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Theory of Entrepreneurship: new results
and prospects

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The presented book includes papers of teaching staff and students of the Higher School of Economics and their international partners on some results of entrepreneurship research presented at international research conferences and workshops in 2010-2011.

Настоящий сборник включает в себя выступления преподавателей и студентов Высшей Школы Экономики и их зарубежных партнеров по материалам исследований в области теории предпринимательства, сделанные на конференциях и семинарах в 2010-2011 гг.

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Preface

The Entrepreneurship research at the Higher School of Economics as a special research area started in 2006 – on a base of a long run project funded by the HSE. The aim of the university was twofold: first, to enable participating at the most known international project investigating entrepreneurial activity of population in different countries, the ‘Global Entrepreneurship Monitoring’ (for more detail see; www.gemconsortium.org), second, to establish a group of teachers and students investigating entrepreneurship as a field of multidisciplinary activities in leading universities in the world.

Since the very beginning, the project was seeking to promote especially young members in making first steps in research activities. Using the GEM database, both experienced researchers as well as students and PhD students participated with papers at several relevant conferences in Russia and abroad.

The presented book consists of some texts based on conference papers delivered on this issue in 2010-2011. Most of them are published only in electronic form, and were not been subject of printed publication as a book. The aim of this publication is to present the research outcomes as well as different forms and levels of using empirical data for in-depth analysis of some aspects of entrepreneurship in Russia and of comparative studies.

Some parts of the book consist of students’ papers prepared for the Dutch-Russian summer school conducted jointly by the NIKOS of the Twente university and the Lab of Entrepreneurship Research of the Higher School of Economics in August 2011 in Enschede, Netherland, and in Moscow. The summer school was called “Exploring

Entrepreneurship” and marked a new stage of internationalization of students’ research activities.

Prof. Aard Groen, head of the NIKOS, and MA Mariska Roersen, research fellow of the NIKOS, supported the project at each stage and took an important contribution into the preparation of this book.

Entrepreneurship and the recent economic crisis

Alexander Chepurenko, Tatiana Alimova, Anastasia Chenina

Business under crisis: to start or to discontinue? (The case of Russia)¹

Key words: business start-ups and exits, crisis, Russia, GEM, impact factors Perceived opportunities to start a new venture Early entrepreneurship in Russia under crisis

Objectives: The paper (1) distinguishes between several individual reasons to start-up or, vice versa, to discontinue a business and (2) shows the impact of the crisis of 2008-2009 on motivation of entrepreneurs to continue or to escape, as well as of non-entrepreneurs to start-up.

Prior work: Business discontinuation (temporary as well as definitive closure) are understudied comparing with new venture creating. Stressing on individual approach to the owner/manager who has started-up/ closed a business under economic slowdown, we focus especially on macroeconomic effect on business start-ups vs. exits of the deep economic slowdown in a recently prospering transitional economy (Russia).

Approach: The study is based on the GEM Russia Adult Population Survey 2006-2009 data to estimate the impact of economic slowdown on entrepreneurial activity of adult population.

Results: The crisis in Russia lead to an increase of the role of economic reasons of business discontinuation and exits. Most of respondents who quit business forever were been heavily affected by the crisis, while temporary discontinued a business will in mid-term perspective (re)start anew (serial entrepreneurs). From this point of view, the crisis

¹ Paper presented on the ISBE 2010 conference in London (November, 2010). Full proceedings on CD-ROM- 978-1-900862-21-9

(a) influenced the entrepreneurial potential only temporary and (b) enforced 'weak' entrepreneurs to make a decision to escape. In this sense, it even improved the quality of persistent entrepreneurial stratum.

Meanwhile, the intensity of business discontinuation (any reason) under the crisis grew compared with previous years, and the difference between entries and exits became negative. This is an urgent, but temporary effect of economic slowdown on entrepreneurial activity of population.

The factors among non-entrepreneurial population with 'entrepreneurial past' which influence a decision whether to (re)start again or not, are gender and education: men and persons with higher education are more often considering a possible entrepreneurial comeback, while women and respondents with lower level of education tend more often to escape from business definitively.

Besides the objective socio-demographic factors, there are subjective factors - negative perceptions of opportunities to do a business and low self-efficacy - which prevent a significant part of former entrepreneurs to start up anew.

There are no reliable data to show that the economic slowdown impact on early and established business is most negative by baby business owners.

The crisis have had a negative impact on the motivation to start-up among non-entrepreneurial part of population; however, the share of necessity driven didn't grow more than the share of opportunity driven potential entrepreneurs – maybe, because of a relatively moderate impact of the crisis on the situation on labour market.

Implications: To promote entrepreneurial activity under the crisis, a focused approach is needed.

First, to diminish the discontinuation rate of serial entrepreneurs, easier access to guarantees and co-financing from State development institutes is needed. It could encourage banks not to stop any activity in SME loans etc. and improve the EPT. Second, the crisis played to some kind a positive role pushing less successful entrepreneurs to escape forever. Hence, any attempts to support all businesses during the crisis would be contra-productive: the State should use a more selective policy promoting only those who are able to compete under much harder circumstances. Third, there are no reasons for special support of baby businesses among early entrepreneurship. Fourth (contrary to the systemic crisis of early 1990th), the increase of necessity driven entrepreneurship was compensated by an equally significant increase of opportunity driven entrepreneurship. Taking it into consideration, a special emphasis on promoting jobless people to establish a new venture should be used only in special areas (so called mono-cities etc.), but not overemphasized.

These results may be useful also for other transitional economies.

Value: The study combines to understand the impact of economic crisis on the dynamic of new ventures creation and business exits.

Preliminary notes

Business start-ups are most intensively researched in the entrepreneurship literature (Blanchflower, Oswald, & Stutzer, 2001; Carter, Gartner, & Reynolds, 1996; Davidsson & Honig, 2003; Delmar & Davidsson, 2000; Gartner & Carter, 2003; Gartner et al., 2004; Reynolds & Curtin, 2011). Among them, factors influencing the individual decision to start-up (push or pull factors) forming different types of individual start-up motivation (opportunity vs. necessity driven business) (Harding et al., 2006; Minniti, Bygrave, & Autio, 2006; Perunovic, 2005; Reynolds, 1997; Scheinberg & MacMillan,

1988; Shane, Locke, & Collins, 2003). Contrary to it, the phenomenon of business exit/disclosure remains still one of less studied topics in the entrepreneurship research (Blackburn & Kovalainen, 2008) – especially compared with the start-up stage. Meanwhile, the normal life course of a business implies at least a possibility of closure. Only recently researchers began to discover this stage and its implications as well as the impact on further prospects and economic behaviour of person(s) which discontinued any business (Carter, Williams, & Reynolds, 1997; Delmar & Shane, 2004; Schutjens, & Stam, 2006; Westhead, Ucbasaran, & Wright, 2009; DeTienne, 2010; Stam, Thurik, & van der Zwan, 2010).

In the course of studies related to this issue, there were been made some important distinctions. So, Watson and Everett (1988, pp. 46-48) distinguished four possible reasons of a business discontinuation: failure as bankruptcy, failure to prevent further losses, failure to “make a go of it”, discontinuance for any (other) reason (see also Frazer & Winzarb, 2005, pp. 1534-1535).

Not only the reasons but also the consequences – as regards further prospects of those who discontinues a business – are different. Stokes’ and Blackburn’s difference seems to cover the three main situations, affecting agent’s economic behaviour: business closure, business failure and business exit (Stokes, & Blackburn, 2002). Business closure and business failure (bankruptcy) may result from many reasons, but not necessary imply that the person affected will break any business activity – different to the case of business exit, which leads to a significant change in the type of economic activity (Knott & Posen, 2005). Bates speaks in this context on successful vs. unsuccessful closures (Bates, 2005).

Most relevant papers dealing with business discontinuation / exits reflect some typical reasons of it on micro- or mezzo-level taking the economic environment more or less stable and transparent. However, turbulences on markets of macroeconomic nature may add some reasons both for business closure of even business exit (as well as for business start-up). Generally, crisis should have any impact both on the intensity of entrepreneurial activity of population (being the difference between the share of baby-businesses and closed or discontinued businesses during the same period of time) as well as on the dynamic of its development (measured by the ratio of individuals who start-up to those who discontinued during the same time period (let say, recent 12 months - we call it index of entrepreneurial potential turnover).

During the recent economic slowdown of 2008-2009 in most countries additional push and pull effects to establish a new venture emerged – as well as additional motivation to quit an already running business. This should have certain impact on the intensity of start-ups and density of discontinuation/exits. However, the effect of the crisis on entrepreneurial activity still lacks empirical evidence and its theoretical explanation.

To explore the effect of the crisis on entrepreneurial activity, reliable empirical data covering the process of starting up and escaping business are needed. The Global Entrepreneurship Monitor (GEM) provides such a base.

The GEM research program was been launched to investigate on the annual base national levels of entrepreneurial activity in participating countries. It was initiated in 1999 with 10 countries, and in 2009 it covered already 56 countries (for more detail see Bosma & Levie, 2010). The research program, based on a harmonized assessment of the level of national entrepreneurial activity for all participating countries, involves exploration of the role of entrepreneurship in national economic growth. The adult

population survey (APS) is the primary research tool of the GEM. Each national team has to conduct a survey of at least 2000 adults in their country representative for the adult population of the country.

To ensure consistency and cross-country comparability, each country conducts exactly the same survey of its adult population at exactly the same time of the year using the same methodology.

The APS survey in Russia is steadily based on the nationwide, multi-stage, stratified and probability sample (N=2000) that represents the entire adult population older than 18 years. To collect data, face-to-face interviewing is used. The sample design is based on the Census 2002 data revised by the data of Rosstat (Russian Government Statistical Committee) on January 1st, 2009.

The households on the final stage of sampling are selected by a random route method. A selected household/respondent is visited up to 3 times in different days of a week and in different times in a day.

The adult population survey was been conducted in May 2009, the final effective sample consisted of 1695 relevant questionnaires filled in by respondents aged 18-64, representative for the population of Russian Federation.

The GEM methodology is briefly characterized on the project website (www.gemconsortium.org), moreover, it was subject of a detailed description in some publications of GEM 'pioneers' (Reynolds et al., 2005).

GEM estimates the level of involvement in *early-stage entrepreneurial activity* by calculating the sum of nascent entrepreneurs and new business owners.

- *Nascent entrepreneurs* are those individuals, between the ages of 18 and 64 years, who have taken some action toward creating a new business in the past year. To qualify for

this category, these individuals must also expect to own a share of the business they are starting and the business must not have paid any wages or salaries for more than three months.

- Owner-managers of firms are classified as *new business owners*, or novice entrepreneurs, if the entrepreneurs report that they are active as owner-managers of new firms that have paid wages or salaries for more than three months, but less than 42 months.

The sum of these two measurements allows GEM to calculate the prevalence rates of early-stage entrepreneurial activity in each country - the Total entrepreneurial activity index (TEA).

In addition, GEM also identifies individuals who have been owning and managing a business for a longer time - *established business owners* that have been owning and managing a company that has paid wages or salaries for more than 42 months.

In line with the GEM methodology, we distinguish between persons who sold, closed, quit or discontinued a business following groups:

(1) *Entrepreneurs who discontinued (closed/quit) a business temporary* - persons, who during last 12 months closed a business, but not at all any the entrepreneurial activity ('parallel entrepreneurship'), or is planning to establish any new venture in the nearest (Question 1f of the GEM APS 2009 questionnaire);

(2) *Persons who exited of a business definitely (escaped)* - respondents, who during last 12 months closed a business and escaped from any entrepreneurial activity (adults with entrepreneurial experience who sold, closed, quit a business during last 12 months) (Question 1f of the GEM APS 2009 questionnaire).

Hence, *persons who sold, closed, quit or discontinued a business* during last 12 months – groups (1) + (2) together.

Besides, some additional information enables to differentiate among the APS sample two groups of population with previous experience in entrepreneurship:

(3) *Entrepreneurs with entrepreneurial experience in the past* – actual entrepreneurs who had from different reasons some break between past and current entrepreneurial activity (Question B8 of the GEM APS 2009 questionnaire – own additional question of the Russian GEM team);

(4) *Representatives of non-entrepreneurial majority of population with entrepreneurial experience* – adults with some entrepreneurial experience in the past who don't have neither a business nor any entrepreneurial ambitions in the future (Question B8 of the GEM APS 2009 questionnaire – own additional question of the Russian GEM team).

In addition to the common set of GEM APS variables, in 2009 the Moscow GEM team included into the Russian APS questionnaire some additional questions to prove the impact of the ongoing crisis on entrepreneurial activity.

Under crisis, the start up process undergoes some changes. It results from both the willingness of potential entrepreneurs to start up a new venture and the readiness of those who already were on the way to become entrepreneurial to go to the end. Then, the process of business discontinuation is also important: under economic slowdown, it could become more intensive. Finally, 'entrepreneurial past' (experience of adults who are no more active entrepreneurs but have ever before fulfilled attempts to become entrepreneurial) could also play a role, motivating or de-motivating them to try it again.

Hence, the impact of crisis on entrepreneurial activity can be measured as a resulting value of (a) changing share of those who start up a new venture (nascent entrepreneurs), (b) changing share of those who quit already running business.

The following paper is an attempt to show the impact of the crisis of 2008-2009 on entrepreneurial activity of different cohorts – entrepreneurs considering to continue or to discontinue a business, as well as the ability/willingness of non-entrepreneurial groups of population to become entrepreneurial.

Our hypotheses are as follows:

H1: The assessments of the economic slowdown affect on starting up or continuing a running business should be most negative by entrepreneurs who faced it being baby business owners. Nascent entrepreneurs might have the ‘entrepreneurial euphoria’ (Cooper, Woo, & Dunkelberg, 1988, cf. Koellinger, Minniti, & Schade, 2005) which is higher on the initial stages of entrepreneurial activity and should make nascent entrepreneurs more optimistic, or because of a real opening of new opportunities for them (Eckhardt & Shane, 2003). On the other side, established business owners are much better embedded in economic and social networks which enable them to feel some better than novice entrepreneurs.

H2: The crisis should have a strong negative impact on the motivation to start-up among non-entrepreneurial part of population; the share of necessity driven should become higher than the share of opportunity driven potential entrepreneurs as a result of growing tensions on labour market.

H3: It is known that most important reasons to quit are rather different among those who discontinue to start up again (serial entrepreneurs – cf. Alsos & Kolvereid, 1998) and entrepreneurs escaping from any business activity forever (Presutti, Onetti, &

Odorici, 2008). The crisis should increase the role of economic reasons to exit of a business definitely because it is in most cases a decision of less successful entrepreneurs, but it will hardly have a strong impact on those discontinuing a business only temporary, as the latter represent (serial) entrepreneurs who economically looks better.

H4: Business discontinuation vs. business exit influences both follow up types of economic activity of former entrepreneurs as well as the prospects of their firms: those who discontinue only temporary, are more often owing/managing any other firms than respondents who quit a business forever, and their former forms survive more often than former firms of ex-entrepreneurs who escape definitely.

H5: Assuming that the increase of business discontinuation under the crisis becomes more significant than in previous years, the difference between entries and exits (results of empirical comparisons of the dynamics of business entries and exits see: Fok, van Stel, Burke, & Thurik, 2009; Lin, Picot, & Compton, 2000) may become even negative. This might be an urgent effect of economic slowdown on entrepreneurial activity of population.

H6: Former entrepreneurs, who quit a business forever, form a relatively 'big loss' of entrepreneurial potential of population. According to findings of EIM researchers, most important factors that influence entrepreneurial (re-) engagement are gender, fear of failure and knowing an entrepreneur, 'while educational attainment does not seem to be relevant' (Hessels, Grilo, Thurik, & van der Zwan, 2009). We assume that there is, indeed, a certain specific by gender, moreover, we will try to check the role of education: men and persons with higher education are more often considering a possible

entrepreneurial comeback, while women and respondents with lower level of education tend to escape from business forever.

H7: Among adults with 'entrepreneurial past' perception variables (Arenius & Minniti, 2005) may play important role in dividing them into those who starts up again (Wagner, 2003) and other group which resign to make another attempt to become entrepreneurial. More concrete, we assume that negative perception of opportunities to do a business and low self-efficacy would be the most important factors preventing a significant part of former entrepreneurs to start up anew.

Entrepreneurship from below in Russia before the crisis

The substantial characteristic of the SME development in Russia comparing with established market economies was subject of several studies (Earle & Sakova, 2000; Gaddy & Ickes, 1998; Moers, 2000; Murrell, 2005; Smallbone & Welter, 2001; Chepureenko, 2010 etc.). In 2000-2007 new processes and trends in the evolution of entrepreneurship in Russia occurred. The dynamics of small business growth in Russia since the early 2000ies was on the whole positive. E.g., the number of incorporated small businesses increased in 1999-2008 from 900 to 1340 thousands, and the number of the employed from 6.2 to 11.4 mio. (Nabiullina, 2009).²

According to official SME statistics for the period before the crisis, small business demonstrated growth rates above average economic figures. For example, the annual increase in the number of those employed in the sector was 8 times higher, and the investment activity was 3 times higher than the national economic average. At that, one out of three companies in the country is a small firm, and one out of four employed is active in small business (Nabiullina, 2008).

² Note that in Russia up to the present moment statistics have been gathered on a regular base for *incorporated small firms* only; the number of sole traders, according to the first official census in 2007, ranged at 2.5 mln.

Alternative data such as the early entrepreneurship index (TEA) by 'Global Entrepreneurship Monitor'; showed, however, a little bit different picture.

In 2008, the share of adult population, who expected to start a new business in the next 3 years, made 5,27% (the lowest percentage among GEM countries). The TEA in 2008 was 3,49 % and has increased by 30,7% comparing with 2007. Nevertheless Russia's TEA still remained one of the lowest among GEM-countries. This position was composed of Russia's 6-th position by share of new business owners (1,99%) and of the lowest level of nascent Entrepreneur's Activity in GEM (1,73%).

GEM APS 2008 has shown that the level of Entrepreneurial Activity for nascent entrepreneurs had relatively increased by 30% for year. The level of Entrepreneurial Activity for new businesses owners has increased more significantly (+48% of relative growth), in spite of the decrease of the economically active population in total decreased in Russia in 2008 comparing to 2007. The level of established business owners in Russia has decreased almost one third in 2008: from 1,68% to 1,11% - and has become the lowest among GEM-countries. The share of entrepreneurs who discontinued a business was equal to 1,00% in 2008.

The share of opportunity based entrepreneurship has slightly decreased: in 2008 it was equal 30% (among them at the stage of nascent entrepreneurship - near 24%, one of the lowest levels among GEM countries).

The results of the 2008 wave of the GEM APS were rather twofold, showing both positive and negative dynamics of entrepreneurial activity in Russia. On the one hand, the level of the TEA has increased. On the other hand, both TEA and EBO (established business owners rate) were still the lowest in GEM.

Perceived opportunities to start a new venture in Russia

The adult population survey Russia results (Table 1) confirm that by the spring of 2009 there was – in view of entrepreneurs - a considerable deterioration in conditions for starting up a new venture as compared with 2008. The older a business the more critical are entrepreneurs' assessments. Meanwhile, the assessment of new businesses owners seems to be the most reliable, as they can compare - their personal experience of entrepreneurial start-up was gained during 2006–2008, which was a period of a positive dynamic of macroeconomic indicators. Other respondents hardly may do a real comparison basing on their own experience when answering this question.

Table 1. Compared to one year ago, starting your business now is..., (% of population, 18-64 age)

	Nascent entrepreneurs	Baby business owners-managers	established business owners
More difficult	30,9	37,9	58,6
Somewhat more difficult	29,0	27,1	19,8
About the same	23,1	32,0	17,2
Somewhat less difficult	7,1	-	-
Less difficult	3,0	3,0	-
Don't Know	3,7	-	4,4
Refused	3,2	-	-
Total	100,0	100,0	100,0

The respondents, too, were been asked to answer a more specific question whether it was the impact of the crisis which affects business opportunities for any new start up. Most representatives of different strata of entrepreneurs have chosen the answer that the crisis has limited opportunities to start up a new business (Table 2). The older the businesses, the more negative were been their assessment of the role of the crisis: at least 80% of the negative evaluations for established business owners, similar data (76%) among baby business owners-managers, but (only!) ca. a half of nascent entrepreneurs.

So, the impact of the crisis seems to be less acute than the overall difficulties of starting up in view of nascent entrepreneurs (ca. 50 % on Table 2 compared with ca. 60 %, on Table 1), but more acute – in view of baby business owners (ca. 76 % compared with 65 %) and more or less equal in view of established business owners (78 % compared with 81 %).

Table 2. What impact has the global economic slowdown had on the business opportunities for any new start up..., (% of population, 18-64 age)

	Nascent entrepreneur	Baby business owner-manager	established business owner-manager
More business opportunities	6,3	3,9	-
Somewhat more business opportunities	6,8	-	-

No impact	33,2	16,3	18,9
Somewhat fewer business opportunities	16,9	39,7	35,4
Fewer business opportunities	29,8	36,1	45,7
Don't know	7,1	4,0	-
Total	100,0	100,0	100,0

In 2009 situation has changed - in views of respondents, predominantly for the worse - not only as regards opportunities for starting up a new venture, but also the prospects to run an already existing business (Table 3). And, the older the age of a business – the less optimistic is the statement of its owner/manager. In our view, there is no single explanation for this fact possible – a set of factors, for instance, the so called ‘entrepreneurial euphoria’ which stronger effect on those who are still starting up, stronger impact of financial and macroeconomic factors as well as a better understanding of current and future economic constraints on already established businesses on older stages of a business cycle, may be the explanatory arguments. However, the differences are statistically not significant.

Table 3 Compared to one year ago, your expectations for growth are now..., (% of population, 18-64 age)

	Nascent entrepreneurs	Baby business owners-managers	established business owners-
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			managers
Lower	9,4	32,8	38,1
Somewhat lower	20,0	25,4	37,7
About the same	40,8	34,1	20,1
Somewhat higher	3,5	3,7	-
Higher	6,2	-	-
Does not apply	12,7	-	4,0
Don't know	7,5	4,0	-
Total	100,0	100,0	100,0

So, H1 seems not to be neither supported nor rejected. Regarding the assessment of problems they are currently facing when doing business, the more advanced is the stage of the venture – the more negative is the evaluation of respondents. But, comparing general level of negativism with estimations of the special impact of the economic slowdown, one might conclude that the latter is, indeed, viewed most dramatically by baby business owners.

Table 4. Which of the following sentences best describes the impact of the global economic slowdown on your willingness to start-up? (% of population, 18-64 age)

	Non-entrepreneurs
Pushed to think about starting a business	1,9
Desire to start up became even stronger	1,6

Refused to start business	2,4
The crisis didn't influence to start a business	4,5
Neither before nor now, I do not intend to start a business	74,6
Intend to continue business regardless of the crisis	2,4
Intend to quit a business	0,9
Don't know	3,3
No answer	8,3
Total	100,0

The crisis influence on entrepreneurial activity has many facets and affects different groups. From different reasons, it may both strengthen as well as weaken the willingness of both entrepreneurial and non-entrepreneurial groups of population to start a new or to quit an already started venture. As it is clearly shown (Arenius, & Minniti, 2005), entrepreneurial environment is far from being the only factor for determining whether or not one should conduct one's own business but much dependent from perceived individual's knowledge, experience, and participation in relevant network communities. Is crisis an additional significant characteristic of the entrepreneurial environment, influencing the entrepreneurial potential of adult population? (Table 4).

Among the non-entrepreneurial majority of Russian population 3.5 % are latent entrepreneurs, another 2.4% would continue it ('silent entrepreneurs', doing business without having mentioned it before), whilst 2.4% refused to start up, and 0.9 % would discontinue (another part of 'silent entrepreneurs'). In sum, the share of those who are 'pushed' or 'pulled' to become entrepreneurial is bigger (3.5%) than the share of adults who refused to think about a start up under the crisis (2.4%). But among these potential

entrepreneurs 1.9% are necessity driven, whilst 1.6 % who recognised new venture opportunities might be considered as opportunity driven.

H2 did not receive support by the data; however, the shares of opportunity vs. necessity driven among latent entrepreneurs in 2009 became nearly equal.

Business discontinuation under the crisis: reasons to quit and follow up activity

The most evident expected reaction of entrepreneurial cohorts on economic crisis was growing share of quit businesses. In 2009 the share of respondents in the sample who discontinued a business during last 12 months (34 persons, or ca. 2% of the APS sample), doubled comparing with previous year (+ 17 persons). It is a big contrast with situation of the 2006-2008 period, when this share remained stable.

Meanwhile, the intention to discontinue among different groups of entrepreneurs was differently strong, but among no one of them it was significant: starting with only 3,1% among nascent, 8,8 % among baby business owners until 14,4% among established business owners. In total, the share of those early entrepreneurs who decided to exit, was much less than the share of those who believed to run the business or even to establish a new venture (from ca. 80 % to 70 % of representatives of each respective group of entrepreneurs).

Table 5 Top-3 most important reason for selling, closing, quitting or discontinuing a business during last 12 months a business (2006-2009)

2006		Number	%
1	Problems getting finance	5	26,3

2	An opportunity to sell the business	5	26,3
3	Another job or business opportunity	3	15,8
2007		Number	%
1	The business was not profitable	3	25,0
2	Problems getting finance	3	25,0
3	An incident	2	16,7
2008		Number	%
1	Problems getting finance	14	28,6
2	The business was not profitable	8	16,3
3	Another job or business opportunity	7	14,3
2009		Number	%
1	The business was not profitable	12	37,6
2	Another job or business opportunity	9	27,0
3	Personal reasons	4	11,7

It is, however, to mention that only 27,5% (9 persons) realized a total business exit, whilst 72,5% (25 persons) after the business closure established a new venture or owned/managed another running business (serial vs. portfolio or parallel entrepreneurship).

Despite the fact that the set of standard answers slightly differed in questionnaires for 2006-2009, one might see that the top-3 reasons changed from one year to another. However, financing and profitability of a business occur more or less stable among the most important reasons long before the economic slowdown came – in 2007 and 2008 (Table 5). Under the economic crisis the significance of purely economic reasons –

especially, of the low profitability of business - grew more than twice (from 16,3% in 2008 until 37,6% in 2009).

Table 6 What was the most important reason for selling, closing, quitting or discontinuing a business during last 12 months?

Reasons	Respondents who:	
	discontinued a business temporary (in %)	exited of a business definitely (in %)
The business was not profitable	32,2	54,3
Problems getting finance	9,2	10,9
Another job or business opportunity	36,8	10,9
The exit was planned in advance	4,6	10,9
An incident	3,0	13,0
Retirement	0,7	-
Personal reasons	13,5	-
Total	100,0	

Thus, the structure of reasons of business discontinuation was slightly different between entrepreneurs, who quit a venture aiming to start up a new one, and respondents, who definitely exited of any business activity (Table 6). Despite no statistical significance of difference was been found, it may be caused by a small number of observations (25 persons in total), it seems to be evident that people, definitely escaping business activity, do it mostly of financial reasons, whilst among people who do not leave the

entrepreneurial career, more often do it when another more reliable job or business opportunity occur.

It is to point out that the difference in evaluating the role of crisis in quitting a business between the two groups (Table 7) is statistically significant. Most of those who definitely exited accused the crisis to be the major factor pushing them to escape, whilst entrepreneurs who discontinued only temporarily, mostly didn't treat the economic crisis as a reason of their decision.

Table 7 Did the global economic crisis have no impact, some impact or a large impact on your decision to sell, close, quit or discontinue a business during last 12 months?

	Entrepreneurs who discontinued a business temporarily (in %)	Respondents who exited of a business definitely (in %)
No impact	52,7	9,8
Some impact	31,5	5,4
Large impact	15,8	84,8

The crisis is a very selective factor strengthening the willingness to quit a business: it had less strong impact on respondents who are confident that they (will) remain active (serial) entrepreneurs. Those who decided to close and exit of any business definitely were been more strongly affected by the economic slowdown and worsening of macroeconomic situation. It is an important evidence of validity of our H3.

The decisions to quit temporary or to escape definitely influence follow up activity of former entrepreneurs: 62,5% of former entrepreneurs who discontinued a business, are employed, but 16,4% - are already owing/managing another business (parallel entrepreneurs). On the contrary, respondents who definitely escaped of business activity are employed more often (89%) and there are only a few cases of starting up anew.

Table 8 You mentioned that you have sold, closed, quit or discontinued a business you owned and managed. Did the business continue its business activities after you quit?

Business prospect	Respondents who exited of a business definitely		Entrepreneurs who discontinued a business temporary	
	Number	%	Number	%
Yes	2	25,0	5	25,0
No	6	75,0	12	60,0
Business continued but activities changed	0	0,0	3	15,0
Total	8	100,0	20	100,0

In most cases of business discontinuation (temporary or definitely) the business left by former owners/managers disappeared (Table 8). But after a temporary discontinuation in 15 % of cases business didn't disappear forever, but was transformed and continued. Thus, in 40 % of cases of a temporary discontinuation acting business units (and jobs) remained saved, whilst after a definite exit – only 25 %.

Hence, H4 seems to be supported.

Then, the fact that business discontinuation increased under the crisis more significant than the start up activity becomes evident if we compare the dynamic of the Entrepreneurial potential turnover index (EPT) during last years (Fig. 1).

This index reflects the comparison of entries and exits for the same periods – last year; it consists of a ratio

$$\text{Nascent} : \text{Discontinued} = I_{\text{EntTurn}},$$

where *Nascent* – share of respondents of the APS, who during last 12 months were been actively involved in starting a new business,

whilst *Discontinued* – share of respondents of the APS, who during last 12 months have sold, closed, quit or discontinued a business.

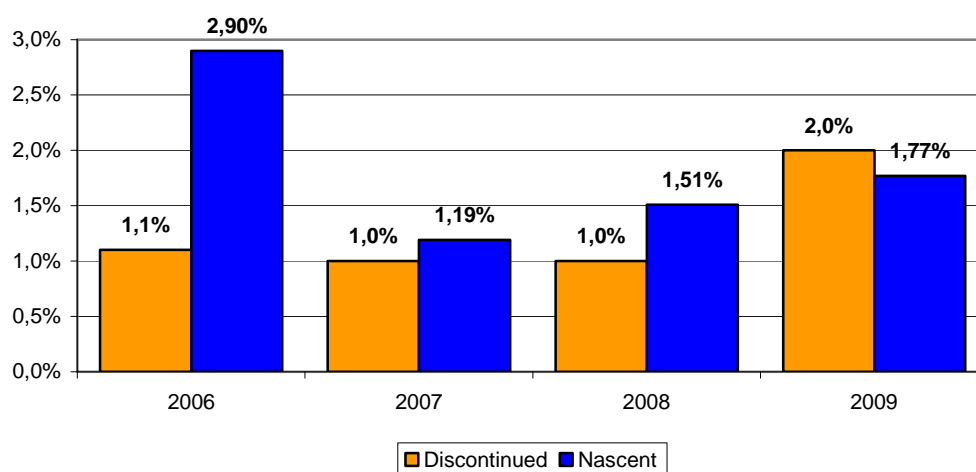
The dynamic of both indicators in 2006-2009 is shown at the Figure 1.

In 2006 the I_{EntTurn} was 2,64, in 2007 it decreased more than twice, until 1,19. In 2008 – shortly before the outbreak of the crisis – it slightly increased and took 1,51.

In 2009 – in the most critical stage of the economic slowdown - the I_{EntTurn} fell on 0,63 comparing with the previous year; first time during the observation period of the GEM Russia it became less than 1, namely 0,89.

So, under the crisis the amount of those who escaped of any business, at least timely, grew more dramatically than the amount of adults starting a new venture. The entrepreneurial activity of population decreased – with some consequences for the state on the labour market, purchase power of population and possibilities for incremental economic growth.

Figure 1 Nascent entrepreneurs and discontinued a business (any reason) in Russia in 2006-2009 compared, % of APS samples



Our H5 is supported.

Past entrepreneurial experience and its impact on current entrepreneurial activity of population

The role of past entrepreneurial experience in willingness and activities to establish a new venture is still under-studied (Pe'er, Vertinsky, 2008; Presutti, Onetti, & Odorici, 2008). Meanwhile, it is a rather big group of population even in an emerging market economy like Russia - 21 % of adults, according to the GEM APS Russia 2009, do have any past entrepreneurial experience. This is a relatively strong embeddedness of

entrepreneurship, its norms and values, among the population, especially taking into account the short story of a legal market economy in the country. Among them 32% are potential or actual entrepreneurs (111 persons), but 68% - persons who definitely escaped from any form of entrepreneurial activity (236 persons). Who of them escapes mainly forever and who is more open to try a new start up?

As regards the age and gender (Table 9), there is an evident difference between acting entrepreneurs with entrepreneurial background and non-entrepreneurs with entrepreneurial experience in the past: previous female entrepreneurs seem to tend more often not to start a new venture anymore. The association coefficient shows a weak negative correlation ($r_a = - 0,12$) between gender and the decision about future entrepreneurial engagement.

Contrary to it, age and actual or future possible engagement in entrepreneurial activity of persons with entrepreneurial experience in the past didn't show any correlation (T-test: Sig.=0,251).

Table 9 Age and gender structure of adults with past entrepreneurial experience, 2009

Respondents				age					Total
				18-24	25-34	35-44	45-54	55-64	
entrepreneurs with entrepreneurial experience	gen der	male	numbe r	5	21	19	19	5	69
			%	7,2	30,4	27,5	27,5	7,2	100,0
	female	numbe r	3	12	17	8	3	43	

			%	7,0	27,9	39,5	18,6	7,0	100,0
	Total		number	8	33	36	27	8	112
			r						
			%	7,1	29,5	32,1	24,1	7,1	100,0
representatives of non- entrepreneurial majority of population with entrepreneurial experience	gender	male	number	19	30	32	27	7	115
			r						
			%	16,5	26,1	27,8	23,5	6,1	100,0
		female	number	9	21	36	28	27	121
			r						
			%	7,4	17,4	29,8	23,1	22,3	100,0
	Total		number	28	51	68	55	34	236
			r						
			%	11,9	21,6	28,8	23,3	14,4	100,0
Entrepreneurs with entrepreneurial experience: $\chi^2 = 2,126$, $df = 4$, $Sig = 0,713$									
Representatives of non-entrepreneurial majority of population with entrepreneurial experience: $\chi^2 = 17,036$, $df = 4$, $Sig = 0,002$									

As Table 10 shows, a correlation is found between education and current status of persons with entrepreneurial experience in the past: the higher the education status, the more often respondents don't escape from entrepreneurial activity forever. The statistical significance is high ($\chi^2 = 13,887$, $df = 3$, $Sig = 0,003$).

Table 10 Educational structure of adults with past entrepreneurial experience, 2009

Respondents				education					
				below seconda ry	seconda ry	profession al	high er scho ol	Tota l	
entrepreneur s with entrepreneur ial experience	gend er	male	numb er	2	12	40	15	69	
			%	2,9	17,4	58,0	21,7	100, 0	
		femal e	numb er	2	1	19	20	42	
			%	4,8	2,4	45,2	47,6	100, 0	
	Total		numb er	4	13	59	35	111	
			%	3,6	11,7	53,2	31,5	100, 0	
	representativ es of non- entrepreneur ial majority of population with	gend er	male	numb er	8	8	81	18	115
				%	7,0	7,0	70,4	15,7	100, 0
femal e		numb er	6	6	85	24	121		
		%	5,0	5,0	70,2	19,8	100,		

entrepreneur								0
ial	total	numb	14	14	166	42	236	
experience		er						
		%	5,9	5,9	70,3	17,8	100,	0
Entrepreneurs with entrepreneurial experience: $\chi^2 = 11,616$, $df = 3$, $Sig = 0,009$								
Representatives of non-entrepreneurial majority of population with entrepreneurial experience: $\chi^2 = 1,373$, $df = 3$, $Sig = 0,712$								

Our H6 is supported.

One might see that there are spectacular differences between two groups of respondents with entrepreneurial experience as regards the reasons to sell, close or quit a business in the past (Table 11).

Among top-5 reasons non-entrepreneurs with entrepreneurial past mentioned pessimistic estimations of future business prospects (36,7%) as well as lack of self-efficacy: 'entrepreneurship is not for me' (25,3%). The financial reasons were been only third ranked (21,4%).

Concerning entrepreneurs with entrepreneurial experience in the past, it is a completely different structure of most important reasons for the past discontinuation of business – first of all, lack of finance to develop business (42,1%), pessimistic estimations of future business prospects (20,6%), bad business-plan (12,4%) and 'entrepreneurship is not for me' (12,4%).

The above mentioned differences are statistically significant and clearly indicate the role of mental factors, as well as different resistance level against macroeconomic

limitations between respondents who resigned and those who tried to start-up again. Our H7 is supported, too.

Table 11 Have you any experience of an unsuccessful attempt to start up a business in the past, and if yes – which were the most important reasons of it? (2009)

Reasons	Entrepreneurs with entrepreneurial experience	Representatives of non-entrepreneurial majority of population with entrepreneurial experience
lack of finance to develop business	42,1	21,4
pessimistic estimations of future business prospects	20,6	36,7
bad business-plan	12,4	8,3
‘entrepreneurship is not for me’	12,4	25,3
lack of useful connections in state and municipal bodies	12,5	8,3

Note: more than 100% because more than one answer possible

Results and policy recommendations

From our hypotheses, some are supported. It is true for H3-H7. Namely, the crisis in Russia lead to an increase of the role of economic reasons of business discontinuation

and exits. Most of respondents who quit business forever were been heavily affected by the crisis, while temporary discontinued a business will in mid-term perspective (re)start anew (serial entrepreneurs). From this point of view, the crisis (a) influenced the entrepreneurial potential only temporary and (b) enforced 'weak' entrepreneurs to make a decision to escape. In this sense, it even improved the quality of persistent entrepreneurial stratum.

Meanwhile, the intensity of business discontinuation (any reason) under the crisis grew compared with previous years, and the difference between entries and exits became negative. This is an urgent, but temporary effect of economic slowdown on entrepreneurial activity of population.

The factors among non-entrepreneurial population with 'entrepreneurial past' which influence a decision whether to (re)start again or not, are gender and education: men and persons with higher education are more often considering a possible entrepreneurial comeback, while women and respondents with lower level of education tend more often to escape from business definitively.

Besides the objective socio-demographic factors, there are subjective factors - negative perceptions of opportunities to do a business and low self-efficacy - which prevent a significant part of former entrepreneurs to start up anew.

Some hypotheses didn't find full support – there are H1, and H2.

There are no reliable data to show that the economic slowdown impact on early and established business is most negative by baby business owners.

The crisis have had a negative impact on the motivation to start-up among non-entrepreneurial part of population; however, the share of necessity driven didn't grow

more than the share of opportunity driven potential entrepreneurs – maybe, because of a relatively moderate impact of the crisis on the situation on labour market.

Hence, to promote entrepreneurial activity under the crisis (and immediately after its deepest period is over), a simple support of any start up activities is not enough, or even misleading.

First, to diminish the discontinuation rate of serial entrepreneurs, easier access to guarantees and co-financing from State development institutes is needed. It could encourage banks not to stop any activity in SME loans etc. and improve the EPT. Second, the crisis played to some kind a positive role pushing less successful entrepreneurs to escape forever. Hence, any attempts to support all businesses during the crisis would be contra-productive: the State should use a more selective policy promoting only those who are able to compete under much harder circumstances. Third, there are no reasons for special support of baby businesses among early entrepreneurship. Fourth (contrary to the systemic crisis of early 1990th), the increase of necessity driven entrepreneurship was compensated by an equally significant increase of opportunity driven entrepreneurship. Taking it into consideration, a special emphasis on promoting jobless people to establish a new venture should be used only in special areas (so called mono-cities etc.), but not overemphasized.

These results may be useful also for other transitional economies.

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Financial aspects of early entrepreneurship

Albutova Alyona, Gudov Artyom, Konobeeva Elena, Murzachyova Ekaterina

Who is financing the start-ups? Sources and structure of financing of early stage entrepreneurship in the Netherlands and Russia³

Key words: early entrepreneurship; financing start-ups; business angels; global economic slowdown

Objectives: The subject of the following study is to investigate how size and type of invested capital have changed during the period 2006-2009, before and during the global economic and to compare the informal investment cash flows in The Netherlands and Russia.

Approach: The study is based on the GEM Adult Population Survey 2006-2009 data to estimate the impact of economic slowdown on informal investment in both countries.

Prior work: Early stage entrepreneurship is necessary to the well-being of market society since it is a key factor driving competition, product differentiation, and innovation. However, the development of small-scale business activity is closely connected with the economic growth of a country along with internal structural and institutional aspects (Stam & van Stel, 2009; Hessels & van Stel, 2009).

As far as any type of business is concerned finance are essential especially at the initial stage of business development. Despite the variety of the financial sources for an entrepreneur (own capital, bank loans, public grants, informal investors: both institutional and private) not all of them are available and accessible under different

³ Paper presented at the summer school ‘Exploring Entrepreneurship’ (Enschede - Moscow, August 2011).

circumstances: geographical location, market environment, personal connections and abilities.

It is highlighted in the literature both theoretically and empirically that macroeconomic factors have a significant effect on the investment cash flow (Ying, 2007). In this context, global economic crisis is one of the brightest aspects of the environmental change.

Results: The structure of informal financing have both many distinguishes and similarities in Russia and The Netherlands.

“Love capital” can be named the main borrowing source in each country. Personal knowledge and lasting relationship still play more important part than rational counts and expectations from investments. Giving money to a relative people do not risk to be cheated and all the negative consequences can be shared or repaid in a specified time-period. But as opposed to Russia, the informal investment situation in The Netherlands is not so biased with social relationships and more depends on business idea and perspectives of venture. For economy that situation is more desirable, because it gives citizens more opportunities for attracting large amounts of money.

