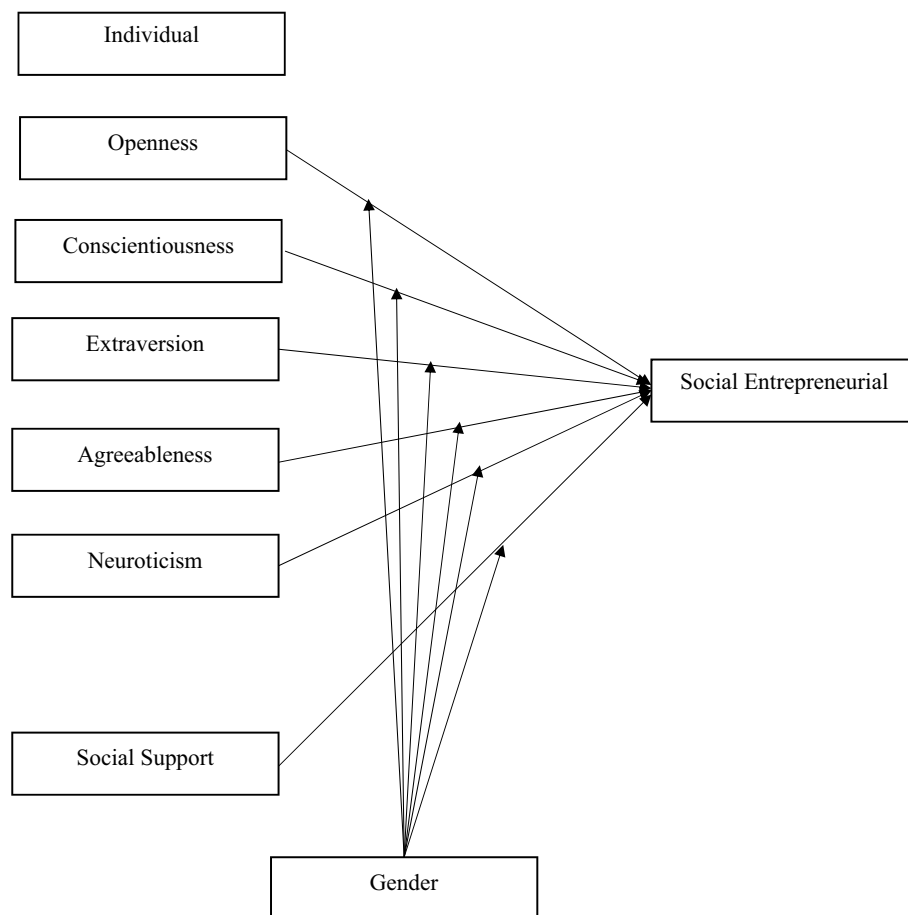


Fig. 1 Conceptual framework. Source: Adopted from Hossain et al., 2021

impact on personality traits than other behavioral variables like cognitive ability, attribution style and self-esteem (Murugesen & Jayavelu, 2017). In the countries like Nepal where male dominance is high that differentiate the personality across gender. Therefore, gender as a moderating variable was selected for the study purpose.

Hypotheses

- H₁: There is a positive relationship between agreeableness and SEI.
- H₂: There is a positive relationship between conscientiousness and SEI.
- H₃: There is a positive relationship between extraversion and SEI.
- H₄: There is a negative relationship between neuroticism and SEI.
- H₅: There is a positive relationship between openness and SEI.
- H₆: There is a positive relationship between social support and SEI.
- H₇: Gender moderates the relationship between agreeableness and SEI.
- H₈: Gender moderates the relationship between conscientiousness and SEI.
- H₉: Gender moderates the relationship between extraversion and SEI.
- H₁₀: Gender moderates the relationship between neuroticism and SEI.
- H₁₁: Gender moderates the relationship between openness and SEI.
- H₁₂: Gender moderates the relationship between social support and SEI.

Methodology

The study taken up here to evaluate the impact of personality traits and social support on SEI of students using a quantitative research approach. The opinions of students on personality traits, social support, and SEI were collected, using correlational research design to assess the impact of personality traits—agreeableness, conscientiousness, extraversion, emotional stability, openness, and situational factor including social support on SEI. The population for this study is management students of Tribhuvan university. The sample for this study is students of MBM, MBS, and MBA of Tribhuvan university. The population size is 22,709. Thus, sample size formula as suggested by Cochran and Cochran (1977) has been used to determine the minimum sample size. The maximum variability is assumed to be 0.5 ($p = 0.5$). Moreover, a 95% confidence interval with $\pm 5\%$ precision is taken for determining the minimum sample size for the study:

$$n = \frac{z^2 * p * q}{e^2} = \frac{1.96 * 1.96 * 0.5 * 0.5}{.05^2} = 384.16.$$

For collecting data, two-part structured questionnaires were distributed manually and through google forms. The first part including the necessary demographic information (name, gender, and course enrolled) and the second part incorporating questions related to personality traits, social support, and SEI on a 5-point Likert scale (ranging from '1'—strongly disagree, and '5'—strongly agree). Primary data were collected distributing a structured questionnaire manually and online using Google forms to 385 management students based on non-probability convenience sampling. The data obtained were sorted, coded in MS Excel and analyzed with the help of SPSS and SMART-PLS 4. Frequency was used to know the number of respondents and percentage to indicate the

composition of males and females. Both the Kolmogorov–Smirnov and Shapiro–Wilk tests were used to check the normality of data using SPSS.

