The Entrepreneurial Mind

Lecture 11 - Personality Traits, Intention and Entry-Exit Decisions

Lecturer:

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Lecture Learning Objectives

At the end of the lecture, you will be able to:

- Identify personality traits that are associated with entrepreneurial entry and exit based on cross-sectional, meta-analytic, and longitudinal studies;
- Analyze the findings and formulate theoretical constructs of entrepreneurial intentions and personality traits useful for future research; and
- Construct and schematic diagram and demonstrate the complex interconnected processes of individual, environmental, and personality that influence entrepreneurship performance and success.

Overview

This lecture looks at the probability of entrepreneurial entry and exits from meta-analysis, cross sectional, and longitudinal studies. Survey participants vary among students, entry-level entrepreneurs, and successful entrepreneurs. In the previous lecture, a link-up between personality characteristics and entrepreneurial intention, various measures of success as an entrepreneur such as the creation of start-up enterprises, growth, and long-term survival of the venture have been demonstrated. Still, Kerr et al. (2017) observed that research work has explored how personality characteristics relate with specific stages of job planning or to consider smaller topics such as Industry specific innovation. Two methods determine the correlation between personality traits and the probability of successful entry into entrepreneurship (Kerr et al., 2017). **First**, researchers analyzed the personality in relation to their present entrepreneurial intent, perceived learning, perceived abilities, and personal Investment. **Second**, use of national longitudinal datasets from the German Socioeconomic Panel, GSOEP) to find out whether measured personality traits on large-scale surveys predicted later business founding.

Cross-Sectional Studies and Meta-Analyses

Some research surveyed student populations focused on combining future career intentions with early chances to develop entrepreneurship. **For example**, Singh and De Noble (2003) studied the relationship between Big-5 characteristics and entrepreneurial intentions, perceived capacity, and personal investment among 342 students at a large state university. They find that openness positively correlates (+) to the perceived ability and personal investment, whereas neuroticism negatively relates (-) to intent and ability. They also assess the variability between studies that defined entrepreneurs as founders and business leaders, where they find no significant differences (Ø) between the two categories. In 60 studies describing the relation between Big-5 traits and entrepreneurial intentions and performance, Zhao et al. (2010) find that entrepreneurial intentions relate with openness to experience, awareness, extraversion, emotional stability, and risk propensity and that only agreeableness and neuroticism were of no importance to explain entrepreneurial intentions (O+, C+, E+, A, N). Of those traits, risk propensity has the

greatest support, followed by openness and emotional stability respectively. Exploring a link-up between other traits and the Big-Five dimensions, Korunka et al. (2003) surveyed 1,169 nascent entrepreneurs and new business owner managers to study their activity patterns. Of the 627 new business owner-managers, 153 who meet success criteria also display a high need for achievement, high internal LOC, and medium risk-taking propensity. Hence, individuals with high openness, extraversion, internal LOC, need for achievement, and moderate risk propensity are likely to have a future entrepreneurial career. The study also looked at three initial patterns for emerging entrepreneurs in order to combine personality traits analysis with situational factors. The first pattern, "nascent entrepreneurs against their will," consists of those with a strong push factor and comparatively little social or network support. This group has a relatively low need for achievement, low internal LOC, and low individual initiative. Potential entrepreneurs have unfavorable financial situations, but otherwise strong self-realization and an internal locus of control. Finally, "networking of budding entrepreneurs with risk avoidance habits" includes supportive environments and strong resources, but a high level of risk avoidance. From a sample of 265 Master of Business Administration (MBA) students at five US universities, Zhao et al. (2005) found that individuals are more likely to form entrepreneurial intentions directly as a result of their high level of ESE. This tendency is due to learning and experience and, to a lesser extent, risk propensity. Gender relationship with ESE is not significant (+), as women have lower entrepreneurial career intentions. Gender-related entrepreneurial intentions are quite complex. As pointed out by Miao et al. (2016) in their ESE meta-analysis, most other studies also find a positive relationship (+) between ESE and entrepreneurial intent and/or business creation for both genders.

