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Redefining entrepreneurial happiness based on personality traits: the role of the Big Five

Anais Estefania Gonzalez-Peña¹, Yesenia Sánchez Tovar¹, Esthela Galván-Vela^{2*}  and Rafael Ravina-Ripoll^{3*}

*Correspondence:
esthela.galvan@cetys.mx;
rafael.ravina@uca.es

¹ Autonomous University
of Tamaulipas, Victoria, Mexico

² Cetys University, Av. Cetys
Universidad, S/N, El Lago, C.P.
22210 Tijuana, Baja California,
Mexico

³ University of Cadiz, Cadiz, Spain

Abstract

This study investigates how the Big Five personality traits shape the perception of happiness among Mexican entrepreneurs, addressing a gap in research on the psychological determinants of entrepreneurial well-being. A quantitative, cross-sectional survey was conducted with 319 entrepreneurs, and the data were analyzed using structural equation modeling. The results show that openness to experience, conscientiousness, and low neuroticism significantly increase perceived happiness, while agreeableness has no effect, challenging prior assumptions. These findings contribute to the literature by identifying personality-based predictors of entrepreneurial happiness and highlight the importance of psychological resources in entrepreneurship. In practice, the study offers insights for designing support programs and public policies that foster emotionally sustainable entrepreneurial ecosystems.

Keywords: Happiness, Big Five theory, Openness, Neuroticism, Conscientiousness

Introduction

The pursuit of happiness has long been considered a driving force of humanity (Ravina-Ripoll et al., 2019). Beyond being a basic necessity for well-being, it reflects an existential reality in which individuals assume responsibility for their lives and their integration into a social environment (Galván-Vela et al., 2022a, 2022b; Valls, 2021). This search has continuously linked personal fulfilment with the construction of harmonious communities, a theme that has nourished philosophical and scientific inquiry since ancient times. From Aristotle to Huxley, the scope and limits of happiness have been questioned, and the concept remains a central focus of contemporary research. In fact, over 1.44 million scientific papers have been published in the twenty-first century across psychology, sociology, philosophy, health, and the economic and administrative sciences, according to Dimensions.

In this regard, psychological well-being is a driver of human and social development and motivates individuals to assume positions of assertive leadership, social and community participation, innovation or entrepreneurship (Galván-Vela et al., 2022b). This is directly aligned with the Sustainable Development Goals (SDGs), especially SDG 3, which promotes well-being for all at all ages, and SDG 8, which seeks to obtain

inclusive and sustainable economic growth. It is why policymakers and decision makers worldwide have emphasized the need to stimulate social well-being to increase the benefits of a happy citizenry, recognizing that a healthy and balanced environment promotes productivity, social cohesion and community resilience (Bedoya-Gonzales et al., 2024; Latifi et al., 2025).

On the other hand, entrepreneurship has become a fundamental part of human development and generates benefits that contribute to scarcity reduction and community advancement (Antwi Bosiakoh, 2020; Yukongdi & Lopa, 2017). Entrepreneurship is the engine of Mexico, as it is key to job creation and income generation (Galván-Vela et al., 2018); moreover, in the last decade alone, there has been a 308% increase in the opening of new businesses, according to World Bank records (2018). In this regard, Mexico represents a particularly suitable context for analyzing the intersection between personality and well-being. The country exhibits both a dynamic entrepreneurial sector and high structural challenges such as inequality, informality, and uncertainty, which generate unique pressures on entrepreneurs (Fuentelsaz et al., 2025). These conditions make the psychological resources of entrepreneurs, such as personality traits, especially relevant for understanding their capacity to sustain ventures while preserving happiness and well-being.

Therefore, observing the entrepreneurial phenomenon has been key to the definition of development policies in countries. The organizations dedicated to observing the entrepreneurial phenomenon are the Global Entrepreneurship Monitor (GEM) through the Monterrey Institute of Technology and the National Institute of Geography and Informatics (INEGI), which constantly monitors entrepreneurial activity and the registration of new economic units. However, the studies do not delve into possible determinants that encourage these activities.

Despite the importance and social impact of entrepreneurship and happiness, few studies analyze happiness based on the personality traits of entrepreneurs in Mexico. A review of 49 articles relating the Big Five personality traits to entrepreneurial activity was found. Yurrebaso et al. (2021), for example, found that openness and extroversion correlate with the maintenance of entrepreneurial intention in different geographical regions; Ruiz-Palomino et al. (2019), explored models of entrepreneurship focused on women and their relationship with personality traits to favor their performance in adverse environments; and Espinoza-Díaz et al. (2023) examined how work environment, burnout and personality influence psychological well-being in the context of entrepreneurship.

Although there were articles that analyzed some aspects of entrepreneurship and personality traits with entrepreneurs, none was found that discussed the happiness of entrepreneurs from the Big Five personality theory. However, some international research has highlighted that individual characteristics play a fundamental role in the success of entrepreneurs (Chakhar et al., 2020; Ramos et al., 2010) and analyzed how aspects associated with the person influence the financial results of the business (Sherman & Young, 2016; Su et al., 2020).