The share of “love capital” in whole investment structure significantly varies only in Russia in two extreme values of the observed period, 2006 and 2009, while in The Netherlands we can see some changing in the whole distribution of values and “love capital” always takes a half.

In Russia the amount of informal investment was influenced by the age of respondent and year of survey without any strong connections with social relationships or personal characteristics of the receiver or investor. Age influence can be explained by “saving” financial behavior model of elder people in Russia and year influence is “outer” and

connected with economic situation in the country. As for the Netherlands, no significant micro- or macro-indicators in the GEM base can be found.

Number of business angels relate to gender in Russia (men provide funds for start-ups more often) and to age in the Netherlands (elder people become business angels more often). Moreover, social aspects are also important and influence on the number of business angels, by prestige of entrepreneurship in Russia and personal familiarity – in the Netherlands.

Preliminary notes

Informal venture capital is the primary source of external equity finance for new businesses. Its role becomes especially acute when other financial sources are unattractive for small business owners or unavailable for private individuals willing to start entrepreneurial activity (Berger & Udell, 1990; Mason & Harrison, 2000; Bygrave et al., 2003). Several studies highlight the role of informal investors (cf. Landstrom, 1998; Hindle & Wenban, 1999).

Maula, Autio & Arenius (2005) and Szerb, Terjesen & Rappai (2007) studied the factors that determine the propensity of individuals to make informal investments in the businesses owned by others. Bender (2001) analyzed relationships between spatial proximity and the type and likelihood of venture capital financing.

Despite the importance of the informal venture capital market there is very little information about its size. Mason & Harrison (2000) used different approaches to measure the size of the Informal Venture Capital Market in the United Kingdom .

While there is an extensive literature about business angels, there is relatively little information published with respect to love money investors.

Riding (2008) investigated the returns on informal investments made by business angels, which turned to be significantly higher than those made by non-angels. Business angels these are people who are conventionally defined as *high net worth individuals who invest their own money, along with their time and expertise, directly in unquoted companies in which they have no family connection, in the hope of financial gain.* (Mason, 2007)

However, rates of return on informal investments made by friends and family members of business founders are, on average, dismal. Love money accounts for more than three times as much annual investment as business angels, who in turn invest more than twice as much annually – and in many more firms – as institutional venture capitalists.

Previous research has documented the importance of business angels to the growth and start-up of entrepreneurial firms and has also listed attributes of business angels (see Landström, 2007) for a summary of research regarding business angels).

Business angels constitute an important source of financing. They also provide significant non-financial inputs to the growth and viability of the firms in which they participate. Madill, Haines & Riding, Jr. (2005), for example, document that from the business founders' perspective angels provide mentoring, advice, contacts, and other forms of non-financial value added including accreditation with respect to further institutional venture capital and bank financing.

Farrell (2000) calls for additional research on love money and states that is a largely neglected aspect of SME financing.

Hypotheses development

Our hypotheses are as follows:

Since the banking system is not oriented on small business projects and micro credits facilities are generally unavailable for the start-ups non-institutional funds are of the dominant demand in Russia as opposed to the Netherlands.

Hypothesis 1: The global economic slowdown has influenced the ability of private non-institutional investors in providing money for business activities: the share of “love capital” providers has risen in Russia whereas business angels have become more widespread in the Netherlands.

Personal relations in Russia influence the behavior of economic agents while rational mechanisms of market competition drive the prevalence of professional and “detached” informal investors in the Netherlands (business angels, friends and work colleagues)

Hypothesis 2: The type of relationships between the informal investor and the borrow depends on the socio-economic environment: family investors are common in Russia. In contrast, in the Netherlands money can be given to a person without any friend- or relative connection there, just because of a good business idea.

According to the Political Risk Yearbook: Russia Country Report (2010) , the global economic slump during the latter part of 2008 dampened foreign investor enthusiasm, which had been stoked by Russia’s economic growth and rising incomes in recent years. The amount of the capital provided by informal investors differs according to the type of relations and socio-economic environment since it is treated as personal savings but not as investment funds.

Hypothesis 3: The mean amount of “love” capital provided is significantly lower in Russia than in the Netherlands. Since Dutch informal capital is more investment oriented and Russian one is biased with social relationships, the amounts are more liable

to market fluctuations in the Netherlands (as developed economy) than in Russia (as developing economy).

These differences in the rate and the scale of informal investments across two investigated types of the economy might be backed by the internal motivation of the investors. In turn, the desire and ability to provide the financial support to a business project greatly depends on the cultural and social attitudes in the society. Thus the reasoning behind the informal investors' decisions could be the explanation for the existing structure and scale of such a financial source.

Hypothesis 4: During the crisis (2008-2009) in both countries informal investors played more important role in financing of entrepreneurs in comparison with the previous period of growth (2006-2007).

In Russia decisions are made by informal investors without reliance on potential profitability of a business and market conditions. Financial decisions are mainly driven by established social relations. On the contrary, in the Netherlands informal investors provide funding chiefly along with positive valuation of market conjuncture, involvement into entrepreneurial networks and risk-seeking.

Main results

Hypothesis 1. The ability of private non-institutional investors in providing money for business activities during the global economic slowdown

As we were interested in the investors, we split the base and filtered out the cases by **busang = 1** (You have, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds – “YES”). In the new base of the number of observations **barel** (What was your

relationship with the person that received your most recent personal investment? Was this a...) was low in some categories, so we recoded it the following way:

1) Close family member, such as a spouse, brother, child, parent, or grandchild

Some other relative, kin, or blood relation – **Relatives**

2) A work colleague

A friend or neighbor – **Friends & colleagues**

3) A stranger with a good business idea

Other (SPECIFY) _____ - **Others**

4) Don't know

Refused - **Missings**

Firstly simple distributions were made in each country according to the year (you can see them in Appendix, Figure I). Then we used ONA-WAY ANOVA analysis for investigating whether the differences in years pointed out in histograms are confirmed.

As for Russia, 95% - confidence interval gives significant differences only for 2006 and 2009 years (Post Hoc criteria used - LSD), Sig = 0,07; also – the confidence interval doesn't include "0". So we can say that the distinctions in Russia exist in two extreme values of the observed period. From Figure I we can see that the main difference is in the number of "relatives" to whom money were given.

We can suppose that "love capital" has increased during the crisis period because of two reasons: 1. It insures the family in occasion of business failure (+excludes the opportunity of cheating); 2. During the crisis many families have lost one (or all) of their breadwinners and self-employment was used as an alternative form of employment. In both such situations "love capital" would be the easiest one to attract.

We also can surmise that the level of confidence to economic situation in the country

somehow kept potential investors from giving money without personal relationship and knowledge, as investment in a relative saved the capital in the borders of family (moreover we should take into account the whole situation with social confidence in Russia, where it does exist mainly on the level of friends and family connections).

As for the Netherlands, 95% - confidence interval gives no significant differences between observed years, Post Hoc criteria used – LSD. One of the explanations can be given is about the little distinctions in “friends” & ”relatives” together and the group of “others” during the observed period. Number of “others” slightly fluctuates while the main love capital investments are distributed between family members and friends (with a little variation during 2006-2009).

As we can see from the graph, “love capital” in the Netherlands is also very widespread, but besides its important part the Netherlands also have a rather developed practice of investing without any friend- or family relationship, just because of the “good business idea”. The global economic slowdown has not influenced the number of business angels in the Netherlands, but this statement requires more observations and can be chosen for the future investigations.

Hypothesis 2. Type of relationships between the informal investor and the borrow depends on the socio-economic environment

As we’ve found out that there is significant difference between years 2006 and 2009 in Russia in “Relations with the person money were given to”, we can’t combine the results for the whole period and compare them by country, so we’ve split the cases and tested the hypothesis in two time periods, 2006 and 2007-2009.

For the year 2006: The implemented ONE-WAY ANOVA has shown that there is no difference in categories of receivers between Russia and the Netherlands on 95% -

confidence interval (Appendix 2, Table 1). Significance is 0,174 which allows us to say that in 2006 there were no strong distinctions in love capital investments distribution between two countries, H2 is rejected.

For the years 2007-2009. The implemented ONE-WAY ANOVA has shown that there is difference in categories of receivers between Russia and The Netherlands on 95% - confidence interval (Appendix 2, Table 2). Number of groups by country is not enough for Post Hoc test.

As for that, we can conjecture that relationships between the investor and the borrower distinguish in countries with different socio-economic environment. The trend of the connection can be checked by cross-tabulation and Pearson's correlation (here – for all the period 2006-2009, see Appendix 2, Table 3)

Pearson's R correlation = 0,241 which means that country influence the type of the relationship but rather low. From the Figure 2 (see Appendix) we can see that both in Russia and the Netherlands more than a half amount of all informal investments are given to relatives. Moreover, the cumulative percent of family members and friend – borrowers exceeds 80% in the Netherlands and nearly reaches 95% in Russia. It means that nowadays emotional connections and personal confidence in a family are still more important than rational expectations of success and fortune. It also can suggest that the lack of network of experience and good-working social capital is stabilized with simple kind of familiar knowledge and relationship.

The distinction in “others” may be interpreted as a distinction in number of potential “pure” investors, business angels. We can't argue that this characterizes the Netherlands as a land with a greater investment potential however the conditions of starting a business there can be more auspicious because of a potentially wider range of

borrowing opportunities. Another explanation can be given in consequences of larger demand for investment among Dutch people which naturally requires a higher supply.

Hypothesis 3. The mean amount of “love” capital provided is significantly lower in Russia than in the Netherlands.

Since Dutch informal capital is more investment oriented and Russian one is biased with social relationships, the amounts are more liable to market fluctuations in the Netherlands (as developed economy) than in Russia (as developing economy)

We expect that there are micro- and macro-level indicators that influence the amount of money invested, indicators were selected by examination of options. Resultant rate was measured by the variable “Approximately how much, in total, have you personally provided to these business start-ups in the past three years, not counting any investments in publicly traded stocks or mutual funds?” (bafund). It was recoded in ordinal scale. Number of groups couldn’t be counted by Sturge’s Rule here because the number of observations and homogeneity were too low both for Russia and The Netherlands. The used analysis method was Ordinal regression.

Russia

We recoded **bafund** the following way

- Low level of investment= 0 – 9999 rubles
- Mean level of investment = 10000 – 99999 rubles
- High level of investment = over 100000 rubles

The mean value = 63658,18, priority, dominant groups , Mode an Median refer to the group “Mean level of investment” (see the results of ordinal regression in Appendix 2, Tables 4, 5).

The Nagelkerke measure reflects the percent of dispersion explained in the model, it is 43,3%. The “age” variable is divided into groups in GEM’s base (nominal), “year of survey” is taken as a covariate (scale).

Significant influence on the amount of invested money have variables “age of the respondent” and “year of survey”. From all of the age groups only the eldest respondents (55-64) tend to invest mean and high amounts of money (over than 10000 rubles), other respondents used to invest lower (up to 9999 rubles). The year of survey is not a factor but a covariate, so we can suggest that positive estimate 1,072 mean connection with ascending value of the year and mean and high amounts of money invested group.

As we can interpret, the amount of investments in Russia does not depend on personal characteristics of receiver, investor (except of the age which will be discussed below), type of friend- or relative connection between them or other mirco-level factors. We can see, that only the eldest group can invest mean and high amounts of money, which could be explained, that in financial behavior model of Russians expenses are lower than savings and by the end of live a resident can lay up a small fortune which is close to life-cycle model of economic behavior. In the same time younger people tend to start their own business activities and spend their money according to the daily needs (or some extra expenses), the risks of loss are more tangible. That’s why it’s coherent why the age of main informal investors approaches pensionable age.

The influence of the year is an “outer” influence, explained by macro-level and the whole economic situation in the country. Investments during crisis period refer to the group with mean and high amounts of invested money. We can suggest that increasing degree of alienation influence the growth of attracted capital because low amounts can

be taken from friends and relatives, and in the crisis period this source naturally shallows. However there is no influence of personal relationships between the investor and the borrower in the model this statement needs following future investigations.

The hypothesis can't be tested for the Netherlands because no micro- or macro-indicators from the base influence the amount of investments in regression model on 95% confidence interval. That also can mean that usable 7-grade scale for recoding **bafund** is not appropriate despite high homogeneity and usage of capacity.

Hypothesis 4. During the crisis (2008-2009) in both countries informal investors played more important role in financing of entrepreneurs in comparison with the previous period of growth (2006-2007).

In Russia decisions are made by informal investors without reliance on potential profitability of a business and market conditions. Financial decisions are mainly driven by established social relations.

On the contrary, in the Netherlands informal investors provide funding chiefly along with positive valuation of market conjuncture, involvement into entrepreneurial networks and risk-seeking.

At the beginning for overall overview of researching question we analyzed contingency between intentions for investing money and people's perception of different aspects of doing business (see Table 1 in appendix) for two countries.

The evidence is that in both countries knowing someone personally who started a business in the past 2 years and thinking of possessing the knowledge, skill, and experience required to start a new business positively affects people's intention to invest money in a start-up.

The differences between two countries are observed in various parameters that were appreciated in Russia before the global economic slowdown (perception of good

opportunities for starting a business, considering that starting a new business is a desirable career choice and gives high level of status and respect) and after crisis in the Netherlands (perception of good opportunities for starting a business).

Furthermore, in order to test this hypothesis in detail we created two logit models (for Russia and the Netherlands separately) that describes factors that influence probability of people's intention to invest or not in start-ups.

Regression covariates for Russia

This regression model (on the basis of Wald statistics) showed that the following variables are significant:

$$\begin{aligned} \text{Busang} = & -2,83 - 0,81*\text{fearfail} + 3,12*\text{nbgoodc} - 1,66*\text{gender} - 2,77*Y06 + \\ & (1,3) \quad (0,46) \quad (1,03) \quad (0,64) \quad (1,42) \\ & + 2,27*Y06*\text{gender} - 2,9*Y07 + +2,91* Y07*\text{knowent} \\ & (0,78) \quad (0,83) \quad (0,97) \end{aligned}$$

Firstly, the negative number sign before “fearfail” gives the evidence that Russian business angels are risk averse.

Secondly, prestige of entrepreneurship greatly positively influence the number of business angels (coefficient before “nbgoodc”>0).

Thirdly, men provide funding for start-ups more than women, especially during and after the crisis (positive sign for “Y06*gender”)

And finally, before the crisis personal relations with early entrepreneurs positively affect the number of business angels

Regression covariates for the Netherlands

$$\text{Busang} = -4.617 + 0.37 \cdot \text{age} + 0.843 \cdot \text{knowent} + \\ + 1.89 \cdot Y07 - 0.952 \cdot Y07 \cdot \text{fearfail} - 0.029 \cdot Y07 \cdot \text{age} \\ (0.48) \quad (0.01) \quad (0.19) \\ (0.71) \quad (0.54) \quad (0.01)$$

This logit model provides information that elder people become business angels more often in the Netherlands.

Also, knowing someone who owns business positively influence the number of business angels.

And the last but not least, the year 2007 is characterized as the last before the crisis with the highest percentage of business angels and negative effect of risk averse conjuncture.

Suggestions for future research

There are many destinations of following research in the area. As for one of them goes a comparison of proper made out socio-demographical portraits of “business angel” and “love capital” investor, are there any specific features that define the “range” of investor or not . It also can be useful to clarify the reasons of such a high demand for “love capital”, investigate the ratio of self-provided and borrowed capital.

As a single theme goes the amount of investments needed for starting any business activity (can also compare by the spheres of business) and relative amount of investments per one resident, the ratio of formal and informal investment, most attractive segments of market and characteristics of products, which are most desirable for attracting formal and informal capital.

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Appendix 1

List of variables

Independent variables

The list of independent variables consists of three types of parameters: subjective characteristics that reflect people's perception of different aspects of doing business, socio-demographic variables and dummy variables for underlining features and shifts of different years in analysis.

1. Perception of entrepreneurs, concerning their business, relations and own abilities:

Knownt - You know someone personally who started a business in the past 2 years? 1 – yes, 0 - no

opport - In the next 6 months there will be good opportunities for starting a business in the area where you live? 1 – yes, 0 - no

suskil - You have the knowledge, skill, and experience required to start a new business? 1 – yes, 0 - no

nbgoode - In your country, most people consider starting a new business a desirable career choice? 1 – yes, 0 - no

nbstatus - In your country, those successful at starting a new business have a high level of status and respect? 1 – yes, 0 - no

fearfail - Fear of failure would prevent you from starting a new business? 1 – yes, 0 – no

barel (What was your relationship with the person that received your most recent personal investment? Was this a... 1 – Close family member, such as a spouse, brother, child, parent, or grandchild, 2 - Some other relative, kin, or blood relation, 3 - A work colleague, 4 - A friend or neighbor, 5 – A stranger with a good business idea, 6 - Other (SPECIFY) _____, 8 – Don't know, 9 – Refused

bafund - Approximately how much, in total, have you personally provided to these business start-ups in the past three years, not counting any investments in publicly traded stocks or mutual funds? (scale)

2. Socio-demographic characteristics:

gender – What's your gender? 1 – male, 2 – female

age9c – Would you be willing to indicate the range that best describes your age?

3. Dummy variables for differentiating time periods:

Y06 – dummy variable for 2006 year

Y07 – dummy variable for 2007 year

Y08 – dummy variable for 2008 year

Age – What's your current age (in years)?

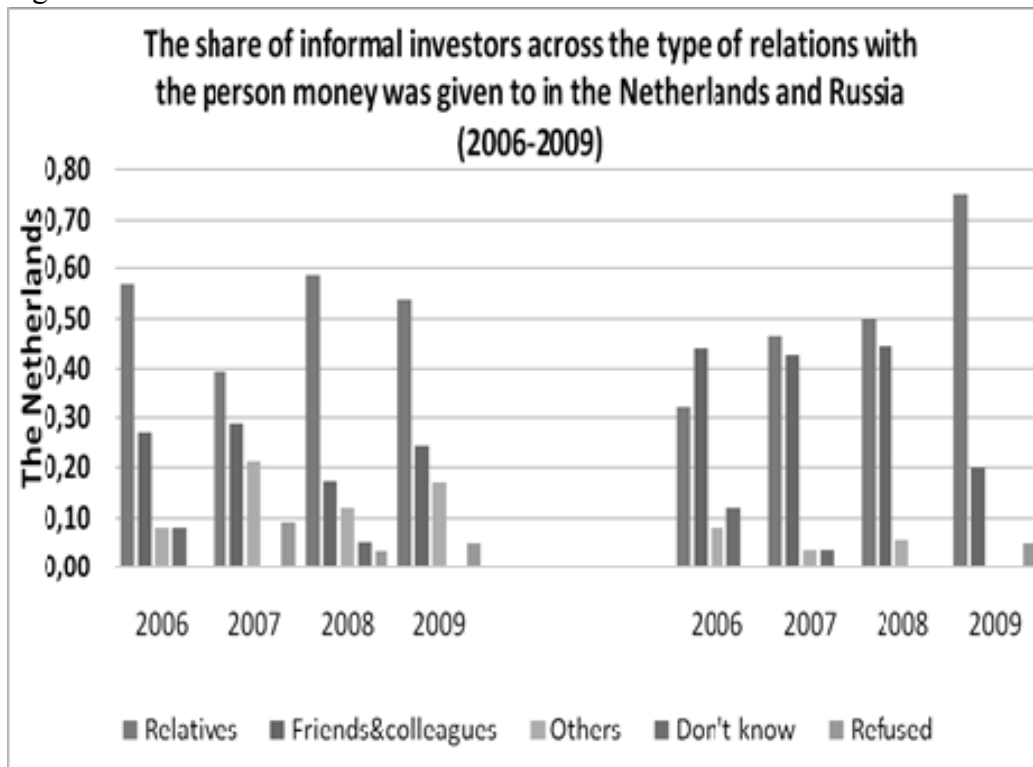
yrsvr – year survey was administered

Dependent variable

Busang - You have, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds? 1 – yes, 0 – no

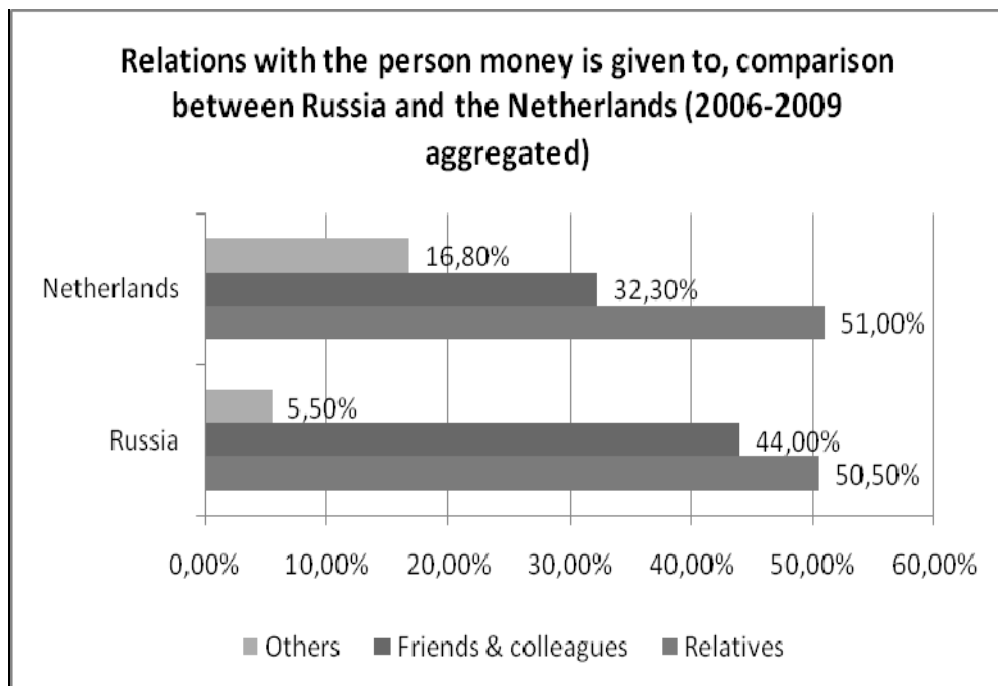
bafund - Approximately how much, in total, have you personally provided to these business start-ups in the past three years, not counting any investments in publicly traded stocks or mutual funds? (scale)

Figure 1



Russia

Figure 2



Appendix 2

Table 1. Result of ONE-WAY ANOVA (2006)

ANOVA					
Relations with the person money were given to					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	,820	1	,820	1,903	,174
Within Groups	19,811	46	,431		
Total	20,631	47			

Table 2. Result of ONE-WAY ANOVA (2007-2009)

ANOVA					
Relations with the person money were given to					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2,138	1	2,138	4,293	,040
Within Groups	96,630	194	,498		
Total	98,768	195			

Table 3. Result of Pearson's R correlation (2006-2009)

Symmetric Measures					
		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	,075	,059	1,176	,241 ^c
N of Valid Cases		246			

Niek ten Hove, Maria Peeva, Maarten de Wit

Venture Capital investments in the Netherlands and Russia⁴

Abstract

Venture capital in the energy world is a growing business. In this paper we talk about venture capital focused on clean technology. The aim of the paper is to make a profound distinction between the differences of the use and implementation of venture capital in different countries. In this paper we make a comparison between the Netherlands and Russia. Therefore we want to prove if clean tech ventures are better financed in the Netherlands. We start with an introduction about venture capital. After that we compare VC in both countries and take a look at the ways to finance your clean tech company. Why do countries invest in startups and what are the outcomes for the entrepreneurs and investors. Additionally governmental ways of financing and their influences are viewed.

Keywords

Venture Capital, Russia, the Netherlands, Clean Technology, Clean Tech, Green Investments

⁴ Paper presented at the summer school “Exploring Entrepreneurship” (Enschede – Moscow, August 2011).

Introduction

The aim of the paper is to make a profound distinction between the differences of the use and implementation of venture capital for clean technology in Russia and the Netherlands. Additionally, we will make a comparison, how different ways of venture capital financing is used in both countries. We also want to search for reasons why do countries need to invest in startups and what are the outcomes for both investors and entrepreneurs. Drawbacks and advantages in Russia and Netherlands regarding new business ventures will be mentioned in the paper as well. Our main statement in the paper is to estimate if Russian new business ventures invest differently than Dutch new business ventures. Our data and conclusions will be drawn according to data from the European Commission, Russian Venture Capital Association and government websites.

Because of the different cultural background, mindset and historical and political development of the two countries we expect many differences between the both countries. Although Russia's GDP (1.229 Mrd. US\$) is almost twice the GDP in the Netherlands (\$ 794 Mrd.) and more resources are available on its territory, the venture capital investments are supposed to be much higher in the Netherlands. Possible reasons for this might be that the Netherlands is a member state of the European Union and more incentives for the government and the EU are provided. We will include the investors' point of view and estimate whether venture capital investments are connected with more positive entrepreneurial outcome in the Netherlands than in Russia.

Therefore we want to make our hypothesis and want to prove if:

Venture Capital investments and activities are higher in the Netherlands than in Russia.

Nowadays we observe a trend in the development of new enterprises. Entrepreneurial activities contribute to more competition on the market, therefore it is positive for countries to invest in start-ups and provide workshops for creating and establishing new businesses. Every beginning is difficult; therefore a support from a venture capitalist is very important for companies in making their first steps on the market. There are plenty of different financing possibilities depending on how further in the development a start-up is. In order to narrow the scope of our research we will observe only venture capital investments in Russia and the Netherlands.

Using venture capital financing is not only important for companies, but also for one whole economy. Venture capital investors contribute to facilitating corporate restructuring and also drive industry reforms. For many countries it is also essential to support venture capital firms, because they promote capital market development, they manage to make the markets and deals more transparent and also contribute to good corporate governance. And last but not least venture capitalists are essential for innovation and development of research and development activities.

The both economies we would like to observe in our short paper are very different from one another, but at the same time they have something in common- both countries are developing very fast and have different backgrounds and resources, which make them very interesting for every investor. Additionally, we would like to see how venture capital could help and contribute to economic success and fair competition and innovativeness.

Based on this research question we would like to find out whether businesses in Clean Technology are better off in the Netherlands or Russia:

"Are Clean Technology Ventures more often financed in the Netherlands than in Russia?"

Literature review

Considering the changes after the fall of the communism in the Soviet Union many researchers have assumed that the transformation from planned to market economy will positively impact the investments in new ventures. According to previous studies we want to prove that the investments undertaken in start-ups are smaller in Russia than in the Netherlands. Observations on the Russian market show that the venture capital association was established late in 1997, whereas in the Netherlands the first venture capitalists appeared in the late seventies. Although there are obvious emerging venture capital companies and start-ups these businesses struggle with many issues connected with high uncertainty on the market, no regulations and lacking government policies (Batjargal, 2005). Concerning investments in the newest trends and activities in sectors with high future potential like green energy the data from the Russian Venture Capital Association (RVCA) for the year 2009 show that the investments in the ecological sector are down to zero per cent (RVCA report, p. 44). This indicates that Russia still lags behind the Netherlands. This is another point in the paper that we would like to stress. Lacking investments in ecology and green technology indicates that in Russia there is more need to invest in these sectors than in the Netherlands. According to the RVCA report for 2009 about 15% of the venture capital investments in Europe were made in the energy and environment sector and the overall investments were 3,5% for the Netherlands (RVCA report, p.82).

As the usage of new energies sources and the concern of big countries about the dwindling amounts of gas and oil the topic about green technology is interesting for many and also intensively discussed. Therefore, we would like to compare the both countries also in terms of investing and recognizing new trends on the markets. Surveys show that many investments from venture capitalist have been done in the green technology start-ups. In the paper we would also see in which industries venture capitalists in the territory of both countries invest more.

The Netherlands is well known in investing and developing in wind and hydro energy and also the number of new start-ups in this country is enormously high. Russia, on the contrary, despite of its big resources potential still does not make many investments in this sector, but for example in IT and new technologies.

Venture Capital

In order to understand better the role of venture capital in start-ups, we would like to define the term venture capital. For many new businesses is venture capital the first step to create a new company. It is a way of financing new ventures. The first venture capital investments have been undertaken back in the late forties in the United States, while these in Europe have their origins since 1970 (EVCA). According to Reid (Reid 1998, p. 14) venture capital is “a type of financial capital provision, usually in equity form, which is invested in high risk ventures and which offers the possibility of significant gains to compensate for the risks involved in such investments.” An interesting fact is that a Harvard Business school Professor initially used the term “venture capital” in 1940’s. Venture Capital (VC) can be seen as the initial capital novel companies gain in the early stage of their development. Because of the insecure

development of start-ups VC investments are highly risky. Due to this fact it is usually accepted that managers of venture capital funds manage and help the new start-ups.

There is one interesting quotation from J.P. Cotis in an OECD report, where he very well states the importance of Venture Capital investments:

“An economy that does not have a strong venture capital sector is one that displays symptoms of deeper economic problems“.

The Venture Capital industry became very important in the recent years. Some of the positive aspects of it on the market are for example the very good fiscal, legal and regulatory environments. It is also good for the shareholders of the fund and also for the investors, because they get a good minority protection.

The main actors in the venture capital flow are the entrepreneurs, the investors in the venture capital fund and the venture capital managers. The goal of the investors is to achieve high return on investments from the venture capital fund. Therefore, they use a lot of pressure on the managers of the VC to find good start-ups. The managers try to make good assessments of the new ventures and aim to make predictions about the future development of the new business.

The role of venture capital

The role of a venture capital is mainly to fund new ventures and to foster development of today's leading high technology companies (Li & Zahra, 2011). New ventures as well as development of today's leading high technology companies do come with a lot of uncertainties because they still have to prove that they can make profit in the future. The venture capital investors will handle with the financial distress of taking the risks of lending money to these firms. Mostly these venture capital investors do want more in

return, than a normal loan at a bank. This could be in shares and a higher rate on investment. The type of companies seeking for venture capital are most likely to have too much risk involved for normal bank and therefore a designated to venture capital investors. Venture Capital investments are essential to new ventures, because they contribute to improving company's performance.

Guiding the new established businesses

Another reason for certain type of organisations to make a choice for a venture capital investor is the knowledge sharing and strategic alliances that can arise between the firms which are part of the portfolio of the venture capital investor. With strategic alliances is meant that more than one party (two or more businesses) are combining their strengths to build expertise to gain competitive advantages. (Dyer, Kale & Singh, 2001) The venture capital investor can help by creating knowledge clusters, if applicable, within his portfolio. Meant with portfolio, in this sense, is the amount of businesses in which the venture capitalist has a stake. Knowledge clusters are a form of strategic alliances, which indicates that business collaboration, within a geographical regional area, is established to gain competitive advantages (Tallman et al, 2004). This is very important especially in the point of view of investors willing to invest in Russian start-ups. There are some cultural differences in Eastern Europe than in the West. It is difficult to accept new people in your own company and also Russians do not trust so many people except their family and closest friends. Therefore, there is a need to establish networks and clusters, so that new business could emerge and establish them quicker and easier on the market.

Contribution of the venture capitalist

To make contributions to a new established business in the clean tech industry the venture capitalist should have knowledge about clean tech. By being specialized in, for example, wind mills; the venture capitalist could use his expertise to guide the new established businesses. Navigation between the firms within the venture capital fund a strategic alliance could be formed to create a sustainable competitive advantage. This is especially important for Russian companies, because recent studies show that Russian companies still lack connections with Western companies, which can increase connection to new markets and enhance profits. Russian market has big potential for development in every branch and the Russian government should exploit the geographical opportunities of the country and support by government policies for small businesses, tax reductions for start ups, establishing competitive markets and easier enter to market new ventures

Venture Capital in Russia

To understand better the situation of venture capital funding in Russia we first concentrate on their development during the years after the fall of the Soviet Union.

After the fall of the communist regime in Russia many of the state enterprises have been privatized and there was a need for new investments. New ventures were appearing on the Russian market as well. After the Soviet Union entrepreneurship activities and need for support of start-ups have emerged on the market. Additionally, at this stage Russia is still a transition economy, because it shifts from planning and large state-owned enterprises economy to market economy (Puffer & McCarthy, 2009). In order to meet all the requirements from the market and be competitive with other well developed

countries, Russia strategically positioned on the market for power. Transition economies are also suitable for establishing entrepreneurial climate and therefore a support for start-ups like venture capital is needed.

For many people in Russia was difficult to establish new ventures after 1990, because of the lacking security, trust and initial capital. Entrepreneurial activities were not very high in the country by this period. In Russia the venture capitalist therefore had also another mission, not only to finance new established enterprises, but also to create entrepreneur climate for open minded people, who want to develop and create something new. In comparison to other Western European countries or USA the entrance to market was not very easy for Russian entrepreneurs, which also has an impact of the small number of start-ups.

The Venture Investing in Russia begun in 1993, where in a summit in Tokyo an agreement to support privatized enterprises in the Russian Federation was accepted. This agreement was between the EU and G7. Later on in January 1994 the first venture funds have been established. The whole process was carried out by the European Bank of Reconstruction and Development and they managed to create a fund with 312 million. In 1997 the Russian Venture Capital Association was established. Many wealthy people could see the opportunity and the future of venture capitals and invested money in the first venture capital funds (RVCA, 2010).

Besides the venture capital financing there are other ways, on which the Russian economy is trying to gain capital. For instance the governments also contribute to financing of new established ventures. In Russia the Industry Ministry created in the summer of 2000 the Venture Investment Fund (VIF), which supports venture financing in Russia (Okonnen, 2003).

According to electronic mass media the venture capital market is developing really well.

They state in one of their newspapers:

“RVC as a development institute has proved it is in a position to play a pivotal role in developing Russian venture capital market and innovation ecosystem.”

There are also some areas where the Russian economy especially the focus on venture capital still needs improving. The Russian law has to improve for better incorporation of venture capital and private equity funds. There are not enough sufficient grants for pre-seed innovations. Furthermore the government should give more incentives and develop networks and programs for innovative start-ups (RVCA, 2011).

Venture Capital in the Netherlands

According to NVP only a small part of the investments were represented in the ecological and energy sector, which dropped from 180 billion in 2008 to only 16 billion in 2010. But still the investments in this sector were about 3.8 percent of all the investments in 2010. In general, venture capitalists rely on big projects and higher return in investment that have not taken place in 2010. However, with the increasing number of clean tech start-ups the investments will go up in the next years (28, enterpr. Equity 2010).

Comparison (Purely based on venture capital):

Sector	Netherlands 2009	Russia 2009
Ecology and energy	54 billion €	31 billion €

Healthcare	154 billion €	39 billion €
Financial services	4 billion €	62 billion €

Although the financial crises had a severe impact on the investments in 2009 in Russia the VC investments were still high. We can observe that the investments in the ecology sector for 2009 were high in both countries, but still more in the Netherlands.

The Russian Venture Capital Association (p. 82) reports in 2009 that the investments in whole Europe in the energy and ecology sector were at about 15%.

Are Clean Technology Ventures more often financed in the Netherlands than in Russia?

Alternative ways of financing of Clean Tech companies

In order to broaden our scope on clean tech companies' financing, we would like to determine the term clean technology. The term means that there is no usage of conventional energy sources; it also combines all types of renewable energies, recycling and different types of similar industries. Because of the vast climate change the need of clean technology is enormously growing and becoming an eminent part of the world business. We can observe a rising number of start-ups creating new ventures of this type. As mentioned before Russia is focusing strongly on developing energy strategies to improve its economy, therefore, we decided to take a look on venture capital investments on the market for green technology and how both countries perform. First we would like to start with the Dutch policies for investments in this branch.

Clean Tech industry support by the Dutch government

There are three existing policy models by the Dutch government, which support the green technology: a voluntary model; a financial fiscal model; a mandatory model.

In the following paper we will focus on the financial fiscal model and its impact on the use and spread of renewable energies companies. The support was in the beginning mainly derived from subsidies from the government. The initial investment support came in 1993, but it was offering subsidies only for wind energy. There is the so-called BSE (building services engineering) scheme, which provides for Dutch developers the following subsidies:

- 50% of investment costs for R&D projects
- 40% for demonstration projects
- 25% for market introduction projects

Over the past years different schemes and programs of this kind were developed and adopted by the government or by the European Union. Another plan suggested by the Dutch government is the CO₂ reduction plan. It aims the reduction of CO₂ emissions annually. The projects that qualify for this subsidization scheme must at least reduce 250 tons of CO₂ per year and all projects can receive maximum 45% of the investment costs (Dinica & Arentsen, 2001).

Further fiscal instrument for supporting investments in clean technology in the Netherlands are:

- REB exemption (NL: Regulerende energiebelasting; EN: Regulation of energy tax)
- Reduction in after- tax profit

- Fiscal incentives for solar PV
- Green funding financial schemes.

Gain Venture capital

There are several ways to finance your clean tech business. The most used funding method is the bank loan. Support can also be obtained by governmental advantages like subsidies or tax regulations. Another way of gaining capital is entering in to the venture capital market. Most funds are specialized in one or more markets like IT, healthcare or clean tech. A real different approach is not used by venture capitalists to assess the investments; there are only some different aspects, which are discussed later.

Venture capital in clean tech

Venture capital in the clean tech area is growing due to the energy prices, a shortage of natural resources and governmental incentives (Fischer, 2009). Examples of investments of venture capitalists in the energy sector are energies like solar energy, wind energy or biofuels. In 2008 venture capitalists invested 50% more in clean tech (Marshall, 2009). The clean tech area is growing: in 2007 venture capitalists invested 2.7 billion dollars in clean tech, in 2008 4.1 billion is reached. When you take a look at individual deals, 7 out of the 10 biggest deals in 2008 took place in clean tech (Marshall, 2009).

Figure 1: Growing venture capital investments and deals in clean tech (Fischer, 2009).

Year	Total Venture Capital Investment in Green Technology	Number of Deals
2005	\$820M	74
2007	\$3.5B	222
2009 – August	\$3B	227

Research provided by Greentech Media.

According to figures from Greentech Media, clean technology is on the rise, showing a strong second quarter in 2009 and an even better third quarter.

In the clean tech investment sector some aspects are different in comparison to the whole venture capital market. The clean tech market is highly regulated, therefore there are experts needed who have a good knowledge of the markets (Koester, 2007). The market consists of both emerging technologies and old industries. There is an extensive government regulation and involvement. Knowledge and experience about global intellectual property strategies and international markets is essential. A stable encouraging policy is positive for investors (Fischer, 2009).

Funding of clean tech investments

Most venture capital funds select project with a payoff in about 3 to 7 years. Investments in clean tech have a payoff in about 5 to 10 or 15 years. Investors need to be in the market for the long haul.

In this new market today it is early to talk about big payoffs and designate early winners and losers, but there is a possible path for investments developing very well in the future. Nowadays, there are a few investments that resulted in multibillion-dollar acquisitions; this is the way that venture capital funds earn their money (Buckman, 2008).

Clean tech companies can be pushed by governmental help to operate and to be competitive in the market. This assistance can include tax advantages and government mandates. Companies with high investments cannot compete without advantages like these subsidies. An example is a business in the energy sector. The competition with traditional power producing companies cannot be entered by businesses in energy obtained with clean tech. In the clean tech sector you aren't successful with developing a great technology; you have to navigate through the regulatory waters. Success can be booked by governmental commitment like the subsidies previously discussed.

Clean tech will be next to big traditional energy resources. To get successful you can better get a partnership and survive than get lost in a battle. In example the current hybrid car industry was growing out of traditional auto manufacturers. The clean tech space will not grow in isolation from traditional companies, but must get them on board (Koester, 2007).

In what stages venture capitalists invest in clean tech?

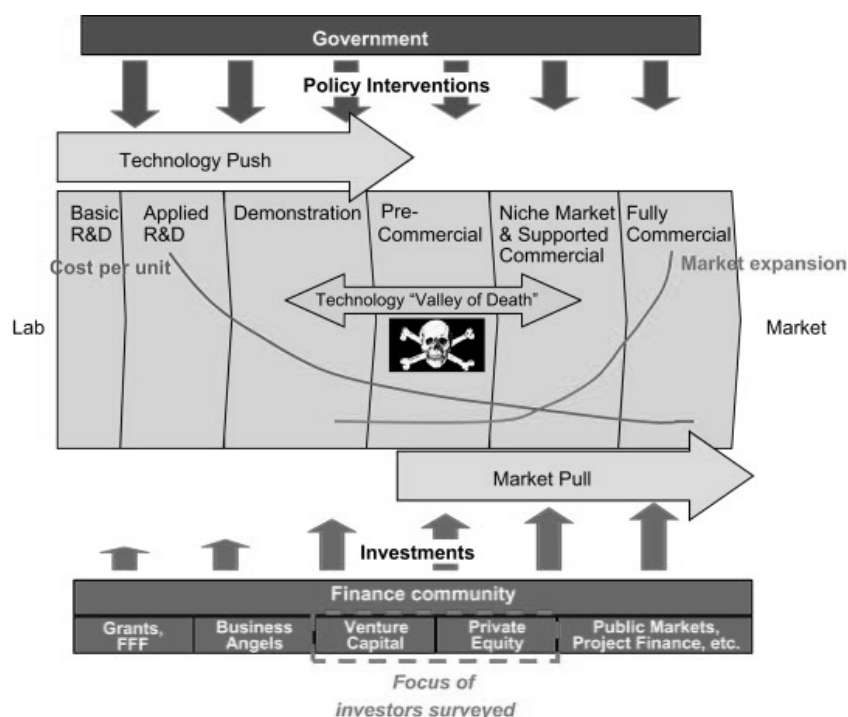
A clean tech company passes three basic stages in its financial development (Wagman, 2008). The first step is to enter the technology to the "real world". This phase consists a lot of working hours; development and writing of many grant proposals. For the second step the technology needs financial supplies and goes to the venture capital market. In the third stage the technology has to get out of the pilot phase and goes to commercial deployment.