Construct validity and reliability were examined and validated using structural equation modeling (SEM) in Smart PLS software. Cronbach's alpha and composite reliability was calculated to check the internal consistency reliability. To check convergent validity, average variance extracted (AVE) was calculated. Cross-loading, Fornell–Larcker criterion, and HTMT ratio were calculated to examine discriminant validity. The variation inflation factor (VIF) was calculated to detect multicollinearity in the data. Hypothesis testing was done with the help of bootstrapping. To analyze the moderating effect of gender, bootstrap multi-group analysis was used.

Measurement of constructs

Each attitudinal disposition is scaled in five-point Likert scale ranging from 1 'strongly disagree' to 5 'strongly agree'. The big five personality traits were taken from Nga and Shamuganathan (2010) consisting of 30 items and SEI was measured using 5 items adopted from Yang et al. (2015). The scale measured the students' personality traits on five dimensions agreeableness, conscientiousness, openness, extraversion, and neuroticism. However, social support scales were adopted from Hockerts (2017).

Results

Normality test

The data presented in Table 1 reveal the normality test results of SEI, social support, openness, conscientiousness, extraversion, agreeableness, and neuroticism. The p-value for all the variables under Kolmogorov–Smirnov and Shapiro–Wilk tests, which is less than 0.05, confirms that the distribution of data was not normal.

Measurement model

The relationship between concept and indicator variables is explained by the measurement model, also known as the outer model in PLS-SEM, which is used to examine construct reliability, convergent validity, and discriminant validity.

Table 1 Normality test

	Kolmogorov–Smirnov ^a			Shapiro–Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
SEI	0.159	385	0.000	0.915	385	0.000
SS	0.143	385	0.000	0.928	385	0.000
O	0.213	385	0.000	0.872	385	0.000
C	0.191	385	0.000	0.876	385	0.000
E	0.146	385	0.000	0.932	385	0.000
A	0.220	385	0.000	0.823	385	0.000
N	0.116	385	0.000	0.959	385	0.000

^a Lilliefors significance correction

Source: Survey Data (2023)

Reliability and convergent validity

Data presented in Table 2 reveal that all Cronbach's alpha and composite reliability values meet the minimum threshold value of 0.7 suggested by Fornell and Larcker (1981) for all the variables. The Cronbach's alpha values for agreeableness, conscientiousness, extraversion, neuroticism, openness, SEI and social support (0.872, 0.845, 0.845, 0.863, 0.883, 0.888, and 0.888, respectively) confirm the constructs' reliability. The value of AVE (larger than 0.5) and the factor loading is (larger than 0.7) confirms the convergent validity suggested by Fornell and Larcker (1981).

Discriminant validity

The degree to which a construct differs empirically from other constructs in the structural model is measured by its discriminant validity (Hair et al., 2019).

Fornell and Larcker criterion

Table 3 gives the correlational values of all the variables with the value in the diagonal as the square roots of AVE (the numbers highlighted are the square roots of AVE 0.814,

Table 2 Reliability and convergent validity

Variables	Items	Loadings	Cronbach's Alpha	C.R (rho_a)	C.R (rho_c)	AVE
SEI	SEI1	0.805	0.888	0.889	0.918	0.690
	SEI2	0.838				
	SEI3	0.835				
	SEI4	0.843				
	SEI5	0.831				
Social support	SS1	0.827	0.888	0.891	0.918	0.691
	SS2	0.816				
	SS3	0.841				
	SS4	0.846				
	SS5	0.824				
Openness	O1	0.829	0.883	0.895	0.913	0.678
	O2	0.840				
	O3	0.822				
	O4	0.805				
	O5	0.822				
Conscientiousness	C1	0.721	0.845	0.858	0.890	0.619
	C2	0.769				
	C3	0.869				
	C4	0.804				
	C5	0.762				
Extraversion	E1	0.789	0.845	0.864	0.888	0.615
	E2	0.786				
	E3	0.720				
	E4	0.838				
	E5	0.782				
Agreeableness	A1	0.729	0.872	0.874	0.907	0.662
	A2	0.821				
	A3	0.835				
	A4	0.848				
	A5	0.831				
Neuroticism	N1	0.788	0.863	0.874	0.900	0.642
	N2	0.748				
	N3	0.813				
	N4	0.810				
	N5	0.845				

Source: Survey Data (2023)

Table 3 Fornell and Larcker criterion

	A	C	E	N	O	SEI	SS
A	0.814						
C	0.227	0.787					
E	0.191	0.398	0.784				
N	− 0.013	− 0.089	− 0.023	0.801			
O	0.177	0.264	0.219	− 0.011	0.824		
SEI	0.232	0.472	0.369	− 0.144	0.298	0.831	
SS	0.074	0.157	0.108	− 0.056	0.103	0.339	0.831

The highest values are given in bold

Source: Survey Data (2023)

Table 4 HTMT ratios

	A	C	E	N	O	SEI	SS
A							
C	0.267						
E	0.22	0.462					
N	0.076	0.127	0.072				
O	0.205	0.303	0.239	0.052			
SEI	0.265	0.536	0.411	0.155	0.326		
SS	0.084	0.178	0.114	0.072	0.116	0.378	

Source: Survey Data (2023)

0.787, 0.784, 0.801, 0.824, 0.831, and 0.831 of agreeableness, conscientiousness, extraversion, neuroticism, openness, SEI, and social support, respectively). The AVE has a larger square root than the matching correlation estimations satisfying Fornell and Larcker's (1981) requirements for discriminant validity. Moreover, all correlation values are below 0.85, ruling out multicollinearity as an issue. In this context, it is important to note here that the highest squared correlation between any two latent constructs should be higher than the AVE of each latent construct (Hair et al., 2011).