In this sense, this research aimed to "Determine the influence of personality traits on the perception of happiness of entrepreneurs in Mexico", specifically based on the personality traits of the Big Five Theory of Goldberg (1993), who points out

that neuroticism, extroversion, openness, agreeableness and conscientiousness are determining elements in the creation of companies. Hence the interest in measuring the incidence of these characteristics in entrepreneurs and determining the existence of a relationship of influence on their happiness.

The first section of this research paper presents the state of the art of entrepreneurship and the Big Five Theory, as well as personality traits and their relationship with happiness. The second section details the methodological strategy in which the research's type, scope and design, the study population and sample, the data collection instrument and the logistics of data application, collection and processing set out. In the third section, data analysis is developed, mainly using multivariate analysis techniques, such as structural equations. Finally, it discusses and concludes in light of the results of this research and proposes future lines for the analysis of entrepreneurial happiness.

Literature review

In recent years, a new perspective has emerged suggesting that entrepreneurship should not be viewed solely as a pathway to economic growth (Mazzoni et al., 2025; Naudé, 2024). Current social and environmental crises have made sustained growth increasingly unattainable. Evidence from countries such as Mexico has shown that entrepreneurial activity does not necessarily lead to macroeconomic expansion (Mellado Ibarra & Sánchez Tovar, 2023), partly due to the lack of innovative ventures, which is reflected in the declining quality of new businesses worldwide (Mazzoni et al., 2025).

These transformations are, in part, the result of personal internalization processes experienced by entrepreneurs. Today, entrepreneurs are not only motivated by economic gain when launching and sustaining their businesses; rather, they engage in these activities in pursuit of self-fulfillment and the attainment of subjective well-being (Nikolaev et al., 2020). Recent research has confirmed that the social conditions emerging after the pandemic have shifted global priorities, with individuals increasingly concerned about achieving happiness (Heras-Pedrosa et al., 2024). Understanding entrepreneurship through a more psychological lens has led to greater interest in the study of individual personality traits.

In this regard, several characteristics play a key role in shaping individuals' attitudes and perceptions, ultimately defining their personality. Within positive psychology, one of the most widely used models is the Big Five, which categorizes personality into five predominant traits: emotional stability (or neuroticism), conscientiousness, agreeableness, extraversion, and openness to experience (Costa & McCrae, 1992). The extent to which each trait is present contributes to the development of a personality profile that may predispose individuals toward specific professions or activities, such as entrepreneurship (Postigo et al., 2021).

Openness to new experiences characterises an intellectually person that is receptive and who tends to search new adventures and experiences, exploring ideas and places. This trait can be considered as the interest that a person has in assuming the risks derived from his actions and decisions (Salmony & Kanbach, 2022). It is assumed by such a trait, the extent to which an individual is able to generate changes in their environment from their desire to experience new challenges. Such a characteristic is likely to be present in entrepreneurs, who, motivated by an opportunity or a requirement, start new businesses

and assume the risk associated with their actions (Abbasianchavari & Moritz, 2021; Ahmed et al., 2022).

Authors such as Bargsted et al. (2013), through the psychosocial analysis of entrepreneurs, found that self-direction and stimulation in entrepreneurs were factors that reached high values of openness to change, so that self-control and internal motivation may also be characteristics in the development of this trait. In addition, it was found that unlike those who develop as employees, those who decide to become entrepreneurs showed higher levels of creativity (Smith et al., 2014); multiple studies on the behavior of entrepreneurs argue that particularly creativity maintains a relationship with openness to new experiences (e.g. Kaspi-Baruch, 2019; Puryear et al., 2017).

A meta-analysis of entrepreneurs and managers based on the Big Five model discovered that business founders have a proclivity for risk-taking and initiative (Zhao & Seibert, 2006). It was suggested that the readiness to use creative methods and an interest in societal advances are attributes that encourage the construction of new firms and favor the trait of openness, which is based on (Shane & Venkataraman, 2000). Openness was a constant in the interests of entrepreneurs in a study of entrepreneurial ambitions among individuals in business and industry (Berings et al., 2004).

In another study of Malaysian entrepreneurs, openness was shown to be favorably connected with numerous elements of business setup, notably long-term vision, creativity, and adaptability with financial perspective in a changing environment (Koe Hwee Nga & Shamuganathan, 2010). This finding underlines how openness not only influences entrepreneurs' ability to conceive new ideas, but also their ability to adapt strategically in volatile markets. However, it could be argued that this very adaptability could be limited if it is not combined with traits such as conscientiousness, which balances a penchant for exploration with disciplined execution. The same is true for Turkish entrepreneurs; entrepreneurship has a fruitful relationship with openness (Irengun & Arikboga, 2015).

