

Understanding Entrepreneurial Achievement Motivation through Big Five Personality Factors: A Study of Students Pursuing Professional Education

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ABSTRACT

Entrepreneurial growth can be accelerated by understanding what makes a would-be entrepreneur. This study is an attempt to understand Big Five personality factors of students pursuing professional education and their entrepreneurial achievement motivation. In this study 133 university students from Delhi NCR were surveyed to examine the relationship between their entrepreneurial achievement motivation and Big Five personality traits. The study shows that the entrepreneurial achievement motivation is a function of conscientiousness among Big Five personality dimensions. Our research suggests that creating a structured environment with clear policies may encourage students to be organized, disciplined, and proactive about learning and being an entrepreneur.

Keywords: *Entrepreneur, Big Five Personality, Achievement Motivation*

INTRODUCTION

Entrepreneurship through higher education is needed to accelerate job growth, strengthen the communities and foster innovation in key industries. This will allow us as a nation to better compete in the 21st century global economy. Education is the key to inclusive growth and empowerment of a large section of the population. Higher education system may help to

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cultivate the entrepreneurial spirit that may be lying dormant in students. The study is an attempt to understand personality traits of students so as to take steps/ frame policies that are important to produce entrepreneurs. Entrepreneurs not only get a job for themselves but create many for others. They have the power to support local communities and even revolutionize industries!

The psychological attributes are the key factors in driving the entrepreneurial activities by an individual. Certain individuals are achievement oriented and are prepared to take risks. Entrepreneurial Achievement Motivation can be understood as achievement motivation as regards to entrepreneurship. Miner et al. (1994) viewed entrepreneur's achievement motivation by placing more emphasis on the stated role requirements rather than the single achievement motive. Achievement motivation refers to the tendency to set and work hard to meet personal standards and to attain goals within one's social environment (Ziegler, Schmukle, Egloff and Buhner, 2010). Achievement motivation directs, energises and maintains entrepreneurs' task of establishing new businesses. A positive relationship between achievement motivation and some type of entrepreneurial behaviour or new venture performance has been found (Baum and Locke, 2004; Baum et al., 2001; Johnson, 1990).

There are five basic dimensions of personality, often referred to as the "Big 5" personality traits. Evidence of this theory has been growing over the past 50 years, beginning with the research of D. W. Fiske (1949) and later developed upon by other researchers including Smith (1967), Goldberg (1981), and McCrae & Costa (1987). These are not "types" of personalities, but *dimensions* of personality. So everyone's personality is the combination of each of their Big Five personality characteristics.

The big five personality traits can be summarized as follows:

- Neuroticism - A tendency to easily experience unpleasant emotions such as anger, or depression.
- Extroversion – Energy and the tendency to seek stimulation and the company of others.
- Agreeableness - A tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others.
- Conscientiousness - A tendency to show self-discipline, act dutifully, and aim for achievement.
- Openness to experience - Appreciation for art, emotion, adventure; imaginative and curious.

Personality can affect an individual's motivation towards achievements. As per the five factors model of personality people high on conscientiousness are considered as an organized, focused and timely achiever of their goals. They tend to be workaholic and are self-disciplined, confident, dutiful and reliable. The effects of Conscientiousness on academic performance may be mediated by motivational processes such as expenditure of effort, persistence, perceived intellectual ability, effort regulation and attendance.

The remainder of this paper is organised into three sections: review of literature in the first section, Data and research methodology are reported in the next section and the fourth section reports the findings of the study. Finally, conclusions are drawn about the relationship between entrepreneurial achievement motivation and big five personality factors.

Objectives The objective of the study is to examine the relationship between entrepreneurial achievement motivation and big five personality traits of students pursuing professional education.

REVIEW OF LITERATURE

One of the theories most commonly applied in research on entrepreneurship achievement motivation is McClelland's (1991) theory of the need to achieve. According to McClelland's theory, individuals who have a strong need to achieve are among those who want to solve problems themselves, set targets, and strive for these targets through their own efforts. According to findings in several studies, a strong need to achieve is related to targets and the desire to reach these targets. The achievement motivation construct posits that a high need for achievement predisposes a person to seek out an entrepreneurial position in order to accomplish more achievement satisfaction than could be derived from other types of positions—those which are more managerial (Stewart et al., 2003). One study found that students substantially increased their achievement needs after enrolling in an MBA programme (Hansemark, 1998). Research also suggests that angel investors typically have a higher Need for achievement (NFA) (Duxbury et al., 1996); entrepreneurs with a higher NFA are more likely to be successful (Johnson and Ma, 1995).