HTMT ratios

Table 4 presents the heterotrait–monotrait (HTMT) ratio as a method to check discriminant validity. The average item correlations for different constructs divided by the mean of the average correlations for the items measuring the same construct is known as the HTMT (Hair et al., 2019). All the values of HTMT ratios are here below 0.85 which is within the threshold suggested by Kline (2011). Therefore, discriminant validity is established.

Cross-loadings

Data presented in Table 5 show each component with the highest loading on its related construct. The values highlighted are the highest values. Since all the constructs have scored higher on their respective construct than on others, discriminant validity is established. An indicator is considered inappropriate for use if an indicator loads higher in other constructs than the one it is intended to measure.

Table 5 Cross-loadings

	A	C	E	N	O	SEI	SS
A1	0.729	0.151	0.13	− 0.038	0.065	0.176	0.053
A2	0.821	0.219	0.148	0.024	0.134	0.188	0.045
A3	0.835	0.195	0.17	− 0.003	0.193	0.189	0.082
A4	0.848	0.167	0.195	− 0.049	0.175	0.205	0.067
A5	0.831	0.194	0.132	0.017	0.144	0.186	0.051
C1	0.174	0.721	0.221	− 0.15	0.236	0.324	0.123
C2	0.129	0.769	0.326	− 0.032	0.139	0.376	0.102
C3	0.207	0.869	0.367	− 0.041	0.254	0.451	0.167
C4	0.222	0.804	0.358	− 0.1	0.236	0.315	0.114
C5	0.168	0.762	0.282	− 0.051	0.176	0.366	0.103
E1	0.136	0.267	0.789	0.056	0.13	0.241	0.061
E2	0.146	0.353	0.786	− 0.043	0.166	0.272	0.018
E3	0.129	0.278	0.72	− 0.011	0.153	0.206	0.021
E4	0.197	0.311	0.838	− 0.047	0.174	0.314	0.076
E5	0.137	0.336	0.782	− 0.027	0.215	0.365	0.195
N1	− 0.017	− 0.092	− 0.039	0.788	0.024	− 0.114	− 0.088
N2	− 0.079	− 0.09	− 0.055	0.748	− 0.04	− 0.136	− 0.029
N3	− 0.003	− 0.004	0.019	0.813	− 0.01	− 0.099	− 0.023
N4	0.08	0.001	0.048	0.81	0.013	− 0.065	− 0.033
N5	0.017	− 0.122	− 0.024	0.845	− 0.016	− 0.13	− 0.046
O1	0.125	0.204	0.192	− 0.04	0.829	0.255	0.054
O2	0.135	0.247	0.188	− 0.023	0.84	0.277	0.081
O3	0.13	0.215	0.212	− 0.027	0.822	0.28	0.117
O4	0.179	0.182	0.089	0.008	0.805	0.174	0.099
O5	0.179	0.229	0.192	0.055	0.822	0.208	0.073
SEI1	0.194	0.354	0.322	− 0.121	0.254	0.805	0.27
SEI2	0.184	0.377	0.297	− 0.133	0.213	0.838	0.255
SEI3	0.248	0.372	0.319	− 0.08	0.247	0.835	0.275
SEI4	0.175	0.39	0.27	− 0.148	0.28	0.843	0.3
SEI5	0.166	0.458	0.325	− 0.116	0.241	0.831	0.303
SS1	0.081	0.127	0.107	0.013	0.067	0.272	0.827
SS2	0.044	0.135	0.086	− 0.02	0.104	0.255	0.816
SS3	0.074	0.104	0.095	− 0.066	0.087	0.308	0.841
SS4	0.072	0.111	0.074	− 0.107	0.078	0.26	0.846
SS5	0.035	0.172	0.086	− 0.051	0.092	0.303	0.824

The highest values are given in bold

Source: Survey Data (2023)

Table 6 Model fit

	Saturated model	Estimated model
SRMR	0.049	0.049

Source: Survey Data (2023)

Goodness-of-fit test

Table 6 reveals the value of SRMR of the saturated model where the estimated model is 0.049. Hair et al. (2017) suggested that the value of SRMR should be less than 0.08 for

the model to be acceptable. Since the SRMR value is less than 0.08, the research model is accepted.

Assessment of the structural model

After confirming the reliability and validity of the construct, the next step in the study was to assess the structural model. Examining structural models for collinearity problems is the first stage in the structural model assessment process. The next stage is to evaluate the significance and relevance of the structural model relationship after ensuring no collinearity problems exists.

VIF was used to analyze collinearity. The value of VIF should be less than 3.3 and if the value of VIF is more than 3.3, then multicollinearity exists as suggested by Diamantopoulos and Siguaw (2006). Data presented in Table 7 show the VIF values 1.136, 1.292, 1.208, 1.085, 1.015 and 1.167 are each less than 3.3. Thus, multicollinearity does not exist.

Hypothesis testing

The model was assessed using the bootstrapping approach with 5000 resamples to evaluate the significance of the Path Coefficient and verify the validity of the hypotheses.

Figure 2 shows the regression coefficients, p-value, and beta coefficients. The value of R-square which is 0.364 indicates that 36.4% of the total variation in SEI is explained by openness, conscientiousness, extraversion, extraversion, neuroticism, and social support and 63.6% of the variation is explained by other factors not included in this model (Table 8).

H₁: There is a positive relationship between agreeableness and SEI. Table 8 shows the value of beta is 0.087 and the p-value is 0.0021. The p-value lesser than 0.05 and beta value positive confirms a positive relationship between agreeableness and SEI. So, hypothesis 1 is accepted.

