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Risk-taking in a transitional economy: the case of Bulgarian microentrepreneurs*

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Abstract

The paper describes the results of an empirical study of some business environment factors impact on risk taking decision-making of entrepreneurs on the basis of individual entrepreneurial judgments. Multiple regression analysis is used to interpret data collected from 382 micro-entrepreneurs. It aims to answer the question of whether differences across economic environments may be reflected in entrepreneurs' risk perception. Results indicate that environmental dynamism and uncertainty appear to have significant influence on risk-taking behavior being natively related to it. Some policy implications of this research are discussed in the context of conducted market transition reforms.

JEL Classification: M13, D81, P20

Key words: risk taking, micro-entrepreneurs, environmental factors, decision making, risk perception.

1. Introduction

Risk taking has long been a predominant theme in entrepreneurship literature. It's clear that entrepreneurs consistently face an inordinate amount of risks. In the same time, rarely they have the opportunity to make a precise analysis and evaluation of the essence of these risks. However, there is always a strong and consistent motivation for developing their business and it is this motivation that prompts them to assume risks, despite the uncertainty of the final results and performance. Although entrepreneurs

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frequently foster important transformations through undertaking risky ventures, little is still understood about their vision and how they rationalize their actions.

As transition economies move towards market-oriented models, improvement of the knowledge about entrepreneurship and its characteristics become in a greater extent important in theoretical as well as practical aspect for the formulation and implementation of economic policy. Entrepreneurship is often recognized as a response to some environmental conditions that could hinder or support business success by the nature of the climate they establish (Aldrich, Wiedenmayer, 1993). The environment in which a firm operates is widely considered a key factor that strongly affects risk taking behavior of entrepreneurs.

The main purpose of the paper is to present the basic results of an empirical survey of some business environment factors impact on risk taking decision-making of entrepreneurs on the basis of individual entrepreneurial judgments. It seeks to answer the question of whether differences across economic environments may be reflected in micro-entrepreneurs' risk perception. The survey data was collected by interviews with entrepreneurs (owners-managers) from Bulgarian micro-firms. This study emphasizes on the interrelation between environmental attributes and risk taking in the context of a transition economy.

2. Definition of constructs

Small business owners are a major source of creative entrepreneurial activity. There is a growing consensus that economic success for Central and Eastern Europe is predetermined by the successful development of newly formed small and medium-sized enterprises (Zapalska, 1999). Therefore, understanding small business owners' behavior proved to be of significant importance for academic researchers, government policy makers, and business practitioners. Increasingly, scholars pay attention to the relationship between business environment and managerial actions. It's well recognized that entrepreneurs' perception of the nature of economic environment determines their business decisions (Covin, Slevin, 1991). To understand how entrepreneurs make their decisions we need to know how they perceive the environment and what factors influence their perception.

Risk related decision-making is a basic component of entrepreneurial risk behavior. A major characteristic of the latter is the relationship between the level of risk and the decisions taken (Baird, Thomas, 1985). A 'risky decision' can be defined as the decision with which (i) the expected results are of a higher level of uncertainty, (ii) the objectives set are more difficult to achieve, and (iii) the potential result presupposes certain extreme values. The decision-maker (the entrepreneur) reveals his/her preferences towards the potential result; s/he has some confidence in the opportunity to control the decision-making process to some degree (Aleksandrova,

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2000). In addition, risk taking is an implicit component of entrepreneurial orientation. Besides, it is considered that societies encouraging entrepreneurial propensity to tolerate ambiguity, as well as to involve economic resources in risky ventures, will significantly benefit in terms of gaining competitive advantages.

The entrepreneurial risk behavior can be rated according to the *manifested preferences to take risk decisions*. A traditional taxonomy of preferences to risk behavior includes the following types:

A) *A preference to assume risks*, typical for which are the following individual characteristics of behavior: (i) underestimation of uncertainty and overestimating the chances for achievement of targeted results; (ii) impulsive action, based on too much optimism and self-confidence; (iii) aiming at innovation and perfection; (iv) aiming at independence; (v) aggressiveness and consistency in achieving the objectives, etc.

B) *A preference to avoid risks*, typical for which are: (i) over-estimating uncertainty and indefiniteness, under-estimating or ignoring the opportunities to achieve the targeted results; (ii) extremely cautious action based on an over-pessimistic attitude and lack of confidence in one's ability (low self-esteem); (iii) conservatism and effort to preserve the status quo; (iv) preference towards certainty and avoiding one's own responsibility in taking decisions, etc.