Table 1. Big Five and other Traits and Entrepreneurial Intention

1.	Openness to experience [2]	+	▪Perceived ability and personal investment ▪Entrepreneurial intention
2.	Awareness	+	Entrepreneurial intention
3.	Extraversion	+	Entrepreneurial intention
4.	Emotional stability [3]	+	Entrepreneurial intention
5.	Risk-taking [1]	+	Entrepreneurial intention
6.	Agreeableness	Ø	Entrepreneurial intention
7.	Neuroticism	-	Intention and ability
8.	(Business Founder) Intention, ability, and personal investment	Ø	(Business Leader) Intention, ability, and personal investment
9.	Need for achievement, internal locus of control, risk taking, initiative	+	Entrepreneurial intentions (e.g. owner-manager, nascent, and potential entrepreneurs
10.	Entrepreneurial self-efficacy	+	Entrepreneurial intention
11.	Gender	≠	Entrepreneurial intention
12.	Gender-specific entrepreneurial intention	+	Business creation

(Paurom, 2021)

To summarize these cross-sectional studies and meta-analyses, students who display certain Big-5 traits (i.e., more open to new experiences, more conscientious, more outgoing, and less neurotic) and higher levels of ESE, internal LOC, and demand for achievement are the groups most likely to enter entrepreneurship after graduating from university. They also highlight environmental and gender factors that affect these career choices, Table 1 (Correlates of Need for Achievement) based on last week lecture, it depicts the summary of personality traits in relation to entrepreneurial Intention, ability, personal investment, and business creation.

Longitudinal Studies

Repeated observations have been conducted on the Big Five to detect changes from entrepreneurial intention to business creation. Researchers had to keep track of a group over time. Hansemark (2003) tracks students in an entrepreneurship program over an 11-year period by combining psychological data in the early-stage. The author measured the predictive validity of the personality traits and becoming an entrepreneur in the future, compared to a matched control group. The internal LOC has predictive validity for men but not for women while the need for achievement is not predictive for either gender. In addition, Korunka et al (2003) conducted three surveys of 227 entrepreneurs in Austria between 1998 and 2005. The authors find that personality trait of need for achievement, LOC, and risk-taking predict early success, but not in longer-term business survival. The study of 10 waves of the German Socio-Economic Group (GSOEP) between 2000 and 2009 (Caliendo et al, 2014) describing the appropriateness of LOC. The study finds that some personality traits, such as openness to experience, extraversion, and risk tolerance, predict entry, however, traits such as agreeableness or other layers of risk tolerance, predict exit choices from self-employment. Only the internal LOC exerts a similar influence on the decisions to enter and exit. Caliendo et al. (2014) report that these personality traits can explain 30% of the overall variance in risk tolerance, LOC, and openness respectively. Two studies specifically examine the impact of ESE on the different phases of the business process. **First**, Cassar and Friedman (2009) found in the panel study of entrepreneurial dynamics (PSED) samples ESE increases the likelihood of making business plans. **Second**, Brinckmann and Kim (2015) report that ESE facilitates the growth of formal business plans, while entrepreneurial perseverance encourages involvement in business planning studies.

Recent literature mostly agrees that internal LOC and the need for achievement are important predictors of entry into entrepreneurship. Risk-taking also correlates with business founding, but not necessarily with performance or exit. To sum up, locus of control, need for achievement, extraversion, openness to experience, risk-taking predict entry and early success while agreeableness and other layers of risk-taking predict

entrepreneurial exit. There also seems to be a link between ESE and business founding and growth of business planning.

Growth and Success as an Entrepreneur

Many researchers examine not simply the attributes that predict entry into entrepreneurship, but also those that contribute to business performance measures, such as growth, investment long-term survivorship, and success. Some studies considered innovativeness as a measure of initial business growth essential to business success. In their sample of 201 German founders, Utsch and Rauch (2000) show that innovativeness predicts employment growth and net income growth, while amounts of initiative correlate only with profit growth. They also find a positive interaction effect between innovation and ESE. Baum and Locke (2004) carried out a six-year longitudinal study on architectural carpentry companies. They find that situational motivations specific to goals, self-efficacy and shared vision to have direct effects on venture capital growth, promoting other characteristics such as passion, tenacity, and new resource expertise. Some research examines the relationship between personality traits and company investment. For example, Cassar and Friedman (2009) find that ESE increases the number of personal resources an entrepreneur puts into speculation, as assessed by the proportion of personal wealth invested in the venture and the number of hours per week dedicated to the venture. This character of **personal investment** reflects the scholar level (Singh and DeNoble, 2003) where personality could predict the time students spent preparing for future business endeavors. Another popular measure is the **long-term survival of the business**, as readily measured by techniques as simple as business registers, web presence, or telephone directories. Ciavarella et al. (2004) find that high conscientiousness positively relates to long-term venture survival (eight years at years or more), compared to a negative relationship for the entrepreneur's openness to experience and no relationship for the other Big-5 personality traits.