Venture capitalists invest in clean tech from early stage research projects to later stage infrastructure projects (Fischer, 2009). The early stage research projects do have a high

technology risk and offer a chance for high returns on investment. Later stage projects do not have that major risk but the returns on investment are less too.

The picture below shows that there are a lot of investors in the innovation process of clean tech. It is a challenge to get new clean technologies from R&D to the market. The phase in the middle of the process is called the Valley of Death because that's the phase where the most ventures will fall. This phase Venture Capitalists and Private Equity firms come to the market to invest in the new technologies to get it successful.

Figure 2: The innovation chain and the technology "valley of death" (Grubb, 2004)



Governmental interference: What kinds of investments become successful in clean tech and how to attract venture capitalists?

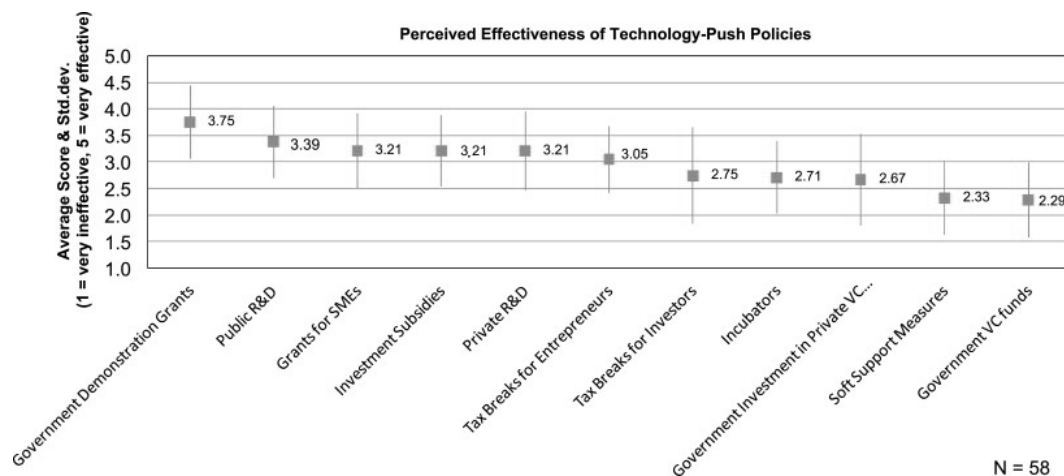
In the survey (Bürer, Wüstenhagen, 2009) governmental policies are reviewed. It is the challenge to get the invented technologies from the R&D departments to the

commercial market. The clean tech market is highly regulated. That's the reason why policy makers have a direct or indirect influence on the performance of venture capital and private equity investments (Bürer, Wüstenhagen, 2009). There are policies that stimulate investments and interests and make them more effective. An example in the renewable energy markets is the feed-in tariff (see below) that is very effective. This is a policy that encourages the adoption of clean energy to the local power network.

Some Venture Capitalists are positive about policies and subsidies to clean tech, other parties want a minimum governmental interference.

The research of Bürer and Wüstenhagen (2009) showed that governmental grants and public R&D gives venture capitalists the most stimulation and interest to invest in innovative clean tech when we look at a technology push perspective.

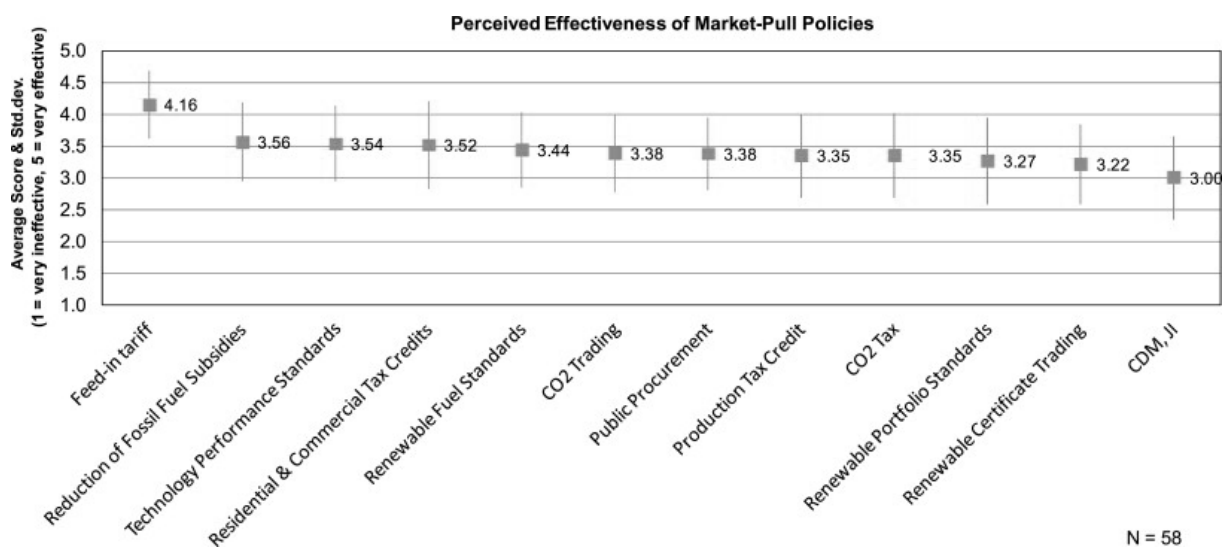
Figure 3: Venture capital and private equity investor assessment of effectiveness of technology-push policies



Source: Bürer, Wüstenhagen, 2009

When you look from the market to the technologies, the market pull policy, the feed-in tariffs are popular. Also a reduction of fossil fuel subsidies stimulates venture capitalists to invest in the clean tech industry.

Figure 4: Venture capital and private equity investor assessment of effectiveness of market-pull policies



Source: Bürer, Wüstenhagen, 2009

Concluding to attract venture capitalists, governments have to subsidize the phase where the project has the start-up. After that the policy needs to give clean tech a good chance at the market by cutting financial supplies for the traditional parties.

Conclusion

We introduced our paper with the hypothesis: Venture Capital investments and activities are higher in the Netherlands than in Russia. To prove this hypothesis in our research we looked to the financing of new ventures in both countries. When we compare the investments in the ecology and energy sector (2009) the Netherlands have invested 54 billion euro against 31 billion euro in Russia. This is a 67% higher rate in the Netherlands. If you compare these numbers based on habitants of the two countries, about 17million versus 139 million in Russia, the investments in the Netherlands are much larger.

Discussion

In the time of writing this report we had a few questions that aren't really solved by answering our research questions and by data we found. Maybe it would be good for future research to have a look at the impact of VC on new product development.

Another point that got our interest is: "Why do clean tech firms have less return on equity than non clean tech firms?" Could it be because there is less a pull from the market for clean tech product because prices are too high? Or is this just an assumption that we cannot make?

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Table 4. Result of ordinal regression (2006-2009)

Parameter Estimates								
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[rebafund = 1]	2130,698	586,358	13,204	1	,000	981,458	3279,938
	[rebafund = 2]	2133,128	586,580	13,224	1	,000	983,452	3282,804
Location	yrsurv	1,072	,292	13,456	1	,000	,499	1,645
	[age9c=1824]	-20,482	1,157	313,129	1	,000	-22,751	-18,214
	[age9c=2534]	-20,729	,843	604,065	1	,000	-22,382	-19,076
	[age9c=3544]	-19,877	,798	621,099	1	,000	-21,440	-18,314
	[age9c=4554]	-19,439	,000	.	1	.	-19,439	-19,439
	[age9c=5564]	0 ^a	.	.	0	.	.	.
Link function: Logit.								

Table 5. Pseudo R-Square

Cox and Snell	,384
Nagelkerke	,433
McFadden	,223
Link function: Logit.	

Table 6. The reasoning behind the informal investments in conjunction with market situation

Contingency	Significant variables, 95% significance level*			
N – the Netherlands	Russia & the Netherlands			
R - Russia	2006	2007	2008	2009
You know someone personally who started a business in the past 2 years?	N & R	N & R	N & R	N & R
In the next 6 months there will be good opportunities for starting a business in the area where you live?	R	R	N & R	N
You have the knowledge, skill, and experience required to start a new business?	N & R	N & R	N & R	N & R
Most people consider starting a new business a desirable career choice?		R		R
Those successful at starting a new business have a high level of status and respect?		R	R	
Fear of failure would prevent you from starting a new business?	R			
What's your gender?	N	N	N & R	N & R

Microcredit as a source of future micro and small entrepreneurs' growth⁵**Abstract**

Sector of micro and small entrepreneurs has a great social, economic and political significance as it covers virtually all types of activities in small towns. Small business contributes to the solution of such problems as: improvement of employment rate and increase in wealth of the population; enhancement of market economy competitiveness through the development of the consumer goods and services market; formation of the middle class which is the main guarantor of social and political stability in society; increasing investment attractiveness of the regions.

Limited access to external financing is one of the main reasons hampering the development of micro and small entrepreneurs. The ability to get financial resources is a fundamental need of every citizen. Moreover debt financing is crucial for originating and developing the business. Today, development of micro-entrepreneurship is the cutting-edge issue of the developing economies. Therefore, increasing financing of micro and small entrepreneurs is the basis for improving the efficiency and sustained economic growth. Moreover, the history, practice, economic theory suggests that small business is the most mobile and viable part of the economy in the crisis environment. Despite of the fact that small business is more vulnerable, it is able to restore quickly as its structure is quite flexible and responsive to macroeconomic changes.

International practice analysis has shown that microcredit program has a great opportunity for small business, individual entrepreneurs and so-called «poor active social group» to get access to financial resources. Microcredit has become increasingly widespread throughout the world. Historical facts and current situation justify the fact that small businesses and households (which have problems with settlement their debts) extremely need financial services segment supplementing the banking sector. Ability to quickly get financing would allow small businesses

⁵ Paper presented to the 4th International conference on Entrepreneurship, Innovations and Regional Development (May 5-7, 2011, Ohrid, Macedonia).

to smooth out the current problems and to be more confident about their business plans. This is also an opportunity for population to originate their own business.

Keywords

Informal financing, formal financing, microcredit, microcredit organization, micro and small entrepreneurs.

Introduction

Sector of micro and small entrepreneurs has a great social, economic and political significance as it covers virtually all types of activities of SME especially in small towns. Small business contributes to the solution of such problems as: improvement of employment rate and increase in wealth of the population; enhancement of market economy competitiveness through the development of the consumer goods and services market; formation of the middle class which is the main guarantor of social and political stability in society; increasing investment attractiveness of the regions.

Limited access to external financing is one of the main reasons hampering the development of micro and small entrepreneurs. The ability to get financial resources is a fundamental need of every citizen. Moreover debt financing is crucial for originating and developing the business. Today, development of micro-entrepreneurship is the cutting-edge issue of the developing economies. Therefore, increasing financing of micro and small entrepreneurs is the basis for improving the efficiency and sustained economic growth. Moreover, the history, practice, economic theory suggests that small business is the most mobile and viable part of the economy in the crisis environment. Despite of the fact that small business is more vulnerable, it is able to restore quickly as its structure is quite flexible and responsive to macroeconomic changes.

Literature background

Small entrepreneur' activity is the most relevant topic for today that is discussed in a lot of economic papers. In a growing stream of academic literature on the topic of small business activity and financial resources attraction the concern about entrepreneurial contribution to the growth and competitiveness is evident (Kirzner, 1973). Small business development depends on its financing. The financial strategy of a starting entrepreneur leaves an imprint on the future business development and its impact on the overall development (Kon & Storey, 2003). This statement is true not only for the starting entrepreneur, but also for the sector of micro and small entrepreneurs.

For an entrepreneur as for a single economic unit two ways of financing are available: own funds and a debt. As far as the equity financing (IPO or own funding) is concerned it does not cause negative effects in any case if we consider instability from the credit risk aspect (risk, initiated by the creditor-borrower relationships). The side of debt financing is rather multifaceted and includes a wide range of options which are not discussed in corporate finance theories: venture capital, business angels and informal capital (Murzacheva E. Risk Indicators ..., 2010).

The side of formal financial support is thoroughly investigated in the literature and taken into consideration by policy makers. Until recently it has been considered that the small business financing through banking facilities is the most convenient and effective source. Nevertheless, the study of Thorsten Beck reflected upon the contentious issue about the positive role of banking sector «in enhancing economic growth through more efficient resource allocation» (Beck, Demirguc-Kunt, & Maksimovic, 2004). Additionally, small firms are often out of the credit institutions' target customer base at their early stage of development because of the lack of credit and trading history, collateral (Verheul & Thurik, 2001). Vice versa, credits are not attractive for entrepreneurs either: high rates and complicated conditions come as insuperable barriers (Berger, Frame, & Miller, 2005).

Informal capital (as well as bootstrapping) investigations are in tune with the drive towards the growing demand for alternative financial sources due to the lack of available loan products

(Atherton, 2009). The prevailing form of informal investments is venture capital which is the subject of an acute interest for both researchers and policy makers. Such an investment source fills in the financial gap during the growth of a new firm. Anyway, classic venture capital implies the allocation of financial funds among young entrepreneurial firms with a high growth potential (Mason & Harrison, 2002), in other words, among technologically innovative small businesses.

In respect to business angels – private investors who provide capital to new and growing businesses in which they had no prior connection and excludes investments in their own firms or in family businesses (Mason, & Harrison, 1995) – it is also a formalized financial source in terms economic reasoning. Investors are seeking for the gain and returns whereas borrowers are interested in the essential resources based on rational risk assessment (Kaplan, & Stromberg, 2004).

In this sense the informal financing (in the form of funds from family and friends) lacks such an inevitable economic grounding as rationality because of the biased perception.

Today, we can note the following trends in the financing of small entrepreneurs. Formal financing is of high demand in Europe: Greece, Netherlands, Belgium, Norway, Finland, Ireland, Italy and some others. The same pattern is observed in Canada and Russia with the exception of the dominant position of informal capital in the second country. Formal funds are not attracted and substituted by own capital and funds of close people in Brazil, Mexico, Peru, China, Jamaica and others. As far as US, UK, Australia are concerned the formal sources are suppressed by own financing. Business-angels' support is disseminated in Northern Europe: Denmark, Sweden, Norway, Iceland, and Finland (Murzacheva E. Risk Indicators ..., 2010).

Thus, there is a need for an alternative method of financing small entrepreneurs, which on the one hand is formalized, on the other hand is more available. Microcredit perspective is considered as an instrument for the risk mitigating along with preserving the cash flow intensity.

The content of microcredit phenomena

Microcredit is the extension of small loans (microloans) and other financial services (such as savings accounts) to those in poverty designed to entrepreneurship. These individuals have no sufficient collateral, steady employment and verifiable credit history and therefore cannot meet even the most minimal qualifications to gain access to traditional credit.

Microcredit is the system of economic relations between actors, who provide and receive microcredit. There is a whole infrastructure that serves the process of microcrediting. This infrastructure consists of a various microcredit organizations (MCO), whose main function is to mediate between consumers of microcredit services and their suppliers.

MCOs include nongovernment organizations, credit cooperatives, savings and loan associations, credit unions, various microcredit's funds, government and commercial banks, quasi-banks and others. The main activity of MCOs is the provision of microcredit services to target groups.

Microcredit is provided in the form of microcredit programs. Microcredit programs are the complex financial and consulting services provided by microcredit organizations to target groups of borrowers. Microcredit programs must satisfy the specific needs of selected groups (for example, increase women entrepreneurs' income, support for low-income families, creating new workplaces etc.).

The typical microcredit clients are low-income persons who do not have access to formal financial institutions. Microcrediting clients are typically self-employed, often household-based entrepreneurs. In rural areas, they are usually small farmers and others who are engaged in small income-generating activities such as food processing and petty trade. In urban areas, microcredit activities are more diverse and include shopkeepers, service providers, artisans, street vendors, etc. Microcredit clients are poor and vulnerable non-poor who have a relatively stable source of income.

The basic distinctive characteristics of microcredit organization:

- A database of clients. The target group of micro credit organizations: people with low income who have unofficial businesses or those who are on the lowest level of official businesses.
- A methodology of micro credits. Microcredit organizations use these methodologies which are based on information or reputation and also use systems of mutual protection of members from the same group.
- Administrative costs. Operational costs of micro credit organizations are higher than of commercial banks, therefore to defrayal such costs micro credit organizations have to use high rate which is higher than commercial banks usually use.
- Characteristics of a portfolio. Micro credit organizations can also give credits for a short period of time. The volume of such operations gives them an economy of scale.
- Management. Most of the microcredit organizations have similar organizational structures. Most of them have several small offices which directly interact with clients and back offices which ensure financial, managerial and technical support.

The motivation of a new mechanism for financing micro and small entrepreneurs' sector

As noted earlier, during the financial crisis access to finance for small enterprises was largely limited. The situation began to improve for the better by the end of 2009. So, according to the Russian public organization OPORA only 15% of entrepreneurs hadn't problems with financing (January 2009 - for 8%). Number of entrepreneurs, for which it was difficult or impossible to attract funds, decreased (56% in November and 75% in January, 2009). However this problem for small business is still very acute (National Institute of System Studies of Entrepreneurship's problems, April, 2010).

But the need for enterprises in debt financing has not disappeared. According to the NISIPP survey in May 2009 (National Institute System Studies of Entrepreneurship's problems (2007, May-June 2009). The project "Life cycle of small businesses: Round 1 and Round 2") 48,3% of

the enterprises needed to attract financial resources. At the same time, the availability of these resources is still restricted: about 36,9% of respondents stated that they have some problems with access to debt financing, 16,1% - have significant problems, and only 9,4% of respondents characterized availability of credit funds as high or very high. Moreover, a significant proportion of respondents evaluated the financial and economic situation of their enterprises as sustainable - 31,3% and as relatively stable- 53,7%.

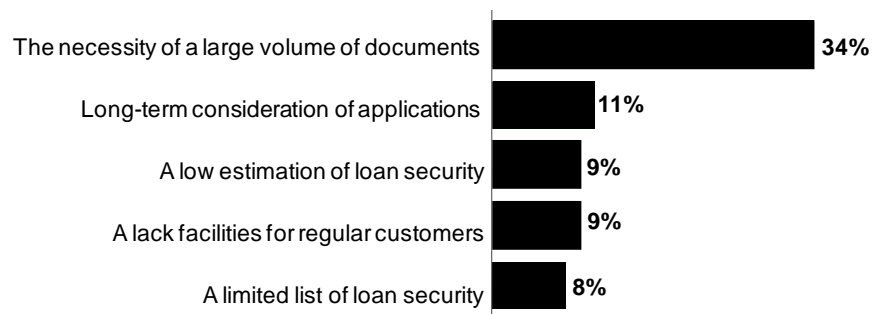
The data of “TRUST Index SMEs” studies confirmed a significant necessity in financing to micro and small entrepreneurs. Results of survey conducted at the end of 2009 revealed that 24% of respondents were going to increase investments over the next year, whereas at the beginning of 2009 only 15% of respondents expressed the same opinion. About 13% of respondents said that at the end of 2009 they were going to attract loans for business development, but at the beginning of 2009 only 10% of respondents planned to attract loans for business development. Positive entrepreneurs' mood is a good indicator, of course. However, it should be mentioned that the willingness of micro and small entrepreneurs to get loans does not change the structure of demand for debt financing. According to various surveys, in recent years from 20% to 25% of micro and small entrepreneurs used credit and the most popular type of credit is a short-term lending program.

Thus, there is necessity of a new mechanism, which could formalize the informal cash flows. One should remember that it is an alternative source which has been “invented” by entrepreneurs themselves as the alternative to expensive banking credits, burdensome government procedures to get special grants and transfers, tough and demanding selection processes of venture capitalists and business angels. To replace it without provoking a negative response it is necessary to preserve main features which are attractive to micro and small entrepreneurs: easy access, quickness of getting finance, indifference to the internal characteristics of the business (industry, skills, experience, welfare, status, position and so on), low price, no binding

obligations to return the debt (the terms of recovery and profit gain), no collateral (Murzacheva E. Risk Indicators ..., 2010).

The analysis of the main barriers to lending in according entrepreneurs' views showed that credit policy of banks is the greatest p of entrepreneurs. The main problem associated with credit process is the enormous number of documents which should be prepared and long consideration of applications. Since short-term lending is of highest demand among micro and small entrepreneurs, these factors are critical to the success of their business. The main factors which make bank services less attractive are shown in Figure 1 (according to entrepreneurs' views).

Figure 1. Reasons of dissatisfaction for the provision of credit services among small businesses, % of respondents



Source: National Institute System Studies of Entrepreneurship's problems (April, 2010). Analytical report "Credit to small and medium entrepreneurs. Features of supply and demand")

However, if all the conditions are satisfied the problem of the downgrading quality will not be mitigated. The challenge is to find a balance between formal issues and marked informal advantages.

Keeping in mind, that the inability of entrepreneurs to access necessary financial services in an appropriate form is a key barrier for the business development, it is the first item that should be kept in mind when formalizing informal funds. 15% of the UK population does not have an opportunity to get banking credit, 15% - in Sweden, 11% - in Denmark, 13% - in Slovenia

(Eurobarometer report (2007), 16% - in Russia (National Institute of System Studies of Entrepreneurship's problems (2007, May-June 2009). The project "Life cycle of small businesses: Round 1 and Round 2").

The most plausible ways to resolve the problem is microcredit. The most crucial features of this institute have much in common with the attractive points of informal capital: alleviated accesses, lower prices, simplified procedures of getting finance and others.

Moreover one of the most fundamental missions of microcredit organizations is to curtail the share of informal credit markets (on a par with aiding the entrepreneurial activity, stimulating the savings among population and so on) (European Commission, 2010).

Let's turn to the next part of our research to consider microcredit in detail.

The evidence of micro and small entrepreneurs' sector in Russia

According to official statistic data on the small entrepreneurs sector, the main indicators of this segment of the economy revealed positive dynamics in the years 2000-2009. During this period the small entrepreneurs sector was one of the most dynamic in the Russian economy.

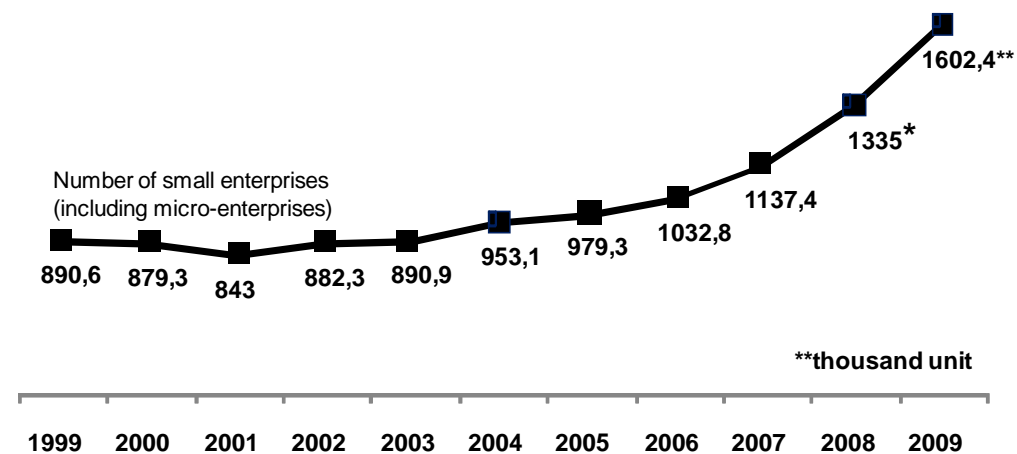
Currently, in accordance with the data of the Federal State Statistics Service and the Federal Tax Service 1 602 521 small businesses of micro and small entrepreneurs operate in Russia, including:

- 1 374 777 microenterprises (in accordance with Federal law № 209-FL "On the development of small and medium enterprises" statistical survey of micro enterprises is carried out once a year) with the number of employees up to 15 people and an annual turnover of up to 60 million rubles,
- 227 744 small businesses with the number of employees from 16 to 100 employees and an annual turnover up to 400 million rubles.

It should be noted that the principles of statistical observation of small and medium entrepreneurs sector have changed since 2008. Until 2008, the criteria for small businesses

(depending on the number of employees) were different for various industries. Since 2008, there is no such a differentiation; this led to improvement of all indicators of the sector (due to the inclusion of additional segments of the business). Figure 2 specifically highlights the point of changing the system of statistical observation (National Institute of System Studies of Entrepreneurship's problems (August, 2010).

Figure 2. Number of small enterprises (including micro-enterprises) in 1999-2009



* Since 2008 - a new system of statistical accounting of small enterprises

Source: National Institute of System Studies of Entrepreneurship's Problems (August, 2010). Report "Small business and government support"

Sector breakdown of small enterprises is characterized by a high proportion of whole- and retail sale. The number of such enterprises was 662.5 thousand in 2009 or 41% of all legal entities (in 2008 - 42%). These companies provide 29% of workplaces in small businesses (3,5 million people) – by data The Ministry of Economy and Development Russia. The second largest of the small business activity is the provision of services, in this sector 290 thousand companies (18% of the total number of SMEs) involved. This sector provided 16% of workplaces (about 2 million people). The third sector, which represents a significant number of small businesses, is a construction: 195 thousand enterprises (12%), which provide workplaces for 1.8 million people

(15% of total employment in the SME sector). Such industry structure of small enterprises has remained largely unchanged over the past ten years. It should be noted that the number of sale's companies is gradually reduced (in 2005 whole- and retail sale enterprises were 46%) (National Institute System Studies of Entrepreneurship's problems (August, 2010). Report "Small business and government support"). Dynamics of the turnover of small enterprises in 2006-2008 was positive. However, in 2008 due to financial crisis growth rate decreased and in 2009 the sales turnover of small businesses declined (National Institute System Studies of Entrepreneurship's problems (August, 2010). Report "Small business and government support").

The dynamics of the small businesses' development in recent years reflected the growing contribution of small enterprises in key economic aggregates. Thus, the share of GDP produced by small enterprises in 2008 was 21%, and in 2009 – 22,5% (by data The Ministry of Economy and Development Russia). Share of small enterprises' turnover in total turnover in 2008 was 25,6%. At the same time, the contribution of small business in Russia's GDP remains at a considerably lower level than in the European Union, USA and Japan.

Small business sector suffered a lot in 2009. So, the number of employees in small enterprises decreased by 1,1% (compared to 2008), turnover of small businesses for the year declined by 17%.

Main problems of small enterprises in crisis environment were associated with the financing.

The main characteristics of financial position were the next:

- the lack of working capital due to a significant reduction in small enterprises' turnover;
- the growth of the fail accounts payable to banks, leasing companies and counteragents;
- the lack of access to bank lending (in conjunction with stricter requirements for borrowers and rising interest rates on loans);
- the reduction in effective demand for products of small enterprises;
- the lack of free access to financial resources provided by the government.

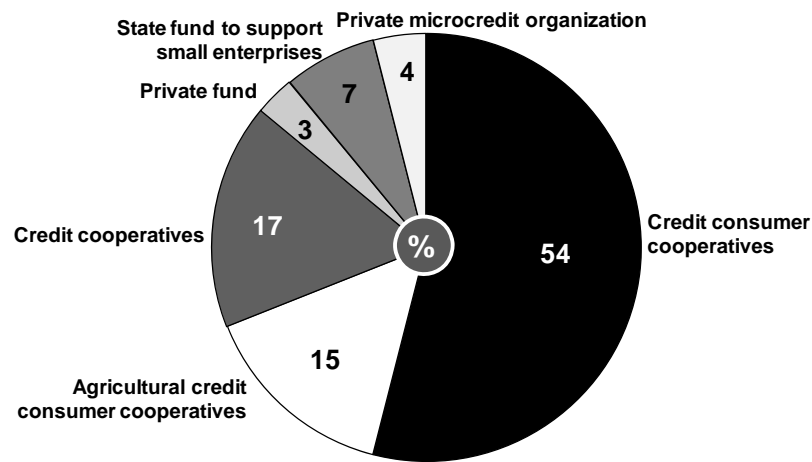
Despite of the fact that the dependence of small enterprises from the banking sector and bank financing as opposed to large and medium-sized enterprises is not strongly pronounced, liquidity crunch in the banking sector reduced the banks' ability to allocate credit to small businesses. Small businesses use credit primarily for working capital, purchase of goods from large manufacturers, wholesalers. In other words, a small business has great demand for short and medium term loans. Banks were limited in their resources due to the crisis and could not satisfy the small businesses' demand. According to the Ministry of Economic Development and Trade in Russia during the first half of 2008 growth rate of lending to small businesses was about 31%, while in the second half of 2008 this figure dropped to 2,7%. Small businesses that work with small regional banks and which experienced considerable difficulties with liquidity, felt the impact of the banking crisis to a greater extent.

The financial crisis led to sharp deterioration of the typical problems that exist in small business. There was a significant reduction of access to additional financial resources.

In period from 2003 to 2007 microcredit market in Russia had positive dynamics. Number of microcredit organizations (including separate divisions) increased by 42% in 2007 compared with 2003 (<http://www.rmcenter.ru> – Russian Micrifinance Center). It should be noted that the number of structural units in 2003-2007 practically unchanged, while the number of separate divisions increased. This suggests that during 5 year new players hardly appeared, but existing players expanded their branch network. 2008 year and 2009 year were rather difficult for the microcredit' market in Russia due to the financial crisis and slowing economic growth. The highest peak of the crisis in the microcredit sector occurred at the end of 2008 and early of 2009, but the situation began to stabilize by the 2nd quarter of 2009.

Credit cooperatives occupy the leading positions in the microcredit market: their share increased from 69% in 2003 to 86% in 2008. The structure of cooperatives is as follows: credit consumer cooperatives (54%), credit cooperatives (17%) and agricultural credit consumer cooperatives (15%). The structure of microcredit organizations (according to 2008 year) is shown in Figure 3.

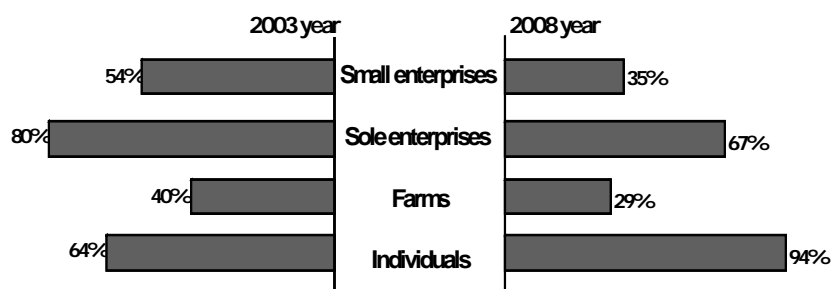
Figure 3 Structure of microcredit organization in 2008



Source: Russian Microfinance Center (May 2010). The tendency of development microfinance in Russia – 2008-2009

The main users of microcredit services in 2003 were sole traders (according to the structure of the client base of Russian microcredit organizations), but by 2008 the situation changed and the main users were individuals (see Figure 4). The same situation was observed in the banking sector - the active operations of credit institutions in 2008 were characterized primarily by credit growth (although growth rates of credit lending to non-financial organizations and the population was markedly lower than in 2007).

Figure 4. The structure of the client base of Russian microcredit organizations, % of respondents 2008



Source: Russian Microfinance Center (May 2010). The tendency of development microfinance in Russia – 2008-2009

The structure of the customer base is largely determined by the type of organization that provides microcredit services. This is due to legislative restrictions imposed on certain legal forms and goals of microcredit organizations themselves, their specialty, financing sources and the location. Over the past 7 years the structure of the loan portfolio has changed significantly for all types of microcredit organizations. The share of loans for business purposes is reduced year by year and by 2008 amounted to only 28% (2003 - 62%). The share of loans to consumers, to the contrary, increased from 30% in 2003 to 61% in 2008 (<http://www.rmcenter.ru> – Russian Microfinance Center). Aggregate demand for loans declined due to decrease in business activity and consumer demand in 2009, because during the crisis the population shifted from consumption to savings. Therefore the loan portfolio in microcredit organizations decreased.

Policy implications

Despite of slowdown in the microcredit sector's development, it is expected that in the condition of post-crisis growth micro-credit sector will play a key role, especially in regions where the underdevelopment of banking infrastructure is mostly noticeable. Moreover, it is expected that in favorable economic environment the loan portfolio and the number of borrowers will grow in microcredit organizations faster than in the banking sector.

Among different forms of the microcredit (banks: cooperative, commercial, microfinance, savings; non-banks: financial cooperatives, non-profit companies, non-governmental organizations), credit cooperatives (both in the form of banking and non-banking organizations) can fulfill financial gap in the micro and small entrepreneurship. Such a form of financial institution has unique possibilities in the accumulating of non-operating savings of the population with the aim of the entrepreneurial activity crediting (as a particular case).

Financial cooperatives which are organized to serve small business support should meet minimum regulatory requirements in order to achieve a full-fledged displacement of informal cash flows. From the other point, it is essential to ensure that such a kind of transformed investments would not cause the same negative effect as in the case of informal capital. Due to the minimum regulatory control and taking into the account the findings that cooperative financial organizations are more stable than commercial banks micro-credit cooperatives ensure reasonable resources allocation. These institutions are more resilient to stress as their funds are not diversified in the open market and concentrated in the real sector.

In all European countries the long-term strategies concerning the microcredit stimulation are approved (for example Europe 2020). Moreover, in Russia the concept of the microcredit organization development is elaborated by the Russian Microfinance Centre. However, each policy should specialize in a concrete problem. In the scope of the research, informal capital sources should be formalized by means of financial cooperatives involving these investors to combine their resources and put them under control. And microcredit is alternative mechanism for financing micro and small entrepreneurs that allows doing it.

Conclusions

Informal capital in the small business financing has various impacts.

First, it is a crucial condition for the business origination at the predetermined time. The lack of other sources due to the immature financial system, the absence of trust among investors and unstable environment encourage the choice in favor of this financial strategy in order to to enhance social status or to improve the well-being. Such an outcome is typical for the countries with low social and economic development.

Second, informal capital is a generator of potential instability in terms of providing of subprime credits. People are more likely to use this source if they feel unconfident about their business idea, or they need moderate amount of money to start some typical activity: trading, transport

and so on. This negatively affects profitability and solvency of the firms. They neither provide sufficient jobs nor enhance economic growth due to the low value added. Such feature of microcredit organizations is common for both developed and emerging markets. It is especially dangerous for the developed countries because it can overwhelm the positive effect from the entrepreneurial activity substantially. However, in emerging markets these institutions can enhance economic recovery process.

Third, informal investments can exist as additional source of financing which is an outcome of personal relationships. Notwithstanding this fact, other financial sources are available to successful businesses. In other words the balance should be found to insure an economic growth. Micro-finance organizations are those institutions that help to achieve this balance. More specifically, credit cooperatives are able to replace informal cash flows and become the formalized analogue of them. The legal structure of such institutions preserves the most attractive features of informal capital: easy access, low prices and close relationships (an opportunity to resolve all the disputes inside the organization).

The analysis shows that microcredit should be used as an alternative mechanism for financing micro and small entrepreneurs' sector. Therefore promotion of microcredit services is an important strategic objective for the development of any country; it is an important source of future growth of micro and small entrepreneurs which is the foundation of economic hierarchy. So it is an issue both economic and social importance.

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The input of informal capital into the entrepreneurial activity in the international context⁶

Keywords: Global Entrepreneurship Monitor; entrepreneurship efficiency; informal capital; credit risk

Abstract: The paper considers the financial choice of entrepreneurs at their initial stage of development as a key criterion of a new firm potential riskiness. The main objective of the research is the methodology elaboration aimed at the numerical estimation of the role of informal financial resources involved in the small business creation. Two fundamental considerations have been tested. The former implies that informal investment is a substitution for unavailable formal sources, including venture capital (because of the lack of essential networks and connections with business associations). The latter performs the opposite concept of negative effects: economic reasoning discouragement and inefficient resources allocation.

A special technique is introduced in order to measure the credit quality of early entrepreneurial activity and to estimate its contingency with the financial strategy. The methodology validation is realised under Global Entrepreneurship Monitor conceptual framework. The results are received for 42 countries in 2006-2007, depicting the influence of informal support on potential losses under the second consideration.

As a result, informal investments are inefficient when the concentration of credit risk in the economy is rather high. Investors' expectations about the entrepreneurial growth of the firm are pessimistic, anticipated returns on investments are too low to be economically reasonable. The outcome leads to the irrecoverable losses, both financial (short-received profitability) and non-financial (decreased output, the lack of innovativeness, flexibility, and inventiveness).

Introduction

Traditionally the literature on the financial aspects in entrepreneurial activity is based on the "rational actor" hypothesis originated from the works of Myers (1984). Capital structure

⁶ Paper presented at the ICSB conference, Stockholm, March 2011.

dilemma (Mason & Harrison, 2002), equity to debt puzzle (Lemmon, 2006), let alone the developing dimension of pecking order theory (Chittenden et al., 1996) as well as agency costs (Kaplan and Stromberg, 2004) and information asymmetry theories (Cassar, 2004) have been deeply rooted into the understanding of the nature of small business financial decisions.

These concepts imply dealing with formalised financial institutions: a debt is regarded as a form of banking (non-banking) credit, equity involves IPO, venture capital is represented by professional institutional market participants, business angels are not detachable from specialised associations and communities. Notably that the scope of such financial sources is comparable with informal capital attraction which is widely used especially at the beginning stage of entrepreneurial activity (Gaston, 1989; Abernethy & Heidtman, 1999; Bygrave, et al., 2003). However the relationships arising from such a kind of financing agreement do not fit well the theories mentioned above because of the violation of the principal assumption about rationality or bounded rationality (Hancock, 2009).

The unique features of informal capital in terms of economic reasoning and consequences give rise to the indefinite outcome both for a small business firm and overall economic activity. The main objective of the paper is to reveal the role of informal capital: whether it fills in the financial gap or provokes inefficiency in the entrepreneurial activity.

In other words, keeping in mind that all the formalised financial institutions are the subject to prudential control from the government side, informal capital is an unattainable area for any regulations, and thus it can provoke undesirable and uncontrolled processes. In this sense it is essential to identify the nature of such relationships and estimate (or anticipate) the potential damage to the entrepreneurial activity and overall economic system (in case if the informal capital is a feasible source of financial instability).

To shed more light on the issue and in order to come to the results and propose some practical implications the following steps have been undertaken in the analysis:

Firstly, the theoretical foundation of the research is provided. The connection between the financial strategy of entrepreneurs and their potential sustainability is established. The assumption that small business activity fosters the GDP growth is highlighted and is opposed to the statement about the possibility of negative impact of entrepreneurial activity on the economic development.

Secondly, the overview of the demand for and supply of informal funds in different countries is presented. The relation between the availability of such kind of investments and economic development of a country is investigated.

Thirdly, a special indicator has been constructed in order to assess the credit quality of informal investments and the potential effect of such a financial strategy. Some results are concluded in concern with the role of informal capital in a concrete economy.

Lastly, depending on the probability of significant quality deterioration of entrepreneurial activity (caused by the dominant informal financing strategy) some implications are suggested. In case informal funds play a negative role in the small business process it should be formalised in order to keep the process under control. Microfinance perspective is considered as an instrument for the risk mitigating along with preserving the cash flow intensity.

Contextual Background and Hypotheses

In a growing stream of academic literature on the topic of small business activity and financial resources attraction the concern about entrepreneurial contribution to the growth and competitiveness is evident (Kirzner, 1973). Keeping this statement in mind, two explanations of the relationship between entrepreneurial growth and overall economic development are set forth. On the one hand the dissemination of small firms in the economy triggers off an increase in production rates and output growth. For this reason the nature of such a relationship should be understood. One of the arguments lies in the conceptual framework elaborated by Paul Reynolds

who managed to establish «a comprehensive assessment of the role of entrepreneurship in national economic growth» (Reynolds, 2005, p.205).

On the other hand there is one more channel for the impact of entrepreneurial activity on the socioeconomic development – creation of additional workplaces. This theory runs smoothly in practice unlike the previous one. It is generally accepted that the rise in the number of employed people stimulates the production growth as well as individual welfare improvement in terms of higher income rates (North, 1995).

However the empirical evidence denies the stated argument about the favourable entrepreneurial impact, especially in relation to small typical start-ups in retail business. A growth of the welfare of a country is often combined with the real income per capita rebound: people tend to work for others in pursue of high wages than starting up own businesses (Caree et al., 2003). Moreover, facts speak for minor contribution of small firms to the employment rates upturn (Acs and Armington, 2004). Summing up, only distinguished (firms with high growth potential) start-ups are able to enhance economic growth and stimulate job creation (Shane, 2009).

So the key issue sounds in a following way: “How can we (the society or the government) identify a right start-up to support?”, “Is there any technique to measure the quality of the ongoing entrepreneurial activity in order to define the policy correctly?” The answer originates from the clarification what the quality of small business activity is.

To come up to the solution it is essential to recognise that the first step towards realisation of any start-up is getting financial resources (Shane, 2003). Furthermore, the financial strategy of a starting entrepreneur leaves an imprint on the future business development and its impact on the overall development (Kon & Storey, 2003).

For an entrepreneur as for a single economic unit two ways of financing are available: own funds and a debt. As far as the equity financing (IPO or own funding) is concerned it does not cause negative effects in any case if we consider instability from the credit risk aspect (risk, initiated by the creditor-borrower relationships). The side of debt financing is rather multifaceted and

includes a wide range of options which are not discussed in corporate finance theories: venture capital, business angels and informal capital.

The side of formal financial support is thoroughly investigated in the literature and taken into consideration by policy makers. Until recently it has been considered that the small business financing through banking facilities is the most convenient and effective source. Nevertheless, the study of Beck (2004) reflected upon the contentious issue about the positive role of banking sector «in enhancing economic growth through more efficient resource allocation». Additionally, small firms are often out of the credit institutions' target customer base at their early stage of development because of the lack of credit and trading history, collateral (Verheul & Thurik, 2001). Vice versa, credits are not attractive for entrepreneurs either: high rates and complicated conditions come as insuperable barriers (Berger et al., 2005).