C) *Neutrality of risk*, typical for which are: (i) attempt to make a realistic evaluation of uncertainty and the feasibility of both targeted results or losses incurred; (ii) a sober view and analysis of one's own strengths and weaknesses, as well as the likely impact of both favorable and adverse external factors; (iii) well-premeditated action in risk situations and preference towards running moderate risks; (iv) preference towards well-established and tested in advance managerial approaches, rather than implementing non-traditional decisions in risk situations, etc.

In different studies the environment was conceptualized as a multidimensional construct, characterized by dynamism, complexity and hostility (Des, Beard, 1984). Two of these dimensions of environmental attributes are investigated in this study, namely environmental hostility and dynamism.

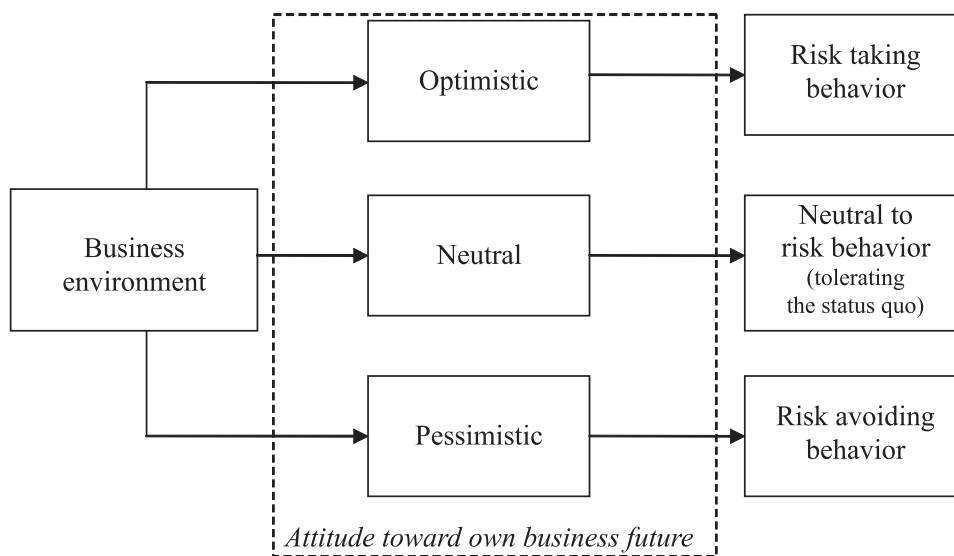
Hostility dimension is reflected in a wide range of factors, e.g. the industry growth rate, the level of competitive intensity within the industry, the industry's access to necessary inputs, the perceived randomness of competitors' behavior and the availability of exploitable product-market opportunities (Potter, 1994). Miller and Friesen (1983) define hostility as "the degree of threat to the firm posed by the multifacetedness, vigor and intensity of competition and downswings and upswings of the firms' principle industry". Generally it could be stated that hostility is an encompassing construct including elements of unpredictability, threat, and relative lack of control over environmental events, agents or trends.

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Dynamism dimension includes both the rate of unpredictable environmental change and the stability of environment (Des, Beard, 1984). In this study the dynamism is considered as an unforeseeable change in the complex of environmental factors. Dynamic environments have usually been found to encourage entrepreneurial behavior on the firm level (Miller, Droge, Toulouse, 1988). In this line Khandwalla (1987) points out that organizations often respond to challenging environmental conditions, such as those present in dynamic environments, by taking risk, innovating, and exhibiting proactive behaviors.

In addition to these two dimensions, *uncertainty* was considered as one of the most important characteristic of business environment. Milliken (1987) derives a general definition of environmental uncertainty, emphasizing on the “inability of the individual to discriminate between relevant and irrelevant data” coming from external sources. Milliken further suggests three types of uncertainty originating from business environment: (1) effect uncertainty is an inability to predict the nature of the effect of a future state of the environment on the organization; (2) response uncertainty is an inability to predict the likely consequences of a response choice; (3) state uncertainty is also referred to as perceived environmental uncertainty. Some recent studies view the uncertainty as a perceptual construct that is a matter of the state of mind of decision maker evaluating subjective estimates of the risk of disappointment (Penrose, 1995).

Figure 1: Interrelation between business environment characteristics and entrepreneurial behavior mediated by the attitudes toward own business future



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Under favorable conditions of business environment when the economy is growing and monetary returns increase, business owners will be more optimistic and will continue their businesses taking more risky decisions (fig.1). With declining economy and adverse business situation, entrepreneurs will be more pessimistic about the future of their businesses following risk avoiding strategies. This is in some extent justified having in mind that when economic environment changes rapidly from favorable to unfavorable conditions, many businesses (particularly micro-firms) are actually doomed to fail.