Additionally, many surveys asked entrepreneurs to rate their success in terms of their views on how successful their ventures are, and the typical representations used by researchers (e.g., growth and survival). Hence, the Big 5 may not correlate very well with pre-defined success or performance. For example, Poon et al. (2006) assess performance among 96 entrepreneurs by asking them to rate their company's growth, sales volume, market share, and profit using a scale relative to that of competitors and their own expectations. They find that internal LOC positively relates to firm performance, but lesser support exists for ESE and achievement motivations. In addition, the researchers summarize the relationship between personality traits and company performance using meta-analyses. For example, Rauch and Frese (2007a) identify the traits most significantly correlated with business success to include the need for

achievement (.30), innovativeness (.27), "proactive personality" (.27), generalized self-efficacy (.25), stress tolerance (.20), need for autonomy (.16), locus of control (.13), and risk-taking (.10). The authors point out that these relationships are moderate in magnitude and the heterogeneity across the different fields allows the possibility of moderators, useful in future surveys. An additional meta-analysis by Zhao et al. (2010) shows that awareness, openness to experience, and emotional stability relate positively to the company's performance, in terms of the company's survival, growth, and profitability. While risk-taking relates positively to the business foundation, however, does not correlate with eventual business growth and success as other studies put emphasis on how intelligence interacts with personality traits. One example is Bird and Baum (2010) who find that "successful intelligence," consisting of practical, analytical, and creative elements, combined with high ESE predict venture growth over four years. Likewise, Hmieleski and Corbett (2008) find that improvisational behavior combined with high ESE has a positive relationship with sales growth.

Table 2. Big Five and other Traits: Entry, Exit and Growth and Success

1.	Internal locus of control	+	Predictive only to entry of men not to women
2.	Need for achievement	Ø	Gender
3.	Need for achievement, internal locus of control, and risk-taking	+	Early success
4.	Openness to experience, extraversion, and risk tolerance	+	Entrepreneurial entry
5.	Agreeableness and risk tolerance	+	Exit decisions from self-employment
6.	Entrepreneurial self-efficacy	+	Business founding and growth of business planning

(Paurom, 2021)

It is difficult to bring conceptual order to the studies since they combine personality traits with different research constructs resulting in counterintuitive and very subjective findings. This is of the construct testable against initial goals for the business to vary substantially. Since the probability of exiting entrepreneurship is low from an early exit, Caliendo et al. (2014) find using the GSOEP panel dataset find that agreeableness increases the likelihood of exit from entrepreneurship, and an internal LOC leaves less likely. The authors note that risk tolerance had no relationship with the exit decision. In summary, innovativeness, self-efficacy, conscientiousness, locus of control, ESE combined with social intelligence, and openness to experience positively relate to a firm's growth and performance. Risk-taking relates mainly to the founding of a venture but not in the eventual growth and performance while agreeableness increases the likelihood of

exit from entrepreneurship. Table 2 summarizes the traits responsible for growth and success.

Table 3: Big Five and other Traits versus Survival, Growth and Success

1.	Innovativeness	+	Employment and income growth
2.	Initiative	+	Profit growth
3.	ESE and innovation	+	Growth and success
4.	Self-efficacy and shared vision	+	Venture capital growth
5.	ESE	+	Personal investment and resources
6.	Personality	+	Student time preparing for future business endeavours
7.	Conscientiousness	+	Long term venture survival
8.	Openness to experience	-	Long term business survival
9.	Extraversion, agreeableness, and neuroticism	Ø	Long term survival
10.	LOC	+	Firm business performance
11.	ESE and achievement motivation	+	Lower support to business performance
12.	Moderate need for achievement, innovativeness, proactive personality, generalized self-efficacy, stress tolerance, need for autonomy, locus of control, and risk-taking	+	Business success
13.	Awareness, openness to experience, and emotional stability	+	Company's performance (company's survival, growth, and profitability)
14.			
15.	Risk-taking	+	Business foundation
16.	Risk – taking	Ø	Eventual growth and success
17.	Social intelligence + ESE	+	Venture growth
18.	Improvisational behaviour and ESE	+	Sales growth