Informal capital (as well as bootstrapping) investigations are in tune with the drive towards the growing demand for alternative financial sources due to the lack of available loan products (Atherton, 2009). The prevailing form of informal investments is venture capital which is the subject of an acute interest for both researchers and policy makers. Such an investment source fills in the financial gap during the growth of a new firm. Anyway, classic venture capital implies the allocation of financial funds among young entrepreneurial firms with a high growth potential (Mason & Harrison, 2002), in other words, among technologically innovative small businesses. Venture capital (as institutional private equity finance) is also well addressed in the literature and is out of the focus in this paper.

In respect to business angels – private investors who provide capital to new and growing businesses in which they had no prior connection and excludes investments in their own firms or in family businesses (Mason & Harrison, 1995) – it is also a formalised financial source in terms economic reasoning. Investors are seeking for the gain and returns whereas borrowers are interested in the essential resources based on rational risk assessment (Kaplan & Stromberg, 2004).

In this sense the informal financing (in the form of funds from family and friends) lacks such an inevitable economic grounding as rationality because of the biased perception. Formalised institutions are engaged in the special procedures to assess the quality of the borrower (both credit risk and internal, business risk). Such organisations summarise available information and make decisions whether to invest or not according to their objectives. At the same time informal capital is much cheaper and lacks these burdensome requirements. However the costs can be higher than expected at the outcome:

- 1) Adverse selection of business projects (violation of the risk-return relationship) (Baumol, 1968);
- 2) The weakening of the responsibility for the efficient resources allocation and capital management in front of the investor (violation of the profit maximisation principal under restricted resources) (Lerner, 1998);
- 3) Industry retargeting of the business from the innovative trend to the traditional activities such as retail trading, transport services and others (Landström, 2005). The latter do not demand for the large investments, special skills and knowledge, inventiveness at the beginning stage. It is easy to enter the market and overcome administrative barriers.

From this point, the quality of entrepreneurial activity can be measured in compliance with the financial sources attracted to finance a start-up at the early stage of its development. Such a kind of indicator is a challenge for the risk analysis. Two aspects are incorporated here: credit risk element (the possibility of a firm to generate sufficient cash flow to fulfil its obligations) and business risk facet (the possibility of an entrepreneur to produce a successful business idea and to realise it efficiently). In order to build on the theory in the field of informal small business financing and its consequences for the entrepreneurial performance as a whole it is proposed to test the following hypotheses:

Hypothesis 1: Informal capital is a substitution of the unavailable formal funds for small business.

The development of early entrepreneurial activity would be impossible without such a source. It is a leading financial strategy of beginning entrepreneurs in countries where the financial system is immature.

Hypothesis 2: Informal capital is a crucial source to get the business started but the financial system is sound enough to suggest a wide range of formalised sources (credits, venture capital, business-angels associations e.t.c.).

Informal capital is *not* an inevitable element to keep small business afloat. It means that either it is demanded by the businesses which are not able to pass formal procedures of credit institutions or are rejected by other potential investors because of their inefficiency and lack of prospects. Or it is attracted by entrepreneurs who look for “easy money”, without subsequent obligations to return it or to earn additional gain.

Hypothesis 3: Informal capital is a marginal financial source and does not play a significant role in the economy.

If the second hypothesis is supported the “quality indicator” should reflect it. It is the case when informal capital harms the entrepreneurial activity. It effects the overall economic development negatively (through the discouragement channel). The formalisation of such investments should be undertaken through the setting cooperative microfinance organisations up.

Methodology

Data collection and sample description

The following study is a part of the international project Global Entrepreneurship Monitor (GEM), aimed at the investigation of entrepreneurial activity in the world. The Russian team's participation in the project made possible to carry out several researches concerning small business development in Russian Federation (2006-2009) and to implement cross-country analysis broken down 42 nations in the world.

The harmonised GEM dataset is available for the consistent intertemporal and international comparisons and provides the unique opportunity to measure differences in the level of entrepreneurial activity between countries, to uncover factors determining it and to identify policies that may enhance the level of entrepreneurial activity. Within GEM context the whole life-cycle of entrepreneurs is covered: from intentions to start a new firm till the established functioning (Reynolds et al., 2005).

Representative samples of randomly selected adults based on the two-stage proportional stratified selection (ranging from 2000 to 43000 respondents) are surveyed each year in each participating country (given the harmonisation and comparability ensured). A set of core questions (identical in each country) about attitude to, involvement into and conducting entrepreneurial activity are asked as well as basic social and demographic characteristics of the respondents are covered (Quill et al., 2006).

The opportunities of GEM data compared with the scope of official statistics allow to capture a deeper field of entrepreneurs' and their sponsors' internal incentives. For example Russian statistical system, as well as ones in other countries, which are based on the United Nations Organization concept, enables researchers to investigate small and medium size enterprises only after 2 years have passed since their official registration (Obraztsova, 2008).

Terms and definitions

The time period of the survey concerns the dataset for 2006 and 2007 with indicators harmonized and standardized for comparisons in 42 countries – GEM project participants. According to the policy conditions only these years are available for the open publishing (in the international aspect) to date.

The object of the study is a group of early entrepreneurs marked out in accordance with the accepted classification of GEM methodology. These are people aged between 18 and 64, who have committed resources to start a business they expect to own themselves (solely or jointly)

and people, who actively involved in managing a business which they already own solely or jointly for more than three months but less than 42 months.

According to the GEM methodology formal resources include capital in the form of banking credit or in the form of the financial governmental support. The GEM methodology also makes it possible to factor in various sources of financial resources, including the funds of business angels and love capital. The category of “love capital” (money from relatives, friends, neighbours, work colleagues) differs from the business-angels’ investments (third parties who invested their own funds into detached business activity). Although both categories are combined into a group of informal investors: people who have personally provided funds for start-ups of others in the last 3 years.

The indicator of the default among early entrepreneurs is used in the analysis in order to measure the small business stability and efficiency. Defaulted businesses refer to the people in the sample who responded „yes” to the statement that they discontinued business in the past three years and the reason for it was one of the following: too much competition, lack of customers, problems with getting finance or the business was not profitable.

Credit risk is understood as a possibility of relative losses (relative to the expected level) caused to the lender by the default of the borrower. Business risk is treated as a possibility of relative losses (relative to the expected level) caused to the entrepreneur by the wrong business strategy (Crouhy et al., 2005).

Measurement

Keeping to the research framework the credit and business quality of entrepreneurial activity should be estimated. In addition it is necessary to provide a universal macroeconomic indicator which can be aligned to the level of riskiness of the dominant financial strategy among early entrepreneurs. Moreover, the received indicator should be linked to the social and economic development of a country in order to check the stated hypotheses. As a result, the

implementation of such an objective is divided into two steps in conjunction with the different nature of the research subject.

Step 1

Firstly, as far as the quality of a business is concerned microeconomic approach is applicable. Depending on the internal features of a start-up (in combination with economic, social, political environment) it is more or less likely to fail (either to fulfil its credit obligations – credit risk issue - or conduct sustainable activity – business risk issue).

Following this sense, the risk-management outlook should be embedded into this part of the analysis. In this research credit risk evaluation is based on the calculation of minimum capital requirements methodology elaborated by Basel Committee on Banking Supervision and presented in the document called “International Convergence of Capital Measurement and Capital Standards” (2006).

According to the concept mentioned above, credit risk assessment consists of three elements: probability of default (PD) measure, the exposure at default parameter and the level of losses as a percentage of the total exposure in case of the default.

In the research context the PD indicator can be transferred to the analysis and be used as an instrument for the quality of entrepreneurial activity measurement. It shows the potential soundness of a small business unit and its survivability in the economic environment. That is exactly the case when both credit quality (as an opportunity to fulfil obligations) and business quality (as an element to foster the overall economic development) are captured.

In order to adjust the Basel methodology an indicator of the Probability of Default among early entrepreneurs is introduced. It is calculated as an estimated share of early entrepreneurs, who will possibly be in default during the forthcoming year.

Binary logistic regression is the most widespread method for the binary choice modelling, including the PD estimators (Engelmann and Rauhmeier, 2006). Moreover, this procedure is inevitable when dealing with input variables measured in different statistical scales, in particular

nominal and ordinary ones. It is a single model which imposes a limited range of restrictions on the parameters (admitting small sample sizes and different measurement scales of input variables) and delivers appropriate results (Verbeek, 2008).

On the basis of the default history in the sample (in 2006 and 2007 for a number of countries where sufficient data are available – see appendix 1) a set of significant factors has been distinguished. The binary logistic model has been applied based on the stepwise method along with forward selection procedure. The input block of factor variables is presented by three strands: demographic characteristics of entrepreneurs; social factors; motivation and self-recognition of entrepreneurs (see table 1).

Table 1. Input variables description

<i>Demographic and social factors</i>	<i>Gradation</i>	<i>Motivation and self-recognition factors (the opinion of the respondents is asked)</i>	<i>Description</i>	<i>Gradation</i>	
Gender	1 - male	Social networks	Personally knows entrepreneurs	1 - yes	
	0 - female			0 - no	
Age	de facto	Environment perception	Good opportunities to start business	1 - yes	
Work status	1 - full			Competence	Sufficient skills and knowledge to start a business
	2 - part time	Fear of failure prevents from starting up a business	1 - yes		
	3 - retired		0 - no		
	4 - homemaker	Confidence	People around prefer uniform living standard	1 - yes	
	5 - student			0 - no	
	6 - no work			1 - yes	
Income (calculated in percentiles)	1 - low	Social perception	Starting a business is a good career choice	0 - no	
	2 - middle	Career game		1 - yes	
	3 - high			0 - no	
Education	0 - none	Social position	Starting a business leads to the high status	1 - yes	
	1 - under secondary			0 - no	
	2- full secondary	Publicity	Lots of media coverage of entrepreneurial activity	1 - yes	
	3 - post secondary			0 - no	
	4 - additional				

Data source: GEM APS individual database (2006-2007)

After the relevant determinants in explaining the default event (at the 5% level of significance) are received, the outcome coefficients have been applied to the same factors among early entrepreneurs. The goal is to obtain the individual PDs among early entrepreneurs on the basis of the available information:

$$PD_i = \frac{1}{1 + e^{-z}}, \text{ where } z = \sum_{i=1}^N b_i \times x_i + b_0$$

x_i - significant parameters revealed in the analysis

b_i - coefficients received from the binary logistic regression model

It is proposed to use average and median values in order to estimate the overall PD among early entrepreneurs based on the individual PDs. However a special adjustment should be implemented to take some sample features into the account and to improve the estimates.

Within the quantitative approach the PD is a random variable that complies with binomial distribution (default either occurs or does not). Keeping in mind small samples of defaulted entrepreneurs (less than 40) and PD assessments near 0, it is advised to use Jeffray's confidence intervals for the received estimations. The limits of the interval are calculated based on the assumption about prior Beta distribution of random binomial variable (Lawrenz, 2006).

The validation procedure conforms to the assessment of the discriminatory power of the model received with the help of Receiver Operating Characteristic (ROC-curve or Lorenz - curve) and Accuracy Ratio (AR, Gini ratio). Concavity of the ROC-curve is equivalent to the property that the conditional probabilities of default given the underlying factors is a decreasing function of the factors. AR – is the area under the ROC curve (Tasche, 2005). It is considered that values of AR measure which are higher than 40% indicate very good discriminatory power of the model (Moody's, 2000).

Step 2

The next stage of the analysis implies the connection between the financial choice of early entrepreneurs and their potential stability and solvency. Since the historic data do not allow

including these variables (whether funds attracted in the form of formal, informal capital or supplied by business-angels) into the default estimation the other approach is applied.

The focus is concentrated on the four financial strategies available for early entrepreneurs: self financing; funds from relatives; financial support from friends, neighbours and work colleagues; formal capital. According to the theoretical aspect covered above, all these sources can be ranged in compliance with the risk associated with it. We can interpret it in terms of credit risk and business risk based on the price of the attracted capital. The highest price is observed for formal capital, whereas self financing is free for an entrepreneur. From this viewpoint, the higher the price is the more credit risk is associated with it. The borrowers are of high responsibility for the gained credit resources from formal investors (price, collateral, and property) while potentially insolvent ones will appeal to informal funds with no tough recovery obligations. The opposite logic concerns business risk treatment: the risk is higher when the business is not under the outside control, there are incentives to turn to cheaper but less efficient strategies (e.g. industry retargeting). (See table 2).

Table 2. The risk ranging of the financial strategies of early entrepreneurs

<i>Credit risk – the possibility of losses incurred to the lender owing to a change in the credit quality of a borrower</i>	Grade	<i>Business risk – the possibility losses incurred to the entrepreneur owing to the downgrading of control and responsibility</i>	Grade
Self financing (no credit relationship)	1	Self financing (no outside control)	4
Funds from relatives (the lowest price of capital)	2	Funds from relatives (the weakest outside control)	3
Capital from friends, neighbours and work colleagues	3	Capital from friends, neighbours and work colleagues	2
Banking credit and governmental grant or transfer (the highest responsibility in front of a lender)	4	Banking credit and governmental grant or transfer (the toughest outside control)	1

As a result we managed to change the statistical scale according to the sense implied behind the variable. We have received an ordinary measured parameter which is applicable to the contingency analysis. If the individual PDs are ranked among early entrepreneurs and their grades of financial strategies are known then it is possible to evaluate the association between the quality of entrepreneurial activity and the financial strategies of the small business units. If

several financial sources are attracted the average grade is used in the contingency analysis (as an average measure of the risk implied). The nonparametric Spearman's rank-order correlation criterion is used in order to assess the contingency between two variables in the ordinal scale. The conclusions are made at the 5% level of significance.

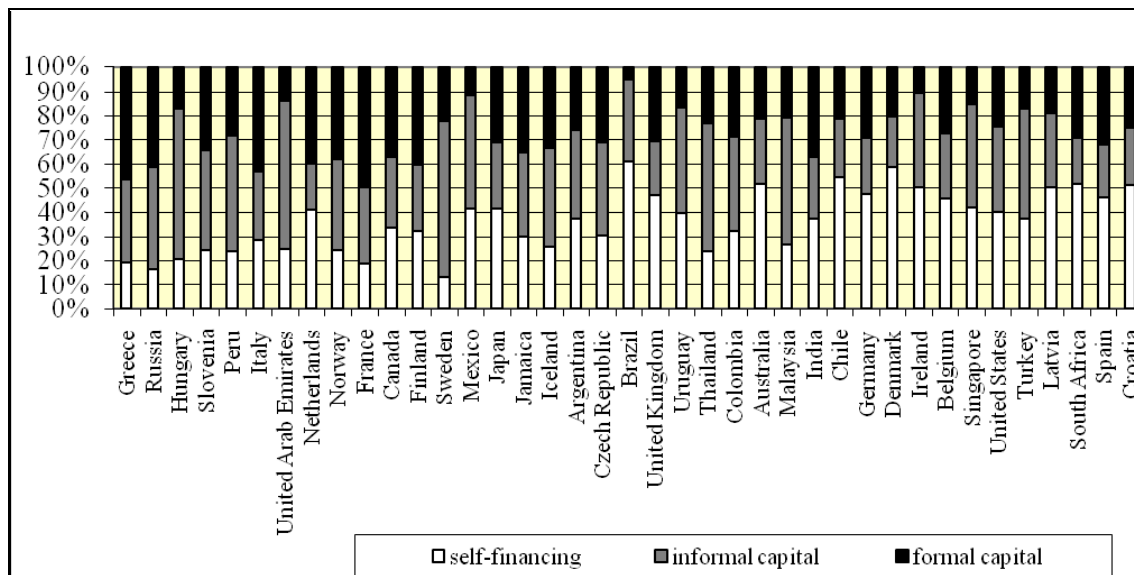
This approach gives rise to the explanation of the role of informal investments: the higher the contingency is (the sign of the criterion does not matter because of the ranging in both directions), the less efficient businesses are financed by the informal capital.

Results

Descriptive statistics

The dataset opportunities allow making structural comparisons of various financial strategies of early entrepreneurs across the countries in 2006 (see fig. 1). However, the international sample lacks the detailed information about the demand for financial capital in 2007. In 2006 the picture is quite heterogeneous: the nations vary greatly in the financial preferences distribution.

Figure 1. The percentage of early entrepreneurs willing to attract different kinds of financial sources to start a business across 42 countries in 2006



Data source: GEM APS individual database (2006)

Nevertheless common tendencies can be tracked. Formal financing is of high demand in Europe: Greece, Netherlands, Belgium, Norway, Finland, Ireland, Italy and some others. The same pattern is observed in Canada and Russia with the exception of the dominant position of informal capital in the second country. Formal funds are not attracted and substituted by own capital and funds of close people in Brazil, Mexico, Peru, China, Jamaica and others.

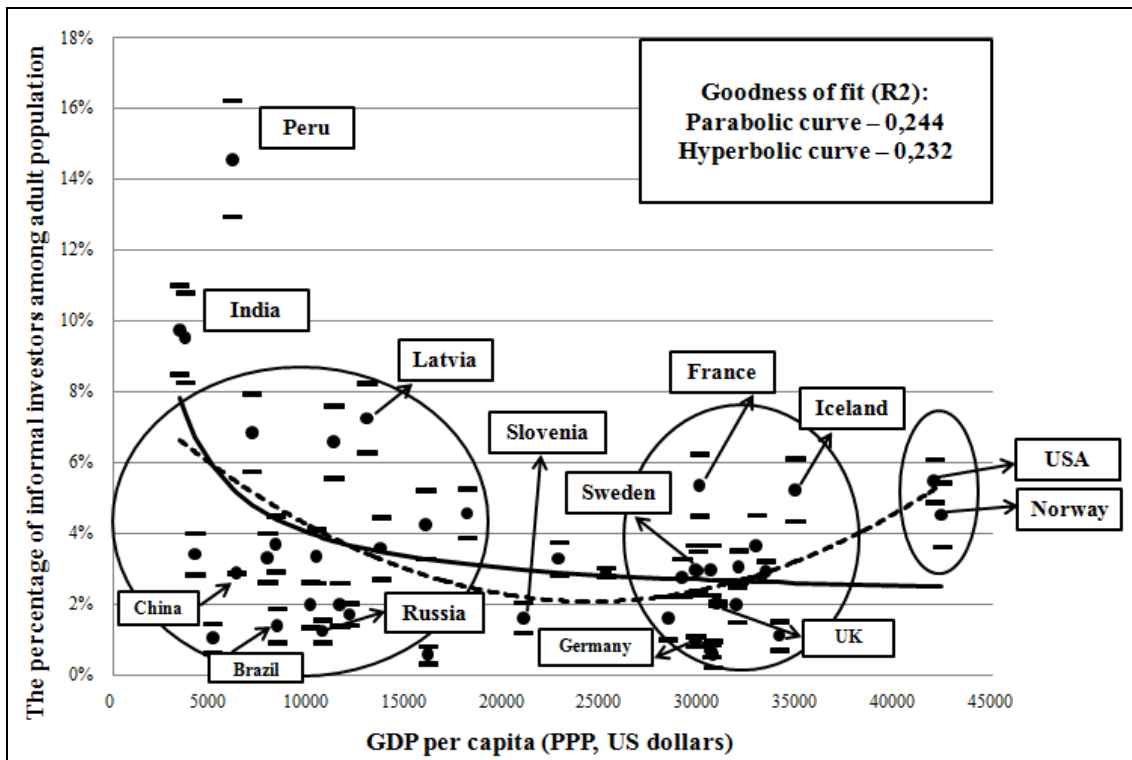
As far as the US, the UK, Australia are concerned the formal sources are suppressed by own financing. Business-angels' support is disseminated in Northern Europe: Denmark, Sweden, Norway, Iceland, and Finland.

Summarizing the idea above, one could identify the importance and prevalence of the borrowed capital, particularly informal financing for early entrepreneurs, although such a choice doesn't signify any kind of trade-off between borrowed and own funds in terms of financial leverage.

In order to reveal more concrete tendencies in small business financial strategies across different countries deeper analysis is applied. The key interest lies in the following: is there any consistent dependency between the financial strategy of an entrepreneur and the development of a country?

To explain this issue, one should mark out the supply side of the process. If informal capital (as hypothesis 1 suggests) is a substitution for the unavailable formal sources, then it should be a priority source in countries with immature financial system. Moreover, the readiness to provide these cheap and “easy” funds should be also observed among informal investors.

Figure 2. The dependence between social and economic development of a country and the prevalence of informal funds available to entrepreneurs in 2006



Data source: GEM APS individual database (2006)

It is possible to drill down into the supply of informal capital by estimating the percentage of informal investors among adult population. A similar picture appears as in the case of the demand analysis.

From one side, countries such as Peru, India, Indonesia, Latvia, Chile, Colombia, Argentina where the level of social and economic development can be said to be low, have typically a large share of informal investors (see fig. 2). Therefore, this group of countries demonstrates high levels of informal funding as the only possible way to promote business activities because there

is no other possibility to set up an optimal infrastructure (Saemundsson, 2003). Hypothesis 1 is confirmed.

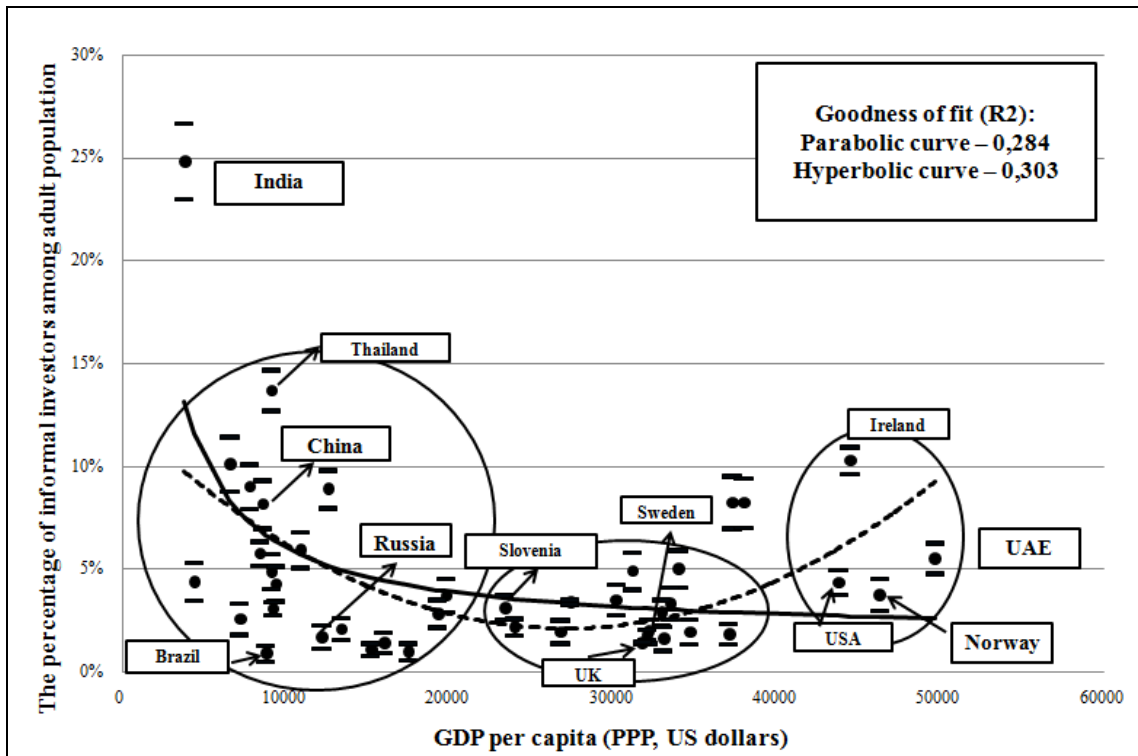
From the other side, United States, France, Ireland, Norway, Canada also demonstrate high proportion of family financing, although the welfare of these nations is in the upper cluster. The availability of spare financial resources is able to encourage the credit risk acceptance and to enforce informal investments. At the same time, biased relations with the borrower can trigger off the underestimation of risk factors and lead to the excessive risk taking. However, the credit risk concentration is no more harmful for the economy until it is perceived by informal investors as their voluntarily deposits of available financial resources into the business activity. The occurrence of losses will correct the situation – inefficient investments will not be repeated. In this sense it is essential to estimate the potential sustainability and adjacent it to the financial strategy of early entrepreneurs in order to clarify the second hypothesis.

Lastly, the rest of the countries can be divided into two groups. There are highly developed nations and nations with low GDP per capita indicator among the countries with minor (or moderate) percentage of informal investors. The former group includes European countries and Japan, the latter one covers Russia, China, Brazil, Mexico. The high demand for informal funds in the last group speaks for the reluctant behaviour of informal investors and for the necessity nature of family financing. At the same time, low demand in the first group points out the credibility of the third hypothesis.

It is noticeable, that the results concerning the supply side are stable during the time (see fig. 3). China and Romania have come out to the cluster with high percentage of informal investors: the tendency is converging to the support of the hypothesis 1. The US and Norway have descended to the middle group with high GDP per capita indicators along with the restrained supply of informal investments. An inclination towards the hypothesis 3 confirmation is loomed.

Given these facts, more details are necessary to clarify the role of informal capital in the range of countries where the situation is ambiguous.

Figure 3. The dependence between social and economic development of a country and the prevalence of informal funds available to entrepreneurs in 2007



Data source: GEM APS individual database (2007)

Risk analysis

Relevant factors which determine the historical defaults among entrepreneurs are presented in the table 3 (based on the binary logistic regression assessment, see appendix 2). It is worth mentioning that the countries have been chosen according to their belonging to each group distinguished in the descriptive analysis and depending on the sample size available for the statistical estimations. However, not all the countries in 2006 were transferred to 2007 to draw intertemporal comparisons because of the database restrictions.

India represents the argument for the hypothesis 1 confirmation. The US and Norway stand for the discouraging effect of informal investments (hypothesis 2). Russia, China and Brazil are at the edge of the hypothesis 1 and hypothesis 3 confirmations, as well as Slovenia. The UK,

Germany (as the representatives of Western Europe), Denmark (as a representative of the Northern Europe) and Sweden (with high demand for informal funds and low supply of it) are considered at the edge of either hypothesis 2 or hypothesis 3 support.

Table 3. Results of binary logistic regression (X - significant factors at 5% level) based on the sample of defaulted entrepreneurs

2006	Gender	Age	Work status	Income	Education	Social networks	Environment perception	Competence	Confidence	Social perception	Career game	Social position	Publicity
USA		X		X	X	X							
Norway			X			X		X					X
UK	X	X	X		X	X	X	X	X	X	X	X	
Germany			X	X			X	X	X	X			X
Denmark						X		X					
Sweden	X							X	X		X		
Slovenia		X						X	X			X	
Russia	X				X		X	X	X			X	X
India	X							X	X	X			X
China	X	X	X	X	X	X	X	X	X	X	X	X	X
Brazil						X			X			X	

2007	Gender	Age	Work status	Income	Education	Social networks	Environment perception	Competence	Confidence	Social perception	Career game	Social position	Publicity
USA		X	X	X	X						X		X
Norway		X					X		X				
UK	X	X	X	X	X	X	X		X	X	X		
Slovenia	X											X	
China	X						X	X					
Brazil			X				X	X			X		

Data source: GEM APS individual database (2006-2007)

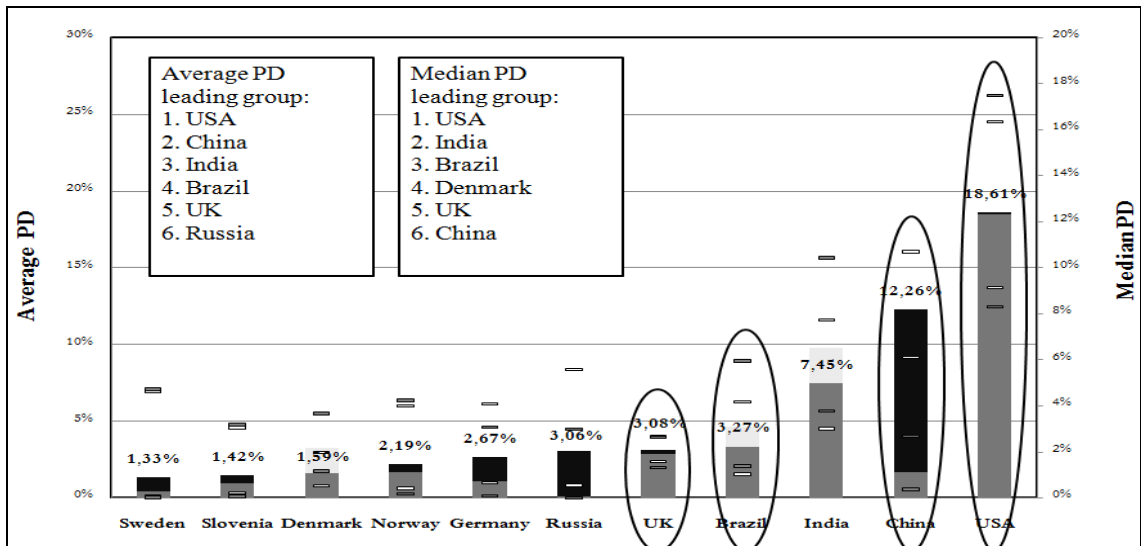
Competence and confidence of entrepreneurs were the most crucial factors among the countries in 2006: the less confidence they feel as well as the less qualified they are the default is more likely to occur. Environment perception influenced the business stability in 2007. Interestingly, social position and publicity were more important in determining business stability in the countries with low social and economic development (BRIC) than in wealthier nations.

The derived default model has been validated with the help of ROC-curves and Accuracy rates. Models for each country turn out to be adequate instruments for the PD-forecasts according to the selected criteria. This issue gives an opportunity to pass on to the next step: to assess the credit and business quality of early entrepreneurial activity.

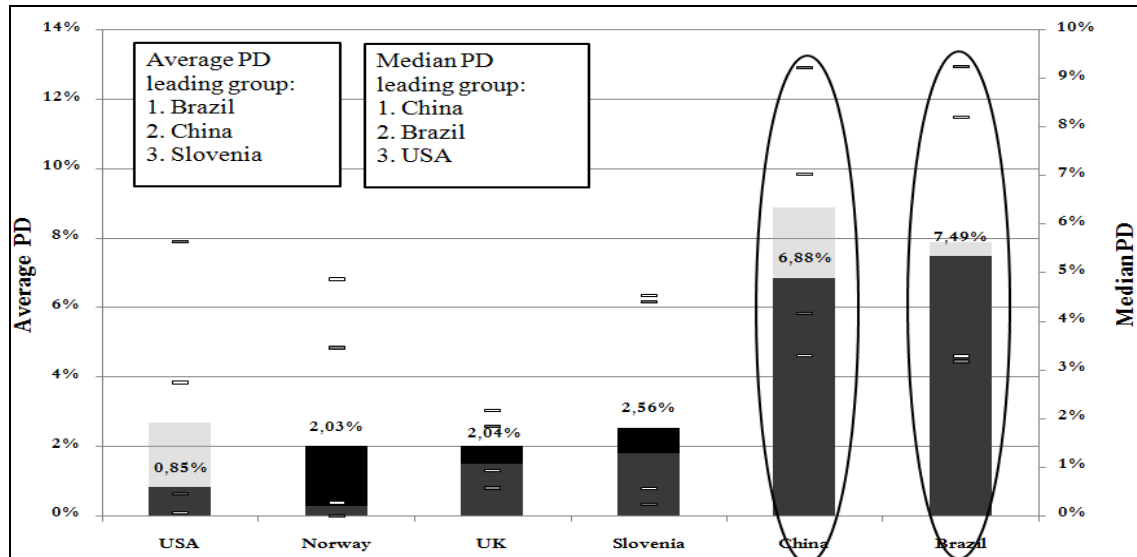
After the stated factors are applied to the same characteristics of early entrepreneurs the following estimations of potential entrepreneurial consistency have been received (see fig. 4).

Figure 4. Probability of Default (PD) among early entrepreneurs in the selected countries in 2006-2007 (with Jeffray's confidence interval limits at the 5% significance level)

2006



2007



Grey colour – median values, black – average values

Data source: GEM APS individual database (2006-2007)

In 2006 Russia, India, Brazil, China as is the case with the US and the UK demonstrate the highest predictions of PD among early entrepreneurs. The most stable group (in terms of central values) is presented by the US, the UK, India, Brazil and China. Remembering the substantial demand for informal funds in the last three countries as well as significant percentage of informal investors in the economies of the USA and the United Kingdom, one can link it to the hypothesis 2 and 1 correspondingly.

However, the downgrading quality of early entrepreneurial activity in China and India (see fig. 4, 2007) can hamper the overall economic development instead of filling in the financial gap due to the unavailable or inaccessible micro credit facilities or other formalised sources. The similar situation can be considered within the developed countries, where the PD rates either increase through the time (Slovenia) or remain stable (the UK, Norway). The downturn in the quality of entrepreneurial activity can be connected not only with the incorrect (from the economic point of view) financial choice but with the deteriorating market, political, social environment and other factors, which has not been considered in the models.

In this way, the financial strategies of early entrepreneurs should be taken into the account in order to draw a line between irrational incentives (if they take place for some countries) and the credit and business quality of a start-up.

Table 4. The contingency between PD rates of early entrepreneurs and their ranged (according to business risk) financial choice

	<i>Spearman rank criterion</i>	<i>Significance (P-value)</i>
Russia	-0,077	0,0228
China	-0,077	0
Brazil	-0,128	0
India	0,298	0

Slovenia	0,188	0
Norway	-0,044	0,0176
Sweden	-0,063	0,061
UK	0,137	0
USA	0,184	0
Germany	0,043	0
Denmark	0,355	0

The results of the contingency analysis are presented in the table 4. If early entrepreneurs prefer financial sources which are associated with high business risk and almost the lack of credit risk (self-financing or informal capital, in particular family support) then the aggregate PD rate among early entrepreneurs in the economy increases. It is true for India, Slovenia, the UK, the USA and Denmark.

As far as India is concerned, informal capital as a single source to keep small business afloat is not justified. It fosters entrepreneurial growth but it initiates a negative effect on overall economic development. It means that the informal cash flows should be formalised in order to have a positive impact at the outcome. Both of the hypotheses 1 and 2 are confirmed in respect with countries with low social and economic development and the downgrading credit quality resulted from the informal capital priority.

The second hypothesis is not confirmed for Russia and China (informal capital – is a substitution for unavailable formal resources and does not harm overall economic development, only hypothesis 1 is supported). Hypothesis 2 is not applicable to Norway, Sweden and Germany as well. These countries are characterised by the sound nature of early entrepreneurial activity (PD rates are quite low) and simultaneously the moderate demand for informal funds (except Norway) – so, the third hypothesis is accepted (informal capital does not impede a high-quality entrepreneurial growth, except a threat of the overinvestment by informal creditors in Norway).

In Brazil less business risk is associated with the growth of the small business instability. So, the more formal capital is attracted the more the default among early entrepreneurs is likely to occur. It could be connected with some peculiarities in Brazil financial system: government or credit

institutions accept too much credit risk from small business in order to stimulate such a kind of activity. It triggers off moral hazard problems or wrong selection criteria. However such relationship is of medium significance which can lead to the same result as observed in Russia and China (in favour of hypothesis 1).

The received results display the multidimensional nature of informal investments. The challenge is that even if such a kind of financial resource is a single way to support small business activity materially, there is an opportunity that the final effect will be negative (as for India in 2006). Moreover, informal investments are able to block healthy entrepreneurial activity being attractive for typical start-ups, who are seeking for cheap and easy ways for their idea implementation (the case of the UK, the USA, Denmark and Slovenia). The reason for it – inefficient resources allocation, no anticipated returns, activities with low valued-added, and so on. The task is to transform such cash flows into beneficial ones, to formalise them in order to eliminate these destructive incentives.

Conclusion

Thus, it has been considered that by choosing a source of financing at the initial stage of the development, entrepreneurial activity shapes the general economic environment. On the whole, the fundamental idea of the study throws light on the fact that each small business entity while making its decision at the microeconomic level causes global effects at the same time. By aggregating these individual impacts the overall outcome is negative when the combination of the considered factors is critical. After individual risk profiles of the defaulted businesses were marked out they were used to provide a single indicator which reflected the credit and business quality of early entrepreneurial activity.

As a result, informal capital in the small business financing can trigger off various effects. Firstly, it is an irreplaceable source for the early entrepreneurial activity at the addressed point of time. The lack of other sources due to the immature financial system, the absence of trust among investors and unstable environment encourage the choice in favour of this financial strategy in

order to make good career or to enhance social status or to improve the well-being. Such an outcome is typical for the countries with low social and economic development.

Secondly, informal capital is a generator of potential instability in terms of the downgrading the quality of entrepreneurial activity. People are more likely to attract this source if they feel unconfident about their business activity, or they need moderate amount of money to start some typical activity: trading, transport and so on. This leaves an imprint on the profitability and solvency of such firms. They neither provide sufficient jobs nor enhance economic growth due to the low value-added. The described course of event is appropriate to any nation: both with high and low values of macroeconomic indicators. It is especially dangerous for the developed countries because it can overwhelm the positive effect from the entrepreneurial activity substantially. However, it is worth considering in regard to less wealthier nations in order to ease the recovery process.

Thirdly, informal investments can exist as some additional and minor source, because it is an inevitable and uncontrolled element of any society: personal relationships. Notwithstanding this fact, other financial sources are affordable enough to be attracted by the most part of successful businesses. That is the balance which should be found to insure consistency in the economic growth.

To achieve this balance, micro-finance institutions should be spread around. More specifically, credit cooperatives are able to replace informal cash flows being the formalised analogue of them. The legal structure of such institutions preserves the most attractive features of informal capital: easy access, low prices and close relationships (an opportunity to resolve all the disputes inside the organisation). The re-organisation will give rise to the efficient resources allocation and to the turn to rational economic incentives.

Small business is the most flexible and mobile economic structure, at the same time it is the most fragile and susceptible to the external fluctuations one. It is necessary to capture both the inner side of a small business activity and the outer impact on its perceptions in order to imprint the

economic situation. It will give an opportunity to reveal certain movements in the process, thus controlling tendencies in the behaviour of small business as a beacon for the economic pitfalls.

