Risk attitudes and entrepreneurial motivations: Evidence from transition economies

Muzaffar Ahunov [a], Nurmukhammad Yusupov [b],*

[a] *Westminster International University in Tashkent, Uzbekistan*
[b] *Solbridge International School of Business, South Korea*

HIGHLIGHTS

- Most of literature on risk treats entrepreneurs, or self-employed, as a homogeneous group.
- It is important to distinguish between those who want to be entrepreneurs and those who have to be.
- More risk tolerant individuals tend to become self-employment by choice than by necessity.
- The most risk-intolerance individuals are most likely to opt for salaried employment.

ARTICLE INFO

ABSTRACT

Most studies on risk attitudes of entrepreneurs do not distinguish between those who want to be self-employed and those who have to run their own business for survival, or entrepreneurs by choice vs. by necessity. We examine the relationship between individual risk preferences and likelihood of entrepreneurial entry among these two groups in a cross section of countries with transition economies. We obtain robust results that those with higher degree of risk tolerance are more likely to be self-employed by choice.

© 2017 Elsevier B.V. All rights reserved.

1. Introduction

It has become a stylized fact in the literature that entrepreneurs, or self-employed, exhibit higher risk tolerance relative to others. For instance, positive relationship between risk tolerance and being self-employed has been suggested both in theoretical models (Kihlstrom and Laffont, 1979) and empirical research (Ekelund et al., 2005; Macko and Tyszka, 2009; Ahn, 2010; Brown et al., 2011). However, it seems to be a tradition in the literature to view the self-employed as a homogenous group while there can be substantial heterogeneity within (Ardagna and Lusardi, 2009; Schoar, 2009). There tends to be "*little distinction between Michael Bloomberg and a hot dog vendor*" (Glaeser, 2007) while one should "*think of the worlds between a street-food vendor and the creator of a high-tech start-up*" (Fossen and Büttner, 2013).

This approach of viewing the self-employed as a homogeneous group might lead to erroneous conclusions.[1] Schoar (2009), therefore, argues for two disaggregation categories: entrepreneurs due to lack of employment opportunities just to provide subsistence income, and those who seek opportunities to create large, vibrant businesses. We term the two types, respectively, as the self-employed by necessity and by choice (Margolis, 2014).[2] Naturally, if self-employment is driven by necessity/need for survival, such entrepreneurs should be expected to be more risk averse than their counterparts who are driven by risky but profitable (at least in expectation) business opportunities. Block et al. (2015) supports this hypothesis based on a primary dataset of 1526 early-stage

* Correspondence to: Solbridge International School of Business, Uam-ro 128 (Samsung-dong), Dong-gu, Daejeon 34613, South Korea.
E-mail address: nyusupov@solbridge.ac.kr (N. Yusupov).

---

[1] For instance, Block and Koellinger (2009) has a detail discussion of consequences of treating two types of self-employed as a homogeneous group.

[2] Alternative terminology along the same definition lines in the literature includes necessity vs opportunity entrepreneurship (Fossen and Büttner, 2013; Block et al., 2015), remedial vs opportunity entrepreneurship (Ardagna and Lusardi, 2009), subsistence vs transformational entrepreneurship (Schoar, 2009), survival vs aspirations entrepreneurship (Tyrowicz, 2011), and push vs pull entrepreneurship (Amit and Muller, 1995).

entrepreneurs in Germany. Otherwise, to our knowledge, literature seems to be surprisingly silent on the risk differentials between entrepreneurs by necessity and by choice.

In this paper, we examine how risk preferences can explain entry into the two types of self-employment. Specifically, the hypothesis we seek to test is whether more risk tolerant individuals are more likely to become self-employed by choice. Previous research seems to resort mostly to experimental methods[3] failing to create solid grounds for external validity of their results.[4] In contrast, we take advantage of the second wave of Life in Transition survey (LiTS-2) administered by the European Bank for Reconstruction and Development (EBRD). This survey, which includes responses of over 33 thousand households across 30 transition economies, has two advantages in our analysis. First, these countries, having functioned under a centrally planned economy with no/little room for entrepreneurship, had undergone drastic changes in their economic system over a short period by the time of the survey. Needless to say, 16% of individuals in our sample report being self-employed. Second, the covered regions represent a population of about half a billion, enabling us to draw conclusions generalizable over a large number of individuals.[5]

Overall, our results suggest that individuals with higher degree of risk tolerance are indeed more likely to enter self-employment by choice than by necessity, while the most risk-intolerant are likelier to enter salaried employment. Our findings provide empirical support to the ongoing research efforts to account for heterogeneity among entrepreneurs in their risk preferences (Block et al., 2015) as well as exploring more general diversity inherent in entrepreneurship (Welter et al., 2016).