3. Work hypotheses

Several work hypotheses about the impact of environmental characteristics perceptions of micro-firms owners on their risk taking behavior are raised in this study. They consider the relation of entrepreneurial risk taking to respective environmental characteristic.

H1. Perceived environmental *uncertainty* is positively related to risk taking of micro-entrepreneurs.

H2. Perceived environmental *hostility* is positively related to risk taking of micro-entrepreneurs.

H3. Perceived environmental *dynamism* is positively related to risk taking of micro-entrepreneurs.

4. Empirical study design

According to Bulgarian SMEs Law, firms employing not more than 10 persons are categorized as micro-enterprises. The fact that over 93% of all registered Bulgarian enterprises are of that type determines their important role as economic agents. Besides, this small business form has an individualized decision making process with a typical personalized risk taking consideration. Having these facts in mind, the object of the survey was limited to individual entrepreneurs owning and running (by themselves) micro-enterprises in a wide range of business sectors.

The framework of the study required the development of specific methodology for necessary data provision according to the main principles of quota sampling and face-to-face interviewing. Questionnaire data was prepared for further analysis following the standard scheme of decomposition of general concepts to operational measures and extracting indicator variables. These variables represent the level of individual entrepreneurs perception of all characteristics involved in the analysis. In

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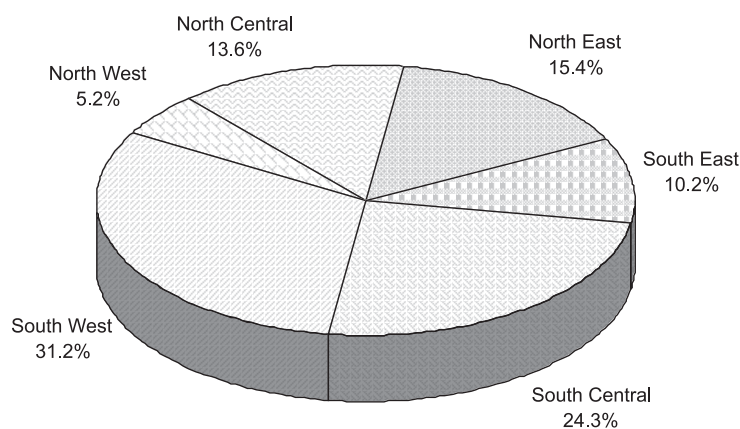
addition, the demographics of individual respondents (education, gender and age) are included for statistical testing as control variables.

The empirical survey was accomplished in 2002 covering a quota sample of 382 active micro-enterprises. Three kinds of distributions were used for quotas determination utilizing available statistical data for active business entities – territorial, sectoral and by number of employees. Representativeness was pursued in a maximum possible extent by unintentional choice of the firms in the respective regions according to their economic sector and the number of employed persons.

5. Sample description

Territorial distribution of the sample covers the relative regional shares of registered active micro-enterprises that account for around 200,000. Compared to the North districts, South Bulgaria has in great extent better business climate for SME development inducing new private business start-ups (diagram 1).

Diagram 1: Territorial distribution of the sample (regional quotas)

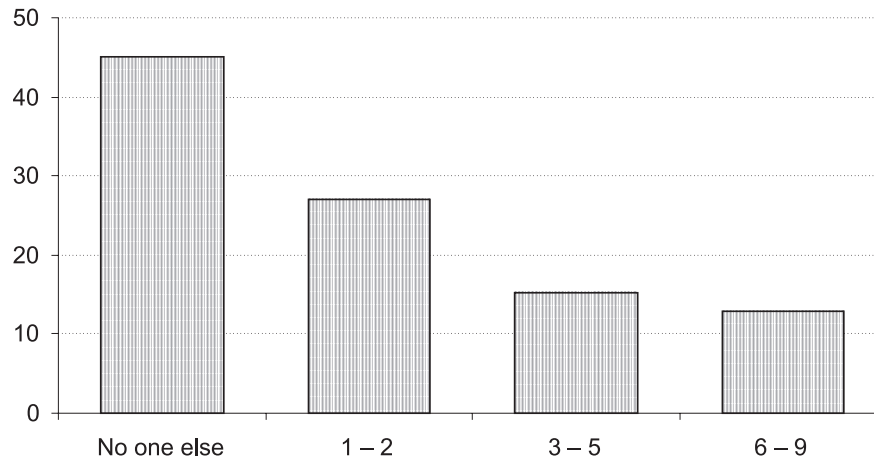


The concentration of micro-enterprises in South West region is also due to the belonging of the capital city to this area providing a large market and convenient infrastructure supporting the small businesses' survival.