Knowledge of the factors that influence entrepreneurial achievement motivation has important implications for learning and education. Many educators/ policy makers are interested in knowing beforehand who will perform well, and who will perform poorly, in entrepreneurial endeavours.

It is well known that achievement motivation and the related concepts positive or negative fear of failure are important variables in learning and education (e.g. Atkinson and Feather, 1964; Dweck, 1984; Pintrich and Schunk, 1996; de Raad and Schouwenburg, 1996). Other researchers are concerned with identifying the determinants of entrepreneurial success in an effort to develop curricula aimed at improving levels of entrepreneurial performance. Instinct, drive, need, delight, interest, curiosity, attribution styles, capability, expectation, efforts to progress, parents and classmates' pressures may affect the student' motivation and form his educational behavior, learning and progress (Akbari, 2007). Teachers aware of personality differences could possibly construct learning environments that take advantage of students' individual strengths. For instance, one study suggests that creating a structured environment with clear policies may encourage students to be organized, disciplined, and proactive about learning. This effort may help in promoting "Conscientiousness". Herrmann et al. (2008, p. 21) have argued that in entrepreneurial education there should be "a shift from transmission models of teaching (learning 'about') to experiential learning (learning 'for')" in order to "offer students techniques that can be applied in the real world". Collins et al. (2004) have used meta-analytical techniques to examine the relationship of one personality trait—achievement motivation—to entrepreneurial performance.

According to Connie *et al.* (2005), personality research plays a critical role in the investigation of the entrepreneurial personality and has re-emerged as an important area of interest (Rauch and Frese, 2000) with the individual as the unit of analysis (Korunka *et al.*, 2003). Research has examined the relations between achievement and the personality dimensions proposed in Cattell's (1973) and Eysenck's (1970) models of personality structure. The Five-Factor Model of personality (McCrae & Costa, 1997) represents the dominant conceptualization of personality structure in the current literature. This model posits that the Big Five personality factors of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness dwell at the highest level of the personality hierarchy. The Big Five traits have been related to a wide range of behaviours (Ozer & Benet-Martinez, 2005), including academic achievement and job performance (Costa & McCrae, 1992; Judge, Jackson, Shaw, Scott, & Rich, 2007). Ross, Rausch, and Canada (2003) found that the Big Five explained significant variance in cooperative, hypercompetitive, and personal development motivational orientations. Students high in conscientiousness, extraversion, and openness show

the strongest learning goal orientation (Payne, Youngcourt, & Beaubien, 2007), whereas high neuroticism and low extraversion students are most likely to experience a fear of failure and pursue avoidance performance goals. Introversion has been identified as an important trait in academia, with introverts presumed to be less socially preoccupied, showing better concentration and being more organized in previous research (Entwistle, 1983; Goff & Ackerman, 1992). A student's work drive also explains significant variation in GPA beyond that explained by the Big Five and intelligence (Lounsbury et al., 2003; Ridgell & Lounsbury, 2004). Gu and Atsan (2005) as well as Koh (1996) found out that entrepreneurially oriented students are found to have a higher risk taking propensity, an internal locus of control, a higher need for achievement and higher innovativeness than other students with no entrepreneurial desire. Barrick, Mount and Strauss (1993) found that the effect of the personality variable Conscientiousness on job performance was mediated through motivational variables (Baron and Kenny, 1986).

Subsequent empirical studies have supported the existence of a link between "entrepreneurship" and the need for achievement (Begley and Boyd, 1987; Perry et al., 1988; Stewart et al., 1999; Lau and Busenitz, 2001; Lee and Tsang, 2001), it can be argued that entrepreneurial success is not merely an issue of wanting or needing to achieve. Additionally, because of the strong need for achievement, such individuals focus primarily on individual credit which more often than not makes it difficult for them to cooperate fully with others, yet entrepreneurship is not an activity, but a process, which makes it necessary for an enterprising individual to cooperate with others in order to create value with them and for them.