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Appendix 1 Sample size with a breakdown into key variables in the country profile

2007	Number of defaulted businesses	Number of early entrepreneurs	Number of informal investors	Total sample size of APS
US	50	411	191	4399
UK	1982	28108	6015	429050
Norway	12	155	84	2284
Brazil	87	303	20	2227
China	95	443	242	2692
Slovenia	21	157	105	3377

2006	Number of defaulted businesses	Number of early entrepreneurs	Number of informal investors	Total sample size of APS
US	24	527	296	5406
Russia	36	220	55	4504
UK	2474	13760	4166	206327
Denmark	82	669	372	12758
Sweden	10	75	67	2261
Norway	13	207	91	2013
Germany	89	650	176	18829
Brazil	46	284	31	2234
India	131	212	211	2165
Slovenia	13	157	53	3313
China	1858916271	6407352439	1401412599	48763460298

2006	Number of early entrepreneurs who financed business on their own	Number of early entrepreneurs who attracted funds from relatives	Number of early entrepreneurs who attracted funds from friends, neighbours and work colleagues	Number of early entrepreneurs who attracted formal funds
US	216	211	221	173
Russia	14	32	16	86
UK	3570	999	1798	3850
Denmark	221	36	65	79
Sweden	17	73	72	42
Norway	37	28	62	83
Germany	144	33	49	122
Brazil	44	11	6	2
India	62	73	40	78
Slovenia	34	16	24	37
China	2086203803	4150410548	351208133	660134143

Appendix 2 The results of the binary logistic regression model in the sample of defaulted entrepreneurs across selected countries

US 2006

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 4(d)	age	0,051	0,02	6,469	1	0,011	1,053
	competence	1,471	0,583	6,372	1	0,012	4,355
	income	-0,959	0,372	6,646	1	0,01	0,383
	education	0,82	0,245	11,195	1	0,001	2,27
	Constant	-7,216	1,051	47,095	1	0	0,001

UK 2006

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 11(k)	gender	0,946	0,063	228,733	1	0	2,576
	age	0,026	0,002	252,453	1	0	1,027
	social networks	0,922	0,046	395,243	1	0	2,514
	environment perception	0,735	0,044	281,211	1	0	2,086
	competence	1,041	0,055	353,968	1	0	2,831
	confidence	0,765	0,043	319,304	1	0	2,148
	social perception	-0,3	0,045	44,786	1	0	0,741
	career game	0,879	0,048	331,511	1	0	2,408
	social position	0,594	0,054	122,613	1	0	1,811
	work	-0,033	0,015	5,269	1	0,022	0,967
	education	-0,043	0,02	4,647	1	0,031	0,957
	Constant	-8,024	0,119	4511,203	1	0	0

Sweden 2006

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 4(d)	gender	2,304	1,141	4,076	1	0,043	10,014
	competence	3,169	1,464	4,688	1	0,03	23,782
	confidence	1,792	0,651	7,581	1	0,006	6,002
	career game	-2,214	0,999	4,91	1	0,027	0,109
	Constant	-9,264	1,815	26,066	1	0	0

Slovenia 2006

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 4(d)	age	0,074	0,028	7,002	1	0,008	1,076
	competence	2,445	0,759	10,371	1	0,001	11,529
	confidence	1,822	0,616	8,743	1	0,003	6,184
	social position	2,935	0,838	12,27	1	0	18,824
	Constant	-12,607	1,852	46,321	1	0	0

Russia 2006

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 10(i)	gender	3,384	1,092	9,602	1	0,002	29,484
	environment perception	-3,487	1,788	3,805	1	0,051	0,031
	competence	2,822	0,469	36,287	1	0	16,815
	confidence	2,837	0,421	45,299	1	0	17,057

	social perception	0,959	0,403	5,661	1	0,017	2,61
	social position	2,864	0,853	11,263	1	0,001	17,536
	publicity	2,501	0,645	15,03	1	0	12,194
	education	-0,806	0,296	7,404	1	0,007	0,446
	Constant	-11,231	1,387	65,588	1	0	0
Norway 2006							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 4(d)	social networks	2,133	1,05	4,128	1	0,042	8,442
	competence	2,133	0,958	4,952	1	0,026	8,437
	publicity	1,647	0,785	4,396	1	0,036	5,189
	work	0,305	0,148	4,221	1	0,04	1,357
	Constant	-9,498	1,372	47,937	1	0	0
India 2006							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 6(f)	gender	0,413751	0,194752	4,51348	1	0,033629	1,51248
	competence	0,724785	0,209952	11,91737	1	0,000556	2,064288
	confidence	0,407137	0,212621	3,66664	1	0,055512	1,502511
	social perception	-0,79743	0,236471	11,37169	1	0,000746	0,450487
	career game	-0,48414	0,234466	4,263724	1	0,038934	0,616224
	publicity	0,585094	0,216942	7,27382	1	0,006997	1,79516
	Constant	-3,21782	0,202126	253,4405	1	4,62E-57	0,040042
Germany 2006							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 7(g)	social networks	-0,876	0,397	4,866	1	0,027	0,417
	competence	3,992	0,488	67,031	1	0	54,177
	confidence	1,259	0,335	14,152	1	0	3,522
	social perception	1,688	0,393	18,486	1	0	5,408
	publicity	1,713	0,36	22,67	1	0	5,546
	work	0,524	0,083	39,673	1	0	1,69
	income	0,63	0,192	10,718	1	0,001	1,877
	Constant	-12,611	0,914	190,22	1	0	0
Denmark 2006							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 2(b)	social networks	0,591	0,278	4,524	1	0,033	1,806
	competence	1,564	0,305	26,32	1	0	4,779
	Constant	-5,979	0,302	391,465	1	0	0,003
China 2006							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 13(m)	gender	2,767	0	4E+08	1	0	15,906
	age	-0,258	0	5,21E+08	1	0	0,773
	social networks	0,929	0	40094079	1	0	2,533

	environment perception	-0,593	0	22922067	1	0	0,552
	competence	-1,132	0	60185020	1	0	0,322
	confidence	-2,657	0	1,85E+08	1	0	0,07
	social perception	-0,073	0	180222,9	1	0	0,93
	career game	2,92	0	1,98E+08	1	0	18,542
	social position	0,938	0	18400147	1	0	2,556
	publicity	7,468	0,001	29338852	1	0	1750,642
	work	-0,644	0	47853005	1	0	0,525
	income	0,368	0	19890849	1	0	1,446
	education	-0,666	0	35043331	1	0	0,514
	Constant	-5,453	0,001	13551095	1	0	0,004
Brazil 2006							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 3(c)	social networks	1,198	0,35	11,713	1	0,001	3,313
	confidence	0,656	0,339	3,75	1	0,053	1,926
	social position	2,146	0,491	19,109	1	0	8,547
	Constant	-6,258	0,524	142,41	1	0	0,002
US 2007							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 6(f)	age	0,048	0,022	4,993	1	0,025	1,049
	career game	-1,731	0,561	9,513	1	0,002	0,177
	publicity	-2,206	0,514	18,457	1	0	0,11
	work	0,555	0,111	24,999	1	0	1,741
	income	0,653	0,281	5,401	1	0,02	1,921
	education	0,605	0,263	5,29	1	0,021	1,831
	Constant	-7,947	1,346	34,864	1	0	0
UK 2007							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 10(j)	gender	1,159	0,089	169,7	1	0	3,186
	age	-0,018	0,003	30,965	1	0	0,982
	social networks	0,353	0,058	36,867	1	0	1,424
	environment perception	1,831	0,078	557,843	1	0	6,239
	confidence	-0,985	0,085	135,782	1	0	0,373
	social perception	-1,173	0,058	410,746	1	0	0,309
	career game	-0,376	0,062	36,792	1	0	0,687
	work	-0,079	0,021	14,03	1	0	0,924
	income	-0,852	0,047	322,952	1	0	0,427
	education	0,213	0,029	53,676	1	0	1,237
	Constant	-3,388	0,176	371,967	1	0	0,034
	Norway 2007						
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)

Step 3(c)	age	-0,093	0,043	4,737	1	0,03	0,911
	social networks	2,248	0,956	5,536	1	0,019	9,473
	confidence	2,738	0,781	12,278	1	0	15,458
	Constant	-3,785	1,625	5,423	1	0,02	0,023
Slovenia 2007							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 2(b)	age	0,049	0,024	4,313	1	0,038	1,05
	social position	-1,657	0,58	8,168	1	0,004	0,191
	Constant	-4,63	1,144	16,381	1	0	0,01
China 2007							
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 3(c)	gender	0,595	0,275	4,68	1	0,031	1,813
	environment perception	-0,989	0,277	12,783	1	0	0,372
	competence	0,802	0,282	8,074	1	0,004	2,231
	Constant	-3,1	0,283	120,144	1	0	0,045
	Brazil 2007						
Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 4(d)	environment perception	-0,664	0,281	5,591	1	0,018	0,515

Bilateral comparisons of early entrepreneurship: Russia vs. Netherlands

Marina Serpinskaya, Olga Komarova, Tatiana Zabelova

Who are they? Socio-demographic portrait of an early stage entrepreneur in the Netherlands and Russia⁷⁸

Key words: Russia, the Netherlands, GEM, entrepreneurial activity, female entrepreneurship

Objectives of the present paper is a comparison of the socio-demographic characteristics of early - stage entrepreneurs in Russia and the Netherlands and its dynamics in 2006-2009.

Object of our research – persons involved in early-stage entrepreneurial activity in Russia and the Netherlands (nascent entrepreneurs and new business owners).

Subject of our research – socio-demographic characteristics of nascent entrepreneurs and new business owners in Russia and the Netherlands.

Approach: We use in the GEM national data for both countries for the respective period.

In existing literature, there exist the following consensuses concerning the socio-demographic specifics of early entrepreneurs:

- Usually, men are more likely to start-up a business than women – because of socio-psychological specifics and the familiar status of both genders (Hisrich, 1986). It is obvious suggestion that men are more risky and more concerned to improve their social status, hence to run their own enterprise;
- The gender structure of early entrepreneurs would change under economic slowdown, because it would be more often women who would decide to start a business - due for their less stable status on the labor market; If employees reduction becomes it's hard to find a paid work because of tough competition for a vacancy;

⁷ Paper presented on the Summer school “Exploring Entrepreneurship” (Enschede – Moscow, August 2011).

- When starting-up, men are usually younger than female entrepreneurs, because women are basing primarily on social capital when starting, and it becomes significantly only with age (Brush, 2006a);
- “Entrepreneurship tends to be a *young* man’s game.” (Minitti, Arenius, & Langowitz, 2005). On the one hand, younger persons are more likely to follow idealistic ideas (‘to become own boss’, ‘to achieve’ etc.), on the other hand, life brings knowledge, experience and social contacts etc. We suppose that the age structure of early-stage entrepreneurship in different types of economies could differ, for instance because in innovative-driven economy (the Netherlands) demand for experience and knowledge is supposed to be greater at the market entry stage than in efficiency-driven economy (Russia). “There is relationship between an entrepreneur age and the availability of employment options” (Minitti, Arenius, & Langowitz, 2005). Under economic crisis the inflow in entrepreneurship of elder people (former employees) because of a weaker position of this group on the labor market;
- Female entrepreneurs are less often opportunity-driven than men when starting-up (Butter & Moore, 1997). Women are more vulnerable to labor market shocks: usually employers are more often inclined to fire women than men. Besides, women usually possess a high risk aversion. Therefore, women become entrepreneurs mostly being ‘pushed’ to it;
- Less researched is the impact of economic crisis on entrepreneurial activity. Taking all the theses mentioned before for granted, we assume that under economic turbulences (crises etc.), women should more often be in need to start-up (being ‘pulled’ into entrepreneurship) than men – even in Netherlands as well as in Russia.
- “Analysis of relations between start-up births and regional environment in seven developed market economies in late 1980ies (France, Germany, Ireland, Italy, Sweden, U.K. and US) showed positive correlation between dynamics of early entrepreneurship

growth and three following factors: consumers' demand (the bigger the population – the higher the demand); domination of small firms within the regional population of organizations; density of infrastructure (access to financial markets, suppliers and consumers, monitoring of competitors activity etc.)” (Reynolds, Storey, & Westhead, 1994). Namely, we tested, whether there are some settlement types in Russia with a similar socio-demographic structure of early-stage entrepreneurship with those of some settlement types of Dutch early-stage entrepreneurs.

Based on the above judgments of various scientists, the following hypotheses were made:

H1: The rate of men involved in early-stage entrepreneurship is higher than the rate of women both in Russia and the Netherlands.

H2: The rate of women involved in early-stage entrepreneurship becomes higher during the global financial crisis (2008 - 2009) than under better market conjuncture (2006 -2007) both in Russia and the Netherlands

H3: Age structures of the early-stage entrepreneurs differ in Russia and the Netherlands. In Russia, younger cohorts are more likely to start-up both being opportunity driven (better educated groups in cities and towns) as well as necessity driven (less educated groups in rural area).

H4: The average age of entrepreneurs becomes higher under the global economic slowdown (2008 - 2009) than under better market conjuncture (2006 - 2007) both in Russia and the Netherlands.

H5: The rate of involved in necessity early-stage entrepreneurial activity is higher among female than among men early entrepreneurs both Russia and the Netherlands.

H6: Socio-demographic characteristics of early-stage entrepreneurs from medium-sized Russian towns should coincide with those of early entrepreneurs in the Netherlands.

Our paper consists of 3 parts:

1. Gender differences in early-stage entrepreneurial activity (testing hypotheses 1, 2 and 5);

2. Age of early-stage entrepreneurs in Russia and in the Netherlands (testing hypotheses 3 and 4)
3. Socio-demographic characteristics of early-stage entrepreneurs in various types of settlements in Russia and the Netherlands (testing hypotheses 6)

Gender differences in early-stage entrepreneurial activity

It is many times approved in the literature that gender correlates with the involvement into early stage entrepreneurial activity. But cross-national comparisons show that there are also certain differences between nations and regions in the gender structure of entrepreneurial activity.

Hypothesis 1. The rate of men involved in early-stage entrepreneurship is higher than the rate of women both in Russia and the Netherlands.

This hypothesis is based on an obvious suggestion that men are more risky and more concerned to improve their social status, hence to run their own enterprise. Also we assume that this trend is typical for both Efficiency-Driven (to whom Russia belongs, according to GEM methodology⁹) and Innovative-Driven Economies (accordingly, the Netherlands in our study).

Below represent calculated statistics.

Table 1. Gender structure of entrepreneurs in two countries, 2006-2009, according to the GEM data (% of men/women in respective cohort of population, aged 18-64).

		Russia				The Netherlands			
		Year				Year			
		2006	2007	2008	2009	2006	2007	2008	2009
Men	The lower bound of 95% confidence interval	5,59	2,56	3,07	3,15	5,79	5,29	5,65	6,80
	The rate of men involved in early-stage entrepreneurship	7,28	3,79	4,51	4,58	7,16	6,64	7,05	8,46

⁹ For more information see, for example, GEM 2009 Executive Report (www.gemsonsortium.org).

	The upper bound of 95% confidence interval	8,96	5,01	5,96	6,02	8,53	7,99	8,45	10,1
Women	The lower bound of 95% confidence interval	1,58	0,85	1,50	2,06	2,60	2,66	2,33	4,47
	The rate of women involved in early-stage entrepreneurship	2,57	1,64	2,55	3,23	3,60	3,70	3,32	5,89
	The upper bound of 95% confidence interval	3,56	2,42	3,60	4,40	4,60	4,73	4,31	7,31

Simple comparison of rates shows that during the whole period for both countries the rate of men involved in early-stage entrepreneurship is higher than among women. But we need to plot confidence intervals to see more accurate picture.

Figure 1. Gender structure of early-stage entrepreneurial activity in Russia (bounds for 95% confidence intervals)

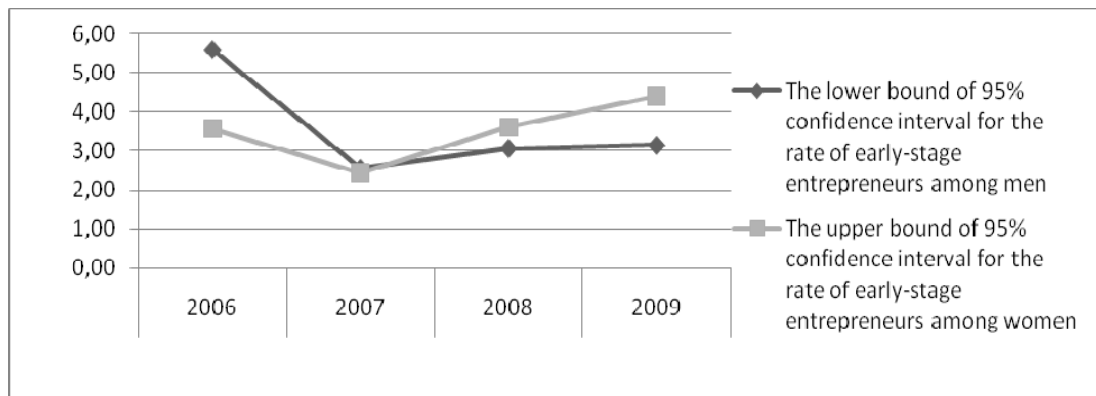
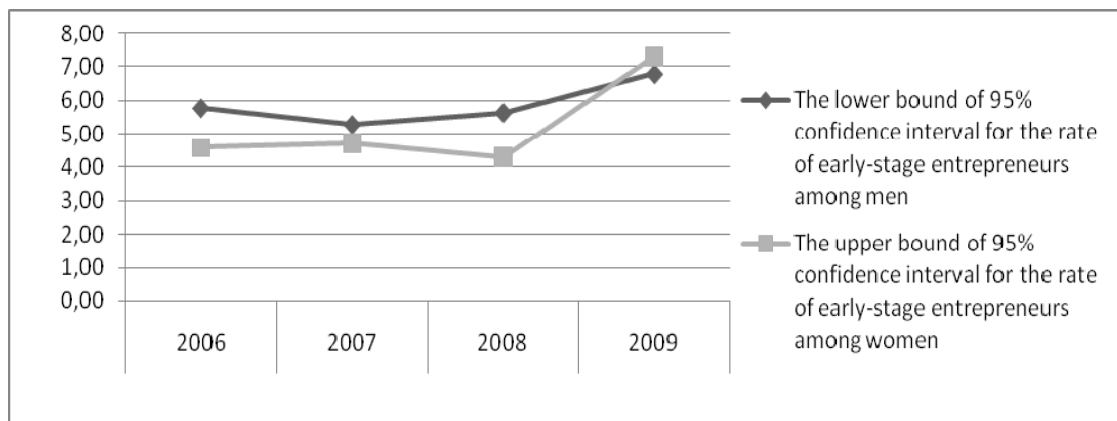


Figure 2. Gender structure of early-stage entrepreneurial activity in the Netherlands (bounds for 95% confidence intervals).



On Fig. 1 and 2 it is evident that in 2006-2007 in Russia and in 2007-2008 in the Netherlands the rate of early-stage entrepreneurs among men was higher than among women: even if the lower bound of confidence interval for the rate of men is taken, it is higher than the upper bound of confidence interval for the rate of women. It means that on 5% significance level our suggestion that “men are more likely to be involved in creating business than women” is confirmed at least for 2006-2007 – before the crisis.

But there exists another trend (2008-2009 for Russia, 2009 for the Netherlands). Here we can't say for sure whether men are involved in early-stage entrepreneurship more than women.

So, *H1 should be accepted*: the rate of men involved in early-stage entrepreneurship is higher than the rate of women (5% level of significance) under well running economic conditions. Under the economic slowdown this ratio can hardly be taken for granted.

Hypothesis 2. The rate of women involved in early-stage entrepreneurship becomes higher during the global financial crisis (2008 - 2009) than under better market conjuncture (2006 - 2007) both in Russia and the Netherlands.

We assume that the gender structure of early entrepreneurs would change under economic slowdown, because it would be more often women who would decide to start a business - due for their less stable status on the labor market. If employees reduction becomes one of the reactions of firms on the crisis, women should belong to the first group who will suffer from it. On the other hand, it's hard to find a paid work because of tough competition for a vacancy. That's why we suppose that more and more women would start their own business.

While checking the 1st hypothesis, we could see that female entrepreneurial activity was rising already before the crisis. But does the situation under the economic slowdown differ significantly from the previous period?

Figure 3. Entrepreneurial activity of women in Russia and Netherlands (the rate of women involved in early-stage entrepreneurship, showing 95% confidence interval).



As it was shown above, there is a sustainable trend of increasing share of female among early stage entrepreneurs in both countries. But the differences are random, the confidence intervals for two periods (before the crisis started and under the crisis) are the same in both countries. This means that there is no evidence that female early-stage entrepreneurial activity has grown in 2008-2009.

H2 should be rejected.

Hypothesis 5. The rate of involved in necessity early-stage entrepreneurial activity is higher among female than among men early entrepreneurs both Russia and the Netherlands.

As was said above, women are more vulnerable to labor market shocks: usually employers are more often inclined to fire women than men. Besides, women usually possess a high risk aversion. Therefore, women become entrepreneurs mostly being ‘pushed’ to it. That is why the rate of necessity-driven entrepreneursⁱ among women should be higher than among men.

Figure 4. Necessity-driven entrepreneurial activity in Russia (% to male/female population, aged 18-64)

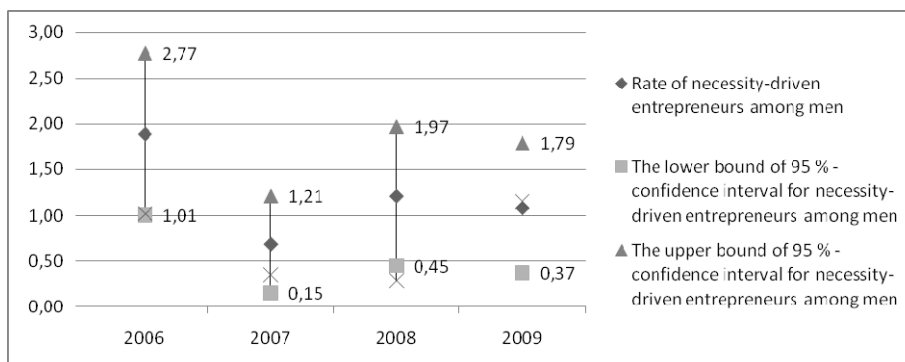
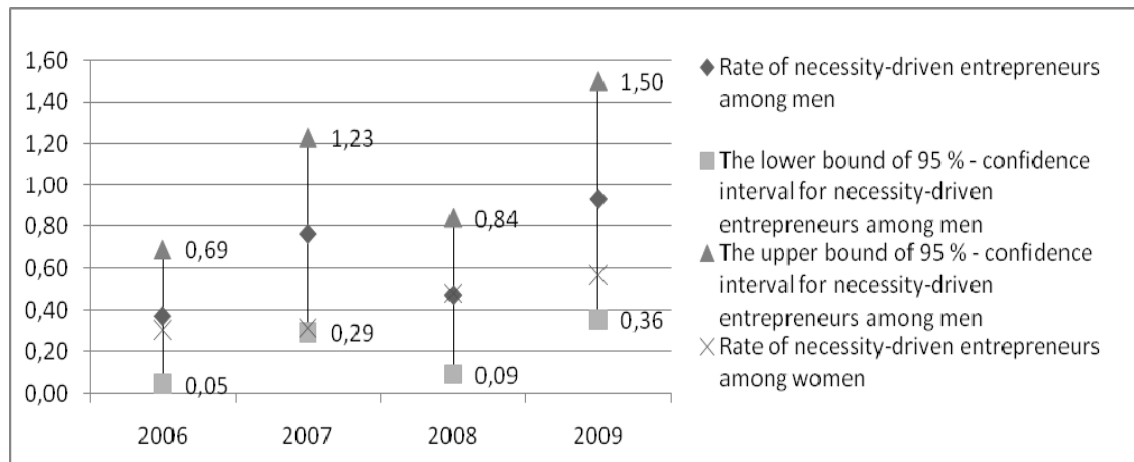


Figure 5. Necessity-driven entrepreneurial activity in the Netherlands (% to male/female population aged 18-64).



On Fig. 4 and 5 is shown that there are different tendencies of change of the rate of early-stage necessity-driven entrepreneurs among men: there is declining tendency in Russia and rising tendency in the Netherlands. But early-stage necessity-driven entrepreneurial activity among women has been rising in recent years both in Russia and the Netherlands.

But in both countries the share change of necessity-driven early-stage female entrepreneurs does not statistically differ from the same among men: confidence intervals are overlapping, and for some years motivational structure among men and women were rather very similar. It means that *H5 should be rejected*: the rate of involved in necessity early-stage entrepreneurial activity is not higher among women than among men both in Russia and the Netherlands.

Age of early-stage entrepreneurs in Russia and in the Netherlands

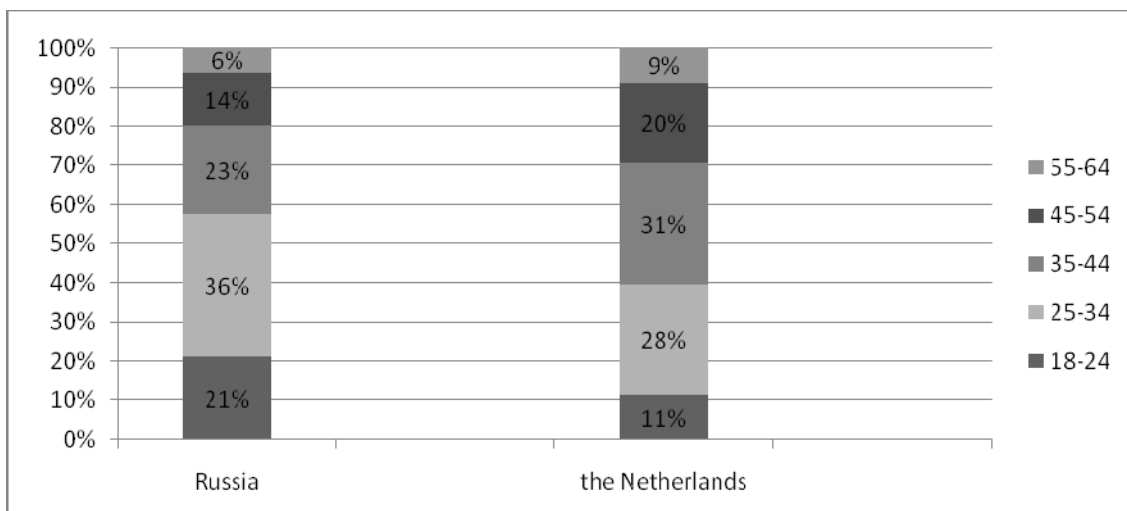
Are early stage entrepreneurs rather young people or do they usually belong to the middle-aged cohort? Have the economic crisis had any impact on their age structure: did younger or rather more experienced elder cohorts start a business under the crisis years?

Hypothesis 3. Age structures of the early-stage entrepreneurs differ in Russia and the Netherlands. In Russia, younger cohorts are more likely to start-up both being opportunity

driven (better educated groups in cities and towns) as well as necessity driven (less educated groups in rural area).

On the one hand, younger persons are more likely to follow idealistic ideas ('to become own boss', 'to achieve' etc.), on the other hand, life brings knowledge, experience and social contacts etc. Secondly, we suppose that the age structure of early-stage entrepreneurship in different types of economies could differ, for instance because in innovative-driven economy (the Netherlands) demand for experience and knowledge is supposed to be greater at the market entry stage than in efficiency-driven (economy).

Figure 6. Age structures of early-stage entrepreneurs in Russia and the Netherlands (2006-2009, % of all early-stage entrepreneurs).



According to Fig. 6 in Russia more than a half (57%) of early-stage entrepreneurs belong to cohorts between 18-34 years, while 60% of Dutch early-stage entrepreneurs belong to mid aged and older cohort of 35-64 years. But taken a closer - middle-age - group, we see that the share of entrepreneurs between 25-44 years old in Russia is equal to the share of the same group in the Netherlands – approximately 60%.

To check the H3 Z-test was been used to compare the shares of each cohort (18-24, 25-34 etc.) in the age structure of Russian and Dutch early entrepreneurs, respectively. And for all five groups

no significant differences in proportion were been found. That's why the *H3 should be rejected*: there is no significant difference in age structures of early-stage entrepreneurs group in Russia and the Netherlands.

Hypothesis 4. The average age of entrepreneurs becomes higher under the global economic slowdown (2008 - 2009) than under better market conjuncture (2006 -2007) both in Russia and the Netherlands.

This hypothesis is based on assumption that under economic crisis the inflow in entrepreneurship of elder people (former employees) became more intensive because of a weaker position of this group on the labor market.

Figure 7. Average age of early-stage entrepreneurs in Russia, showing 95% confidence interval.

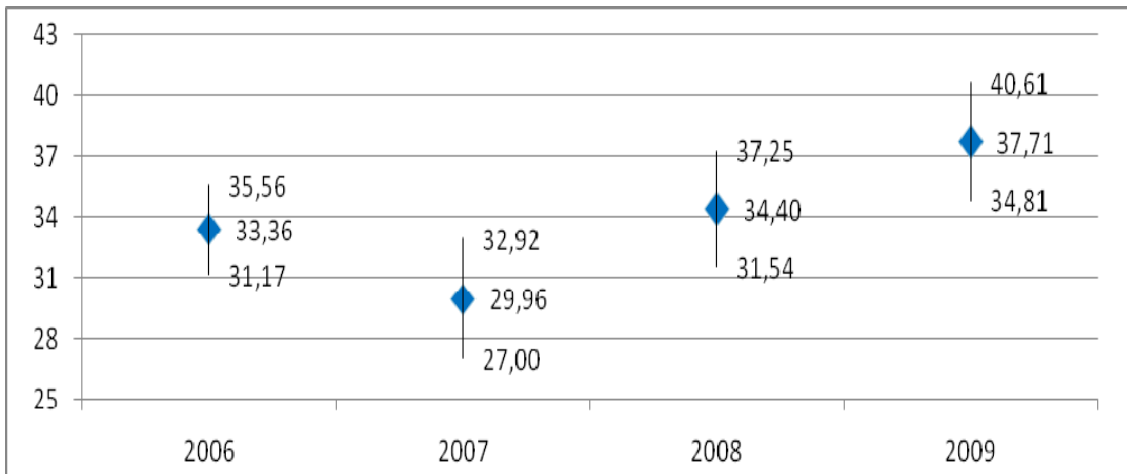
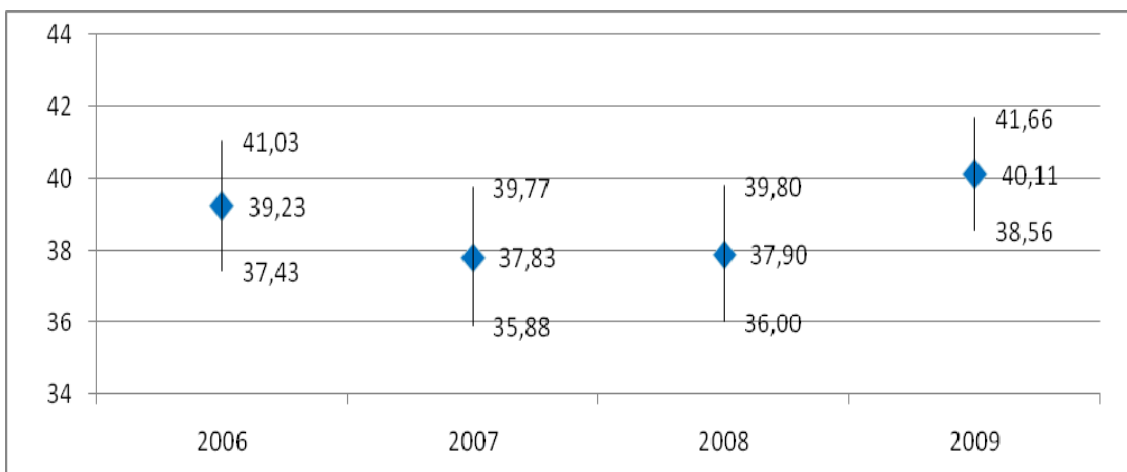


Figure 8. Average age of early-stage entrepreneurs in Russia, showing 95% confidence interval.



In Fig. 7 and 8 above dynamics of average age of early entrepreneurs in both countries are shown. The main trend was similar: a moderate decline under good market conditions (2006-2007) and then an increase under the crisis (2008-2009). But the intensity of these changes is quite different. In Russia the average age increased on almost 8 years between 2007 and 2009, whereas in the Netherlands – only on 3 years for the same period of time. That's why any statistically significant changes in average age are observed in Russia only (we can determine it by analyzing confidence intervals), but not in the Netherlands.

Described tendency points out that the impact of the crisis on labor market and occupational strategies of adult population in Russia was much bigger than in the Netherlands (also, this consideration was confirmed when testing the H5, where we could see that necessity-driven entrepreneurial activity increased significantly both among men and women in Russia).

This conclusion was approved by the analysis of variances (ANOVA). In ANOVA we checked whether average age is different among years or not (separately for Russia and the Netherlands). to find out whether there are any statistically significant differences in average age of early-stage entrepreneurs in Russia (F-statistic=4,98, Sig.=0,002) and no differences in average age in the Netherlands (F-statistic=1,51, Sig.=0,21). So, *H4 should be partly rejected*: there is no significant difference in mean age of early entrepreneurs in the Netherlands in 2006-2009, whilst in Russia it is so.

Socio-demographic characteristics of early-stage entrepreneurs in various types of settlements in Russia and the Netherlands

Analysis of relations between start-up births and regional environment in seven developed market economies in late 1980ies (France, Germany, Ireland, Italy, Sweden, U.K. and US), showed positive correlation between dynamics of early entrepreneurship growth and three following factors: consumers' demand (the bigger the population – the higher the demand); domination of small firms within the regional population of organizations; density of

infrastructure (access to financial markets, suppliers and consumers, monitoring of competitors activity etc.)(Reynolds, Storey, & Westhead,1994).

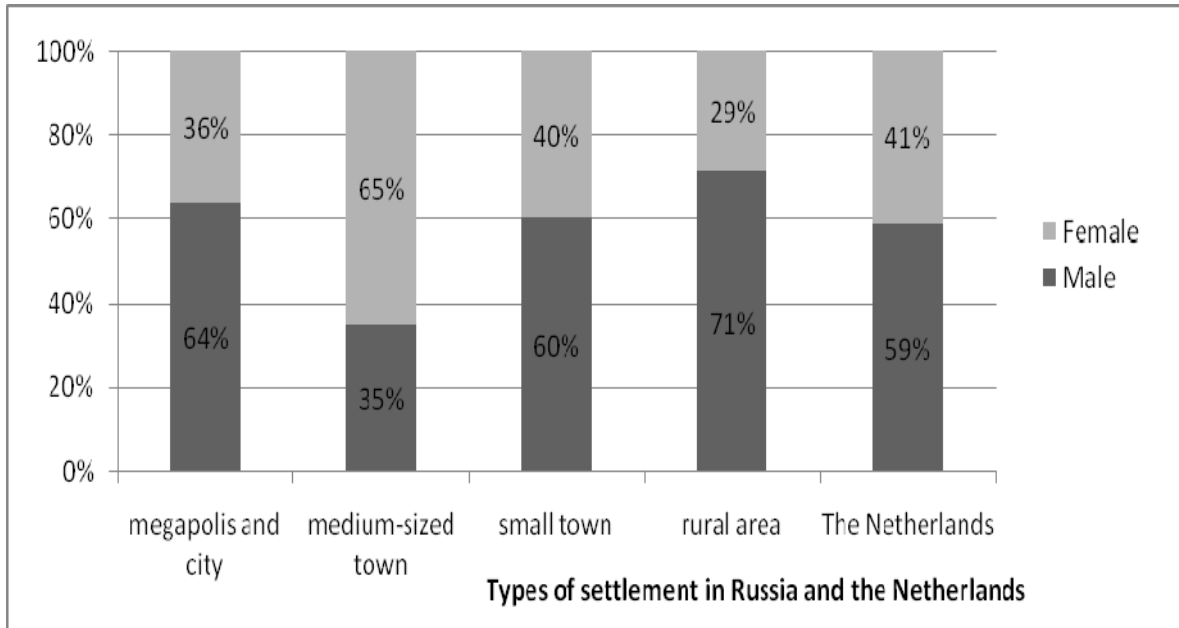
In the last part of this paper we realized a comparison of different settlement types of early-stage entrepreneurship. Namely, we proved, whether there are some settlement types in Russia with a similar socio-demographic structure of early-stage entrepreneurship with those of some settlement types of Dutch early-stage entrepreneurs.

Hypothesis 6. Socio-demographic characteristics of early-stage entrepreneurs from medium-sized Russian towns should coincide with those of early entrepreneurs in the Netherlands.

In our typology, we differentiate four types of settlement (by the number of residents) – megapolices and big cities, medium sized towns, small towns and rural areas. Socio-demographic factors - such as level of education (we added when proving this hypothesis), age and gender - are significantly different between different types of settlements in Russia – due to big territory, bad infrastructure, and different level of educational infrastructure between big and small locations. We assumed, that in Netherlands – with small distance and easy access from each small village even to the biggest cities, rather equal state of education etc. - the difference of socio-demographic portrait of early entrepreneurs in different types of settlement should be much less than in Russia. So here the socio-demographic characteristics of early stage entrepreneurs could be taken for constant.

Moreover, we assume that – taking into consideration environmental conditions (education etc), level of competition, access to market etc. – rather mid-big cities' early entrepreneurs in Russia should be more close to the Netherlands' entrepreneurs as regards their socio-demographic features.

Figure 9. Gender structure of early-stage entrepreneurs by settlement types (Russia and the Netherlands), 2006-2009.



Graphical analysis shows that in most types of settlements in Russia and the Netherlands early-stage men entrepreneurs prevail. However, in medium-sized towns entrepreneurship among women higher at 30 pct. than in average (35% of entrepreneurs in Russia are women, according to 2006-2009 GEM data). Distribution of early-stage entrepreneurship by gender in the Netherlands is similar with this in small towns in Russia. Chi-square test shows that hypothesis about the absence of differences in variable "gender" is accepted.

Figure 10. Age structure of early-stage entrepreneurship by settlement types in Russia and in the Netherlands, 2006-2009.

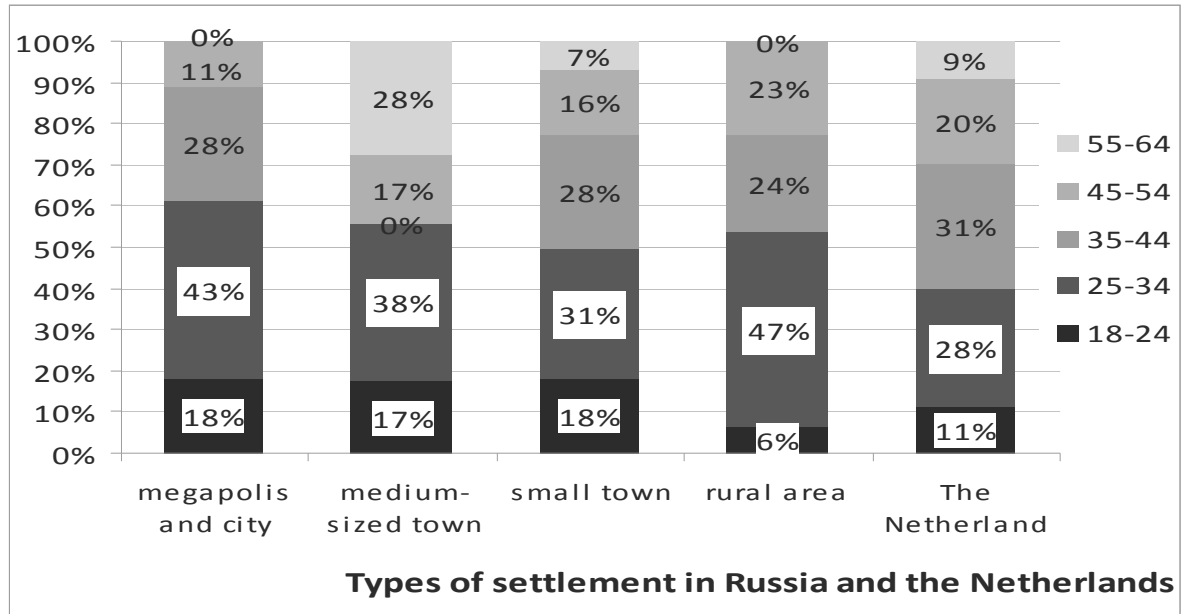
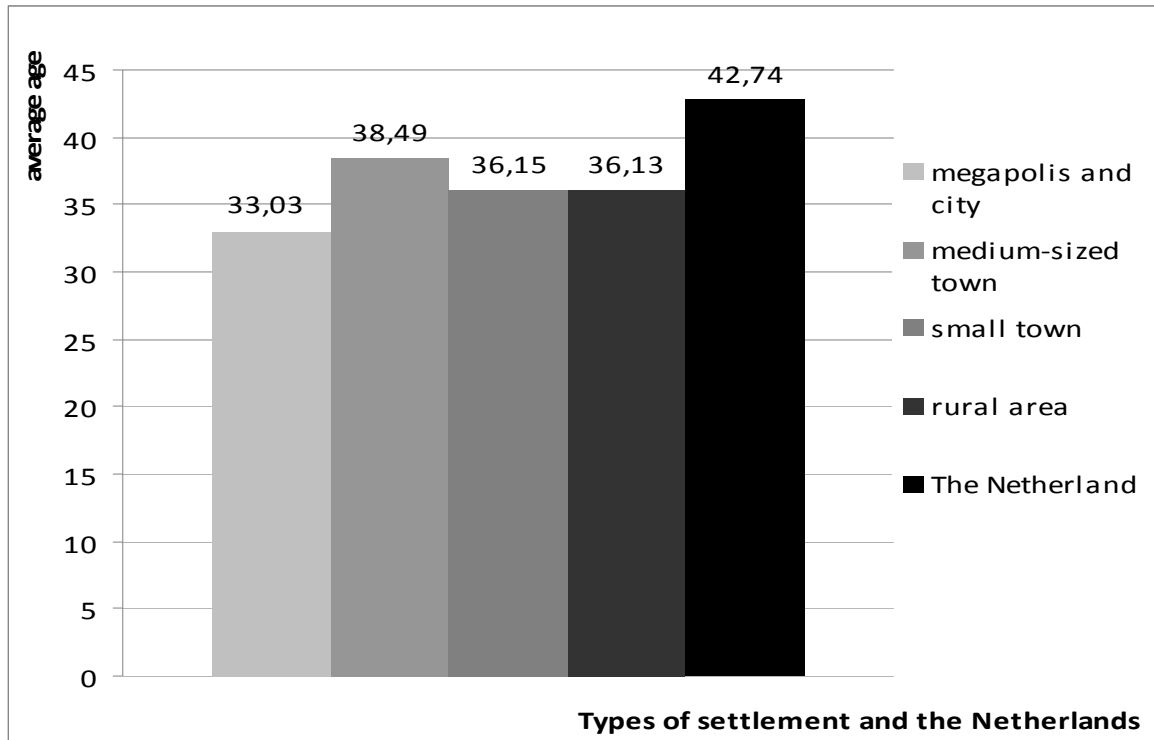


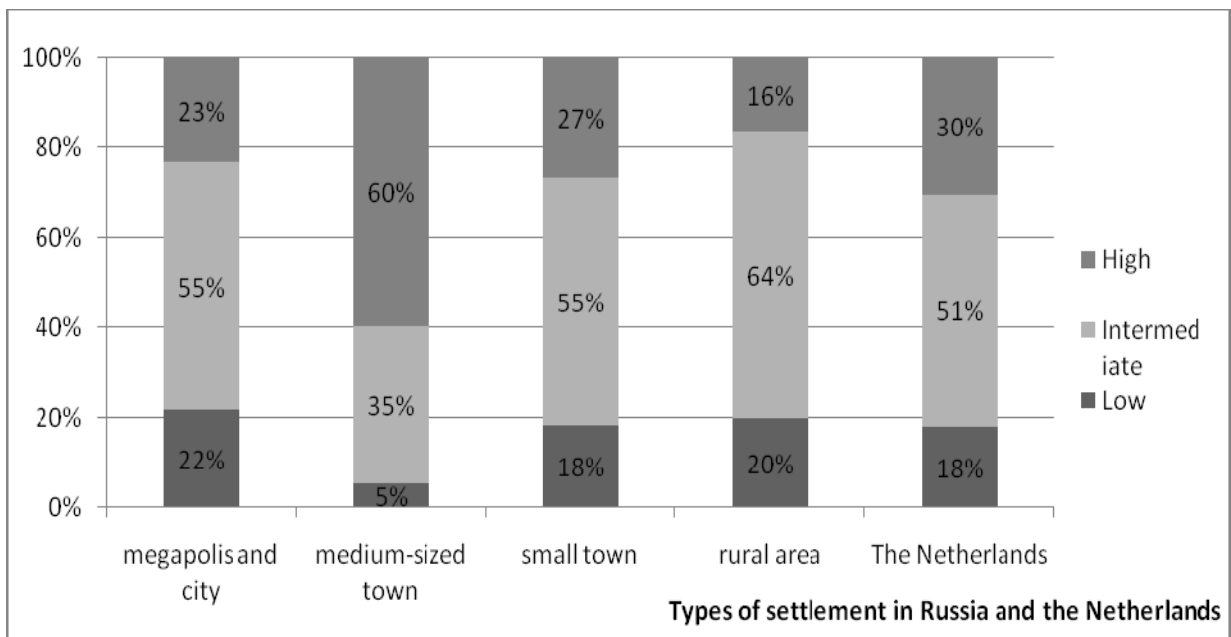
Figure 11. Average age of early-stage entrepreneurs by settlement types (Russia and the Netherlands, 2006-2009).