H₂: There is a positive relationship between conscientiousness and SEI. Table 8 shows a significant and positive relationship between conscientiousness and SEI accepting the hypothesis as the value of p is less than 0.05 and the beta value is 0.299.

H₃: There is a positive relationship between extraversion and SEI. Table 8 confirms a positive relationship between extraversion and SEI accepting the hypothesis as the p-value is less than 0.05 and the beta coefficient is 0.174.

Table 7 Test of multicollinearity

Variables	Tolerance	VIF
Openness	0.880	1.136
Conscientiousness	0.774	1.292
Extraversion	0.828	1.208
Agreeableness	0.922	1.085
Neuroticism	0.985	1.015
Social support	0.859	1.165

Source: Survey Data (2023)

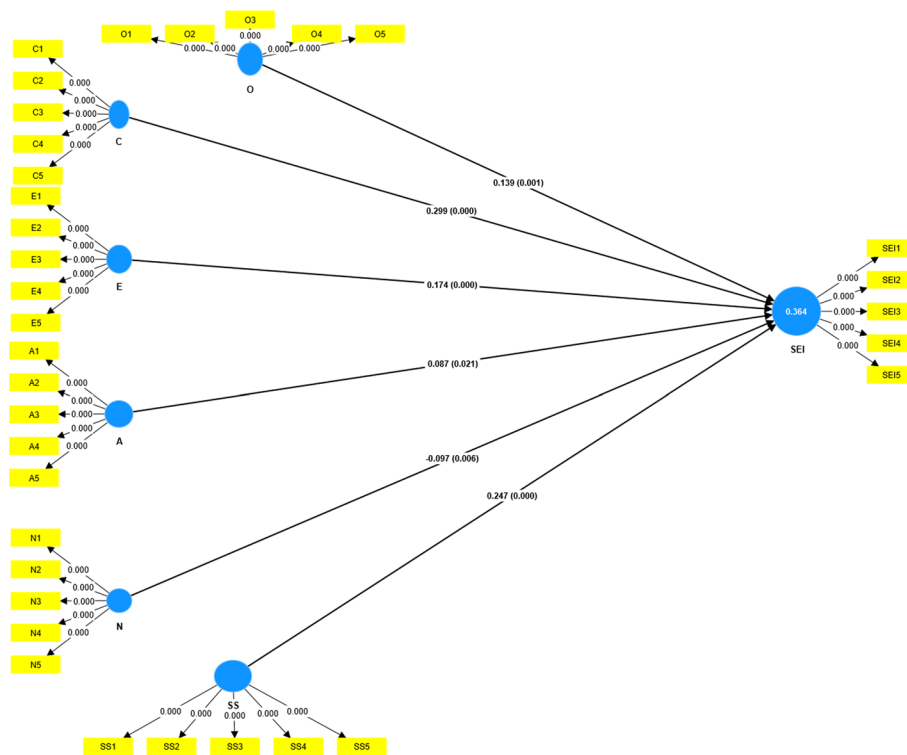


Fig. 2 Bootstrapping results

Table 8 Hypothesis testing

	Beta coefficient	STDEV	T statistics	P values
A→SEI	0.087	0.042	2.044	0.021
C→SEI	0.299	0.054	5.492	0
E→SEI	0.174	0.044	3.937	0
N→SEI	− 0.097	0.038	2.514	0.006
O→SEI	0.139	0.043	3.251	0.001
SS→SEI	0.247	0.044	5.575	0

Source: Survey Data (2023)

H₄: There is a negative relationship between neuroticism and SEI. Table 8 shows that there is a negative relationship between neuroticism and SEI as the beta value is -0.097 and the p-value is less than 0.05. So, hypothesis 4 is accepted

H₅: There is a positive relationship between openness and SEI. Table 8 shows a significant positive relationship between openness and SEI supporting the hypothesis as the p-value is less than 0.5 and the beta coefficient is 0.139.

H₆: There is a positive relationship between social support and SEI. Table 8 shows a significant positive relationship between social support and SEI as the p-value is less than 0.05 and beta value is 0.247. Hypothesis 6 thus is accepted.

Moderating analysis

The sample population divided into male and female groups were measured independently in the modified model to examine the moderating effect of gender. The partial least squares multi-group analysis was used to confirm the moderating influence of gender in the multi-group analysis (PLS-MGA).

Figure 3 shows the regression coefficients, p-values, and beta coefficients of females. The value of R-square is 0.405 indicates that 40.5% of the total variation in SEI is explained by openness, conscientiousness, extraversion, extraversion, neuroticism, and social support in the case of females with 59.5% of the variation explained by factors that are not included in this model.

Figure 4 shows the regression coefficients, p-values, and beta coefficients of male respondents. The value of R-square which here is 0.419 indicates that 41.9% of the total variation in SEI is explained by openness, conscientiousness, extraversion, extraversion, neuroticism, and social support in the case of males and with 58.1% of the variation explained by factors not included in this model.