Hypothesis

- H₀₁: There is no significant difference between Extraversion and entrepreneurial achievement motivation
- H₀₂: There is no significant difference between Agreeableness and high and low entrepreneurial achievement motivation
- H₀₃: There is no significant difference between Conscientiousness and high and low entrepreneurial achievement motivation
- H₀₄: There is no significant difference between Neuroticism and high and low entrepreneurial achievement motivation
- H₀₅: There is no significant difference between Openness to experience and high and low entrepreneurial achievement motivation

RESEARCH METHODOLOGY

For carrying out this study a structured questionnaire was administered on 133 University students of Delhi-NCR. The first part of questionnaire included questions on entrepreneurial achievement motivation (Kuratko and Rao, *Entrepreneurship*, Cengage Learning, pp.50, 2012). The reliability (Cronbach's α) in the present sample for this scale was found to be 0.76. The validity of the same was examined by two experts from academia and two entrepreneurs. A total score was calculated and it was split as high and low. The second part of questionnaire is a standardized questionnaire on Big five Personality Traits. (Goldberg 1993). The Big Five Inventory (BFI; John, Donahue et al. 1991; and John et al. (2008)) is a 44 item questionnaire. It assesses the Big Five personality domains and is freely available for academic research. The internal consistencies of big five coefficients were as follows: neuroticism- 0.79, extraversion- 0.74, openness to experience- 0.68, agreeableness- 0.74 and conscientiousness- 0.83. Big five inventory is a widely used questionnaire for social sciences research; yet it was validated again by using the expert validity method.

Results

The data was collected from 133 respondents (Table 1). The questionnaire consisted of questions related to demographic profile and achievement motivation. Out of 133 students 54.1 percent were females. 54.9 percent students were enrolled in commerce as a stream of subject.

Table 2 shows that the number of students for low entrepreneurial achievement motivation is 48 and high entrepreneurial achievement motivation is 85. The table also describes mean, standard deviation and standard error mean for low entrepreneurial achievement and high entrepreneurial achievement motivation on five personality dimensions; namely, extraversion, agreeableness, conscientiousness, neuroticism and openness to experience.

Table 1: Demographic Profile

| Table 1 a | | Frequency | Percent |
|------------------|---------|------------------|----------------|
| Gender | Males | 61 | 45.9 |
| | Females | 72 | 54.1 |

Table 1b

| | | Frequency | Percent |
|--------------------|----------|------------------|----------------|
| Course enrolled in | Arts | 9 | 6.8 |
| | Science | 51 | 38.3 |
| | Commerce | 73 | 54.9 |

Table 2

| Group Statistics | | | | | |
|-------------------------|-----------------------------------|----------|-------------|-----------------------|------------------------|
| | entrepreneurial motivation | N | Mean | Std. Deviation | Std. Error Mean |
| extra | lowachievementmotivation | 48 | 2.9844 | .28901 | .04172 |
| | highachievementmotivation | 85 | 2.9941 | .25871 | .02806 |
| AGREE-ABLE-NESS | lowachievementmotivation | 48 | 3.6366 | .50775 | .07329 |
| | highachievementmotivation | 85 | 3.5386 | .40007 | .04339 |
| conscientiousness | lowachievementmotivation | 48 | 3.2569 | .42024 | .06066 |
| | highachievementmotivation | 85 | 3.1098 | .37228 | .04038 |
| neuroticism | lowachievementmotivation | 48 | 2.8984 | .46604 | .06727 |
| | highachievementmotivation | 85 | 2.9809 | .39833 | .04321 |
| openness | lowachievementmotivation | 48 | 3.1729 | .27502 | .03970 |
| | highachievementmotivation | 85 | 3.0647 | .34939 | .03790 |

An independent-samples t-test was conducted to compare extraversion in entrepreneurial motivation. There was no significant difference between the students having low achievement motivation ($m=2.98$, $sd=0.28$) and those having high ($m=2.99$, $sd=0.25$) motivation; $t(131) = -.20$. These results suggest that high or low entrepreneurial motivation has no significant difference on extraversion. Extroverts easily express emotions, love social interactions and easily fit in most places. Assertiveness and outspokenness of extroverts is accepted more in society as compared to solitude and quiet contemplation of introverts. Our research supports the fact that both are capable of having high entrepreneurial motivation. Extrovert students interact more in the classroom with their peers as well as with their teachers. Interaction can also be expressed by participating in group discussions, presentations, team based projects, organizing seminars, cultural programs etc. Introvert students express themselves via such activities. It may be understood that both extroverts and introverts have abilities to express and network though the method adopted may vary. Hence, their motivation to become an entrepreneur may not be

dependent on the method of expression. We may say that all students irrespective on higher or lower end on this dimension stand equal chance in having entrepreneurial motivation.