In addition, it is debatable whether this relationship can vary significantly depending on the cultural context, as risk tolerance and valuation of creativity may differ across cultures. Similarly, leadership in entrepreneurship was found to be a positive present continuum (Judge et al., 2002). While the latter reinforces the importance of openness as an essential attribute of entrepreneurial leadership, it is crucial to question whether this trait alone can guarantee effective leadership or whether it is the result of the presence of the various personality traits of the entrepreneur.

On its part, extraversion is typically associated with emotional expression and expressiveness, since it is conveyed via pleasant emotions, assertiveness and sociability, as well as strong energy (Judge et al., 2002). Because of the perception it conveys regarding control, the use and application of persuasion, and power, extraversion is viewed as a good attribute that aims to attract possible investors in projects (McCarthy 2003). This characteristic is deeply anchored in the notion of entrepreneurial ambitions, the scope of entrepreneurial success, and the proactive entrepreneurial personality (Rauch & Frese, 2007). Entrepreneurship needs fundraising, which promotes engagement with the environment and social relationships.

Because of the ongoing need to communicate with the many parties engaged in the initiatives, entrepreneurs must maintain a proactive and responsive attitude toward

their target demographic, political players, and consumers, which necessitates them adopting the position and attitude of leaders (Koe Hwee Nga & Shamuganathan, 2010). Extraversion has been found to be consistently and positively associated with the attitude of leadership and initiative (Zhang, Yin & Li, 2022). In a study of Malaysian entrepreneurs, Koe Hwee Nga and Shamuganathan (2010) discovered an enabling environment between extraversion, the vision of sustainability, and the capacity to adjust to financial views in the context of business foundation. Similarly, in a study of entrepreneurs done in the United States, extraversion anticipated that entrepreneurship would account for demographic background and entrepreneurial attitudes (Van Ryzin et al., 2009).

Agreeableness, on the other hand, is a prosocial attitude toward others that comprises traits, such as humility, trust, and compassion (Quiroz et al., 2017). Given that entrepreneurs are fundamentally prosocial, it is assumed that agreeableness is a feature that benefits their activities. Indeed, agreeableness was shown to have a positive link with the five aspects of entrepreneurship identified in the study done by Koe Hwee Nga and Shamuganathan (2010). In contrast, agreeableness was shown to be adversely connected to entrepreneurial success and creativity (Leutner et al., 2014).

This suggests that although agreeableness is associated with prosocial attitudes that may facilitate cooperation in teams and business relationships, recent studies continue to challenge its impact on business success. For example, Kathayat et al. (2023) found that while agreeableness encourages an ethical and collaborative environment, it does not always translate into strategic decision making that boosts success in highly competitive environments. Moreover, the relationship between agreeableness and business sustainability appears to depend on contextual factors, such as industry and company size. This argument is reinforced by the findings of Awwad and Al-Aseer (2021), who observed that agreeableness does not have a significant impact on entrepreneurial intention when it is not supported by other traits, such as openness and conscientiousness.

Therefore, although agreeableness may enrich interpersonal dynamics, its contribution to entrepreneurial success seems limited and often mediated by other personality factors and the entrepreneurial environment. Regarding the trait of conscientiousness, it can be conceptualized as the trait that defines the degree of persistence that an individual presents this concept is strongly linked to the characteristics of reliability, sense of practice, responsibility and the motivation for goal achievement. These characteristics pertain to the creation of companies, since the entrepreneur faces challenges in which he/she must resist, overcome obstacles and ambiguities, but above all, entrepreneurs challenge the conventionalities and bureaucracy that exist and are part of the vision and operations that are carried out continuously such as budgeting, taxes, rules, management and networking together with teamwork.

According to the analysis of Koe Hwee Nga and Shamuganathan (2010), conscientiousness correlates positively with entrepreneurial personality, more so when the nature of the venture has a sense of sustainability. In this sense, Yitshaki and Kropp (2016), in their qualitative study on Israeli entrepreneurs, analyzed entrepreneurs in the framework of the goal-setting theory, under the premise that they are individuals who consciously perform actions to achieve a desired goal or

objective. In turn, Renko (2013) argued that by conducting an analysis of cases related to the various entrepreneurship stories, he found that perseverance is a trait that is more important for those who decided and carried out an entrepreneurship than for those who developed as employees.

Conscientiousness, in addition to being linked to persistence, shows a significant influence on entrepreneurial success when considered in conjunction with other traits and contextual factors. Yitshaki and Kropp (2016), in a study with Israeli entrepreneurs, linked responsibility to goal-setting theory, emphasizing that entrepreneurs act consciously to achieve goals. Palazzeschi et al. (2018) and Butz et al. (2018) reinforced this idea, showing that perseverance, as a sub-dimension of responsibility, is key to dealing with uncertainty, especially when combined with passion and long-term determination. However, some recent studies question the sufficiency of responsibility alone. Si et al. (2022) pointed out that, although this trait positively influences entrepreneurial intention, its impact is limited without the accompaniment of social support and adaptability to change. This implies that responsibility is necessary but not sufficient and must be articulated with other social and strategic competencies.