There are no significant differences in average age between different types of settlements in Russia. Considering age categories, there are differences by type of settlements in Russia. Moreover, early-stage entrepreneurship by this variable is distributed very unevenly. Chi-square test shows that the hypothesis of no differences on the basis of "age categories" is rejected. It is

difficult to define in what type of settlement in Russia distribution of early-stage entrepreneurs by age is similar to those in the Netherlands (because of small frequencies in cells in chi-square test). However, only in small towns all age categories seem to look similar to those in the Netherlands.

Figure 12. Educational structure of early-stage entrepreneurship by settlement type in Russia and in the Netherlands, 2006-2009.



More than a half of early-stage entrepreneurs in all types of settlements in Russia, except medium-sized towns, possess on at least intermediate level education. In medium-sized towns 60% of early-stage entrepreneurs possess on higher education (degree). Distribution of early-stage entrepreneurs by education in the Netherlands has similar structure with small towns of Russia. Chi-square test shows that the hypothesis of no differences by the level of education is accepted.

Finally, we can conclude that *H6, in general, should be rejected*: the group of entrepreneurs from small towns has more similar qualitative and quantitative characteristics with the group of entrepreneurs in the Netherlands.

Results

1. Gender structure of the early-stage entrepreneurship is about the same in Russia and the Netherlands. Gender structure of early-stage entrepreneurs in the Netherlands is similar to the structure in Russian small towns.
2. Financial and economic situation in the country does not affect the women early stage entrepreneurial activity (both in Russia and the Netherlands). There was no increase of the female share of early entrepreneurship during the last economic crisis. This can be explained by the following factors: even during the economic crisis the access to the funds to start their own businesses becomes much more restrictive, and women usually have more problems with external funding than men.
3. There is no significant difference in the age structures of the early entrepreneurs in Russia and the Netherlands, if we consider the study period as a whole. But if you look at each year (2006, 2007, 2008), there are significant differences in age structure in Russia and the Netherlands. The age structure of the early entrepreneurs in the Netherlands is similar to the structure of Russian in small towns.
4. Economic crisis affected the age structure of the early entrepreneurs in Russia, this is not observed in the Netherlands. This can be explained by the following factors: elder entrepreneurs in Russia prevailed among early stage entrepreneurs during the crisis because of more experience and social capital (partly) and because of weaker labor market status (another part of them). The economic crisis didn't affect the age structure of the early entrepreneurs in the Netherlands significantly. That could happen due to existence in the Netherlands relatively flexible labor market: elderly people did not necessary have to start business, they can easily find an appropriate job, comparing with elderly population in Russia.
5. In the Netherlands the average age of early entrepreneurs is higher than in any type of settlement in Russia. This can be explained by the fact that in average in Efficiency-

Driven Economies people start their own business earlier (because they need less skills and experience to run a business) than in Innovative-Driven Economies.

6. The share of necessity-driven entrepreneurs among women is not higher than among men, both in Russia and the Netherlands, women do not face any discrimination on the labor market (or discrimination is not significant). Therefore, women are likely seldom forced to start a business.
7. Socio-demographic characteristics of early entrepreneurship in Russia vary subject to the type of settlements. Socio-demographic characteristics in small Russian towns have similar characteristics with the Netherlands as a whole. Perhaps this is due to the fact that the city of the Netherlands on the population, according to various socio-economic aspects (for example, labor market development), opportunities to do own business (the level of monopolization of markets for goods and services, the level of barriers to entry etc.) are more likely with small Russian towns.

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Why do People Start-up? Motivation Structure of Early Entrepreneurship and the Innovation Drive in the Netherlands and Russia¹⁰

Key words: entrepreneurial aspirations; entrepreneurial motives; GEM, Russia, the Netherlands, institutional restriction, innovativeness, early-stage entrepreneurs

Objectives: The paper differentiates the main reasons of entrepreneurial motivation to start-up, and what supports ability to innovate among entrepreneurs in the Netherlands and Russia.

Prior work: There are many studies on entrepreneurial motivations, defined as the motivation for founding a business. They are presented in four main types. (1) studies of reasons or motives to start a firm; such reasons (motives) can be classified as either opportunity or necessity a distinction akin to “pull” and “push”. These types of studies, being mostly conducted in developed countries where push motives are less prevalent, report mostly pull motives such as autonomy (independence, freedom). (2) Cost-benefit types of studies - it tries to explain the decision to start a business, material and immaterial risks and gains are brought into some decision function. (3) Studies of entrepreneurial motivation investigating depth-psychological motives. (4) Multinomial logit-type investigations explaining the odds of being in a certain stage of the entrepreneurial process vis-à-vis not considering self employment at all. In our paper we imply the first type of studies, mentioned above.

Approach: The research based on GEM data for 2006-2009 years. We investigated the difference in necessity-motivated entrepreneurs under the pressure of institutional difficulties, social protection system, and risk. Opportunity-motivated entrepreneurs observed as a dependent variable from social support (standards of living, patterns of ideal career, status, and respect toward entrepreneurs) and perceptual factors (perception of fear of failure; knowledge, skills,

¹⁰ Paper presented at the Summer school «Exploring Entrepreneurship» (Enschede – Moscow, August, 2011).

and experience; market conjuncture). Innovation capacity of entrepreneurs investigated in frame of demand factors and competitiveness in the same business, availability of technologies, export ability.

Results: Institutional difficulties in Russia are much more restrictive. The thesis about lower rate of risk sharing did not supported. Russians looks like more risky in starting new business. Entrepreneurship for Russians is more risky in the case of social protection system. In that view the share of necessity-driven entrepreneurship is higher in Russia. Consequently they are going to found new business to increase personal income instead of independence or take advantage of business opportunity. As for opportunity motive, perceptual factors are more restrictive in Russia, but in less of significance that had been assumed. As a result the share of opportunity-driven entrepreneurs in the Netherlands is higher due to healthier situation in some specific fields of social support. Innovativeness among early-stage entrepreneurs is higher in the Netherlands. It has strong support from market demand, and also - public support.

Value: The study contributes to cross-country comparisons in the field of entrepreneurial aspirations. It demonstrates the difference in predictors of entrepreneurial motives between the innovative Netherlands and factor-driven Russia.

Preliminary notes

According to the results of Global Entrepreneurship Monitor 2010 Global Report entrepreneurial activity delivers many benefits to the economy. It depends from many variables and differs across countries.

Motivation is one of the main predictor of entrepreneurial activity. Increasing wealth is the prime motive for becoming self-employed. It mediates the relationship between socioeconomic variables and entrepreneurial aspirations. Independence-motivated entrepreneurs are happy to be able to do the work they want to do and not to have to work for others and that for them a comfortable living is enough of a success (Hessels, Gelderen et al., 2008). At the same time find no evidence of a relation between the increase-wealth motive and innovative entrepreneurship.

But knowledge of how to run a business increases survival rates and contributes to the innovation output of firms (Weterings, Koster, 2007). Risk attitudes do not appear to have a strong role to play in the entry decision overall (Elston & Audretsch, 2011).

Motivation could be different across countries because of many “red tapes” and national characteristics of individuals (Fritsch & Schroeter, 2011). For instance, entrepreneurial motivation of Japanese entrepreneurs is more society oriented while Silicon Valley entrepreneurs are motivated by more individualistic factors such as personal achievement and accumulation of personal wealth (Suzuki, Kim et al., 2002). Such determinants of an individual’s choice as age, risk aversion and wealth could explain some differences in decision of whether or not to become an entrepreneur (Levesque & Minniti, 2006). At the same time risk-tasking propensity varies systematically across cultures and may be related to the uncertainty avoidance dimension of culture or linked to the individualism dimension of culture (Tomas & Mueller, 2000). But even when individuals have favorable perceptions of entrepreneurship, they may nonetheless have few intentions to start businesses. In other words although attitudes and perceptions about entrepreneurship are fairly high, this is not matched by high intentions for starting businesses. The type of economy: factor-driven, efficiency-driven, or innovation-driven economy, - also exerts significant influence on entrepreneurial activity. For instance, the factor-driven phase is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on labor and natural resources. In the efficiency-driven phase, further development is accompanied by industrialization and an increased reliance on economies of scale, with capital-intensive large organizations more dominant. As development advances into the innovation-driven phase, businesses are more knowledge intensive, and the service sector expands (GEM 2010 Global Report). Countries with higher rates of economic growth tend to have higher proportions of increase wealth-motivated entrepreneurs (Hessels, Gelderen et al., 2008). But the promotion of increase-wealth-motivated entrepreneurship will be challenging for higher-income countries since the incidence of increase-wealth-motivated entrepreneurs relates negatively to the level of

economic development. Firm start-ups are dependent on access to capital in both initial and early stages of development (Elston & Audretsch, 2011). In that case government funding is an important source of capital for potential and nascent entrepreneurs. But also non-financial factors are important. For instance, the regional share of R&D employees exerts a positive effect on employment creation by new businesses (Fritsch & Schroeter, 2011). At all innovativeness does not vary systematically with culture, what means innovation to be a common motivation for the act of new venture formation (Tomas & Mueller, 2000).

According to the World Economic Forum's Global Competitiveness Report 2010-2011 in Russia presented efficiency-driven economy, in the Netherlands – innovation-driven. The division by type of economy based on two criteria: level of GDP per capita at market exchange rates and the extent to which countries are factor driven (the share of exports of mineral goods and services). The Netherlands improved their index from 2009-2010 ranking and moves up two positions to 8th place. "Dutch businesses are highly sophisticated (ranked 5th) and are among the most aggressive internationally in absorbing new technologies for productivity enhancements (ranked 3rd for their technological readiness). The country's excellent educational system (ranked 8th and 10th for the two related pillars) and efficient factor markets, especially goods markets (ranked 8th), are highly supportive of business activity. The Netherlands is also characterized by a comparatively stable macroeconomic environment. Russian Federation maintains its 63rd position, reflecting the fact that the deterioration in macroeconomic stability has been somewhat balanced by improvements in other areas, notably infrastructure, health, and education, as well as technological readiness. At the same time, Russia's competitiveness continues to worsen in what is one of the major areas of concern, the efficiency of goods markets. Competition, both domestic and foreign, is stifled by inefficient anti-monopoly policies as well as restrictions on trade and foreign ownership. These inefficiencies in goods markets reduce the country's ability to take advantage of some of its strengths, in particular its high innovation potential and its solid performance in terms of higher education and training. A particular challenge for Russia is

related to its very weak institutions. Ranked 118th in this area, the country suffers from insufficient protection of property rights (126th), undue influence (114th), and weak corporate governance standards (119th),” (The Global Competitiveness Report 2010-2011).

SUBINDEXES											
OVERALL INDEX			Basic requirements		Efficiency enhancers		Innovation and sophistication factors				
Country/Economy	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	
Netherlands	8	5.33	9	5.82	8	5.24	8	5.16			
Russian Federation	63	4.24	65	4.52	53	4.19	80	3.36			

PILLARS											
BASIC REQUIREMENTS			1. Institutions		2. Infrastructure		3. Macroeconomic environment		4. Health and primary education		
Country/Economy	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	
Netherlands	9	5.82	12	5.54	7	5.93	25	5.29	8	6.53	
Russian Federation	65	4.52	118	3.22	47	4.46	79	4.49	53	5.92	

Key for factor-driven economies

PILLARS														
EFFICIENCY ENHANCERS			5. Higher education and training		6. Goods market efficiency		7. Labor market efficiency		8. Financial market development		9. Technological readiness		10. Market size	
Country/Economy	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Netherlands	8	5.24	10	5.63	8	5.17	23	4.83	26	4.71	3	5.99	19	5.10
Russian Federation	53	4.19	50	4.55	123	3.58	57	4.51	125	3.18	69	3.56	8	5.74

Key for efficiency-driven economies

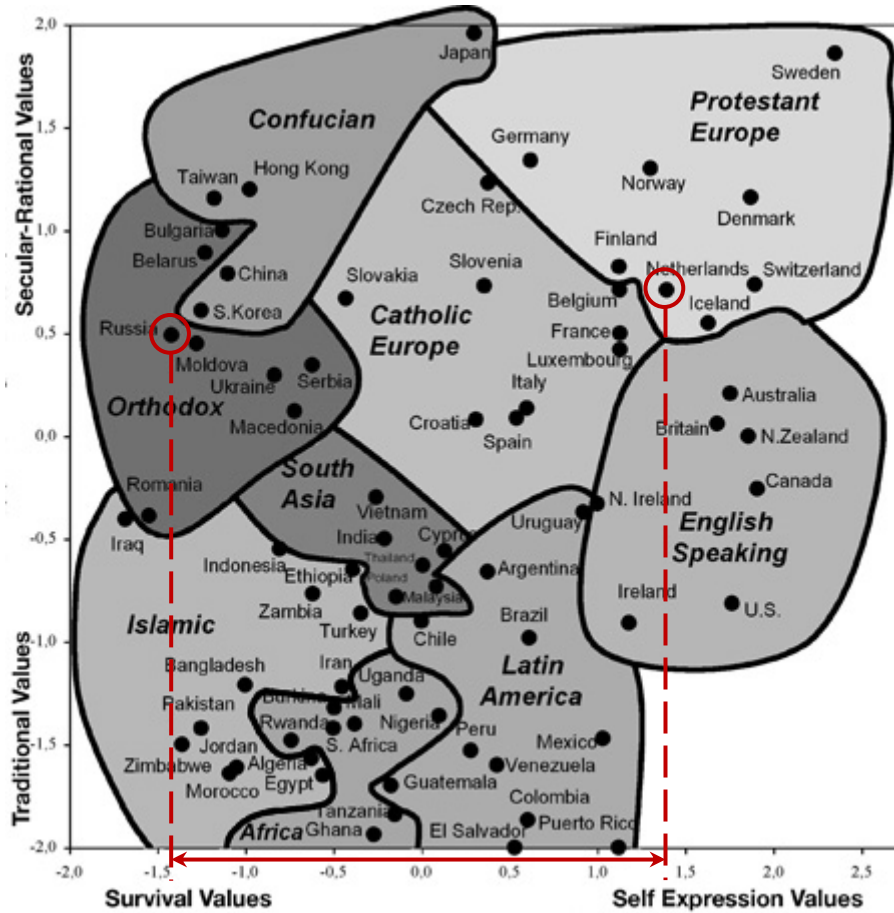
INNOVATION AND SOPHISTICATION FACTORS						PILLARS			
			11. Business sophistication		12. Innovation				
Country/Economy	Rank	Score	Rank	Score	Rank	Score			
Netherlands	8	5.16	5	5.55	13	4.77			
Russian Federation	80	3.36	101	3.47	57	3.25			

Key for innovation-driven economies

Picture1. Country profiles

The biggest gap between countries observed in innovation and sophistication factors: 8th and 80th place for Netherlands and Russia accordingly (Picture 1). By measuring innovation factor main attention paid to the environment that is conducive for innovative activity, supported by both the public and the private sectors. In particular, it means sufficient investment in research and development (R&D), especially by the private sector; the presence of high quality scientific research institutions; extensive collaboration in research between universities and industry; and the protection of intellectual property. As for sophistication factors they measured by quality of a country's overall business networks and the quality of individual firms' operations and strategies. According to figures we could find out market size remains one of the most important advantages for Russia. But if we look at the the World Value Survey Cultural Map (picture 2), we will find that Russians are more focused on basic needs, when the Netherlands - on self expression values. In that case the potential of local market could be unclaimed to stimulate and

absorb innovation capacity. Also quite weak institutional environment in Russia could be more restrictive to startup than in the Netherlands because of the level of uncertainty increases.



Picture 2. The World Value Survey Cultural Map 2005-2008(worldvaluessurvey.org)

Methodology

In our paper we focused on the predictors in entrepreneurship motivation. Attention paid just for early-stage entrepreneurs, i.e. nascent entrepreneurs (activity no more than 3 months) and young firm or baby business (activity no more than 3.5 years). For the research purposes we used Global Entrepreneurship Monitor database for 2006-2009 for two countries: Russia and the Netherlands. We used some special filters to separate early stage entrepreneurs (which identify the age of the business by measuring the date of wages or other payments). To collect specific information about country characteristics we have used Eurostat Database and Federal State Statistics Service of Russian Federation.

For the hypothesis development we used some concepts. To make it clear we give the meaning some of them:

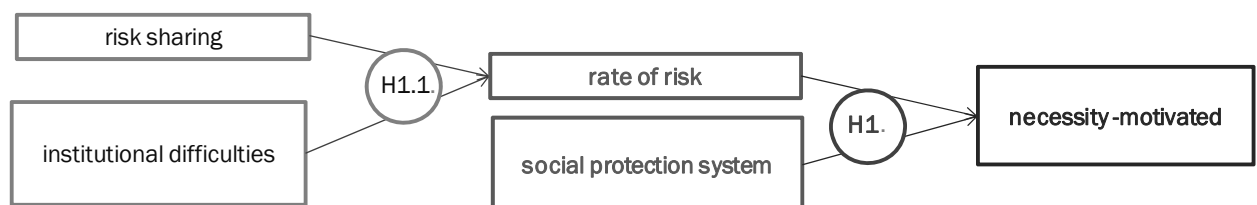
- Risk sharing - in that case we mean sharing the risk between participants involved in start-up phase: the more participants involved - the less risk has each of them.
- Institutional difficulties - barriers linked to macroeconomic level and expressed in such measures like time, number of procedures, costs to start a business.
- Social protection system - variable benefits such as: disablement benefits, unemployment benefits, benefits income support, old age pensions, family allowances, benefits surviving relatives, early retirement, national sickleave, - measured in total expenditure on social protection in % of GDP.
- Necessity motivated - persons, who involved in entrepreneurship to increase income because of no better choices for work.
- Perceptual factors - in our case - perception of fear of failure; knowledge, skills, and experience; market conjuncture.
- Social support - influence, exerted by society across standards of living, patterns of ideal career, status and respect toward entrepreneurs.
- Opportunity-motivated - persons, who reporting take advantage of business opportunity as a major motive.
- Demand on innovations - in our case enterprises demand evaluated by share of innovative enterprises as % of total amount of enterprises.
- Public support of innovations - evaluations of potential customers about product novelty and readiness to buy it.
- Innovation-motivated - the share of early-stage entrepreneurs, who offers innovative and globally competitive products.

We've determined 3 hypotheses. Two of them have additional hypotheses.

Hypotheses

Hypothesis 1. The share of necessity driven early-stage entrepreneurs is higher in Russia than in Netherlands due to a different rate of risk on start-up stage and much weaker social protection system (Picture 3).

Resources and institutions exert significant influence on ability to start-up and an impact differs across countries (Fritsch & Schroeter, 2011). In that case we suppose well designed social protection system could provide minimal well-being conditions, which exerts influence on readiness to apply challenges generated by imperfect institutions that serve the process of new venture creation. The intentions to compete with imperfect institutions in case of low social protection system, which does not provide minimal well-being conditions, will appear because of necessity. We expect to find out weaker social protection system and institutions in Russia than in the Netherlands and as a result - higher rate of necessity driven early entrepreneurs in Russia than in the Netherlands. To evaluate social protection system we review two measures: total expenditure on social protection (% of GDP) and total unemployment (% of total labor force). Institutional difficulties are measured by number of start-up procedures to register a business, number of days required to enforce a contract, number of months involved in starting business, and cost of business start-up procedures (% of GNI per capita). Additional variables are to be obtained from Eurostat and World Bank statistics.



Picture 3 Hypothesis 1 and 1.1

Hypothesis 1.1. The rate of risk among start-up -stage entrepreneurs is higher in Russia than in the Netherlands because of much more institutional difficulties in starting new business and lower rate of risk sharing on startup stage (Pic.3).

We suppose such environmental predictors like: weak protection of legal rights, considerable tax payments; significant time costs required enforcing a contract and registering property, - increase total risks in entrepreneurial activity. In the context of our research it could be determined as environmental restrictions toward willing to start-up. At the same time there are different ways to decrease risks. One of it is sharing risks between partners (owners). We expect to identify lower risk sharing in Russia than in the Netherlands and at the same time much more difficult environmental restrictions in Russia, which at all determine higher level of risk taking readiness among early entrepreneurs in Russia than in the Netherlands.

Hypothesis 2. The share of opportunity-driven early-stage entrepreneurs is higher in the Netherlands than in Russia due to a difference in perceptual factors and a significant social support of entrepreneurs, which makes entrepreneurship a regular practice (Pic.4).

Social opinion could be served as a main predictor to create new venture. In that case our preposition that in the Netherlands there are higher social aspirations to start new business than in Russia and as a result – higher share of opportunity driven early entrepreneurs. At the same time we expect to find out higher rate of total entrepreneurial activity in Netherlands. According to Drucker, regular entrepreneurial activity determines an ability to search and explore opportunities (Drucker, 1985). In that case Netherlands would have much more experience in searching and exploring opportunities that will determine the share of opportunity driven entrepreneurs. To evaluate social support we include in our research measures towards familiarity with entrepreneurs, similar standards of living, starting new business as a desirable career choice, status of entrepreneurs in society, media involvement.



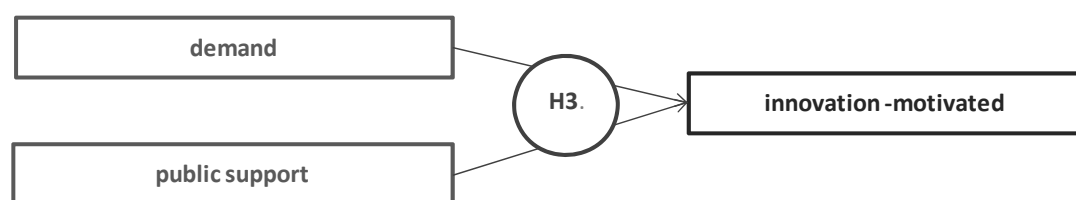
Picture 4. Hypothesis 2 and 2.1

Hypothesis 2.1. Perceptual factors are much more restrictive in Russia than in Netherlands

In case that confidence in one's ability to perform tasks relevant to entrepreneurship is a robust predictor of start-up (Townsend, Busenitz et al., 2008) and Russian Subjective Well-Being Index significantly lower than the same in the Netherlands we suppose such perceptual factors like fear of failure, self-efficacy, and estimated conditions for entrepreneurial activity in home location in coming 6 months could be much more restrictive in Russia than in the Netherlands.

Hypothesis 3. There are significantly higher rates of innovation driven early entrepreneurs in Netherlands than in Russia because of a strong and consistent demand for innovations and public support of innovations (Picture 5).

In our case to identify innovation driven early entrepreneurs we suppose that the innovation field is linked to few or no one's competitors in the same business, recent availability of technologies or procedures required for the product or service, and high proportion of customers normally live outside home country. Demand for innovations is determined by enterprises and customer demand for innovations. To evaluate enterprises demand we have used share of innovative enterprises in countries economy. Data about customer demand is incomplete. In that case we used evaluation of customer readiness to buy new goods and services.



Picture 5. Hypothesis 3

Main results

Hypothesis 1.1. To evaluate difference between Russia and the Netherlands in starting new business we used three variables: number of procedures to start a business, time cost and financial costs, - weighted by average values of the same variables for 9 top cities represented in Easy of Doing Business Ranking. As a result institutional environment to start a business in 3,8

times more difficult in Russia than in the Netherlands. From 2006 till 2009 we could face higher rate of respondents, involved in total early-stage entrepreneurial activity. But the real difference among the Netherlands and Russia we could find in frequencies. In the Netherlands the rate of early-stage entrepreneurs is 1,8 - 3,1 times higher than in Russia. There is quite clear tendency in decreasing amount of owners on start-up stage in Russia: from 62,5% in 2006 to 31,5% in 2009. In the Netherlands there is the same tendency, but it is going not so fast. There is no significantly difference between Russia and the Netherlands in imagine number of future amount owners or managers of new business. As we could see from cross-tabs in the Netherlands much more higher rate of people, who evaluate negative future perspective and at the same time they are preparing themselves for entrepreneurship. Our suggestion about much more restrictive institutional difficulties in Russia is supported, but the thesis about lower rate of risk sharing doesn't. Opposite we face tendency in decreasing rate of risk sharing in both countries. And in addition with the first thesis it means Russians are more risky in starting new business.

Hypothesis 1. The share (%) of necessity driven early-stage entrepreneurs is higher in Russia. Increase income absolutely dominating motive among baby-business in Russia. "No better choices for work" presence in both countries cases, but mostly in Russia. Nascent business in Russia is aiming "increase personal income" motive. For the Netherlands there is no such data. People in the Netherlands have much more developed social protection system. At the same time it does not stimulate unemployment. So we may conclude it decreasing some risks for households (in case it provides minimal wealth). Our suggestion about higher rate of necessity driven entrepreneurs in Russia than in the Netherlands is supported. We found the rate of risk is higher in Russia in case of much more restrictive institutions serving the business. Also social protection system much better designed in the Netherlands. As a result it decreases the risks household keeping, when entering new business. Russian entrepreneurship is much more risky in that case. And that's why the rate of necessity drive entrepreneurs is higher in Russia. Mainly

they are going to increase personal income instead of independence or take advantage of business opportunity.

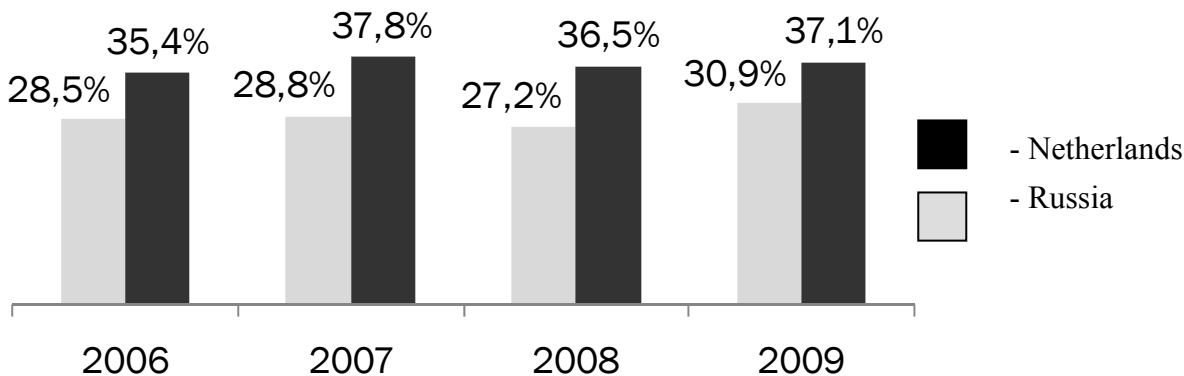
Hypothesis 2.1. In both countries respondents declared absence of opportunities in the closest 6 months for starting a business: in Russia - 66%, in the Netherlands – 63% of respondents declared presence of opportunities among early-stage entrepreneurs. As for perception about own knowledge, skills, and experience to start new business, - in the Netherlands the share of persons, who think they have it, higher by 5% than in Russia. The fear of failure is much more significant in Russia: 36%. It exceeds the same level in the Netherlands by 20%. But we didn't find any strong support to the assumption fear of failure could significantly restrict the ability to create new venture. It means in accepting hypothesis 1.1 we mostly should rely to such predictors like perception of opportunities, skills, and knowledge. As for these variables we could declare there is a correlation between opportunity-motivation and perception of market opportunities, knowledge & experience at the level of significance 0.05. As a result we could make a conclusion that the perceptual factors are more restrictive in Russia than in the Netherlands, but not so much as it assumed.

Hypothesis 2. In the Netherlands the share of opportunity-driven early-stage entrepreneurs is higher than in Russia: 79% versus 70% of total early-stage enterprises accordingly.

In the previous hypothesis we determined a higher restrictive ability of perceptual factors in Russia. As for another part of the hypothesis – social support – we also could declare some difference, and they are not as critical as it could be assumed.

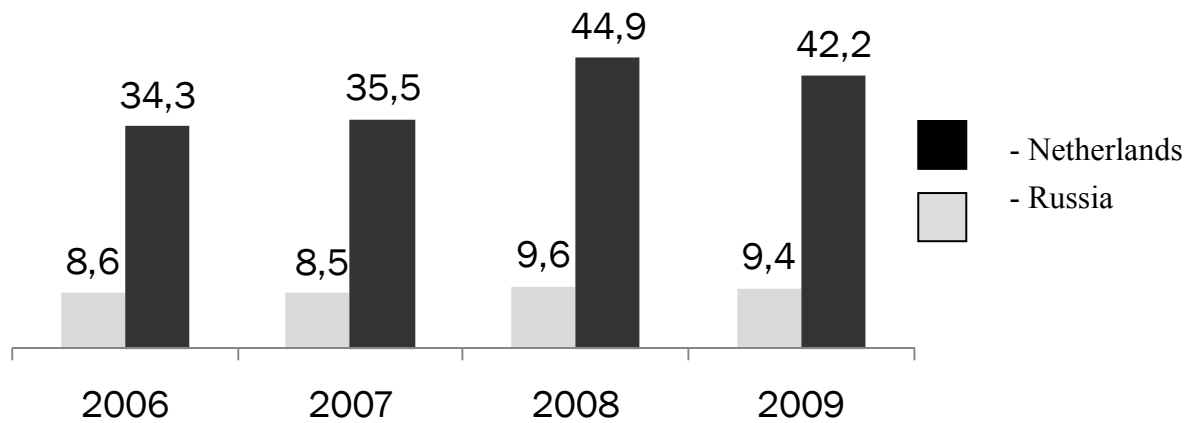
In Russia we could face more share of familiarity with individuals, who started a business in the past 2 years. It is higher by 29% in total. There is the difference between countries in social opinion about starting new business as a desirable career choice. In the Netherlands starting a new business is a more desirable career choice only in average in 1.7 times. The difference in the level of entrepreneurs' status and respect in the society is less high. In average by 24% Dutch entrepreneurs have more respect in society (Pic.6). The rate of entrepreneurs' popularity in

media is also higher in the Netherlands by 12%. There is a strong correlation between opportunity-motivation and public support such as desirable career choice, familiarity businessmen, status and respect, and popularity by media on confidence interval 95%. As a result we may conclude that the share of opportunity-driven entrepreneurs is higher in the Netherlands because of healthier situation in some specific fields of social support.



Picture 6. The share of respondents (valid %), who supported the answer: "In my country, those successful at starting a new business have a high level of status and respect".

Hypothesis 3. The share of innovative enterprises is significantly higher in the Netherlands. It exceeds an average value for 2006-2009 years in 4.3 times (Pic.7)



Pic.7. Innovative enterprises (% of total enterprises), Sources: Eurostat, gks.ru, opora.ru

It means in the Netherlands there is a quite strong market of commercial innovations. We found 25% of Dutch companies have more than 50% of customers are normally living outside the country. It exceeds the same in Russia more, than 6 times. The usage of new technologies or

procedures required for the product in the Netherlands also higher than in Russia. In the Netherlands the share of usage technologies or procedures, which are available no more than 5 years, is higher by 13% than in Russia (Tab. 1).

Table 1 How long have the technologies or procedures required for this product or service been available?

	Russia	Netherlands
Less than a 1 year	19%	20%
Between 1 to 5 years	19%	32%
Longer than 5 years	63%	48%
Total	100%	100%

Public support of innovations in the Netherlands is also higher than in Russia. According to “Special Eurobarometer 236 «Population Innovation Readiness»” and Russian Innovation Survey 2009-2011 readiness to consume innovation product instead of products are already in usage in the Netherlands 90%, in Russia – 62%. In that case 48% in the Netherlands are ready to buy innovation product, even if it’s more expensive; in Russia – only 26% (2006). As a result we may approve our hypothesis about significantly higher rate of innovation driven early entrepreneurs in Netherlands than in Russia because of a strong and consistent demand for innovations and public support of innovations.

Conclusion

During our research we’ve tested 3 hypotheses. In the first one our suggestion about much more restrictive institutional difficulties in Russia is supported, but the thesis about lower rate of risk sharing doesn't. Russians are more risky in starting new business. Entrepreneurship for Russian individuals is also more risky in the case of social protection system. That's why the share of necessity-driven entrepreneurship is higher in Russia. They are going to start-up just to increase personal income instead of independence or take advantage of business opportunity.

The second hypothesis linked to opportunity motivation. We found perceptual factors are more restrictive in Russia but not so much. As a result we may conclude that the share of opportunity-driven entrepreneurs is higher in the Netherlands because of healthier situation in some specific fields of social support.

As for innovation drive – we've approved our hypothesis about significantly higher rate of innovation driven early entrepreneurs in Netherlands than in Russia because of a strong and consistent demand for innovations and public support of innovations.

During the research we've faced some restrictions linked to low response rate in some specific questions. In that case we were limited in usage of some statistical measures. Also many variables in our field are nominal, that's why the most popular instrument in our research is cross-tabs. Anyway the research on GEM database allowed us to support our ideas about difference in motivation structure between Russia and the Netherlands and reject some inappropriate assumptions.

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Innovative vs. Non-Innovative Entrepreneurship in Russia and the Netherlands¹¹**Abstract**

In this paper we focus on the development on innovative entrepreneurship which is said to be conducive to economic growth, and contrast it with non-innovative entrepreneurship, also referred to as replicative entrepreneurship and self-employment. We explore the state of innovative vs. non-innovative entrepreneurship in Russia and the Netherlands based on several determinants of innovative entrepreneurship: the role of the government, risk-taking behavior, social networks, relevance of human capital, financing of SMEs, demand conditions and technology clusters. We supplement our findings with an illustration of two illustrative case studies from the Netherlands and Russia, in which innovative entrepreneurship was stimulated by the government.

Introduction*Background*

The purpose of this paper is to provide a literature overview about concepts determining innovative entrepreneurship and apply these concepts to the Netherlands and Russia in order to see to what extent both countries are able to pursue innovative strategies to enhance entrepreneurship. This paper will also provide two illustrative case studies about innovative entrepreneurship in both countries, in which the government plays a significant role in stimulating entrepreneurship.

In fact, in a world where businesses can only survive when they stay competitive, driving entrepreneurship is one of the main mechanisms to increase a countries competitive position. Entrepreneurship is a broad concept, ranging from startup companies which can be set up by an individual or a group of individuals, to large companies that are seen as champions and corporate entrepreneurship or internal corporate venturing.

¹¹ Paper presented at the Summer school “Exploring Entrepreneurship” (Enschede – Moscow, August 2011).

All entrepreneurial activities are characterized by an external environment which on the one hand can enhance these activities through support mechanisms like credits or policies and on the other hand can deter entrepreneurship through barriers such as governmental restriction, weak legislations or even corruptive mechanisms. Entrepreneurial activities are also characterized by the level of innovativeness; some activities are innovative while others are mainly replicate. It is important to note that there is a link between the external environment and the level of innovativeness, because for example a country's legislative set-up – consisting of policy mechanisms and support schemes – partly determines the level of innovative entrepreneurship in a country. The tools that lead to innovative entrepreneurship can be both universal – meaning that they always lead to innovative entrepreneurship, despite country-specific factors – or contingent – meaning that in each country, certain tools work while other do not because all countries differ in the external environment. Countries develop different strategies to pursue innovativeness in entrepreneurship and use different tools to stimulate innovative entrepreneurship.

This makes it important to investigate how the Netherlands and Russia pursue innovative entrepreneurship because both countries are following different economical paths to achieve growth. The Netherlands is having an innovation-driven economy, which means that the economy is producing innovation outputs and using complex production techniques, for example through ICT. Companies therefore only survive and compete on the basis of innovation. Russia, on the other hand, is pursuing an efficiency-driven economy whereby Russian firms use efficient production methods to enhance productivity. The level of competitiveness is achieved through higher education, market efficiency and the capacity to benefit from existing technologies (GEM Russia 2009).

The difference between the two countries is also due to the different phases of economic development. The Netherlands can be classified as a developed economy, while Russia is rather

classified as an economy in transition or an emerging economy. Figure 1 gives an illustration of the rating of different countries worldwide on such dimensions as Knowledge Economy Index (KEI), Economic Incentive Regime, Innovation, Education and ICT. We can see that the Netherlands scores higher on all dimensions. However, Russia scores relatively high on Education. The Russian Educational system will also be further addressed in the paper.

Objectives and research question

Because the two countries have a different level of innovative entrepreneurial activities and focus on different tools to achieve innovative entrepreneurship, we arrive at the following research question:

To what extent can entrepreneurial activities in the Netherlands and Russia be characterized as innovative?

Sub-questions

In order to answer the main research question, we will first give a definition of innovative and non-innovative entrepreneurship. Then we will look at what the determinants of innovative

Position in the rating	Country	KEI	Economic incentive regime	Innovation	Education	ICT
1	Denmark	9.52	9.61	9.49	9.78	9.21
2	Sweden	9.51	9.33	9.76	9.29	9.66
3	Finland	9.37	9.31	9.67	9.77	8.73
4	The Netherlands	9.35	9.22	9.45	9.21	9.52
7	UK	9.10	9.24	9.24	8.49	9.45
9	US	9.02	9.04	9.47	8.74	8.83
54	Brazil	5.66	4.31	6.19	6.02	6.13
60	Russia	5.55	1.76	6.88	7.19	6.38
81	China	4.47	3.90	5.44	4.20	4.33
109	India	3.09	3.50	4.15	2.21	2.49
Income groups						
	High	8.23	8.02	9.02	7.47	8.42
	Upper middle	5.66	5.08	6.03	5.63	5.89
	Lower middle	3.78	3.01	4.96	3.32	3.85
	Low	2.00	2.05	2.52	1.61	1.82

Source: World Bank (2009)

entrepreneurship are, because it is said that certain external conditions are conducive to an innovative entrepreneurial environment. Once we define the determinants, we will describe to

what extent these determinants are present in both countries. Our proposition is that a lack of determinants for innovative entrepreneurship hinders the development of innovative entrepreneurship. Finally, we will use two case studies to try to determine which country is further ahead on innovative entrepreneurship.

How can the level of innovative entrepreneurial activities best be defined?

What are the determinants of innovative entrepreneurship?

To what extent can these determinants be applied to Russia and the Netherlands?

Which country is further ahead on innovative entrepreneurship?

Research structure

It is realized that the concept of innovative entrepreneurship is relatively broad. As mentioned before, it is also important to investigate what the determinants of innovative entrepreneurship are, in other words which favorable factors need to be present in order to stimulate innovative entrepreneurship. For this reason, we will first use the literature review in Chapter 2 to give a definition of innovative entrepreneurship, to explain the importance and relevance of innovative entrepreneurship and to discover which factors are seen as determinants of innovative entrepreneurship. These factors in turn will form the conceptual framework. In Chapter 3 we will apply the conceptual framework - consisting of the determinants of innovative entrepreneurship - to both countries. The application of the framework will be done by collecting data about entrepreneurship and this data should yield results about the state of innovative entrepreneurship in the two countries. In Chapter 4 we will have two small illustrative case studies which should supplement the findings from Chapter 3. Finally, we will discuss our findings and conclusions in Chapter 5 and 6. These findings should show us which lessons can be drawn about the state of innovative entrepreneurship in both countries, and what the possible outlook for the future might be.

Conceptual Framework

Innovative vs. non-innovative entrepreneurship

It is important to define what exactly innovative entrepreneurship and non-innovative entrepreneurship is. Entrepreneurial activities differ in the degree and type on novelty introduced. Some entrepreneurs largely replicate what others do whereas others are more innovative. So entrepreneurship can be differentiated into non-innovative entrepreneurship – starting a business by replicating another business – or innovative entrepreneurship – new firms based on new (inventive) ideas, and sometimes, but not always, research-based (Dahlstrand & Stevensson, 2007).

Acs (2008) referred to the concept of high-impact entrepreneurship (HIE). HIE is fundamentally the study of the actions of individuals responding to market opportunities by bringing invention to markets that create wealth and growth. These entrepreneurs are distinct from mere creators of new firms, those that replicate thousands of other establishments. These many creators of new firms are engaging in non-innovative entrepreneurship. For example, opening up another fast-food chain which uses the same business concept and same technology as all other fast-food chains, can be considered as a form of non-innovative or replicative entrepreneurship. However, if this fast-food chain can differentiate itself and propose a new, innovative concept it will not necessarily be considered as replicative entrepreneurship.

In a broad sense, innovative entrepreneurship is new businesses are set up which are recently new to the world, that commercialize new products, services and business practices. Koeninger (2008) argues that innovation is a subjective concept and whether some activity qualifies as innovative or not depends on the perspective of the observer. The author takes the standpoint that product, service or production process does not need to be new to the world to have economic impact but that it is sufficient if the innovation is new to the market under scrutiny. The definition of innovative entrepreneurship by Koeninger (2008) is that innovative entrepreneurs attempt to start firms whose routines, competencies or offers vary significantly from those of existing organizations in the particular market they enter.

The subjective aspect of innovative vs. non-innovative entrepreneurship is also stressed by Carney (2006). According to the author, sometimes the difference between an innovative venture and a replicative one is subtle, as innovative entrepreneurship may cover what's been tried and has failed in the past, for example. Besides that, innovative entrepreneurship consist of two parts, one is the invention - coming up with a new idea for a good or service - and the other is successfully converting that idea into a product or service and commercializing it (Sinha, 2006). This is a very important point, since it is possible for a nation to be very high on invention, but lack the skills and experience needed to successfully bring the invention to the market in the form of a product.

The empirical study by Koeninger (2008) showed that in particular, high educational attainment, unemployment, and a high degree of self-confidence are significantly associated with entrepreneurial innovativeness at the individual level. Likewise, the authors show that entrepreneurs in highly developed countries are significantly more likely to engage in innovative rather than purely imitative activities.

