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Driving Forces of Entrepreneurship; an Experimental Approach

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Abstract

The experimental approach in whole economical science, despite of rising popularity, is highly uninvestigated. The obvious benefits of this kind of view are often overlook or substitute with more abstract mathematical way, sacrificing precise data for more elegant but sometimes too simplistic model. Thus in this paper we examine a dataset from experiment we designed to investigate the entrepreneurship phenomenon and its driving forces. We used a framework for identify entrepreneurship potential of participants base on the five-factor personality system theory of Costa & McCrae (1992) known as Big-Five. We were able to develop the experimental design, which was able to measure the overconfidence of participants and afterwards model the relationship between all Big-Five dimensions and measured overconfidence.

1. Introduction

Optimism is normal human trait, but some people are more optimistic than others. If someone is genetically endowed with optimistic bias, there is no need to tell this person that he or she is happy – that is something he or she knows.

Optimism plays significant role in many parts of our live. As Mosing et al. (2010) showed, optimistic people are usually cheerful and happy which is why they are favored people in group. Snowdon (2001) researches also show, that there is significantly lower risk for clinical depression, they have stronger immunity system and in average they

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live longer. Moreover has been proven by Puri & Robinson (2007), optimistic people have higher chance to enter into another marriage after divorce.

Optimistic people are often those people "who are seen". This statement has been studied from many angles by many teams, for example Camerer & Lovallo (1999), Hmieleski & Baron (2009), Moore & Healy (Moore & Healy, 2007): They concluded that optimistic people tend to be more often leaders (both in organizations an in the army or the armed forces), managers, inventors, politicians and last but not least entrepreneurs.

On the other hand there are those areas, where we cannot identify human behavior or decision making as optimistic, because we are facing rational information which tells us how we are actually stands. In that case we should choose more appropriate identification – overconfidence.

Research results (see above) shows, that optimism plays significant (sometimes decisive) role when people are facing decision making process which include risk. By Cooper (Cooper, 1994), there is group of people who invest many time and resources in discover what are their chances are, on the other hand (where overconfidence plays role) there are group of people, who just assume they have those information and make decision. In that case, many people overlook some critical aspects in the environment just because they believe they are farseeing (which are not). But at the end, optimism could make things keep going, boost endurance and determination and rise chances to success after all.

There are areas where people habitually identify themselves as above average with only a weak dependence on a basic knowledge about the actual skill, ability or knowledge. Recent evidence from Moore & Healy (2007), however, has cast doubt on the generality of overconfidence. There are a number of different domains in which people are systematically underconfident. For example Kruger (Kruger, 1999) followed by Kruger & Burrus (2004) shows that, people believe that they are below average in unicycle riding, computer programming, and their chances of living past 100. It turns out in study of Moore & Kim (Moore & Kim, 2003), that people tend to predict that they will be better than others on easy tasks where absolute performance is high, but worse than others on difficult tasks where absolute performance is low. Also from studies mentioned above from Camerer & Lovallo (1999) and Kruger (Kruger, 1999) a number of researchers have explained this effect as egocentrism: People focus on their own performances and neglect consideration of others'.

Researches in those studies are often focused only on one part of our interest. On the one hand we have many researches interested in overconfidence and on the other hand there is research related to Big-five. Our main focus is to explore some possibilities to merge those interests and with experimental approach discover potentially related factors in entrepreneurship, overconfidence and Big-five personality treats.

2. Experimental research and hypothesis

Our experiment intended to predict overconfidence via a series of predictors founded to be potentially predictive of overconfidence.

As overconfidence is somehow related to entrepreneurship and business foundation and Big-five is related to entrepreneur`s personalities, we developed hypothesis:

All five dimensions of Big-five personality treats combined are predictors to overconfidence.

More specifically, high score at openness, conscientiousness and extraversion dimension will be predictors of overconfidence and low score at agreeableness and neuroticism will be predictors of overconfidence as well.

2.1. Independent variable, dependent variable and experimental design

The experiment as its own has been prepared for execution in Laboratory of experimental economics at Friedrich Schiller University in Jena with z-Tree software[†]. In average the experimental group last for 25 minutes while 4

[†] z-Tree is a widely used software package for developing and carrying out economic experiments. The language used to define the experiments is simple and compact, meaning that experiments can be developed quickly, and programming experience is not necessary, though useful. The program can be licensed free of charge. Here I would like to thank University of Zurich for developing and freeware use.