Finally, neuroticism is characterized by a personality disparity between emotional adjustment and emotional stability. Persons that display neurotic qualities, such as anxiety, sadness, aggressiveness, self-consciousness, impulsivity, and sensitivity, have lower positive affect than emotionally stable people (Costa & McCrea, 1992; Zhao & Seibert, 2006). Entrepreneurs with high degrees of neuroticism are more likely to exhibit risk aversion, which is considered as an impediment in the attributes of entrepreneurship. However, according to the literature, traumatic events are part of the neurotic antecedents that limit the capacity to work well in controlled contexts, encouraging their independence via the establishment of businesses (Caird, 1990; Cohen & Danielson, 2015).

Through research and studies of entrepreneurs' life histories, it is possible to attribute that there are certain determinant experiences for entrepreneurs' decision making, such as childhood experiences of poverty and insecurity, which can translate or derive in problems related to conflict (Collins et al., 1964). Cohen and Danielson (2015) found that stories related to traumatic events are most often carried as the implementation of resolution and resilience of the past using the business creation as a source of escape. In contrast, in a study conducted in Peru, where active entrepreneurs were examined, the results showed less amount of Neuroticism compared to higher levels of stability and resilience to stress.

Entrepreneurs strive to correct mistakes by changing an entire system and being forced to push professional boundaries (Bornstein, 2004). Sometimes, entrepreneurs can be perceived as naïve dreamers; however, the idealism and commitment they possess are beneficial for achievement (Kerr et al., 2018). They have a higher level of motivation due to a strong sense of almost incorrigible optimism, which can border on overconfidence (Bernoster et al., 2018). Entrepreneurs tend to be much more in touch with pursuing and obtaining opportunities, as well as contact with people, than with the approach to procedures and methods, sometimes neglecting management and administrative skills (Kuperman et al., 2001).

Personality traits and their relationship to happiness

The Big Five theory has provided a meaningful taxonomy for classifying personality traits (Digman, 1990). On the other hand, happiness, which implies general contentment, is each person's ability to manage stress and maintain a positive attitude and a sense of purpose (Robertson et al., 2011). In addition, conceptualized as a multidimensional model by Ryff (1989), happiness consists of personal growth, autonomy, positive relationships with others, a sense of mastery, self-acceptance and purpose in life (Ryff & Keyes, 1995).

Research has proposed the existence of biological components connecting personality and happiness (Elliot & Thrash, 2002), as well as behavioral pathways in which personality traits facilitate behaviors that may promote mental health and well-being (Ozer & Benet-Martinez, 2006). Lamers et al. (2012) found that personality traits explained 8% of the variance in happiness and found significant positive associations between openness to experience extraversion and happiness.

Several studies have corroborated the relevance of personal factors in the happiness of entrepreneurs. Openness to experience, neuroticism, and conscientiousness are more closely linked to happiness than other factors (Ahunov & Yusupov, 2017; Antoncic et al., 2015). In contrast, kindness is associated with a lesser extent than other personality traits, such as responsibility. Identifying the factors that predict greater happiness has important implications for the design of programs and strategies that incorporate learning tools aimed at enhancing the happiness of individuals, particularly entrepreneurs.

Kokko et al. (2013), in turn, found significant positive correlations between the Big Five personality traits and happiness, highlighting that emotional stability (low levels of neuroticism) and extraversion had the most vital relationships, as low neuroticism characterizes by a less distressing and threatening perception of the world and high extraversion is characterized by an enthusiastic interaction with the world; together contributing to the optimal functioning of individuals, which is conducive to happiness.

Although the dispositional approach to individual differences argues that people are predisposed to different happiness levels according to certain traits (Grant et al., 2009), only a few empirical studies have examined the relationship between the Big Five traits and happiness. Schmutte and Ryff (1997) found a relationship between the five traits and happiness; although consistent with Kokko et al. (2013), neuroticism and extraversion were the strongest predictors. A recent study by Sahin and Cetin (2017) showed that low neuroticism and high extraversion are negatively related to stress. By reducing stress levels, these traits may provide a mechanism to promote happiness. Given the potential of the Big Five traits to impact GDP levels and the absence of similar studies in the context of entrepreneurship in Mexico, the present study seeks to establish a relationship between the Big Five traits and entrepreneurs' happiness, according to the following hypotheses:

H1: The trait "agreeableness" is positively and significantly associated with entrepreneurial happiness.

H2: The trait "openness" is positively and significantly associated with entrepreneurial happiness.

H3: The "conscientiousness" trait is positively and significantly associated with entrepreneurial happiness.

H4: The trait "extraversion" is positively and significantly associated with entrepreneurial happiness.

H5: The trait "neuroticism" is negatively and significantly associated with entrepreneurial happiness.

Methodology

Research design

To determine the effect of personality traits on entrepreneurs' happiness, quantitative, cross-sectional research was designed with primary data obtained through a self-administered questionnaire online via Google Forms. This application form has grown widely in current research (Manfreda et al., 2008). The questionnaire addressed entrepreneurs in the north of Mexico who were contacted through groups of entrepreneurs thus distinguished in social networks, mainly Facebook. The application period was October and November 2021, and 319 valid surveys were obtained.