An independent-samples t-test was conducted to compare agreeableness in entrepreneurial motivation. There was no significant difference between the students having low achievement motivation ($m=3.6$, $sd=0.50$) and those having high ($m=3.5$, $sd=0.40$) motivation; $t(131) = 1.22$. These results suggest that high or low entrepreneurial motivation has no significant difference on agreeableness. According to McKenzie et al (2007) a student's level of agreeableness was related to academic achievement, with more agreeable students attaining higher first semester grades than students who were more antagonistic in their personality. Thus we may infer that academic achievement has nothing to do with entrepreneurial achievement motivation. This trait measures one's tendency to be compassionate and cooperative rather than suspicious towards others. Individuals high on this scale are humble and those who are low on the scale are sceptical and often aggressive under conflict. In whatever amount this trait is available in a student, he/ she stands equivalent prospect to have high entrepreneurial motivation.

An independent-samples t-test was conducted to compare conscientiousness in entrepreneurial motivation. There was a significant difference between the students having low achievement motivation ($m=3.2$, $sd=0.42$) and those having high ($m=3.1$, $sd=0.37$) motivation; $t(131) = 2.08$. These results suggest that high and low entrepreneurial motivation has significant difference on conscientiousness. This suggests that conscientious students possess higher need for achievement, in comparison to those, who scored low on this dimension. Other researchers have also reported that conscientiousness is associated with academic achievement (Barbaranelli et al. 2003, Cheng and Ickes, 2009). According to Mount and Barrick (1998) conscientiousness is the primary trait-oriented motivation variable and most stable trait (Judge et al. 1999), which warrants more examination in entrepreneurship. This trait is manifested in characteristic behaviours such as being efficient, systematic and dependable. A student with just opposite traits may be criticized for his/her unreliability and lack of ambition. Herrmann et al. (2008, p. 21) have argued that in entrepreneurial education there should be "a shift from transmission models of teaching (learning 'about') to experiential learning (learning 'for')" in order to "offer students techniques that can be applied in the real world". Thus, it means that if right teaching methodologies are adopted, students can be moulded to be prudent planners.

Table 3
Independent Samples Test

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-------------------|-----------------------------------------|------|------------------------------|---------|-----------------|-----------------|-----------------------|-------------------------------------------|--------|
| | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | Lower | Upper |
| extra | .634 | .427 | -2.00 | 131 | .042 | -.00974 | .04874 | -.10617 | .08668 |
| | | | -.194 | 88.965 | .847 | -.00974 | .05027 | -.10964 | .09015 |
| AGREEABLENESS | 3.802 | .053 | 1.229 | 131 | .021 | .09801 | .07975 | -.05976 | .25579 |
| | | | 1.151 | 80.215 | .253 | .09801 | .08517 | -.07148 | .26750 |
| conscientiousness | 1.781 | .183 | 2.089 | 131 | .039 | .14714 | .07044 | .00779 | .28650 |
| | | | 2.019 | 88.197 | .046 | .14714 | .07287 | .00234 | .29194 |
| neuroticism | 1.565 | .213 | -1.077 | 131 | .283 | -.08244 | .07653 | -.23384 | .06895 |
| | | | -1.031 | 85.625 | .305 | -.08244 | .07985 | -.24138 | .07649 |
| openness | 3.539 | .062 | 1.846 | 131 | .067 | .10821 | .05862 | -.00775 | .22417 |
| | | | 1.972 | 117.230 | .051 | .10821 | .05488 | -.00047 | .21690 |