Innovative vs. non-innovative entrepreneurship and economic growth

An innovative economic policy is high on the agenda of many governments and stimulating innovative entrepreneurship is one of the instruments to stimulate innovation. Stimulating innovativeness is very attractive, because the origins of most large companies can be traced directly or indirectly to entrepreneurial founders.

According to the Ministry of economic affairs of the Netherlands (2001), one of the mechanisms through which entrepreneurship affects the innovative capacity of the economy is called churning. Churning of economic activity is crucial in achieving higher productivity levels. New companies develop new products and challenge established firms to adjust and innovate. In its ultimate form new more efficient firms drive obsolete inefficient firms out of business.

According to Acs (2006), the impact of entrepreneurship on economic growth depends on the type of entrepreneurship pursued, in which the author distinguishes “necessity entrepreneurship,”

which is having to become an entrepreneur because you have no better option, from “opportunity entrepreneurship,” which is an active choice to start a new enterprise based on the perception that an or underexploited business opportunity exists. The authors found that necessity entrepreneurship has no effect on economic development while opportunity entrepreneurship has a positive and significant effect. This is an important finding, since we can recognize that opportunity entrepreneurship is related to innovative entrepreneurship, and that necessity entrepreneurship is more related to imitative entrepreneurship. Acs (2006) argues that being pushed into entrepreneurship (self-employment) because all other options for work are either absent or unsatisfactory can even lead to under development, thus lower economic growth. However, most countries do not have solely opportunity or necessity entrepreneurship, but a combination of both. Acs (2006) says that as more and more of the population becomes involved in opportunity entrepreneurship and as more and more people leave necessity entrepreneurship (self-employment), the more we see rising levels of economic development.

There are more suggestions that the growth potential of non-innovative firms is small and that sooner or later they will be replaced by more innovative firms. Economies can only grow so much through replicative activity; growth is capped when all those who otherwise would not be employed are engaged fully in replicative activities (Baumol, 2007). So for the growth of an economy as a whole, it is better to have more innovative entrepreneurial firms.

Determinants of innovative entrepreneurship

An important question is: what determines the state and level of innovativeness of entrepreneurship?

When speaking of determinants of innovative entrepreneurship, we can find a mix of universal and contextual factors. Some tools are said to always lead to higher innovative entrepreneurship. However, the way in which these tools are used also depend on country-specific factors. Literature points to evidence that for example governmental policies and human capital lead to a higher level of innovation. For example, Wong et al. (2005) argue that where markets have

inappropriate regulations or are strangled by predatory governments or monopolies, there is no incentive for entrepreneurs to introduce innovations that are new to the firm. Where inappropriate property rights and weak contract enforcement makes returns to innovative activity risky, there will be little incentive for entrepreneurs to invest in innovations new to the domestic market or new to the world. However; each governmental policy should be suited to the conditions that are present in the country.

Role of the government

The role of the government is very important in stimulating innovative entrepreneurship by providing policy instruments, for example in order to address financial needs or human capital. Since entrepreneurship is not the same everywhere because of local cultures, structures and experiences (Malecki, 1994), policy instruments might vary throughout countries and different government levels. In recent years the view has emerged that the role of small and medium sized firms plays an essential part in stimulating innovative entrepreneurship. Policies to address human capital needs for innovative entrepreneurship include for example research-based universities that are said to be a “necessary ingredient” for innovation-based entrepreneurship. Policies that address financial needs include for example venture capital which is said to be highly concentrated spatially and which flows only between a small number of origins and destinations (Malecki, 1994). The strength of a venture capital industry is in the network of financial institutions, large corporations, universities and entrepreneurs. The crucial point is therefore to put entrepreneurs in contact with experts and encourage that venture capital gets available to them. Another instrument to stimulate innovative entrepreneurship is the protection of property rights.

There are some arguments that the same barriers exist for ‘normal’ and ‘innovative entrepreneurship, for example, rigid regulations and high administrative burdens are impeding innovative as much as other entrepreneurs (EIM Business Policy & Research, 2002). Nevertheless, the distinction between innovative entrepreneurship and mere self-employment is

important here, because there is evidence that public policy should focus on innovative entrepreneurship, since this type of entrepreneurship is becoming the cornerstone of economic growth in the developed world - it is the source of jobs and high living standards for individuals, as well as great benefits for society in the form of technical progress and economic development (Cukier, 2006). The same does not directly count for non-innovative, replicative entrepreneurship. There is evidence that unemployed individuals that are pushed into entrepreneurship are less competent to run a firm, partly because of the relatively low human capital (Stel & Storey, 2004). According to Thurik et al. (2008) public policy to generate jobs and reduce unemployment would be best served by focusing more on innovative and high-growth entrepreneurship than on inducing the unemployed into entering into self-employment. This is because unemployed individuals may have a bigger chance to escape unemployment by way of being hired by (new) entrepreneurs than by way of trying to start and maintain a new firm.

According to Cukier (2006) promoting innovative entrepreneurship is essential for modern governments, but that this requires that government officials themselves act entrepreneurial in moving forward with bold (and at times risky) policies, which include new forms of partnerships with industry, academia and civil society. Whether today's leaders are prepared to accept this challenge will have an effect on the success of tomorrow's innovators. The participants of the Rueschlikov Conference in 2006 agreed that government can act as a catalyst to greater private action without serving as the agent of action itself. It should invest in upstream areas, such as education, as well as remove obstacles and encourage new forms of investment.

Risk-taking behavior

Mayer-Schönberger (2007) advance that a risk-based approach is furthering innovative entrepreneurship. Innovative entrepreneurs are said to take more risky decisions and three reasons are identified to explain why this is the case. Firstly, innovative entrepreneurs are less risk averse than others with a view to obtain the anticipated benefits of their risk taking behavior.

Secondly, innovative entrepreneurs are better able to gather the right information that guides their risk-taking behavior. Here, the role of establishing networks plays an important role. Thirdly, they acquire a superior ability to evaluate risks and rewards (Mayer-Schönberger, 2007).

Social networks

Hulsink et al. (2008) outline social networks as an important variable considered in innovative entrepreneurship. They argue that social networks are important since companies acquire their assets for deal-making and competition from social networks, or what they call “networking”. According to the authors, firms are looking for ‘corporate social capital’ what they define as “the set of resources, tangible or virtual, that accrue to a corporate player through the player’s social relationships, facilitating the attainment of goals” (Hulsink et al, 2008, p.13). Consequently, in order to stay competitive and cope with new demands and opportunities, some entrepreneurs may realize that they still have a gap in their current social capital.

Relevance of human capital

The theory of human capital suggests that knowledge offers human beings the possibility to enhance their cognitive capabilities which in turn leads to more productivity (Mincer, 1974). It is suggested therefore, that when new opportunities in economy exist, people that have acquired a higher level of human capital are better able to recognize these. If engaged once in entrepreneurial activities, these people should also have better capabilities to successfully exploit the opportunities (Davidsson and Honig, 2003). The authors claim that weaknesses exist in the literature about human capital and entrepreneurship because most views take a black box perspective with underlying the education production and agglomeration activities at an equilibrium level (Davidsson & Honig, 2003).

Most theoretical perspectives suppose that more human capital always means more positive effects, whereby social systems are able to bias entrepreneurs to either under or over-invest. But it is not only previous knowledge that has a critical role in the performance of entrepreneurs (Weick, 1996). Literature presents much evidence that the positive relationship between the level

of education and being a successful entrepreneur (Bellu et al., 1990; Evans & Leighton, 1989; Gimeno et al., 1997 and Reynolds P., 1997). Furthermore, Davidsson & Honig (2003) claim that human capital is not only acquired through formal education but is also the result of experience and practical learning. These processes take place on the job, through trainings and the general labour market experience that is experienced by the entrepreneurs.

Financing of SMEs

Several studies have demonstrated that SMEs are financially more restrained than larger firms and are less likely to access formal financing mechanisms (Beck & Demirguc-Kunt, 2006). They claim that until recent times there was little evidence on for example the influence of a firm's size and obstacles to financial access. However, the efforts to finance SMEs are clear: they are seen as "engine of growth", whereby imperfections in the market and institutional weaknesses impede their growing mechanisms (Biggs, 2002). In a study from Djankov et al. (2005), the authors investigated interviews with entrepreneurs and non-entrepreneurs in seven Russian cities. Their study provides further inside into the business environment and its influence on the decision to become an entrepreneur. Their findings suggest that it is not only the personal attitudes that determine whether or not to engage in financial support but also the conception of corruption and the attitudes of government officials that determine if entrepreneurs take the step to ask to financial support (Djankov et al, 2005).

Demand conditions

Capability and tendency of the national companies to be engaged in innovations also depends on the demand characteristics in domestic market. It is extremely difficult to develop innovations if consumers, the government and public sector are focused only on the price of the goods and services and are not willing to invest by acquiring new types of technologies.

According to a study of the 'Russian Non-Governmental Organization for Small and Medium Entrepreneurship' ("OPORA RUSSIA"), a large scale of the domestic market is an advantage

and stimulus for the development of innovations. Large countries, such as USA, China or Russia could lean against this scale, for example in development of information technology. However, not only the scale, but also the quality of demand in domestic market matters for competitiveness of innovators.

Results of innovation are not always products of mass demand. In many sectors, such as techniques and equipment manufacture, basic share of production of innovations goes to the industrial market. For such innovations there are favorable conditions when access to these markets isn't subject to restrictions and regulation, and trade of the companies – potential buyers of new technologies - is based in a greater degree on unique products and processes, than on access exclusive rights to resources. The government renders great influence on innovation development through participation in demand development – civil and military purchases.

So, a prototype of Internet has resulted from projects of the defensive department of the USA, and energy-saving technologies were extended in Europe as a result of purposeful purchases from the governments. The higher the degree of technological effectiveness of products bought by the government and the equipment is a priority, the stronger stimulus for innovations in such branches, for example medical and space industries. Mowery & Rosenberg (1979) conclude that, "the uncritical appeal to market demand as the governing influence in the innovation process simply does not yield useful insights into the complexities of that process." They argue that demand is clearly necessary, but that it is not sufficient, and that focusing too heavily on market demand has caused both policy makers and innovation researchers to lose track. Mike Rodenburgh (2010) outlines that when included in the innovation process, modern research can play a valuable role in saving brand equity and money in the long run. Marketing research is very important, because it can provide new channels that deliver customer insight and ideas as well as a system for testing that ensures only the best ideas make it to the marketplace

Technological structure and clusters

Innovations involve whole sets of organizations. The innovative system represents a complex network of interactions between the companies, research institutes, educational organizations, consumers, associations, government and other organizations. These interactions are productive, if they are based on widely accessible technological infrastructure, modern technical standards and developed legislation on the intellectual property. The countries differ in the degree in which intellectual property rights are protected and in which the balance between the rights of authors and users is observed (Bauman Innovation and OPORA). Companies would not be able to function without a developed legislation and regulation in the market and innovations could not be carried out in conditions where the law does not protect the results of work of researchers. The companies would not start investing in creation of knowledge if the results of their work would be used by their competitors for free.

The term 'innovative cluster' is used to refer to a geographically confined collection of related firms. Clusters include firms working in related or supporting technologies, and an infrastructure of institutions and social relationships that provide resources and promote the interests of the whole cluster (Feldman et al, 2005).

State of Innovative vs. Non-Innovative Entrepreneurship in Russia and the Netherlands

Entrepreneurship in the Netherlands is considered to be of vital importance to the development of economic growth and employment and the productivity of the Dutch private sector is attributable to the entry and departure of companies. The most favorable aspects of the Dutch entrepreneurial climate are: the availability of financial capital, the positive attitude of young people to labor mobility, the access to physical infrastructure and the diminished barriers for entrepreneurship. The least favorable aspects are: transfer of knowledge from universities to new and small enterprises, the administrative barriers for business startups and the extent to which both the Dutch welfare state and the educational system provide encouragement for people to take initiative and be self-sufficient. The innovation policy of the Netherlands consists of two pillars: support for smaller and larger companies with a budget of about one million euro's

supervised by the Ministry of Economic Affairs, and investment in science and education also with a budget of about a million euro's, supervised by the Ministry of Education and Science (WRR, 2008). The Dutch approach to science, technology and innovation fits in the picture of the European knowledge paradox. Although the country has an outstanding reputation, both in terms of the quantity and quality of its scientific and technological research, it has a poor record when it comes to commercializing its scientific output, putting knowledge to practical use and translating it into innovations the market needs (Hulsink & Suddle, 2008)

The current state of entrepreneurship in Russia can be described as rather non-innovative, because many of these supporting factors are lacking. Russia is an economy that is still in transition in which the business climate is bureaucratic, legal and business infrastructure is underdeveloped, taxation is restrictive (Lee & Petereson, 2000).

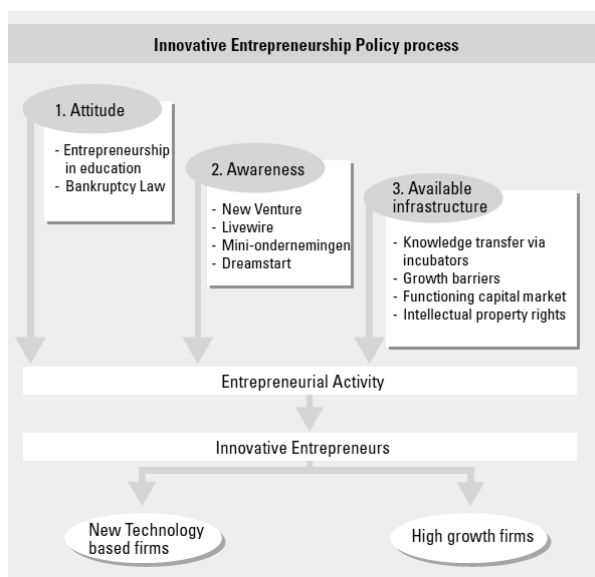
Moreover, a problem is the lack of commercialization of ideas. Russia is able to come up with new inventions for example because Russian have a highly educated population (engineers and experts that have been trained by the Soviet academic system) and thus a high level of human capital, but Russians have little experience in how to bring the ideas and inventions to the market in the form of a product. However, there are some success stories of Russian innovative companies. For example, the biotechnology company Bioctad which was founded in 1999 is an example of how scientific research can be transferred from the ivory tower and applied to commercialization of products in the competitive marketplace (Naumov et al., 2008). Many of the success stories are also companies in the IT sector. For example, Kaspersky Lab, started in 1997 which is currently the 4th global antivirus vendor.

Role of the government

The share of the Dutch adult population that is setting up their own business or that owns-manages a business that exists for less than 3.5 years has risen considerably from 5.2% in 2008 to 7.2% in 2009. As compared to countries with a similar level of economic development, however, entrepreneurship among higher educated individuals is lacking behind in the

Netherlands (Hartog et al., 2009). Figure 2 shows that by and large Dutch innovative entrepreneurship policy follows a three-step approach: enabling an entrepreneurial attitude e.g. in the education system, raising awareness through business plan contests and improving the available infrastructure for innovative entrepreneurs. The ultimate goal is improving the conditions under which innovative firms such as new technology based firms and high growth firms can flourish (EIM Business Policy & Research, 2002).

Figure 2: Policy Mix (EIM Business Policy & Research, 2002)



The government can play a role in reducing the risk-avoidance of entrepreneurs and thus changing the attitude towards innovative entrepreneurship. For example, in November 2001 the Dutch government decided on the reform of the Dutch Bankruptcy Law, which include reducing the stigma on failure is an element herein, more flexible labour laws for companies in financial difficulty and a relaxation of the position of secured creditors, promotion of out of court and amicable settlements and more opportunities for coaching and advice to entrepreneurs who are in financial difficulties (EIM Business Policy & Research, 2002).

The Dutch public policy is also aimed at raising awareness among students and encouraging them to flow into entrepreneurship after graduation. This is because in the Netherlands, as in 2001, only 7 % of Dutch students want to start their own company within three years of

graduating while this percentage is higher in the US (EIM Business Policy & Research, 2002). The third pillar of the Dutch policy stimulating innovative entrepreneurship is creating the availability of infrastructure. To increase knowledge transfer via business incubators, a special subsidy scheme was introduced to stimulate the formation of incubator networks around universities. As an effective and transparent system of intellectual property rights is crucial for a good functioning innovation system, the Dutch government has proposed a patent system which balances the trade-off between protection of intellectual property and knowledge dissemination (EIM Business Policy & Research, 2002).

Considerable literature argues that weak institutions, notably the quality of the commercial code, the strength of legal enforcement, administrative barriers, extra-legal payments and lack of market-supporting institutions, represent a significant barrier to entrepreneurship (McMillan & Woodruff, 2002). There are various dimensions on which Russian can improve the role of the government in stimulating entrepreneurship. For example, the enforcement of property rights is a major barrier for business development in Russia, with violations common and the business community often opting for informal resolution of conflicts rather than using formal institutions (Aidis & Adachi, 2005). The Russian government has formulated goals to modernize the Russian economy and turn it into an innovative one. These goals have been formatted by President Dmitri Medvedev in particular.

An example of the modernization process is the set-up of Skolkovo Innograd project. Skolkovo should stimulate the transition of Russia towards an innovative economy. Skolkovo is being compared to Silicon Valley as the idea behind it is similar to that of Silicon Valley in the US: development and implementation of innovative technologies. Skolkovo is planning to create a special academic, research, and business environment where scientists can develop, implement, and test-run new technologies. Skolkovo is the first large-scale project to stimulate innovative entrepreneurship. Like this, we can see that Russia is rather lagging behind Netherlands, as

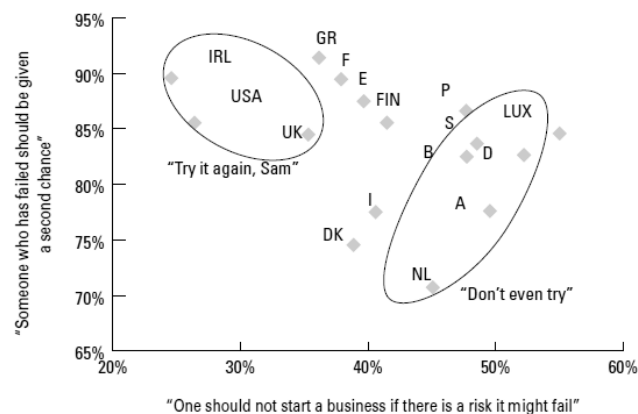
policies to stimulate innovative entrepreneurship have already been imposed by the Dutch government in the past.

Risk-taking behavior

Entrepreneurship in general and innovative entrepreneurship especially is risky. Lee & Peterson (2000) argue that only societies with a cultural foundation that supports the proclivity of entrepreneurs to tolerate ambiguity and uncertainty and to commit resource to risky ventures will reap the benefits of those who are willing to engage in risk-taking behaviors.

So the degree of innovative entrepreneurship depends on the willingness of the country/entrepreneur to take risk. As we can see in figure 3, the Netherlands is positioned in the risk-averse category along with a number of other European countries. The Dutch are very risk-avoiding, and will only start a business if the risk of failure is small. The Anglo-Saxon countries have a much more positive view towards taking risks (EIM Business Policy & Research, 2002).

Figure 3: Stigma on failure (EIM Business Policy and Research, 2002)



As in 2000, the climate, entrepreneurial characteristics, and risk-taking have not yet been internalized among the people in Russia (Lee & Peterson, 2000). There has not been much change since 2000. For example, a research by Hofstede & Hofstede (2005) has shown that countries high on uncertainty avoiding are: Central and Latin Europe, Latin America, Japan, South Korea, Russia, Middle East, and Pakistan. This uncertainty avoiding behavior can act as

an impediment to innovative entrepreneurship, which requires higher degrees of risk taking. Here the government can play a role to decrease the perceived risk by ensuring good intellectual property rights, regulations, laws regarding bankruptcy, etc. We can see that both the Netherlands and Russia have a rather low level of risk-taking behavior. However, it seems that the Netherlands is more proactive in taking measures to stimulate people into entrepreneurship and thus reduce the risk-awareness.

Social networks

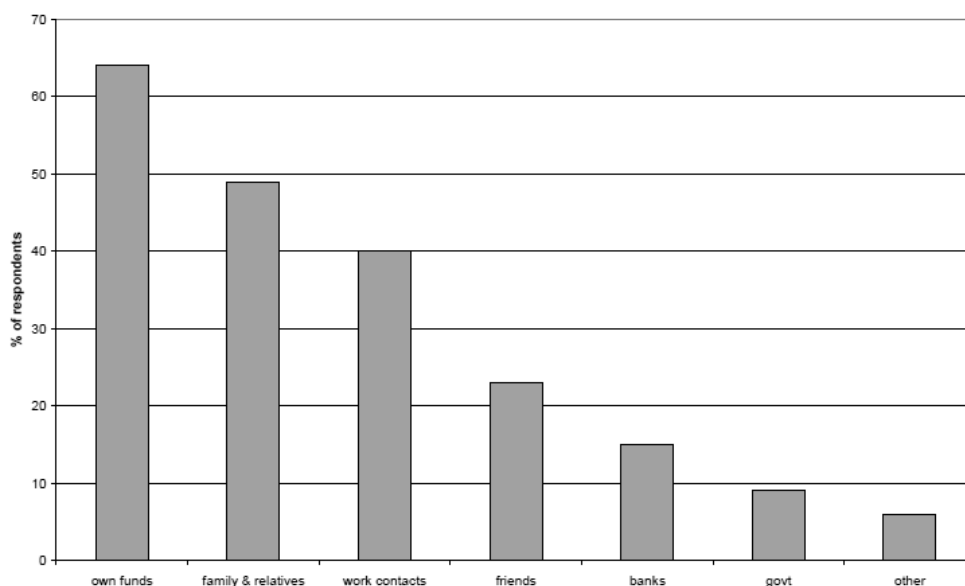
In the Netherlands social network play a role in entrepreneurship development. Elfring & Hulsing (2003) have made a distinction in their research between strong and weak ties, three entrepreneurial processes in new venture development (discovery of opportunities, securing resources, and obtaining legitimacy) and incremental and radical innovation. They found that in Netherlands, strong ties are associated with the exchange of fine-grained information and tacit knowledge, trust-based governance, and resource cooptation, while weak ties are beneficial as they provide access to novel information as they offer linkages to divergent regimes of the network. The findings of the authors are that companies engaged in radical innovations are seen to benefit from a mix of strong and weak ties.

Strong ties turn out to be beneficial because of their ability to exchange tacit knowledge and trusted feedback on the nature and viability of opportunities. Where legitimacy is concerned, the authors find that for radical innovations strong ties are detrimental in obtaining socio-political legitimacy and weak ties are needed for the more general endorsement of these new products.

There is evidence that social networks are a very important enablers of entrepreneurship in Russia, especially when it comes to obtaining capital. Aidis & Estrin (2006) find support for their hypothesis that given the weaknesses in the Russian capital market, in terms of the lack of availability of external sources of capital; entrepreneurs will disproportionately rely on their own firms to finance their start-up activities. They found that entrepreneurial experience as measured

in terms of current business ownership had a significant positive influence on new start-ups. In Figure 4 is an overview of the sources of funding entrepreneurs in Russia use.

Figure 4: Sources of funding (Aidis & Estrin, 2006)



We can see from the figure that entrepreneurs in Russia rely largely on their own funds, which implies that entrepreneurs will most likely come from wealthier household. Popular sources of capital are also family & relatives, work contacts and friends. This shows how important social networks are for people in Russia if they want to move into entrepreneurship. Banks and government are not popular funding sources. The researchers conclude that network relationship is very important for business development in a weak institutional environment.

We can see that social networks are important both in the Netherlands and Russia. Although, we can also see that social networks play an essential role in Russia (one almost cannot start a business without a social network), while in the Netherlands social networks play more of supporting role.

Relevance of human capital

As discussed in chapter 2, human capital is seen as driving force behind entrepreneurial dynamics. It determines economic productivity and economic growth. Human capital and the

investment in human capital is therefore an indicator of innovative entrepreneurship. Looking at the education level and involvement in early-stage entrepreneurial activity, it can generally be stated that the involvement rate in these entrepreneurial activities increases with the degree of education (Millàn et al, 2011).

However, for the Netherlands this number seems to deviate. Looking at table 1 the frequency rate of early-stage entrepreneurial activity for individuals with secondary education in the Netherlands (8.8%) is higher than the average rate for innovation-driven economies, which is 6.1% (Hartog et al, 2009). People with a post-secondary education or with graduate background, show a lower participation rate (3.8%) than other innovation driven economies (9.1%). This is said to indicate “room for intensified entrepreneurship policy in higher education” (Hartog et al, 2009).

Recently, the Education and Entrepreneurship Action Program that was introduced in the Netherlands in 2007 is already showing the first success because entrepreneurship has become a more and more an occupational choice in the Dutch student population with tertiary educational background (Actie Programma Onderwijs en Ondernemen, 2011).

One success that the programme achieved was the setting up of six Centres of Entrepreneurship at universities or other institutes which are aiming to create a stronger link between the development of entrepreneurial attitudes and to establish an own entrepreneurial career (van der Hoeven, 2009). Furthermore, the Ministry of economic Affairs has introduced a subsidy scheme which is called Beroepsonderwijs in Bedrijf, BIB (Ministerie van Economische Zaken, Landbouw en Innovatie). Its goal is to encourage learning in practice whereby educational institutes and businesses jointly work together to improve and modernize the curriculum with respect to learning-on-the-job. This subsidy is only granted if at least one educational institute enters into a cooperation project with one entrepreneur (van der Hoeven, 2009).

Table 1: Demographic structure of Total early-stage Entrepreneurial Activity (TEA), by stage of economic development (unweighted average), 2009, percentage of the adult population (18-64 years of age)

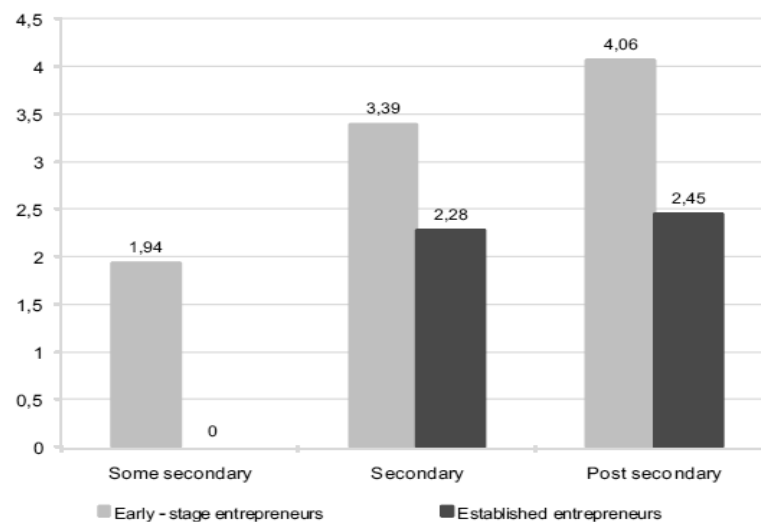
		Factor-driven economies	Efficiency-driven economies	Innovation-driven economies	NETHERLANDS
Gender	Male	20.6	13.7	8.2	8.5
	Female	14.5	8.8	4.1	5.9
Age	18-24 years	15.9	9.7	4.1	3.7
	25-34 years	19.9	14.3	8.5	10.5
	35-44 years	18.7	12.4	7.5	10.3
	45-54 years	15.6	10.8	5.9	6.4
	55-64 years	14.2	6.5	3.7	3.5
Education	Some secondary degree	15.0	8.7	3.3	4.2
	Secondary degree	19.9	11.9	6.1	8.8
	Post-secondary degree and/or graduate experience	33.5	23.9	9.1	3.8
Income	Household income in lowest 33 percentile	9.6	5.4	2.4	2.3
	Household income in middle 33 percentile	10.4	7.4	3.3	4.5
	Household income in highest 33 percentile	11.0	10.6	5.2	7.0

Source: EIM/GEM.

Having a look at Russia, it can be stated that people with higher professional and educational backgrounds show the highest activity levels in early-stage and established companies (see figure 5), relatively compared to groups with other educational background (GEM 2009, Russia). Here it should be noted that Russia ranks on the first place among GEM countries regarding the index of education of early stage entrepreneurs (i.e. the number of early-stage entrepreneurs having at least a secondary education). “This rate (more than 90% for Russia) is three times higher than the average level for efficiency-driven economies and two times higher than the average for innovation-driven economies (GEM 2009, Russia). Also in Russia the human capital for entrepreneurship is stimulated by means of the Russian Association for Entrepreneurship Education (RAEE) which was founded in 2008. Its goal is to enhance entrepreneurship through university education, research and the collaboration between different internal and external partners such as professors, entrepreneurs and policy makers (Russian Association for

Entrepreneurship Education, 2011). The main objectives include the provision of a global network with opportunities for researchers, inventors and entrepreneurs, the development of new quality standards in entrepreneurship education and to ensure state-of-the-art management practices for start up businesses to support sustainable growth (Russian Association for Entrepreneurship education, 2011).

Figure 5: Activity of early-stage and established entrepreneurs by educational level, % (Russia APS, 2009)



Innovation and entrepreneurship is considered in the Netherlands as two concepts going hand in hand, leading both to productivity and economic growth. One of the instruments introduced to enhance innovative entrepreneurship is the Innovation Performance Contracts and Innovation Vouchers. SMEs are able to use Innovation Vouchers in order to “buy knowledge” from universities or other research institutes. The valorization agenda is another instrument which was designed to develop and translate knowledge into new products, processes and services (van der Hoeven, 2009).

In Russia, 58% of early stage entrepreneurs and 69% of established entrepreneurs are convinced that their goods are not original for their markets (GEM 2009, Russia). However, the share of those among early-stage entrepreneurs who are convinced in the novelty of their products

remains consistently high, on average 22% for 2007 and 2009. Practically 75% of early-stage and established entrepreneurs evaluate competitiveness on the Russian market as intensive. One of the reasons for such a highly competitive environment is the peculiarities of sector distribution: the majority of Russian entrepreneurs are engaged in the consumer sector, in which the number of companies offering standard products is high (GEM 2009, Russia).

Financing of SME's

The financing of small and medium sized enterprises is said to be a critical factor for entrepreneurship (see Chapter 2). In the following a brief outline of the financing mechanisms in the Netherlands and Russia is given.

According to the van der Hoeven (2009), about 600,000 people in the Netherlands are about to start their own company. However, because the people face a lack of knowledge in most cases these plans fail. To overcome this problem, the Dutch government has introduced a microfinance scheme to establish a national network of microfinance and of a Knowledge Centre for Microfinance (Qredits, 2011).

According to data retrieved from SMEs in the Netherlands in the period between December 2008 and December 2010 they required a decreased amount of financing from the government. The requirements to acquire a credit are sharpened in the year 2009, whereby costs and provisions are increased (van der Hoeven, 2009). The percentage varies between 29% in December 2009 and 11% in December 2010. This is a phenomenon that is particularly stated according to bigger companies. Here, the success rates are about 75% in August 2009 and April 2010. Within the environment where bigger companies operate it is recognized that smaller companies face difficulties in the acquisition of outside financing than their "big brothers" (van der Hoeven, 2009).

Acquiring a credit as SMEs is expensive in Russia. To get a credit in remote regions means facing higher interest rates, because in large cities the competition among the credit institutions is higher.

The Russian Bank of Development has set up a pilot project that is granting credits to SMEs through a network of 45 accredited banks which have been recommended by the ARBR. This project included a budget of 1 billion rubles. The Russian Bank of Development would have lend at a rate of 10.9% to banks that participate in this network which on the other hand offer the credits in a range of 14-15% to the small and medium sized enterprises. However, only a few businesses took advantage out of this project.

According to Barre (2005), there is a resistance in the Russian banking industry to stimulate the lending of credits to small and medium sized enterprises. One of the reasons why a resistance is still prevailing is because the Russian banks view the lending process as risky activity. Because SMEs are seen not to provide certainty to pay back the money, banks view lending as high-risk activity. Furthermore, the idea is prevailing that a number of banks finds it easier to provide one big loan than a lot of small ones. "The large banks specialized in a particular sector of the economy have inherited from their Soviet tradition their business of financing categories of large formerly State-owned enterprises in the area of construction, heavy industry or agriculture for instance and have no particular vocation to financing small size enterprises" (Barre, 2005). Moreover, groups of banks that belong to consortia rather finance firms that belong to this consortium instead of outside enterprises (Barre, 2005).

Nevertheless, government of the Russian Federation spends a large part of federal budget for science and research, for example 1.5 % to the Foundation for Assistance to Small Innovative Enterprises (FASIE), non-commercial state organization set up by Russian government in 1994.

The main objectives of the FASIE are:

- implementation of government policy for the development and support of SME's;
- direct financial, informational and other aid to SME's
- creating and developing an infrastructure for SME
- more than 5000 projects financed
- involvement of young people in innovation

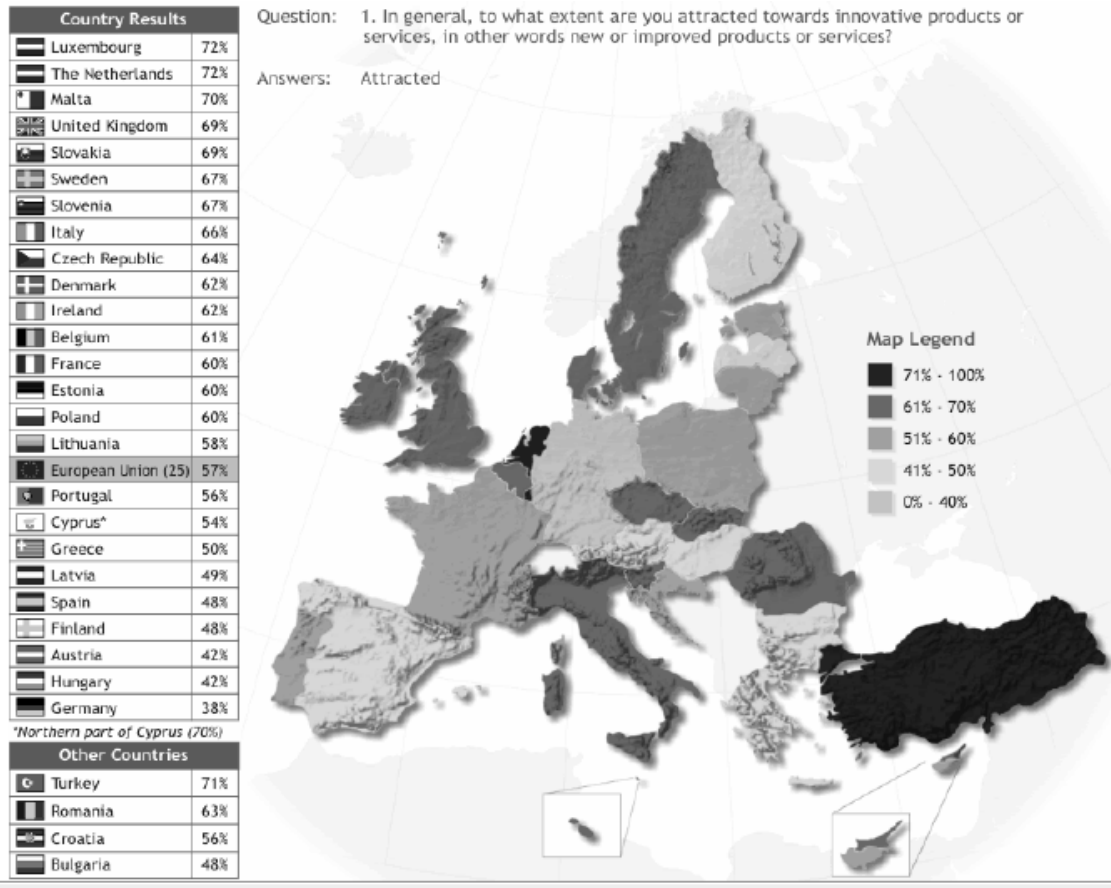
Demand conditions

In general there are three aspects of demand conditions in an industry that are important for entrepreneurs to understand: the extend of customer's demand for products or services, the rate growth of that demand, and the heterogeneity of that demand across customer segments.

These aspects of demand conditions are important for entrepreneurs because they influence the performance of new firms (Finding Fertile Ground: Identifying Extraordinary Opportunities for New Ventures). As can be seen in Figure 6, European citizens in general are receptive to innovative products or services: a comfortable majority of 57% of EU citizens declares that they feel attracted towards innovative products or services. Although a majority of citizens declares that they are drawn to the latest innovations on the market, 40% believes that they are less inclined to make such a purchase compared to those in their immediate circle (Special EUROBAROMETER report “Population Innovation Readiness”). An important fact is that Netherlands scores very high – 72% of the citizens feel attracted toward innovative products in services. This is the highest rating in Europe, together with Luxembourg. So this implies that the Netherlands has very favorable demand conditions when it comes to new innovations.

In Figure 6 we can see that attitude of Russians to acquisition of innovative consumer goods differs from the attitude of the Dutch consumers. We can see that Russian consumers are rather conservative when it comes to acquiring consumer goods - 26% of the respondents say they are not willing to buy innovative products instead of outdated products because the innovative products are more expensive. Figure 6 also shows us that Russian are the least willing to buy an innovative product if it is «much more expensive than the habitual goods» as compared to other European countries. Russian only want to buy an innovative product if it is «slightly more expensive than the habitual goods» (23%).

Figure 6: Attractiveness of innovative products and services in Europe



So there is an unwillingness of Russian consumers to invest in these innovative products. The problem is that in this case of low demand for innovative products, Russian companies will also be reluctant to produce these innovative products. The Dutch customers are more enthusiastic about innovative products, 7 % of the Dutch consumers say that they are willing to buy an innovative product, even if it is very expensive (Open Economy journal, 2010). And 41% say they will but an innovative product if it is «slightly more expensive than the habitual goods».

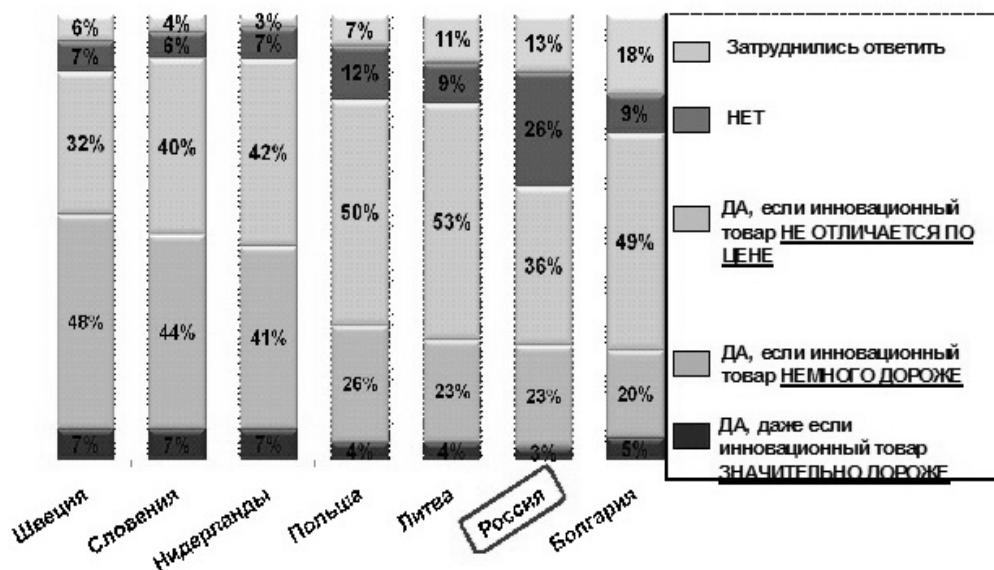


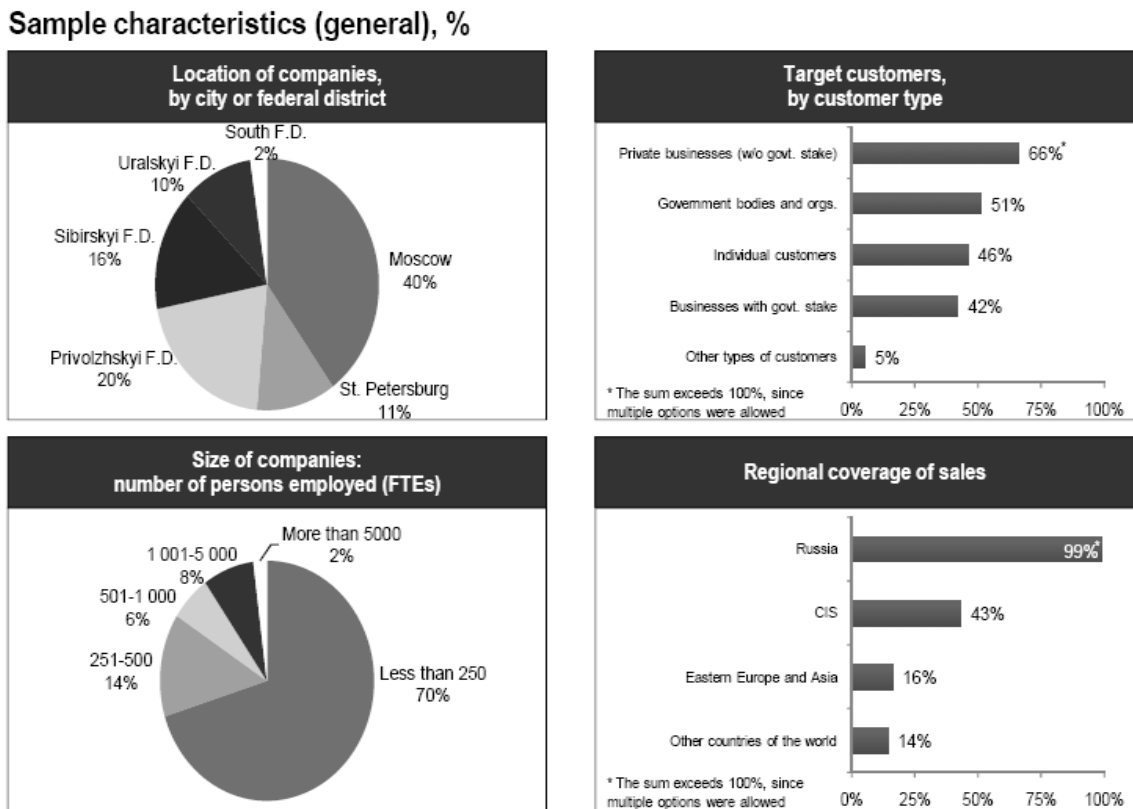
Figure 7: Willingness to buy innovative products

Technological structure and clusters

According to research of Hulsing et al. (2008), there are six peak areas in the Netherlands: the North, East, South-West and South-East Netherlands and the Northwing and Southwing of the Randstad area, all of them with a different set of potential strengths, strategic priorities and policy challenges. In the East of the Netherlands the emphasis is agricultural food (with Wageningen University at the core), health and bio-medical technologies (centered around Radboud University Nijmegen) and nanotechnology / mechatronics with Twente University (Enschede) as a hub, and building effective linkages and new combinations between these three regional areas and sectoral interests. In the South-East of the country, the strategic objective is to become a leading European knowledge and technology region (a so-called Brain Port), clustered around Eindhoven University of Technology and the Philips High-tech campus, with a focus on the areas of high-tech systems (nanotechnology and micro-electronics), food and nutrition, and life sciences/medical technology. One of the targets of this region is to have 10 knowledge institutes, to have 100 leading large companies, 1000 committed SMEs and young firms, and 10,000 new jobs by 2010.