Certain methodological limitations regarding the data collection process must be acknowledged. First, while the use of social media facilitated access to entrepreneurs, it may have introduced self-selection bias, as participants voluntarily chose to respond to the survey rather than being selected through a random sampling procedure (Bethlehem, 2010). Second, the geographic concentration in northern Mexico limits the socioeconomic and cultural diversity of the sample, which restricts the generalizability of the findings to the broader population of Mexican entrepreneurs.

Univariate and multivariate analyses use as research techniques. The former is for the descriptive and exploratory treatment of the elements of this study, and the latter is to determine the validity, reliability and associations proposed as research hypotheses. For the reliability criterion, Cronbach's alpha was applied to determine the internal consistency of the scale used. In addition, the composite reliability made it possible to compare the actual factor loadings of the indicators. Validity was determined by convergent and discriminant validity. The former is the degree of certainty that the items present in the measurement of a latent variable. The second tests that the different constructs are unrelated to each other to reinforce the validity and reliability tests, as well as to contrast the proposed hypotheses, the structural equation technique. It is essential to clarify that a relevant way to capture the complexity of social phenomena and human behavior is through the use of multivariate methods and how it is possible to overcome the limitations of standard techniques, which only allow the analysis of one relationship at a time, is structural modelling.

According to Hair et al. (2019), structural equation models are techniques that allow multiple relationships to be tested in the same model, making it possible to work with unobservable constructs through the indicators that constitute them; they make it possible to estimate the effect and relationship between multiple variables, and their creation is the result of the need to provide greater flexibility to standard multivariate models, such as regression. Hence, they are less restrictive, because they include

measurement errors in the criterion and predictor variables. For this study, SmartPLS4 software uses in the modeling.

Measurement of variables

A battery of 30 items with a five-point Likert scale uses to measure the variables. Happiness is measured through 5 items related to hedonic well-being, specifically, life satisfaction, proposed by Diener (1984) and updated by Wach et al. (2021), regarding the Big Five personality traits, five items use for each dimension: extroversion, agreeableness, conscientiousness, neuroticism and agreeableness, based on the original scale by Costa and McCrae (1992) and updated by Koe Hwee Nga and Shamuganathan (2010).

Results

Respondent descriptions

Table 1 shows the characteristics of the 319 entrepreneurs surveyed, 64.9% (207 people) were women, while 35.1% (112 people) were men. This reflects more openness to collaboration from the female entrepreneurs. Regarding the age of the entrepreneurs, 109 of the entrepreneurs (34.2%) were between 18 and 25 years, 98 entrepreneurs (30.7%) were between 36 and 50 years, followed by a group of 93 respondents (29.1%), 26 and 35 years. In contrast, only 19 entrepreneurs were over 50 years. This indicates that most of the involved entrepreneurs were young people.

Regarding the academic level of the entrepreneurs, there was a high rate of entrepreneurs with university studies (45.1%), followed by entrepreneurs with high school or preparatory studies (19.1%) and entrepreneurs with postgraduate studies (18.8%). In comparison, 12.5% of those surveyed studied a technical career, and only 4.4% of the entrepreneurs only had secondary school studies. One hundred and seventy-eight of those surveyed stated that control of the business was family owned, representing 55.8% of the entrepreneurs. At the same time, 141 individuals mentioned that the business did not involve the family. Another interesting fact about the entrepreneurs surveyed is that

Table 1 Demographic data of the surveyed entrepreneurs

		Frequency	Percentage
Gender	Male		35.1
	Female		64.9
Age	18–25	109	34.2
	26–35	93	29.1
	36–50	98	30.7
	Over 50		6.0
Education	Secondary	40	4.4
	High school		19.1
	Technical		12.5
	Bachelor degree		45.1
	Master degree		18.8
Family business	Yes	178	55.8
	No		44.2
Informality	Informality	170	46.7
	Formality		53.3

their businesses have a high informality rate, representing 46.7% compared to 53.3% of formal entrepreneurs.

Evaluation of the measurement model

Structural models have been widely used in the social sciences in recent decades due to the complexity of the constructs that emanate from social theories, which lead to multiple indicators to assess these constructs (Hooper et al., 2008; Shaheen et al., 2017). The structural equation technique also follows a strict validation process that has been refined, so it is not a simple technique but a combination of different multivariate techniques, such as linear regression, factor analysis and analysis of variance (Dash & Paul, 2021).

According to Hair et al. (2019), the SEM methodology comprises two stages: the measurement model and the structural model; the first stage allows us to verify the reliability and validity of each of the constructs that make up the structural model. In this sense, Table 2 presents the measurement model's assessment results, starting with the review of the loadings of each item, which must exceed the threshold of 0.700. As can be seen, seven items were eliminated, particularly the personality traits, because they did not exceed the appropriate loadings. The scale's reliability validates with Cronbach's Alpha and the composite reliability index, which are above the 0.700 recommended by Hair et al. Similarly, the Average Variance Extracted (AVE) as a measure of construct validity shows values above 0.500 for all constructs.