As a general rule, the labor involvement in Bulgarian micro-enterprises is limited to the self-employed persons, members of their families (often without formal appointment in the firm) and usually few additional external employees (diagram 2).

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Diagram 2. Number of employees (except self-employed entrepreneur), %



It could be definitely stated that small business owners not only administer and control but also actively take part in the regular work at their entrepreneurial organization, especially in the typical family business case.

According to the sectoral structure retail and wholesale trade firms (almost 50%) prevail in the sample, significant share was also obtained for services (26%). Small industrial firms are rarely found mainly in the processing industry (about 10%) and construction (3.7%). Agriculture, forestry and transport are also presented with a share of almost 10%. The fact that more than one third of micro-enterprises supply different kind of services supports one of the main features of market transition – the privatization and development of services sector and its GDP share enlargement.

6. Measurement of indicator variables

It is recognized in similar studies that the way entrepreneurs perceive their business environment is more relevant to the chosen research approach than utilizing official statistical data for the environment. In this line, using perceptual measures allows for the evaluation of firm's environment from the perspective of target respondents.

The specifically designed for this study questionnaire asked respondents to rate on a 7-point scale their perception about each environmental characteristics considered as inherent to Bulgarian transition economy – hostility, dynamism and uncertainty. For example, hostility perception was evaluated by a choice of a rank 1 to 7 between the extreme options (totally agree / totally disagree) for the following items: "Your

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firm's environment is hostile, with many entry barriers to new markets" and "Your firm's access to input resources is extremely limited". The indicator variable was obtained by averaging the ranks attached by the respondents. Analogous approach was adopted to measure the other two variables mentioned above.

Respondents were asked to rank their propensity to take entrepreneurial decisions relevant to their firms in specific external conditions using the 7-point scale. Risk taking behavior was measured by respondents' preferences about investments with low risk and moderate return opposed to those with high risk-return position. Indicator variables were obtained by averaging the ranks from the items for the operationalized variable. Cronbach's alpha was used as a reliability measure for each group of items. It showed acceptable to very good internal consistency for these groups ranging from 0.63 to 0.85. Gender was included in the model by a dichotomous variable coded "1" for males and "0" for female respondents.

7. Data analysis and statistical results

The hypotheses outlined in the theoretical model were tested using a multiple regression model as following:

where R stands for risk-taking behavior, U-for uncertainty perception, H-for hostility perception, D-for dynamism perception, G-is gender dummy, and A-represents the age of respondents. In this equation risk-taking was predicted by the three environmental perception variables controlling for age and gender. Correlation matrix (table 1) shows that all three characteristics are significantly related to the dependent variable.

Table 1: Correlation matrix of indicator variables (N=382)

| | Age | Risk taking behavior | Uncertainty perception | Hostility perception | Dynamism perception |
|------------------------|--------|----------------------|------------------------|----------------------|---------------------|
| Age | 1.000 | | | | |
| Risk taking behavior | -0.282 | 1,000 | | | |
| Uncertainty perception | 0.227 | -0,441 | 1,000 | | |
| Hostility perception | 0.259 | -0,324 | 0,426 | 1,000 | |
| Dynamism perception | 0.408 | -0,555 | 0,410 | 0,337 | 1,000 |

Note: All correlations are significant at the 0.01 level (2-tailed).

Under these results it is assumed that multicollinearity does not appear to be a serious problem for multiple regression modeling.

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Although the explanatory power of the estimated models is not very high the results obtained for risk taking behavior of micro-entrepreneurs give basis for particular conclusions on these relations (table 2).

Table 2: Regression models results

| Dependent variable: | Risk-taking | |
|------------------------|-------------|-----------|
| | Beta coeff. | Sig.level |
| Constant | – | .000 |
| Uncertainty perception | -.242 | .000 |
| Hostility perception | -.064 | .167 |
| Dynamism perception | -.416 | .000 |
| Gender | .088 | .032 |
| Age | -.039 | .384 |
| F test significance | .000 | |
| Adjusted R square | .369 | |

Contrary to the expectations and unlike gender dummy, age variable did not show significant net effect on risk taking. Besides, the coefficient for hostility perception was not found significant which can be considered as evidence for a lack of independent influence on risk-taking behavior.