The response was collected from 207 female students (53.8 percent of the sample) and 178 male students (46.2 percent of the sample) which constitutes a tentative proportion of population distribution. Therefore, researchers thought to run PLS-MGA (Table 9):

H₇:Gender moderates the relationship between agreeableness and SEI. Table 9 shows the beta coefficients of males and females are not significantly different (the beta coefficient difference is -0.008 and the p -value is more than 0.05.) and

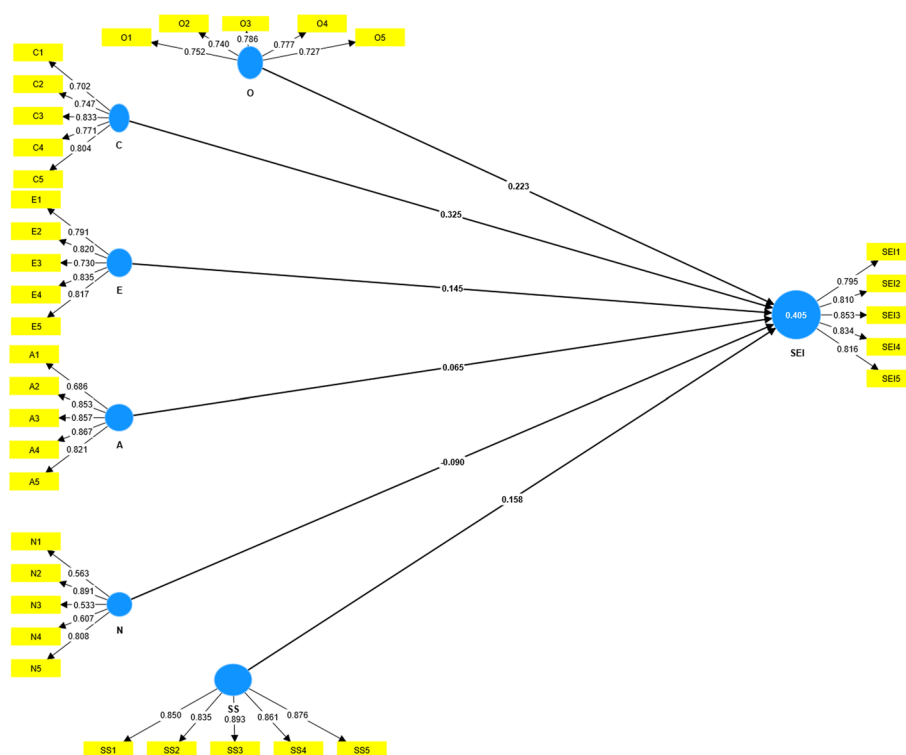


Fig. 3 Results of bootstrap multigroup analysis (female)

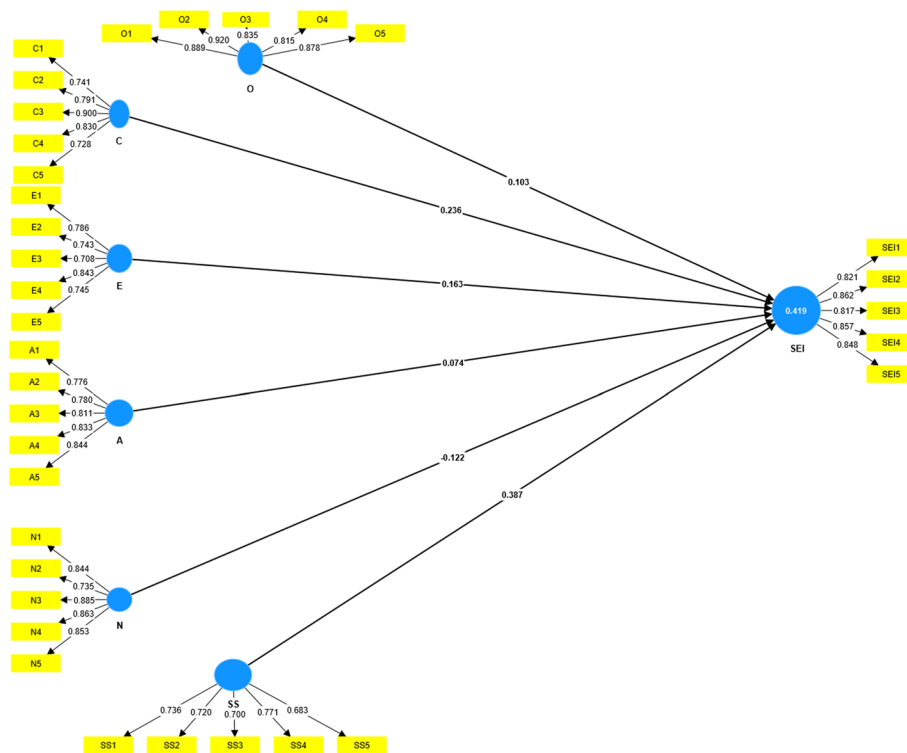


Fig. 4 Result bootstrap multigroup analysis (male)

Table 9 Moderating analysis

Relationships	Female		Male		Beta coefficient Difference	P-value
	Beta Coefficient	T-value	Beta Coefficient	T-value		
A→SEI	0.065	1.228	0.074	1.221	- 0.008	0.916
C→SEI	0.325	4.627	0.236	2.99	0.089	0.4
E→SEI	0.145	2.552	0.163	2.137	- 0.019	0.85
N→SEI	- 0.09	0.989	- 0.122	2.18	0.032	0.847
O→SEI	0.223	3.408	0.103	1.945	0.12	0.147
SS→SEI	0.158	2.903	0.387	4.977	- 0.229	0.016

Source: Survey Data (2023)

gender does not moderate the relationship between agreeableness and SEI. Thus, Hypothesis 7 is rejected.

H₈: Gender moderates the relationship between conscientiousness and SEI. Table 9 shows the beta coefficient difference is -0.089 and p-value is more than 0.05. Since beta coefficient of males and females are not significantly different, gender does not moderate the relationship between conscientiousness and SEI. Hypothesis 8 is rejected.