In the process of item elimination, not only were the construct's reliability and validity assessed statistically, but it was also ensured that such elimination did not compromise content validity. Specifically, it was verified that the remaining items retained the conceptual characteristics that define each of the personality traits (Schmitz & Storey, 2020). As shown in column 3 of Table 2, the essence of each item captures the core attributes of its corresponding reflective construct. Nevertheless, this refinement may affect comparability with similar studies.

The discriminant validity check is a crucial step to ensure that each variable included in the model is unique in its meaning and does not share a significant relationship with other variables. This ensures that the constructs are conceptually distinct. To assess this validity, the Fornell and Larcker Criterion (Hair et al., 2019) was first applied, the results of which are presented in Table 3. This criterion states that the square root of the average variance extracted (AVE) of each construct must be greater than the correlations between that construct and any other construct. In the table, the diagonal highlights the values corresponding to the square root of the AVE, which consistently exceed the inter-construct correlations, thus confirming discriminant validity under this method.

In addition, the heterotrait–monotrait ratio (HTMT), a test suggested by Henseler et al. (2015) to assess discriminant validity more accurately, was used. This criterion is based on the fact that the observed correlations between constructs must be below a set threshold, commonly 0.90. According to the results presented in Table 4, all HTMT correlations are below this threshold value, which further supports that the constructs are distinct from each other and that there is no evidence of discriminant validity problems.

Table 2 Reliability of the measurement items

Construct	Code item	Essence of the item	Factor loadings	Cronbach's Alpha	rho_A	Composite reliability	AVE
Happiness	BH_cog1	Their life is as desired	0.871	0.924	0.934	0.943	0.769
	BH_cog2	Has achieved important goals	0.897				
	BH_cog3	Feels satisfied with life	0.925				
	BH_cog4	Would relive life the same	0.782				
	BH_cog5	Life circumstances are good	0.902				
Agreeableness	amab1	Builds trust at work	0.907	0.909	0.909	0.943	0.846
	amab3	Seeks agreement before concluding	0.922				
	amab4	Maintains harmonious relationships	0.93				
Opening	apert1	Is a confident person	0.916	0.928	0.929	0.955	0.875
	apert2	Mood changes frequently	0.957				
	apert3	Prefers creating new things	0.933				
Conscience	conc1	Plans and follows through	0.88	0.913	0.915	0.939	0.794
	conc2	Motivated by goals	0.892				
	conc3	Seen as responsible	0.914				
	conc4	Worries excessively	0.878				
Extraversion	ext1	Has energy despite fatigue	0.824	0.885	0.889	0.916	0.685
	ext2	Prefers challenging goals	0.823				
	ext3	Generates enthusiasm often	0.863				
	ext4	Enjoys winning always	0.813				
	ext5	Is a sociable person	0.813				
Neuroticism	neur1	Worries too much	0.917	0.808	0.927	0.883	0.717
	neur2	Tends to be tense	0.884				
	neur4	Mood shifts frequently	0.726				

Table 3 Fornell–Larcker criterion, first-order model

Constructs	Agreeableness	opening	conscience	extraversion	happiness	neuroticism
Agreeableness	0.920					
Opening	0.633	0.935				
Conscience	0.817	0.713	0.891			
Extraversion	0.760	0.797	0.799	0.827		
Happiness	0.570	0.618	0.640	0.670	0.877	
Neuroticism	0.514	0.423	0.524	0.485	0.297	0.847

Bold values on the diagonal are significant at $p < 0.000$, indicating the constructs' reliability and discriminant validity

Table 4 Heterotrait–monotrait ratio (HTMT)

	Agreeableness	Opening	conscience	extraversion	happiness	neuroticism
Agreeableness	0.920					
Opening	0.633	0.935				
Conscience	0.817	0.713	0.891			
Extraversion	0.760	0.797	0.799	0.827		
Happiness	0.570	0.618	0.640	0.670	0.877	
Neuroticism	0.514	0.423	0.524	0.485	0.297	0.847

Table 5 Evaluation structural model

Effects	Path coefficient	Standard deviation	Value t	Value p	Percentile Bootstrap 95% CI	Decision
Agreeableness → happiness	0.030	0.078	0.386	0.699	2.50% -0.121	97.50% 0.186 Not supported
Openness → happiness	0.182	0.084	2.168	0.030	0.004	0.339 Supported
Conscience → happiness	0.272	0.093	2.927	0.003	0.078	0.440 Supported
Extraversion → happiness	0.333	0.085	3.929	0.000	0.172	0.502 Supported
Neuroticism → happiness	-0.100	0.042	2.349	0.019	-0.180	-0.014 Supported

Structural model

After validating the measurement model, the structural model was analyzed to assess the hypothesized relationships between personality traits and entrepreneurs' perceived happiness. This analysis was conducted using the bootstrap technique with 5000 interactions, a procedure that enhances statistical precision by generating multiple random samples based on the original data. This technique allows the calculation of standardised regression coefficients, confidence intervals and significance levels for each relationship included in the model. The specific results of this analysis are presented in Table 5.