The strongest net effect is identified for the variable of dynamism perception compared to the other independent variable showing significant net effect – the uncertainty perception. However, the negative coefficients' signs stand contrary to the expected in the hypotheses positive effects. This gives a basis for the conclusion that all three raised hypotheses did not prove to be valid according to the study results.

8. Discussion

It should be pointed out that prevailing majority of Bulgarian micro-firm entrepreneurs are likely to be risk averters. They are courageous and initiative in searching new business opportunities facing uncertain but challenging environment. As an implication of these results it could be stressed that in a highly dynamic, uncertain, and hostile environment long-run business opportunities are easily missed perhaps because pursuing temporary profit is seemed more realistic than searching for sustainable future advantages.

It seems that micro-entrepreneurs in Bulgaria identify the dynamism as the most influencing external factor of their business environment. In some extent, it blocks the innovative and risk taking behavior necessary for small businesses to keep and develop in the transition economy. Transitional business environment is definitely

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highly dynamic because of the serious structural and institutional reforms undertaken during the last 12 years. Political instability (resulting in frequent changes in business regulations, tax legislation and administrative practices) induces permanent expectations for future unforeseeable changes in business environment. This way, the decision makers in micro-firms face greater uncertainty due to the continuing instability of the fundamental rules of the game typical for market transition. These entrepreneurs prefer to gain rapid returns on their capital emphasizing on liquidity, but are unwilling to widely reinvest for business expansion. They actually take a waiting position expecting appropriate conditions for more risky and innovative business behavior.

The evaluation of business environment characteristics by micro-entrepreneurs is typically done in a situational framework. They hardly determine whether the environment is easy for managerial control according to its particular hostility and uncertainty dimensions. Realizing that a potential change in some of the important environmental factors might induce a serious crisis situation, the entrepreneur in a micro-firm chooses to avoid the possible risks. However, the proactive orientation of these entrepreneurs leads them to use *ad-hoc* emerged opportunities taking comparative advantages and gaining benefits.

Furthermore, Bulgarian micro-entrepreneurs prefer risk aversion strategies having perceptions of risky, hostile and turbulent environment. This type of environment creates high barriers to entry in the respective markets as well as low chances for success of emerging small businesses. Such entrepreneurs take defensive positions in risky situations in a strategic perspective. They usually direct their efforts mainly to secure the survival of their entrepreneurial organizations.

The estimated model reveals some important features of the interrelation between risk taking and the three perceived environmental characteristics, although it is obviously necessary to conduct additional analyses in order to support or reject the main conclusions in a more precise manner. Some other relevant independent variables could be introduced in the model to obtain clearer net effects and increasing the quality of research work.

9. Conclusion

The questionnaire survey tried to identify the main characteristics of business environment influencing micro-entrepreneurial risk-taking. These characteristics are evaluated from a general perspective by entrepreneurs as unfavorable and too risky for private business development in the country. The unfavorable institutional environment, ineffective economic reforms and the large gray economy share tend to intensify the riskiness of business environment for Bulgarian micro-enterprises. It worsens the conditions for stable development of emerging small businesses in the

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country. From this point of view it can be concluded that the issues of national SME development policy formulation should target the improvement of business environment and the provision of much more predictable and stimulating conditions for the small businesses in Bulgarian economy during continuing market transition.

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Croatian banks investments in securities

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Preuzimanje rizika u tranzicijskoj ekonomiji: slučaj bugarskih malih poduzetnika

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Sažetak

U radu se opisuju rezultati empirijskog istraživanja o utjecaju nekih čimbenika poslovnog okruženja na poduzetničko odlučivanje koje se temeljilo na individualnoj prosudbi poduzetnika. Analiza višestruke regresije rabi se za interpretaciju prikupljenih podataka od ukupno 382 malih poduzetnika. Cilj je iznaći odgovor na pitanje o tome da li različito poslovno okruženje utječe na poduzetničku percepciju rizika. Rezultati pokazuju da su dinamika okruženja i nesigurnost prirodno povezani s preuzimanjem rizika, te da značajno utječu na ponašanje prilikom preuzimanja rizika. U kontekstu provedenih tržišnih tranzicijskih reformi u radu se diskutira o posljedicama politike preuzimanja rizika.

JEL klasifikacija: M 13, D 81, P 20

Ključne riječi: preuzimanje rizika, mali poduzetnici, čimbenici okruženja, odlučivanje, percepcija rizika

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