H₉: Gender moderates the relationship between extraversion and SEI. Table 9 reveals the effect of extraversion on SEI is similar in both males and females and there is

no significant relationship with beta coefficient difference of -0.019 and $P > 0.05$. Thus, Hypothesis 9 is rejected.

H₁₀: Gender moderates the relationship between neuroticism and SEI. Table 9 shows there's no significant difference in the beta coefficients. The beta coefficient difference is 0.032 and p-value is more than 0.05. The beta coefficient of males and females are not significantly different. Thus, gender does not moderate the relationship between neuroticism and SEI and Hypothesis 10 is rejected.

H₁₁: Gender moderates the relationship between openness and SEI. Table 9 shows the difference in beta coefficient between males and females is 0.12, and p-value associated with this difference is 0.147, which means the difference is not statistically significant at the conventional level of 0.05. Thus, Hypothesis 11 is rejected.

H₁₂: Gender moderates the relationship between social support and SEI. From Table 9, it is clear that the difference in beta coefficients between males and females is -0.229, which indicates the relationship between social support and SEI is weaker in females than in males. The p-value associated with this difference is 0.016, less than 0.05, suggesting the difference is statistically significant. Thus, Hypothesis 12 is supported by the study.

Discussion

The objective of this study was to analyze the impact of personality traits and social support on social entrepreneurial intentions. The focus was to examine the impact of openness, conscientiousness, extraversion, agreeableness, neuroticism, and social support on the social entrepreneurial intention of the graduate level management students of Tribhuvan University. Based on the conceptual framework of the study the main task was to examine the relationship between personality traits and social entrepreneurial intentions. Among the personality traits, openness, conscientiousness, extraversion, agreeableness, and neuroticism were analyzed. The exercise confirmed that agreeableness has a significant and positive relationship with SEI, a finding that is consistent with the study done by Nga and Shamuganathan (2021) which means that being cooperative, sympathetic, kind, and forgiving are predictive behaviors for the SEI of students. Conscientiousness also has a positive and significant relationship with SEI and the results are consistent with Ahmed et al. (2020). This study also indicates that being organized, efficient, practical, and systematic are the predictive behaviors for the SEI of management students. This study moreover found a significant positive relationship between extraversion and SEI—that results are consistent with the findings of Milanovic et al. (2021) implying that being talkative, energetic, bold, and extrovert in nature encourages SEI in students.

In the case of neuroticism, the relationship with SEI was significant and negative which is consistent with the findings of Luc (2020) implying negative features such as jealousy, moodiness, upset condition, and irritation discourage SEI. The study also revealed a positive and significant relationship between openness and SEI. In this regard, findings of this study are found to be consistent with the results of Udayanganie et al. (2019) indicating that being curious, creative, intellectual, imaginative, and open to new things encourages SEI in students implying a positive impact of these personality traits on SEI. Similarly, results that are consistent with the previous research of (Hossain et al., 2021),

neuroticism had a significant but negative relationship with SEI, a result consistent with the previous research of Kumcu and Cetinel (2022).

As the second objective of this study was to find the relationship between social support and SEI, this study revealed a positive and significant relationship between social support and SEI which is consistent with the findings of Akhter et al. (2020), and validated the support from family, friends, mentors, advisors, and society encourages students in pursuing social entrepreneurship.

The third objective of this study was to find the moderating role of gender in the relationship between individual characteristics, social support, and SEI. In the case of social support, gender was found to moderate the relationship between social support and SEI, which is consistent with the findings of (Hossain et al., 2021). But, the relationship between neuroticism and extraversion with SEI is not moderated by gender, shown by (Hossain et al., 2021). Gender, likewise, was not seen to moderate the relationship of openness, conscientiousness, and agreeableness with SEI. The impact of gender on the SEI of all students is similar regardless of gender.

Conclusions and implications

Students with personality traits of openness, conscientiousness, extraversion, and agreeableness are more inclined to pursue social entrepreneurship, not those with neuroticism that the influence of gender as social entrepreneurship is similar means gender does make a differentiated impacts on the intensity of intention toward entrepreneurship. But, in the case of social support, it does moderate the relationship between social support and SEI. Overall, the study establishes the importance of personality traits and social support in driving social entrepreneurial intention. By understanding the factors that motivate individuals to engage in social entrepreneurship, it is possible to develop more effective interventions and support systems to encourage and sustain social entrepreneurship. Regardless of gender, individuals with higher levels of openness, conscientiousness, extraversion, and agreeableness, and lower levels of neuroticism, are more likely to have higher SEI. The study also confirms that social support for SEI is stronger in males than in females.

Practical implications

The implications of this study are of no little significance for the least developed nations like Nepal where future researchers need to focus more on doing this type of study which can yield further insights. As this research was based on a single study that looked at personality traits and social support impact on SEI among the graduate level management students of Tribhuvan University, further research is required in order to generalize the findings and incorporate more variables to predict entrepreneurial intention more precisely, since this type of study in entrepreneurship is still new to researchers here. Only 385 university students from Tribhuvan University pursuing management stream made up the sample size for this study. But, the incorporation of the students across other universities such as Kathmandu University, Purbanchal University, and Pokhara University, and others pursuing different streams (humanities, science, engineering) could have produced more conclusive results. Also here in the study, only personality traits and situational factors were included in explaining SEI. Including additional contextual factors,

such as culture, educational strategy, and institutional support been investigated, it would have been interesting to replicate the current findings. Additional elements including a proactive attitude, locus of control, creative abilities, and problem-solving skills may contribute to our understanding and open up new research possibilities. This study also helps Tribhuvan University to develop courses and programs to develop personality traits so that students can be encouraged to create entrepreneurial intention.