2. Data and methodology

In the LiTS-2, the first part of the interview asks the household head or a knowledgeable member for information on household roaster, members' gender, age, relationship to the head, as well as questions on assets, incomes and expenses. The second part of the survey is administered with an adult household member with the most recent birthday. Collected information includes detailed responses of the interviewee on his/her employment history, type of establishment where they work, duration of their employment, current occupation and, where applicable, their entrepreneurial experience. We use sampling weights, available in LiTS-2, to correct for sample to population ratios to ensure unbiased estimations in our analysis.

Our sample, as presented in Table 1, includes those individuals who reported themselves as currently employed in a non-farming sector, which account for about 36 percent of all observations in the survey. To construct our dependent variables of occupational choice we divide these respondents into three groups — people currently employed in a salaried job, and the two motivational types among the self-employed. We identify the two types of the self-employed using the individual responses to the hypothetical occupational choice question if they could indeed choose what kind of job to have.[6] Optional categories offered to respondents in

this question include self-employed, employee in a small private enterprise, employee in a large private enterprise, employee in a state-owned enterprise, and government employee. We define as the self-employed by choice those self-employed who would indeed choose self-employment if given a choice. All the remaining individuals who are currently self-employed but would choose anything else than self-employment, we classify as self-employed by necessity.[7] It is important to note that this approach for classifying self-employed into these two types has its drawbacks. Some individuals may wish to fulfil their entrepreneurial aspirations in the future, but be voluntarily in salaried employment at the time of the interview. For example, a young mother may select to be employed during early periods of her motherhood and move to entrepreneurship at a later point in her life. To account for this time-inconsistency issue, we additionally run our estimations separately for males and females of alternative age groups, where probability of such transitory preferences is likely to vary.

To measure risk attitudes, our key explanatory variable, we use self-reported willingness to take risk on a 10 point scale with 1 being the lowest and 10 being the highest degrees of individual risk tolerance. We recode this variable into a five point scale.[8] Specifically, we classify response categories 1 and 2, i.e. the lowest degrees of self-reported risk tolerance, under single category "Unwillingness to take risk"; categories 3 and 4 are grouped under "Low willingness to take risk"; categories 5 and 6 are included into the group "Moderate willingness to take risk"; responses 7 and 8 are classified under "High willingness to take risk"; 9 and 10 are recorded into a group "Extreme willingness to take risk".

We also take advantage of an alternative variable in the survey as a proxy for risk preference in the context of occupational choice, such as preference for "*high salary, high promotion potential and less secure job*" vs "*average salary, low change of promotion and safe long term job*". In this case, we create a binary variable with value of 1 indicating preference for a risky outcome, and 0 otherwise.[9]

To address possible omitted variable bias, we use a set of independent control variables, based on the literature, that are likely to impact occupational choices. Specifically, we use biophysical parameters such as respondent's gender, age group the respondent belongs to, self-reported health status. We also control for socio-economic characteristics such as current marital status, respondent's highest level of education obtained, as well as that of respondents' mothers, perceived wealth relative to others in the society, sources of income and type of dwelling. Table 1 includes variable means with the means tests across different occupational subsamples. Namely, columns (1), (2) and (4) include means for the self-employed by choice, self-employed by necessity and salaried employees, respectively. Preliminary results in the form of mean differences, in columns (3) and (5), suggest statistical significance of many characteristics between the self-employed by choice and other two groups. Of special interest to us is the difference in risk attitudes between the two types of entrepreneurs, which exhibits statistical significance at 1% level. In fact, the self-employed by choice seem to report highest degree of risk tolerance, followed by those by necessity and the salaried employees. More detailed results are reported in the following section.

---

[3] A notable exception of a cross-country study is Ardagna and Lusardi (2009), which is based on data from the Global Entrepreneurship Monitor.

[4] External validity problems of experimental studies of entrepreneurs' risk preferences go beyond the conventional question of whether results obtained within labs will stand in the real world. Recent literature also argues that previous studies focused primarily on monetary payoffs of specific risky decisions while risk attitudes of entrepreneurs should be represented in a multidimensional construct which includes non-monetary benefits as well (Block et al., 2015).

[5] For comparison, the survey also includes about 5 thousand observations from 4 countries with long-standing market economy — Germany, Great Britain, Italy and Sweden. We exclude them from our analysis.

[6] In fact, only the second wave out of three existing waves of LiTS includes this hypothetical occupational choice question in the survey instrument. Therefore, we only use one single wave.

---

[7] It is important to note that LiTS is a panel available in three waves. However, we only use the second wave administered in 2010 because the other waves do not have this hypothetical occupational choice question precluding us from distinguishing the motivational types within the self-employed in waves 1 and 3.

[8] For highest reliability and validity, empirical literature seems to concur that reliability and validity are improved by using 5- to 7-point scales (Dawes, 2008). We conjecture that recoding to a 5 point scale will improve interpretability as well.

[9] Although capturing risk preferences in full via a binary dummy may not be possible, this approach has been used in literature in the past. See, e.g., Ardagna and Lusardi (2009), which use a dummy for whether fear of failing prevented respondents from starting a new business.