Overall, the structural model achieved a SRMR (Standardized Root Mean Square Residual) of 0.56, indicating an acceptable fit according to the 0.080 threshold set by Hu and Bentler (1998). Furthermore, the model explained an adjusted R^2 of 0.498 for the happiness variable, which represents a moderate level of explanatory power according to the criteria of Hair et al. (2019). These indicators reflect that the model has a robust structure for analysing the factors that determine happiness in the context of entrepreneurship.

Regarding the hypotheses put forward, the results show that four of the five hypotheses were accepted. However, the trait of agreeableness was rejected as a significant determinant of the happiness of the entrepreneur analyzed. This conclusion is explained by a coefficient of 0.30 and a p value of 0.699, indicating that there is no significant relationship between this trait and the perception of happiness. These results underline the differential relevance of personality traits and their impact on the emotional experience

of entrepreneurs, providing useful empirical evidence for future studies and practical applications (Fig. 1).

Conclusions and discussion

The aim of the study was to demonstrate a relationship between entrepreneurial personality traits and happiness levels. The results confirm that qualities such as extraversion, conscientiousness and openness to experience are positively associated with happiness, while neuroticism is negatively related. Regarding agreeableness, despite its prosocial nature, it showed no association with happiness. This last point challenges the general perception that interpersonal qualities always contribute to well-being, suggesting that certain traits, although positive, may have limited impact in specific contexts such as entrepreneurship.

The results support previous studies, such as those of Diener et al. (2002), which argue that personality traits directly and indirectly influence happiness levels and their various dimensions. As Weinberg et al. (2018), Delhom et al. (2019), and Nikolaev et al. (2020) point out, personality serves as a psychological framework that shapes perceptions of satisfaction and well-being.

This study found that one of the traits that best explains the happiness and satisfaction of the entrepreneur is openness to experience, since not only fosters creativity and learning but also facilitates personal growth, which is closely related to higher levels of life and entrepreneurial satisfaction (Bardi & Ryff, 2007).

The current study revealed that conscientiousness was another personality attribute associated with happiness. In the case of entrepreneurs, this is justified, because they are organized, responsible people who fulfill their moral and work obligations, maintaining high standards of demand (Kerr et al., 2018), which according to Khan (2020) is substantially connected with all areas of pleasure. Similarly, a highly conscientious

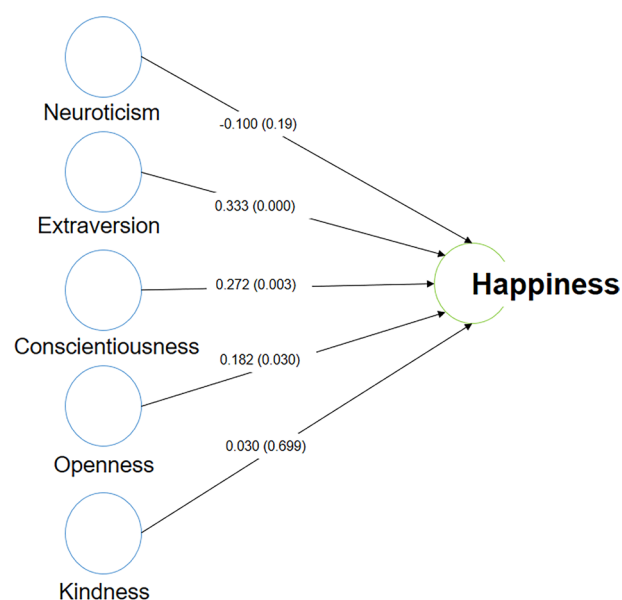


Fig. 1. Model results

entrepreneur, by maintaining consistency between his or her achievement expectations and goals, strengthens his or her sense of personal fulfillment and, consequently, greater well-being. For example, Reese et al. (2017) noted that responsibility and planning ability, characteristics of conscientiousness, are equally crucial for happiness, especially in high-demand contexts such as entrepreneurship. This trait is one of the most relevant for the entrepreneur (Anglim & Grant, 2016; Antoncic et al., 2015; Delhom et al., 2019).

In this study we found that neuroticism has a negative effect on the happiness of entrepreneurs, this is consistent with the literature that shows that neuroticism, as highlighted by Schmutte and Ryff (1997), remains one of the most consistent predictors of low levels of well-being, a finding supported by contemporary researchers, such as Anglim and Grant (2016) and Sun et al. (2018). This trait not only limits the ability to handle stress and disagreements but also amplifies sensitivity to negative conditions, creating a vicious cycle that adversely impacts personal and professional well-being.

A probable explanation for this negative effect is that neuroticism in the entrepreneur manifests itself as a disturbance that amplifies adverse situations, generating stress in the individual and weakening their emotional well-being, making it impossible for them to enjoy their activities and, therefore, generating dissatisfaction (Sun et al., 2018).