Theoretical implications

The study considered big five traits model and TPB theory. Personality plays significant roles in conceiving and developing entrepreneurial intentions. The study verifies the requirements of big five personality traits for creating entrepreneurial intention in the least developed countries' environment too alike the developed countries. Thus, big five personality traits remain one of the major determinants in creating entrepreneurial intention among students. The reason why, university can adopt programs to educate big five personality traits in order to develop entrepreneurial intention among graduate level students. Similarly, social support help generate values and norms which create entrepreneurial intentions. The study findings confirm the effect of social support in creating entrepreneurial intention and create the scope to use TPB theory in creating entrepreneurial intention.

Abbreviations

A	Agreeableness
AVE	Average variance extracted
BFP	Big five personality
C	Conscientiousness
CR	Composite reliability
E	Extraversion
EI	Entrepreneurial intention
HTMT	Heterotrait–monotrait ratio
N	Neuroticism
O	Openness
SEM	Structural equation modeling
SIM	Social entrepreneurial intention
SS	Social support
TPB	Theory of planned behavior
VIF	Variance influence factor

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Author contributions

DLP had worked on literature review, research methodology, SMART PLS and analysis part based on theoretical perspective. SKU had worked on analysis, conclusion and implications parts from the economic perspective. NR had worked on data collection, encoding, decoding, tabulation and citation part. The author had worked based on APA citation, formatting and journal scope.

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Availability of data and materials

Authors declared the availability of data as per requirements.

Declarations

Competing interests

There are no competing interests of authors to develop this manuscript.

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References

- Ahmed, M. A., Khattak, M. S., & Anwar, M. (2020). Personality traits and entrepreneurial intention: The mediating role of risk aversion. *Journal of Public Affairs*, 22(1), 1–15. <https://doi.org/10.1002/pa.2275>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior* (1st ed.). Prentice-Hall.
- Akhter, A., Hossain, U., & Asheq, A. A. (2020). Influential factors of social entrepreneurial intention in Bangladesh. *The Journal of Asian Finance, Economics and Business*, 7(8), 645–651. <https://doi.org/10.13106/jafeb.2020.vol7.no8.645>
- Bazkiaei, H. A., Heng, L. H., Khan, N. M., Saufi, R. A., & Kasim, R. S. R. (2020). Do entrepreneurial education and big-five personality traits predict entrepreneurial intention among universities students? *Cogent Business & Management*, 7(1), 1–18. <https://doi.org/10.1080/23311975.2020.1801217>
- Bernardino, S., Freitas Santos, J., & Cadima Ribeiro, J. (2018). Social entrepreneur and gender: What's personality got to do with it? *International Journal of Gender and Entrepreneurship*, 10(1), 61–82. <https://doi.org/10.1108/ijge-07-2017-0040>
- Brown, T., & Wyatt, J. (2010). Design thinking for social innovation. *Development Outreach*, 12(1), 29–43. https://doi.org/10.1596/1020-797x_12_1_29
- Cochran, W. G., & Cochran, W. G. (1977). *Sampling techniques*. John Wiley & Sons Incorporated.
- Costa, P. T., & McCrae, R. R. (1992). The five-factor model of personality and its relevance to personality disorders. *Journal of Personality Disorders*, 6(4), 343–359. <https://doi.org/10.1521/pedi.1992.6.4.343>
- Diamantopoulos, A., & Siguaw, J. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17(4), 263–282. <https://doi.org/10.1111/j.1467-8551.2006.00500.x>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Giri, S. (2020). Social entrepreneurship in Nepal: The list of major social enterprise. SurathGiri. Retrieved from <https://www.surathgiri.com/2020/03/social-entrepreneurship-in-nepal-list-of.html>
- Goldberg, L. R. (1990). An alternative description of personality: the big-five factor structure. *Journal of Personality and Social Psychology*, 59(6), 1216–1229. <https://doi.org/10.1037/0022-3514.59.6.1216>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5), 616–632. <https://doi.org/10.1007/s11747-017-0517-x>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: indeed, a silver bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/mtp1069-6679190202>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/ebv-11-2018-0203>
- Hockerts, K. (2017). Determinants of social entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 41(1), 105–130. <https://doi.org/10.1111/etap.12171>
- Hossain, M. U., Arefin, M. S., & Yukongdi, V. (2021). Personality traits, social self-efficacy, social support, and social entrepreneurial intention: The moderating role of gender. *Journal of Social Entrepreneurship*, 12(1), 1–21. <https://doi.org/10.1080/19420676.2021.1936614>
- Hsu, C. Y., & Wang, S. M. (2018). Social entrepreneurial intentions and its influential factors: A comparison of students in Taiwan and Hong Kong. *Innovations in Education and Teaching International*, 56(3), 385–395. <https://doi.org/10.1080/14703297.2018.1427611>
- Ip, C. Y., Wu, S. C., Liu, H. C., & Liang, C. (2018). Social entrepreneurial intentions of students from HongKong. *The Journal of Entrepreneurship*, 27(1), 47–64. <https://doi.org/10.1177/0971355717738596>
- Irengun, O., & Arkboga, S. (2015). The effect of personality traits on social entrepreneurship intentions: a field research. *Procedia Social and Behavioral Sciences*, 195(2015), 1186–1195. <https://doi.org/10.1016/j.sbspro.2015.06.172>
- Jarboui, A., & Chikha, I. B. (2018). Influence of personal traits on social entrepreneurship intention: an empirical study related to Tunisia. *International Journal of Social Entrepreneurship and Innovation*, 5(2), 148–165. <https://doi.org/10.1504/ijsei.2018.10018957>
- Kedmenec, I., Rebernik, M., & Peric, J. (2015). The impact of individual characteristics on intentions to pursue social entrepreneurship. *Economic Survey*, 66(2), 119–137. Retrieved from <http://hrcak.srce.hr/file/205475>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*. The Guilford Press.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432. [https://doi.org/10.1016/S0883-9026\(98\)00033-0](https://doi.org/10.1016/S0883-9026(98)00033-0)
- Kumcu, E. H., & Cetinel, M. (2022). The relationship between five-factor personality traits and social entrepreneurship tendency: the case of university students. *International Journal of Management, Economics and Business*, 18(2), 572–594. <https://doi.org/10.17130/ijmeb.861974>
- Liu, H. C., Liang, C., Chang, C. C., Ip, C. Y., & Liang, C. T. (2020). Optimizing personality traits and entrepreneurial creativity to boost the precursors of social entrepreneurial intentions: Five studies in Taiwan. *Journal of Social Service Research*, 47(1), 10–32. <https://doi.org/10.1080/01488376.2019.1708840>
- Luc, P. (2020). The influence of personality traits on social entrepreneurial intention among owners of civil society organizations in Vietnam. *International Journal of Entrepreneurship and Small Business*, 40(3), 291–308. <https://doi.org/10.1504/ijesb.2020.107799>