An independent-samples t-test was conducted to compare neuroticism in entrepreneurial motivation. There was no significant difference between the students having low achievement motivation ($m=2.8$, $sd=0.46$) and those having high ($m=2.9$, $sd=0.39$) motivation; $t(131) = -1.07$. These results suggest that high or low entrepreneurial motivation has no significant difference on neuroticism. Neurotics experience negative emotions easily and tend to lack satisfying interpersonal relationships. Individuals who score low in neuroticism are more emotionally stable and less reactive to stress. A research concluded that for people high in neuroticism, "feeling bad promotes effective functioning." In our research we conclude that feeling good is as good or bad to acquire high entrepreneurial motivation. Various studies with small samples indicate that the relationship between Neuroticism and achievement becomes closer with increasing age, the age of 13/14 apparently forming a turning point (Eysenck, 1992; Finlayson, 1970; Lynn, 1959; Lynn and Gordon, 1961; Savage, 1962). Paris and Byrnes (1989) summarized the characteristics of the effective learner as being the virtues of the self-regulated learner. Our sample unit is a student pursuing higher education and we assume that because of age, competitive university environment and metropolitan city culture does not allow any student to let go any opportunity to learn and grow; at least because of this dimension by the name neuroticism.

An independent-samples t-test was conducted to compare openness to experience in entrepreneurial motivation. There was no significant difference between the students having low achievement motivation ($m=3.17$, $sd=0.27$) and those having high ($m=3.06$, $sd=0.34$) motivation; $t(131) = -1.84$. These results suggest that high or low entrepreneurial motivation has no significant difference on openness to experience. McCrae (1994) emphasizes that Openness to Experience relates more to intellectual interests than to intellectual ability. Students high on openness may appear to be impulsive, overly inquisitive and may be easily bored with status quo. Openness is found to be negatively related to the long-term sustainability of a business venture (Ciavarella et al., 2004). Our research suggests that both types of students, high or low on openness are equally good in possessing entrepreneurial achievement motivation. It can be interpreted that student higher on openness is more creative to start a business but less probable to stick on it because motivation for something new is always high. A student who might be low on creativity may not start his venture right away or he/ she may be forced to get into business; the probability of this venture to stay is more because motivation to change is less.

CONCLUSIONS AND FUTURE RESEARCH:

Our conclusion is that majority dimensions of personality are not affecting student's entrepreneurial achievement motivation in Indian perspective. The literature review supported that openness to experience and conscientiousness will affect entrepreneurial motivation as one represents innovative behaviour and the other represents effective behaviour respectively. The study shows that the entrepreneurial achievement motivation is a function of conscientiousness among Big Five personality dimensions. Conscientiousness has been the most consistent personality predictor of job performance across all types of work and occupations (Barrick, Mount, & Judge, 2001). McClelland (1961) concluded that high-need-for-achievement individuals would be fascinated to entrepreneurship because it offers more of independent conditions than most traditional forms of employment. Our research suggests that creating a structured environment with clear policies may encourage students to be organized, disciplined, and proactive about learning and being an entrepreneur.

All students irrespective of personality (except for conscientiousness trait) are equally capable of having entrepreneurial achievement motivation. This conclusion makes us ponder over issues that are beyond personality. It may be possible to increase entrepreneurial achievement motivation in cases where it may be lacking due to problems, such as avoidant motivation (which will not drive a student towards entrepreneurship), such as the fear of

failing to look competent by peers (because social fabric in India looks down upon people who are educated and into their own business). Higher education institutions need to create motivation based on implicit enjoyment of being an entrepreneur, (such as introducing a course on entrepreneurship, conducting a workshop on entrepreneurship or projecting stories of successful entrepreneurs), to be able to drive students towards entrepreneurial motivation. Most importantly, the socio economic balance to improve human lives can only be achieved through sustainable education. Inclusiveness and equitable access throughout the higher education system are key factors for establishing the broad human resource base that is essential for advancing inclusive economic growth. Entrepreneurship will be a powerful tool for inclusive growth for any developing nation like ours.

Future studies can be done in the area of finding out perceptions of all the stakeholders in higher education system in India towards entrepreneurship. This will give a strong input as to why entrepreneurship

takes a back seat as a career option for students of higher education. Once issues are on surface, policies can be framed to counter the problems. Institutional factors that help in building entrepreneurial achievement motivation can also be studied.

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