Now, as for agreeableness, despite its prosocial nature, was not found to have a significant relationship with happiness, some theoretical considerations can be observed that help qualify these results in individuals with high levels of this personality trait. Such individuals are often perceived as warm and empathetic, with a disposition that drives them to seek social harmony (Graziano & Tobin, 2009). While this tendency can foster positive interpersonal relationships, it can also compromise their well-being when they prioritize the needs of others over their own (Ryan & Deci, 2000).

In organizational contexts, agreeableness may facilitate collaborative work environments; however, elevated levels of cordiality can also inhibit decision-making capacity, hinder negotiation in conflict situations, or undermine the protection of personal interests—particularly in the case of entrepreneurs (Matz & Gladstone, 2020).

Similarly, Van Dam (1996) argues that agreeableness is not an adequate predictor of entrepreneurship, as being judged as polite, trustworthy, honest, kind, and caring does not predict professional performance. Whether this trait is relevant to entrepreneurship is yet to be determined; however, other authors, exclaim that friendliness is indispensable for careers in which customer service is critical to success (Judge et al., 2002).

It is important to consider that the limited role of agreeableness in happiness, as suggested by this study, may reflect the specific demands of the entrepreneurial context. While cooperation and trust are useful in social dynamics, these qualities may not be sufficient to address the strategic and leadership challenges entrepreneurs face. This finding underscores the need for further research on how different contexts modulate the relationship between personality and happiness, as also suggested by Mobarakeh et al. (2015).

In this respect, Zhao and Seibert (2006) explain that although the adverse effects of agreeableness predominate for the employed people, the adverse effects for the entrepreneurs were more significant. Because the entrepreneurial roles often operate with more stress, because it all depends on them, the responsibilities and the freedom that

comes with it; in consequence, entrepreneurs are more vulnerable to receive severe consequences than managers, even with small disadvantages in the negotiation.

According to Zhao and Seibert's research in (2006), entrepreneurs scored lower on this dimension than managers; however, 4 years later, Zhao et al. (2010) found no significant correlation between the agreeableness factor and intentions to start or run a business. These results contrast with research by Schmutte and Ryff (1997), where they suggested that the trait of agreeableness is not related to positive relationships with others. Therefore, an existing relationship with well-being could not be demonstrated (Schmutte & Ryff, 1997).

Likewise, this relationship between personality traits, happiness, and entrepreneurship takes on additional relevance when placed in the broader context of sustainable development. As highlighted in the World Happiness Report 2016 (Helliwell et al., 2016), subjective well-being is an essential dimension of social sustainability, complementing the economic and environmental pillars. At the same time, recent research highlights that entrepreneurial activity contributes to sustainable happiness when it is aligned with the Sustainable Development Goals (SDGs) (Aksoy & Arlı, 2019).

In this sense, entrepreneurship that promotes openness, responsibility, and resilience not only increases individual well-being but also drives long-term sustainable economic development (Manioudis & Meramveliotakis, 2022; Meramveliotakis & Manioudis 2024). Therefore, integrating sustainability perspectives allows for a deeper understanding of how personal traits shape entrepreneurial happiness, linking individual flourishing with society's collective goals.

It should be noted that this study has certain limitations. First, the sample was composed mainly of people from the exact geographic location, which does not correspond to the reality of the country and limits the generalizability of the results. Second, this study does not allow us to establish causal relationships so that personality could be the antecedent of happiness or vice versa, or even this could change over time so that in the future it could be of interest to develop longitudinal studies to identify which personal characteristics predict the choice of certain jobs and activities that increase levels of happiness.

The findings offer key opportunities for designing tailored interventions to promote the well-being of entrepreneurs by focusing on specific personality traits identified in the study. First, entrepreneurship training initiatives should be specifically designed to strengthen skills linked to conscientiousness, such as strategic planning, effective time management, and perseverance, as these competencies were positively associated with happiness among entrepreneurs.

Second, given the negative impact of neuroticism on happiness, incorporating stress management techniques, emotional regulation trainings, mindfulness workshops, and business mentoring programs into entrepreneurship support initiatives would help entrepreneurs build resilience and better cope with stressors inherent to their roles. Third, for entrepreneurs high in openness to experience, training programs should foster creativity, innovation, and continuous learning while also providing practical tools that enable them to translate novel ideas into sustainable business models, aligning personal growth with entrepreneurial success.

Finally, the minimal association of agreeableness with happiness highlights the importance of context-specific programming. Interpersonal skill development focusing on kindness, cooperation, and trust may be prioritized in sectors, where customer relations are critical, whereas in highly competitive environments these traits may be less influential for entrepreneurial well-being. Tailoring program content to the demands of the entrepreneurial environment will optimize impacts on happiness.

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Data availability

The data sets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Declarations

Competing interests

The authors of this manuscript declare that there is no conflict of interest associated with this research.

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