- Luc, P. T., Pham, L. V., & Bui, T. (2021). Personality traits and social entrepreneurial intention: The mediating effect of perceived desirability and perceived feasibility. *Journal of Entrepreneurship*, 30(1), 56–80. <https://doi.org/10.1177/097135720974811>
- Mair, J., & Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. In J. Mair, J. Robinson, & K. Hockerts (Eds.), *Social entrepreneurship* (pp. 121–135). Palgrave-Macmillan.
- Migliore, L. (2011). Relation between big five personality traits and Hofstede's cultural dimensions. *Cross Cultural Management: an International Journal*, 18(1), 38–54. <https://doi.org/10.1108/13527601111104287>
- Milanovic, S., Talic, M., & Vujatovic, M. J. (2021). Influence of personality traits on students' social entrepreneurial intentions in the conditions of covid. *Journal of Social Science*, 45(4), 1163–1179. <https://doi.org/10.22190/TEME210810069M>
- Murugesan, R., & Jayavelu, R. (2017). The influence of big five personality traits and self-efficacy on entrepreneurial intention: The role of gender. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 3(1), 41–61. <https://doi.org/10.1177/2393957516684569>
- Nga, J., & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of Business Ethics*, 95(2), 259–282. <https://doi.org/10.1007/s10551-009-0358-8>
- Pandey, A. (2019, April 8). Importance of social entrepreneurship in Nepal. Ajay Pandey. <https://ajaypandey.com.np/importance-social-entrepreneurship-nepal/>
- Pathak, R. R., Poudel, B., & Acharya, P. K. (2018). Social enterprise and social entrepreneurship: Conceptual clarity and implication in Nepalese context. *NCC Journal*, 3(1), 143–152. <https://doi.org/10.3126/nccj.v3i1.20256>
- Polas, M. R. H., & Jahanshahi, A. A. (2021). The effects of individual characteristics on women intention to become social entrepreneurs. *Journal of Public Affairs*, 21(2), 1–8. <https://doi.org/10.1002/pa.2204>
- Preethi, C. M., & Priyadarshini, R. G. (2018). The intention towards social entrepreneurship among students and its link with big 5 model. *ICP Conference Series Materials Science and Engineering*, 390(1), 012057. <https://doi.org/10.1088/1757-899X/390/1/012057>
- Seyoum, B., Chinta, R., & Mujtaba, B. G. (2021). Social support as a driver of social entrepreneurial intentions: The moderating roles of entrepreneurial education and proximity to the US small business administration. *Journal of Small Business and Enterprise Development*, 28(3), 337–359. <https://doi.org/10.1108/jsbed-08-2020-0306>
- Smith, R., Bell, R., & Watts, H. (2014). Personality trait differences between traditional and social entrepreneurs. *Social Enterprise Journal*, 10(3), 200–221. <https://doi.org/10.1108/sej-08-2013-0033>
- Tiwari, P., Bhat, A. K., & Tikoria, J. (2018). Factors affecting individual's intention to become a social entrepreneur. In A. Agrawal & P. Kumar (Eds.), *Social entrepreneurship and sustainable business models* (pp. 59–98). Palgrave Macmillan.
- Udayanganie, W. M. I., Jusoh, M., & Chinna, K. (2019). Impact of big five personality traits on entrepreneurial intention of engineering undergraduates. *Research in Business and Management*, 6(2), 35–44. <https://doi.org/10.5296/rbm.v6i2.15147>
- Yang, R., Meyskens, M., Zheng, C., & Hu, L. (2015). Social entrepreneurial intentions: China versus the USA—Is there a difference? *The International Journal of Entrepreneurship and Innovation*, 16(4), 253–267. <https://doi.org/10.5367/ijei.2015.0199>
- Yusuf, B. N. M., & Kamil, S. (2015). Relationships of big five personality traits and locus of control on entrepreneurship intentions among students in higher learning institutions. *Global Journal of Research in Social Sciences*, 2(1), 65–73.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6), 1265–1272. <https://doi.org/10.1037/0021-9010.90.6.1265>

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