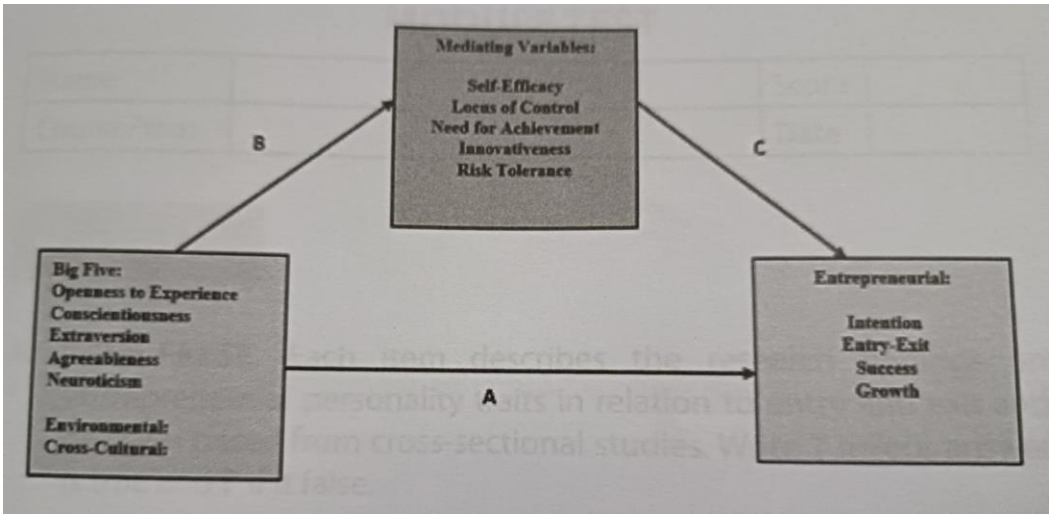
(Paurom, 2021)

Moderating Traits and Environmental Factors

The overlapping and incongruous findings on entrepreneurial personality traits are probably a violation to statistical assumptions of normal distribution. Besides the lack of consensus on research constructs, a word of caution on the likelihood of multicollinearity of previous studies. Multicollinearity may have caused each relationship between the independent and the dependent variable insignificant. It occurs when each personality trait in a regression model is correlated. This correlation is a problem because independent variables should be independent. If the degree of correlation between variables is high enough, it can cause problems in fitting the model and interpret the results. The purpose of regression analysis is to isolate the relationship between each independent variable and the dependent variable. The interpretation of regression is that it represents the mean change in the dependent variable for one unit change in an independent variable holding all of the other variables constant. The idea is that changing the value of one independent variable and not the others. However, correlations between the independent that changes in one variable correlate with shifts in another variable.
The stronger the correlation, the more difficult it is to change one variable without changing another. It becomes difficult for the model to estimate the relationship between each independent variable and the dependent variable independently because the independent variables tend to change in unison.

Researchers in all disciplines frequently describe how personality factors interact or moderate other individual trans (e.g., gender, education) and external conditions (e.g. industry dynamics, city traits) in determining significant differences among the personality dimensions. The study by Tajeddini and Mueller (2009) found that entrepreneurs scored higher on surveys in autonomy, risk propensity, and LOC in one country, while in another country scored higher on achievement need, tolerance for ambiguity, innovativeness, and confidence. Since the technology industries in both countries are quite similar in terms of development and institutional support, Tajeddini and Mueller (2009) attribute the variation to cultural differences rather than other environmental factors. While the study accounts for trait cultural differences at the national level but no specification on whether it could account for the individual level. Similarly, Hmieleski and Baron (2008) examine a three-way interaction of ESE, dispositional optimism, and environmental dynamism on firm performance (e.g. revenue growth and employment growth). The researchers define environmental dynamism as the rate of unpredicted change occurring within a given industry, following the approaches of Dess and Beard (1984) and Sharfman and Dean (1991). They find that high ESE improved firm performance in dynamic environments when combined with moderate optimism, but was detrimental when combined with high optimism. In stable environments, ESE's effects are weak if not moderated by optimism. Hmieleski and Baron (2005) conclude that high ESE is not always beneficial for

entrepreneurs and that environment and industry differences may interact strongly with personality traits in terms of their impact on venture outcomes. Researchers in some disciplines go further than the study of interactions to construct "a complex process model" and in the light of the findings, the framework below depicts the factors that define the complex attributes of entrepreneurial behavior.



(Paurom, 2021)

The studies on personality traits relative to intensions, entry and exit decisions showed moderating variables. A **mediator variable** explains how (observed) independent variables (Big Five, environmental and cultural factors) relate to the dependent variables (entrepreneurial intention, entry-exit, success, and growth). A shown in the model, the independent variable cannot influence the dependent variable directly and instead does so by means of a third variable (mediator). Full mediation occurs when the entire relationship between the independent and dependent variables is through the mediator variable. Without the mediator, the relationship disappears. Since the real world is complex with many interactions, partial mediation is more prevalent. Partial mediation happens when the mediating variable is only responsible for a part of the relationship between independent and dependent variables. Even without the mediating variable, the relationship between the independent and dependent variables remains though not strong.

Reference:

Entrepreneurial Mind, Ferdinand C. Paurom and Frederick U. Ibanez, Mindshapers Co., Inc. 2021