In Russia the majority of the companies surveyed performed in several industries (see figure 7). The most represented industries were manufacturing (73%), construction (20%) and trade (19%). The Russian owners had stake in majority (92%) of sample companies, while private foreign owners had stake in the remaining firms. The Russian government had stake in 11% of the companies studied. Regarding the geography of sales, all companies except one had sales in Russia. Approximately a half of the companies were exporting some part of their products to other countries. 43% of sample companies exported to the CIS countries, 16% exported to Eastern Europe and neighboring Asian countries, while 14% had sales in all other countries (this group thus included Western Europe, the Americas, Australia, Africa as well as countries of Asia, however excluding the CIS, Mongolia, Japan and China). We can see that there is difference between The Netherlands and Russia, in terms of location of the industrial clusters.

Figure 8: Characteristics and location of Russian companies



Source: Bauman Innovation and OPORA – Russian Innovation Survey 2009-2010)

Case Study

To answer our last question – is the Netherlands further ahead than Russia on innovative entrepreneurship – we provide two case studies to illustrate what the current state of innovative entrepreneurship is in the Netherlands and Russia. These case studies also act as a supplementation to our previous findings which were based on the review of literature. The two case studies are about innovative regions, one is Twente in the Netherlands and the other one is Skolkovo, which is a project in development, in Russia. In these case studies we will again look at the determinants of innovative entrepreneurship. How did the companies realize what the favorable factors are that lead to innovation? By comparing the two respective projects, we can better evaluate how innovative entrepreneurial activities are in both countries.

Twente

The Dutch region Twente moved from a former textile industry dominated region to a region dominated by entrepreneurship. In the industrial century, Twente became known as one of the best known regions for the textile industry, when the development of the train rails enhanced its economic position. After WWII, the region suffered from an economic downturn and many factories had to be closed down. Nowadays, the region of Twente is known as a region which stimulates entrepreneurial behavior. Using a triple helix model, meaning the interaction of academics, government and corporations, this case study will illustrate how the region of Twente stimulates entrepreneurial behavior.

Nowadays, the region of Twente is dominated by an innovative capacity. The level of R&D expenditure is 2.1% of the gross regional product in Twente, which is more than 1.6% nationwide. Also the number of patent application is higher than in the rest of the country. Especially in the sector of small and medium sized companies, the Twente region is contributed to their establishment, only 0.41% of all established companies. However, most of the patent applications comes from a small amount of companies situated around the University and a missing link is there between the rest of the companies.

First of all, Twente recognized the importance of higher education and thus high human capital as one of the driving forces of innovation and economic development. Like this, the University of Twente and the Saxion University have been set-up. But besides recognizing the importance of human capital in general, Twente recognized the importance of investing in new growth sectors such as management studies or social sciences.

Looking at how the government is stimulating innovative entrepreneurship in the region of Twente, one can recognize that the region is engaging in the so-called Triangle strategy and the regional innovation platform. The first one describes regional development between Overijssel and Gelderland in order to promote closer cooperation in research at the Universities of Twente (Technology Valley); Nijmegen (Health Valley) and Wageningen (Food Valley). Together with the University of Twente, it is also stimulated to grow the Business and Science Park that is located next to the campus university in order to create a knowledge campus and combine entrepreneurship and knowledge intensive institutions.

Furthermore, the TOP programme needs to be named when one is considering the innovative entrepreneurship in the region of Twente. This programme (Temporary Entrepreneurial Positions) was started in 1984 in order to help graduates from the university to start their own business. As indicated below, the number of spin-offs is doubled with the help of the TOP programme. In order to get the TOP programme, candidates must fulfill the following criteria:

- have an idea of a knowledge-intensive or technology-oriented company that can be linked to the fields of expertise of the university
- be available for a minimum of 40 hours a week
- dispose of a business plan that meets some fixed requirements

Technology clusters are also an important factor that guarantees the success of Twente. As a rule, the future entrepreneur makes contact with one of the coordinators of the TOP-programme. In a first meeting, they check whether the business idea does fit within the TOP-programme. An

important criterion is the link of the company with the expertise of the university. If this is the case, it is time for a concrete business plan.

This plan should be limited to the fundamentals; first it is discussed with the TOP coordinator, thereafter with the TOP-committee. This body determines whether someone is admitted to the programme. The committee also evaluates the progress during the year the entrepreneur takes part in the programme.

The TOP-programme is limited to one year. After this year, the company is still in the start-up phase; therefore not every company can be expected to fully exploit its ideas already. Nevertheless, the UT has indirect instruments to support the entrepreneur in this phase, such as the Technology Circle Twente (TKT), the Business Technology Centre (BTC) and the Business & Science Park Enschede (BSP). The first network offers a business network, while the BTC and BSP provide entrepreneurs with additional work space. With courses and trainings offered at TSM Business School and the Netherlands Institute for Knowledge Intensive Entrepreneurship (NIKOS) the entrepreneurs can enlarge their knowledge. The University of Twente also takes part in InnoFonds, a regional venture capital fund for young starting firms.

Skolkovo

Creating an innovative economy is high on the agenda of many countries, as innovation is said to spur economic growth. Russia is making a lot of progress in the recent years by making plans to reform its economy into an innovative one. One of the projects which is part of the reform policy is the creation of the Skolkovo Innograd project.

Russia can in general be characterized by having a big gap between theory and practice. Russia can create a highly educated workforce, which is able to carry out scientific research and develop new technologies. A rich scientific base exists since the Soviet times. But Russia has little to no experience in marketing these new technologies and bringing them directly into practice in the form of a product. Like this, the benefits of the technological development are not fully realized. The problem is not coming up with innovations. But Russia don't know how to sell them, find

companies, and work with innovative business sectors around the world. This is partly because the scientific centers that exist in Russia are rather isolated and separated from the industry. Russian scientific institutions can also be described as old fashioned, populated mainly by old generation scientists. The scientists working in these institutions are not open to the radical and thus risky new projects, because they are afraid of the losses they will face if the project fails, for example the loss of face and monetary losses. So they rather stick to the old way of doing things. In such a setting, there is little room for radical and breakthrough innovation. Young scientists, who have innovative projects, thus face many difficulties to get their project approved in Russian scientific institutions. What often happens, after research projects are not approved by the seniors of the research center, is that the young scientists go abroad, to Europe, USA, Japan, where they can work more freely on their ideas and where they are much more welcome. This leads to a constant brain drain in Russia. Russia is also said to not have enough SMEs. In Russia, it is difficult to set-up a new business, due to for example the numerous bureaucratic procedures. So many entrepreneurs do not succeed in the early stage of setting up a business, as they fail to obtain the necessary funding and permits.

The problems that exist in Russia are among others the lack of an innovative economy, brain drain, lack of entrepreneurial start-ups. Russia wants to modernize and diversify its economy, and move away from the high dependence on oil and gas. The modernization of the economy can be addressed through the Skolkovo Innograd project. In Skolkovo, scientists will have the capability and all the necessary resources to carry out their research and experiments. The Skolkovo project also aims to make it easier for entrepreneurs to set up a new business (Polterovich, 2010).

In brief, the Innograd Skolkovo project has been set-up in order to attain the following goals:

- Create a setting in which new technologies will not only be developed, but also brought directly to the market – in Skolkovo, scientific institutions will work directly together the business sector

- Create an entrepreneurial setting where scientists will work in collaboration, rather than in isolation – this is in contrast to the current Russian scientific institutions which are isolated
- Increase the number of start-up companies – increase the share of SMEs by creating a favorable business environment and simplifying the processing of setting up a business
- Address brain drain – attract Russian and foreign scientists from Russia and abroad

However, criticism and skepticism already exist about the Innograd Skolkovo project. Skeptics point to corruption, poor development of infrastructure, and an undeveloped system of intellectual property protection in the Russian Federation as serious obstacles to major investment and innovation at Skolkovo. Although in Skolkovo various administrative privileges will exist, including tax holidays, a right to import technology from abroad without tariffs, and the freedom to operate outside the Russian bureaucracy (Liuhto, 2010) which should make the Skolkovo innovation center different from other centers that exist in the country, it is still the question whether this will work well in practice.

Another criticism is that the approach to the Skolkovo project is very top-down. Skolkovo wants to become the Silicon Valley of Russia, however Silicon Valley was rather a bottom-up approach, which was created on the basis of universities and due to favorable conditions and not because of a US government construction program (Krawatzek & Kefferpütz, 2010). Moreover, the top-down approach is also contradictive to the other goal of Russia to loosen the role of the government in the economy.

Also, many criticize the decision of the Russian government to build an expensive new innovative complex from scratch. Those critics find that it would make more sense to invest the money in renovating the existing scientific research centers in Russia. There are many different scientific centers in Russia. One of those cities is Tomsk. In fact, the Russian government is also fostering modernization in the city Tomsk through the “Inno-Tomsk 2020” project that aims to promote a positive climate for innovation and small business development in the city and the surrounding region.

Comparison of the two projects

We can see both similarities and differences between the innovative projects.

First of all, we can see that in both cases, the government plays a significant role. The role of the government is mainly to invest in the infrastructure and all necessary facilities, the government acts as a source of funding. In both projects, the role and relevance of human capital plays a big role. Human capital should act as a catalyst for innovative entrepreneurship. In Twente, many of the new start-ups are created by recent graduates from the University of Twente. The plan in Skolkovo is to build a University on site, so that students can contribute their knowledge.

The difference is that Twente is a success project which is in operation for many years, while Skolkovo is yet a project in development. We can see that there are both opportunities and threats in the project of Skolkovo. A main threat is the instability of the Russian economy and the weak institutional environment. Many of the determinants of innovative entrepreneurship, as described earlier in the paper, are lacking in, Russia.

By looking at these two case studies, we can see similarities, and there is potential for Skolkovo to be a successful innovative region, similar to the region of Twente. However, there are also many risks and it is not yet clear how the project will evolve.

Conclusions

With this paper, we attempted to give a clearer picture of the level of innovativeness in Russia and the Netherlands. By doing this, several variables have been considered as determinants of the level of innovativeness.

The government plays a significant role in the stimulation of entrepreneurship. The Dutch government is following a three-step approach in its entrepreneurship policy. The policy mix consists of enabling an entrepreneurial attitude, raising awareness and making a suitable infrastructure available. On the other hand, Russian policies on entrepreneurship seem to lack behind. Intellectual Property Rights is a major issue that still needs to be addresses by the government. Nevertheless, the Russian government is on a modernizing route; the Skolkovo

Innograd project that has been discussed in the illustrative case study should stimulate the transition of Russia towards an innovative economy. The second determinant, risk-taking behavior, shows similarities between the two countries. The Dutch and the Russian are very risk-avoiding and will only start a business if the risk to fail is small. However, the Netherlands is more proactive in taking measures to stimulate people to become entrepreneurial and thereby increases the level of risk awareness. Furthermore, social networks have been considered as another determinant for the level of innovative entrepreneurship. Strong social ties in the Netherlands are associated with fine-grained information and tacit knowledge, trust-based governance and resource cooptation. In Russia, social networks are preferably used for the acquisition of financial capital. Also concerning human capital, differences between the countries can be seen. The Netherlands is stimulating Education and Entrepreneurship with various programmes, one of which are six Centres of Entrepreneurship at universities in order to create a stronger link between the development of entrepreneurial attitudes and to establish an own entrepreneurial career. On the other hand, Russia ranks on the first place among GEM countries regarding the index of education of early stage entrepreneurs. However, fewer governmental actions are taken to stimulate human capital for innovative entrepreneurship. In order to finance entrepreneurship and to overcome failure rates in setting up own business, the Dutch government has introduced a micro finance scheme. However, in Russia there is a resistance of the banking industry to stimulate lending to small and medium sized companies. This is due to the fact that Russian banks see it as rather risky to finance SMEs because they anticipate a higher failure rate. Focusing on demand conditions as a determinant, 72% of the Dutch population feel attracted toward innovative products and services. In Russia, this picture differs. 26% of the respondents say they are not willing to buy innovative products instead of outdated products because the innovative products are more expensive. Furthermore, we can see differences of industrial clusters.

These determinants have been applied to two illustrative case studies in the Netherlands and Russia. By comparing the region of Twente with the Skolkovo Innograd project, both similarities and differences can be identified. In both case studies it appears that the governments play a significant role by investing in infrastructure development as well as human capital. Whereas in Twente, the close geographical connection between business and science is obvious, the Skolkovo project aims at building a university on site. Twente as an innovative region have developed over decades, whereas the Skolkovo project is still a project in development. The Russian economy still is a major factor influencing the project, because it suffers from instability of the economy and weak institutional environment. It can be concluded, that at the micro-level, the potential to start up business and the right level of human capital is there. However, the macro-level, economy and institutional arrangements are still prevailing barriers to innovative entrepreneurship in Russia.

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Theoretical problems of international entrepreneurship

Aneeqah Dinaully, Marc Bos

International Entrepreneurship¹²

Abstract

This paper examines the possible success factors that influence International Entrepreneurship and focuses on start-up production companies in Russia. Russia is a developing country with a communist history. The success factors that affect International Entrepreneurship in Russia may be very different to the success factors in other developed countries as Russia's culture and history play a huge role on the way entrepreneurship is addressed. Hence, it is important to take a holistic view at where the country is now, the environment and the current conditions.

In this paper, the idea of international entrepreneurship, the four phases that contribute to it and the possible success factors that affect it are explored. Thereby the process of entrepreneurship as defined by McDougall & Oviatt (2003) and Oyson & Whittaker (2010) are combined in one model. By doing a PESTEL Analysis, the success factors that would increase the likelihood of a start-up production company being successful in Russia are examined.

While Russia is very rich on resources and therefore has a high potential, the legal system, politics and possibilities for financing are not very well developed and therefore highly restrict the possibilities for an entrepreneur. The factors that were found to lead to success were: having a Russian partner and going into a joint venture, having access to resources as well as having a good political network, cheap labor force, good connections with banks or own capital and being able to deal with corruption are an asset to any start-up production company.

Introduction

¹² Paper presented at the Summer school "Exploring Entrepreneurship" (Enschede – Moscow, August 2011).

Entrepreneurship has been around for centuries. Over the years and with the changing times and new technologies, the internet, entrepreneurship has grown and developed and has been redefined. Thereby, today's fast paced world with its increased possibilities for telecommunication provides a large amount of entrepreneurial opportunities within an international context. Companies and organizations are expanding across borders and into different cultural environments. Entrepreneurship is therefore not limited to a single area, region or country. It is important to research international entrepreneurship because there are many lucrative opportunities in the global world and in order to take advantage of these, one needs to be informed, up-to-date and constantly trying to get ahead of one's competitors. International entrepreneurship is constantly developing and as of now is still a relatively new field of study.

In this paper, the success factors for starting up a production company in Russia will be explored and the possible success factors that affect it. The main location of investigation will be Russia. Russia has a very unique history and culture and the way they do business is also very unique. Russians value power more, need gratification less, and place lower value on tradition and higher value on security and stability, they are also said to be less individualistic and less open to change. (Fey & Denison, 2003)

Research Question

The idea of International Entrepreneurship is a very wide area of study. Far too wide to cover in one paper, so in this paper, the focus is on success factors involved with the process of international entrepreneurship. These factors are considered for a startup production company in Russia. The reason for focusing on this issue is because what defines ones success when starting a business (as a foreigner) in Russia is still unknown. Therefore, production companies seem to be the most interesting since they tend to be more dependent on local resources and thereby are more affected by domestic culture (Ball et al., 2005). Russia was chosen based on the origins of this summer school program. Also among other factors; its history, size, culture, policies, and

available resources make it very interesting to examine within the context of entrepreneurship. Based on the previous arguments the following research question is formulated:

“What are the success factors that are involved in the process of International Entrepreneurship of startup production companies in Russia?”

This is an interesting question to address since the factors that lead to success in Russia are still very much unknown. Russia has a huge amount of resources to offer and is one of the BRIC’s nations (Dawson, 2005) and a developing country that one should keep an eye out for in the future. If the success factors that contribute to having a successful production company start-up are known, there are many opportunities for foreigners. In order to find and address the research question as mentioned in the previous paragraph, several sub-questions need to be examined:

- “How is international entrepreneurship defined?”

The concept of international entrepreneurship differs from entrepreneurship which makes it necessary to establish an individual definition for international entrepreneurship.

- “What can be used for describing the process of International Entrepreneurship and the factors involved?”

In order to be able to establish the factors of success in the process of International Entrepreneurship it is appropriate to establish what the process looks like and the nature of the factors involved

- “What are the factors that affect entrepreneurship in Russia?”

The process of international entrepreneurship and starting an international business is influenced by several factors.

What is International Entrepreneurship and how is it defined?

International Entrepreneurship is defined as “the discovery, enactment, evaluation, and exploitation of opportunities – across national borders – to create future goods and services” (McDougall, Oviatt, 2003)

McDougall and Oviatt (2003) define “International” as “across national borders”. This refers to a comparison between different countries or different ways of doing things within an organization. While doing research, the possible reasons for starting up a business in Russia and the success factors that attribute to doing so may be found in the process (e.g. excellent workforce, natural resources). So why do companies internationalize? Once a company has become established in its home country, it looks for opportunities to gain hold on the global market and expand their business and profits. Also foreign production and joint ventures become attractive in trying to gain a hold in an international market. Internationalization or stage theory (Johanson & Vahlne, 1977, 1990) states that firms first establish themselves in domestic markets and after that internationalize in small steps, typically emerging from indirect export to the establishment of a sales subsidiary abroad and, finally, to producing abroad (Hessels, 2008). Another positive aspect of internationalizing is that it is a learning experience for companies (Hessels, 2008). Acquiring knowledge about how foreign markets work and connecting that knowledge to previous experience can improve efficiency and save money. Internationalization is connected to entrepreneurship in that ceasing opportunities requires taking risks and pursuing entrepreneurial activities. Going into foreign markets means higher risk and in order to succeed a company needs superior products that are very innovative. Innovative products in themselves are quite risky as they need to be new and different from anything that already exists but if a company succeeds, the returns are far greater.

International Entrepreneurship

Ideally each of the four phases in the McDougall and Oviatt (2003) definition describes a process of how to go about IE. The Uppsala model) showed the internationalization process as evolving through stages whereby internationalizing firms first export to a country via an agent, later

establish a sales subsidiary, and eventually, in some cases, begin production in the host country (Oyson & Whittaker, 2010). Bilkey & Tesar (1977), Czinkota (1982) and Cavusgil (1980), introduced alternative internationalization models (innovation-related models: Andersen, 1993) that also described firm internationalization as evolving through different stages (Oyson & Whittaker, 2010). Clear stages, phases or steps are the key words in the IE process.

What affects IE and the success thereof? According to Dunning (2000) and Rugman (1981) in order to internationalize, a firm must possess a competitive advantage that enables it to overcome the additional costs of cross-border operations and be competitive in foreign markets.

How does a firm create a competitive advantage? Competitive advantage was first mentioned by Porter (1985) in his Value Chain Analysis where a firm's core competencies and its activities that lead to a competitive advantage were examined. A firm would need to offer products or a service that stands out from the rest of the competitors. In order for this to happen one needs resources. For IE to be successful, a firm needs to harness its resources both tangible and intangible. In a country such as Russia that is abundant with tangible resources, firms wanting to cross borders need to provide something that cannot be easily found. One such resource that can create a competitive advantage is international knowledge (Bloodgood, Sapienza, & Almeida, 1996; Carpenter, Pollock, & Leary, 2003; Reuber & Fischer, 1997). International Knowledge defined as the information, beliefs, and skills that organizations can apply to their internationalization activities (Fernhaber, McDougall-Covin, & Shepherd, 2009).

Knowledge is a powerful tool if used wisely, how to organize, manage or market goods and services can increase efficiency and effectiveness. Prior knowledge leads to the identification of opportunities (Shane, 2000; Wiklund & Shepherd, 2003). Knowledge is power and in the case of new ventures, international knowledge is indispensable in discovering new opportunities, exploiting these opportunities and creating a competitive advantage that can be sustained over a long period of time.

According to Oviatt and McDougall (2005), international entrepreneurship is centered on the recognition and exploitation of opportunities. Connecting opportunity formation and exploitation in international entrepreneurship and applying the opportunity-based approach (OBA) the entrepreneur is at the heart of IE, using prospection, to form entrepreneurial opportunities and making the decision to exploit them through the firm as Figure 1 indicates (Oyson, Whittaker, 2010).

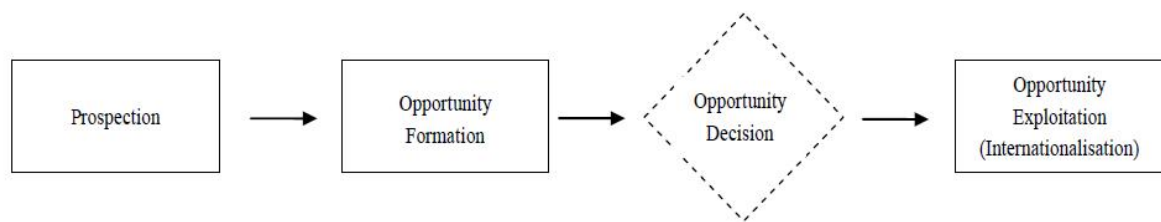


Figure 1: Opportunity-based approach to entrepreneurship

Source: Oyson, Whittaker, 2010

The entrepreneur is the person who puts the process of discovery, enactment, evaluation, and exploitation of opportunities (McDougall & Oviatt, 2003) into action and realizing a vision. Opportunity exploitation – a process dependent on the decision of the entrepreneur – is typically the province of the firm which, through its capabilities, turns opportunities into market outcomes (Oyson & Whittaker, 2010).

The prospection seems to hold a purposively search for a discovery, which results in opportunity formation. Thereby it seems to hold an aimed search and formation of a discovery. While Oyson and Whittaker (2010) mention an opportunity decision, the concept of evaluation as described by McDougall and Oviatt (2003) seems to be a broader and more complete concept of the process occurring. Since the decision for exploiting an entrepreneurial opportunity is part of an evaluation which highly depends on the nature and prior knowledge of an entrepreneur. The evaluation of a certain opportunity will occur differently with each individual entrepreneur and thereby might result in different outcomes. An entrepreneurial opportunity is thereby not be determined to be successful or unsuccessful, since the success highly depends on the

entrepreneur and the way the opportunity is being exploited. Thereby the models of Oyson and Whittaker (2010) and McDougall and Oviatt (2003) have an overlap.

How can the process of IE and the factors involved be described?

Previously, the process of International Entrepreneurship as defined by Oviatt and McDougall (2005) was mentioned. Their description of the process of entrepreneurship involves discovery, enactment, evaluation & exploitation. They have managed to provide a very clear explanation of these phases and an application of this definition in the international context. Thereby their definition has also been used in many studies on this topic. This definition is quite well established and heard of by many scholars and professors. Mentioned as well is the Opportunity Base Approach (Oyson & Whittaker, 2010). Both are discussed above and thereby the differences between the different approaches are mentioned as well.

Their definition entails a process and there are certain things that companies can do to increase their success rate of international entrepreneurship. Success factors that influence international entrepreneurship can be described as the factors that contribute or enable the success of a start-up production company going abroad. In order to succeed in an international environment with a new venture, companies should strive to attain an organizational formation through internalization of some transactions, strong reliance on alternative governance structures to access resources, establishment of foreign location advantages, and control over unique resources (Oviatt & McDougall, 1994).

As mentioned, Oviatt and McDougall (2005) define international entrepreneurship as the discovery, enactment, evaluation and exploitation of opportunities - across national borders – to create future goods and services. However, what does this actually mean? What defines this discovery, enactment, evaluation and exploitation of opportunities? A discovery of an opportunity might be harder than it may initially seem.

Entrepreneurial opportunities are generated by every technological change, but these are not obvious to all potential entrepreneurs (Shane, 2000). They can and will discover them without searching, but only those opportunities which are related to their prior knowledge and cognitive properties (Shane, Venkataraman, 2000). In other words: the ability to discover a certain opportunity depends highly on prior knowledge. Therefore the interpretations of the potential entrepreneurs, creates a discovery of an opportunity that appears out of a change (Oviatt, McDougall, 2005). As mentioned an entrepreneur could also purposively look for an opportunity to be discovered. This purposive search for a discovery seems more like a prospection. Since the aim of this paper is to establish the success factors in the process of international entrepreneurship, the term 'prospection' seems more appropriate than 'discovery'.

The previously mentioned process of discovery is intertwined with enactment. This is shown by the definition of the process of discovery by Shane (2000) and the process of enactment by Weick (1995), as mentioned by Oviatt and McDougall (2005). According to Weick (1988), enactment can be described as the notion that through acting, people bring events and structures into existence which they set into action. Thereby enactment is the possible response to the discovery of an opportunity. It is explicitly mentioned in the possible response, because not all the discovered opportunities are developed and exploited (Shane, Venkataraman, 2000).

The evaluation of an opportunity does not occur on an objective basis. The outcome of the evaluation of an opportunity thereby appears to be a function of the nature of the individual and the characteristics of the opportunity (Venkataraman, 1997). Developing an opportunity might involve for example, uncertainty and risk. While one individual might take a chance, another could be risk-averse and thereby decide not to exploit the opportunity (Shane, Venkataraman, 2000). Furthermore, while defining the discovery of an opportunity, an individual is more likely to develop an opportunity within their area of interest, where they have prior knowledge. These individual characteristics are combined within evaluation and with the characteristics of the opportunity. The nature of an opportunity defines the expected value (Shane, Venkataraman,

2000). Hence the value should be large enough to compensate for other substitutes alternatively this could mean that other opportunities hold a larger value, the investments are lower for other alternatives or leisure is preferred above working-out the opportunity. The evaluation of an entrepreneurial opportunity eventually might lead to the exploitation of this opportunity, which might take place in case the entrepreneur decides to continue the process of entrepreneurship.

Shane and Venkataraman (2000) define two major institutional arrangements for the exploitation of opportunities: there could be newly created firms (hierarchies) and the opportunity could be sold to existing firms (markets). While there is a common assumption that entrepreneurial activity should occur through new firms, the people who discover an opportunity are part of an existing firm which provides the prior knowledge (Shane, Venkataraman 2000) for the discovery, enactment, evaluation and exploitation (Shane, 2000). The mode of new firms (novo startups) is less likely when capital market imperfections make it difficult for such firms to secure its funding (Cohen & Levin, 1989). However, the pursuit of an entrepreneurial opportunity is more likely when the organization lacks the advantages of a large firm (e.g. economies of scale) and thereby provides incentives for entrepreneurship (Cohen, Levin, 1989). Furthermore, the exploitation of an entrepreneurial opportunity within a novo startup is more likely when it concerns an uncertain opportunity (Casson, 1982), competence destroying opportunity (Tushman, Anderson, 1986) or when there is no need for complementary assets (Teece, 1986) or bad protection against intellectual property laws.

The definition of Oviatt and McDougall (2005) hold that the process of entrepreneurship, from the discovery of the entrepreneurial opportunity to the exploitation, within an international context. Therefore this process is defined by the four stages: discovery, enactment, evaluation and exploitation. Combined with the adjustments as mentioned above the involved process is defined as in Figure 2. As mentioned, every stage is highly defined by the involved entrepreneur. However, within an international context there are different factors influencing the entrepreneur.

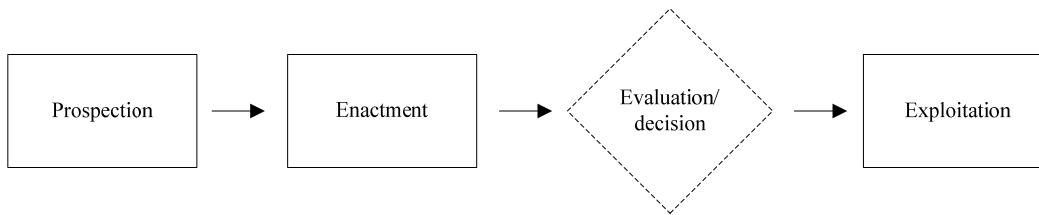


Figure 2: The model

These factors influence the mentioned phases of entrepreneurship. An entrepreneurial business highly depends on its environment. Therefore the domestic and foreign environment could be considered (Ball et al., 2006). These environments include socioeconomic, sociocultural, legal, political, competitive, distributive, physical, financial, labor, technological and economic environments. A PESTEL-analysis addresses the wide variety of these environments. This means taking under consideration political, economical, social, technological, environmental and legal factors.

Method

The PESTEL-analysis involving Russia is performed in order to establish the relevant factors which might affect a start-up production company. This is done through desk-research. By doing a meta-analysis and reading many journal articles that relate to the keywords, Russia, production, company, and start-up. Also numerous databases were searched to find any information relating to law, environment, political, economic, social and technological factors. Newspapers and articles specific to Russia, the president and speeches that were made were also read through. For example the CIA World Factbook and the Guardian database were used. In the CIA World Factbook, the country Russia was searched for. In this particular database, all the information is easily accessible as it is divided and listed under these headings; introduction, geography, people, government, economy, communications, transportation, military and transnational issues. This made the search for information that is relevant much easier. In the Guardian, articles on what President Dmitry Medvedev's view on political and economic problems in Russia were looked at. However, not all of these factors might be factors of success in the process of

International Entrepreneurship of a startup production company. Therefore reasons that might affect a start-up production company were looked for (Ball et al., 2005). Scientific article databases were used to verify the outcomes (e.g. Web of Knowledge). Within these databases articles were found which described the (success) factors for entrepreneurial businesses in Russia in combination with production companies and in general. The results are then used to confirm the earlier findings. This does not imply that the factors not described by a scientific article confirmed proven factors to be invalid. Therefore reliable sources to establish these factors were used (e.g. CIA World Factbook, Bloomberg). Based on the complete description of the involved factors (as mentioned below), a conclusion is formulated. In addition limitations within this research study were also established.

What are the factors that affect entrepreneurship in Russia?

As mentioned international businesses have to deal with different environments, which means there cannot be established universal success factors. Therefore the political, economic, social, technological, environmental and legal factors for Russia are established below.

Political

Russia's current political structure is based on a system of democracy, with a chosen president, elections and a multi-party system. However, this democratic freedom seems to be limited. Issues such as the abrogation of public elections of governors of subareas are one such example. Therefore, the corruption index should be considered (Transparency International, 2011). This index rates the level of corruption in Russia. Russia currently ranks 154th out of 178 researched countries (in comparison: the Netherlands is ranked 7th).

While the current political structure is based on a democracy Russia is a former communist country and has not reached its true potential in the transition from a monopolistic to a free market economy (Fey, Denison, 2003). Russia has 46 Provinces, 21 Republics and has an intricate balance between business and government. President Medvedev admitted that Russia

has big structural problems including a weak democracy, shrinking population, and a non-performing economy (Harding, 2009). The president also commented that the political system where all opposition parties have been squeezed out has not been ideal (Harding, 2009). Furthermore, there exist several export and import barriers to and from Russia (e.g. DutchNews, 2011). These might have negative effects on the supply chain of a start-up production company as well as exports. This could affect a start-up production company as exporting its products to other countries is how the company will make money. If a start-up company is unable to export its products unwanted costs arise such as storage and transportation of products. These costs will eat into any profits that are made. Also if the company is unable to import various resources that may be needed, this could put a hold on production which also entails more costs such as labor and machinery that are standing idle.

The fact that Russia has not reached its true potential can greatly contribute to the success of entrepreneurial activities. A still developing free market economy provides opportunities for entrepreneurs which contribute to this kind of economy. However, the weak democracy and the shrinking population do not provide a solid and reliable area to start a business. The shrinking population might have a negative effect on the available workforce which might be necessary for a start-up production company.

The negative aspects as discussed above might negatively influence the process of international entrepreneurship since it not contributes to positive prospects of entrepreneurial opportunities and the other aspects of the process of international entrepreneurship.

Economical

Russia also relies heavily on commodity exports, in 2009 Russia was the world's largest exporter of natural gas, the second largest exporter of oil, and the third largest exporter of steel and primary aluminum, which makes Russia vulnerable to boom and bust cycles that follow the highly volatile swings in global commodity prices (CIA World Factbook 2010). In an attempt to

be less dependent on commodities, Russia is investing in technology sectors, one such sector that is heavily being invested in is nanotechnology. This could be an advantage for a start-up production company especially if it wants to produce technologies, technological parts and produce it in Russia. Russia is already has a policy of modernization and innovation and wants to create a domestic need for high-tech products (Modern Russia, 2010). The market is there for production company start-ups.

While natural resources provide significant input for a startup production company, there might be an issue concerning the availability. As previously mentioned, Russia relies heavily on exports. It might occur that export of commodities has priority above providing the national market with these commodities since the financial advantages might be larger. However, the large investments in technology sectors might provide significant input for the possibilities of startup production companies.

Most entrepreneurs finance their own businesses (Ageev et al., 1994; Pissarides et al. 2003). This seems necessary, since external financing is highly restricted in countries with less developed financial markets (Pissarides et al., 2003). This would require that an entrepreneur starting a production company is able to bring its own capital. Apart from the entrepreneurs who already have connections with the organizations involved in financing, all entrepreneurs who want to start a company face the same challenges when it comes to capital. The entrepreneurs who manage to convince investors of their idea and manage to raise the needed capital at least have the chance and are able to attempt a start-up. International companies that would like to start-up a production facility would have to be aware of the risk they are taking when investing in Russia. If the start-up attempt does not work out as planned an exit strategy will be needed in order to minimize further losses and damage to the company.

The investments in technology could provide great input in the process of entrepreneurship since these stimulate entrepreneurial activities. However, since larger organizations dominate most markets and external financing is highly restricted, an entrepreneurial organization should be

sure of the potential of its opportunity. By size the existing organizations might have advantages compared to entrepreneurial enterprises, but the entrepreneurial enterprises might have the advantages as it comes to agility. The larger (formerly state-owned) organizations might not have the ability to recognize and enact on entrepreneurial opportunities. However, these have the resources to exploit them while entrepreneurial enterprises might have the ability to exploit and enact. This provides a great input for starting corporate ventures of which an entrepreneurial company might benefit.

Social

Russia faces many social challenges, from corruption, a feeble civil society, terrorism, alcoholism, shrinking population and smoking. Russia was also in the grip of a poverty-fuelled insurgency across its North Caucasus (Harding, 2009). Since the collapse of the Soviet Union the population is decreasing due to emigration and deterioration of living conditions. The mortality rate has also increased due to worsening working conditions, low birth rates and alcoholism. Due to the lower standard of living, nationalism and racism is also on the increase.

The mentioned social factors provide a negative input for any organization in Russia. Social and health risks do not provide positive challenges for an entrepreneur. On the contrary, these risks are significant disadvantages. Therefore an entrepreneur that would make use of the domestic workforce should put intense effort in managing human resources. This is important as importing staff from overseas will be much more costly and then the labor that is imported will bring other problems with it such as visa requirements, uprooting families and moving their entire life from one country to another to name a few. Russia is culturally very different from any other country. There is a language barrier, the environment is unpredictable and the people take time to get used to. An entrepreneur would be more successful if they would take advantage of the local workforce as many of the above mentioned issues will be avoided. Also Russia's strength lies in its workforce and is currently trying to change the mindset from highly theoretical to business

thinking. (Modern Russia, 2010) This is an asset that should be taken advantage of. However, the mentioned negative input might cause difficulties in the exploitation of an opportunity.

Technology

Russia invests a vast amount of resources in technology and is one of the leading countries in nuclear energy. One sector that Russia is investing a huge amount of money in is nanotechnology, the government would allocate 200 billion rubles (\$7.7 billion) to develop nanotechnology until 2015 (Bloomberg Businessweek, 2007).

National investment in technology provide significant advantages for any company whose operations involve technology. For a start-up production company, which makes use of or produces technology, its focus and investments in technology might provide significant input in its businesses. Thereby providing a range of entrepreneurial opportunities. Companies can benefit from this since Russia has a policy on modernization and innovation (Modern Russia, 2010) which funds entrepreneurial and innovative companies. This however has certain requirements that need to be met in order for a company to receive the funds.

If this is applied to our Model, Figure 2, then prospection would be finding an opportunity, which exists here in Russia and in the technology industry, choosing to act on that opportunity and then making a decision on whether it is lucrative to exploit the idea or not. Since Russia has been investing huge sums of money in the technology industry, it would be an opportunity that a start-up production company can take advantage of. There is a huge amount of R&D being done as well as there being funding available. Also a start-up productin company from abroad will have the outside knowledge and management skills that are not necessarily available in Russia hence being an asset to the Russian market. Russia currently has a policy on modernization and innovation and are trying to make it easier for foreigners to invest in Russia (Modern Russia, 2010). This can make it easier for a start-up production company to integrate and establish itself since Russia is trying to enact policies that support the development of intellectual partnerships

by easing visa/travel laws, reforming import/export duties and removing VAT on ICT (Modern Russia, 2010).

Environmental

Russia's environment is not in its best form. There is a huge amount of pollution and waste that came from the Cold War and WW2 period (Russian Environment Statistics, 2011). Pollution such as air pollution from heavy industry, emissions of coal-fired electric plants, and transportation in major cities; industrial, municipal, and agricultural pollution of inland waterways and seacoasts; deforestation; soil erosion; soil contamination from improper application of agricultural chemicals; scattered areas of sometimes intense radioactive contamination; groundwater contamination from toxic waste; urban solid waste management; abandoned stocks of obsolete pesticides (Russian Environment Statistics, 2011). These are not the ideal working and thriving circumstances. One main advantage of Russia is that it has a huge amount of natural resources, oil, gas etc. This is an advantage for a production company. However, the infrastructure is underdeveloped. This might pose trouble for logistics and transportation of produced goods.

As Ball et al., 2006 said, the domestic and foreign environment could be considered and hence play a role in a start-up production company wanting to invest in Russia. Russia is an emerging economy which means there are many opportunities for prospection as stated in our model. The environment is less developed and there are less formal institutions and regulation which leave more room for innovation and opportunities. The environment is full of resources as well as space which a start-up production company would need to build factories and house its machinery. In our model, of prospection, enactment, evaluation/decision and exploitation there are many resources that can be exploited. As Oviatt and McDougall, 1994 said, companies should strive to attain strong reliance on alternative governance structures to access resources, establishment of foreign location advantages, and control over unique resources.

Legal

The legal factors or the lack of the basic factors are causes entrepreneurs and foreign investors to pull out of Russia, Boyko and Schleifer (1995, p78), “The weakness of the legal system has been ... the greatest complaint of foreign investors ...” Also the absence of clear and enforceable rules has also stymied domestic Russian transactions (Hendley, 1995). Not having the basic security of the law creates an even higher risk for foreign investors and possible entrepreneurs. These conditions are still part of the Russian way of doing business and entrepreneurs need to be aware of the dangers. Also a political network and ties to government would prove indispensable if wanting to do business in Russia.

These risks, conditions and lack of a well performing legal-system form a significant disadvantage for any entrepreneur. Production companies make use of machines and most of the time they require stock (or at least the Work-In-Progress), this means that the involved assets hold quite a lot of value and forms a significant part of the total value. Therefore it is important that this is protected by law. Additionally, doing business (e.g. suppliers and customers) involves higher risks. While a well performing legal system ensures business transactions (to a certain extent) going smoothly, a bad performing legal system puts significant risks on business transactions and this therefore has a negative effect on businesses.

When applying our model to the legal factors in Russia, this could prove tricky as there are many informal institutions and prospection could prove difficult without the right connections. Also the repercussions of enactment and deciding to exploit an opportunity need to be carefully considered as this may ruin a start-up production company if things go sour. As mentioned before, business with suppliers and customers, transactions, banking and the protection of assets and property will be much harder to enforce and be legally covered. Although as Shane & Venkataraman (2000), have mentioned the nature of an opportunity defines the expected value, and the rewards to a start-up production company that succeeds in Russia can be very high.

The success factors that are involved in the process of IE of startup production companies in Russia and concluding remarks

According to Ageev et al. (1994) based on the, and among others, Marshallian and Schumpeterian view, entrepreneurship facilitates economic freedom and economic creativity. This implies that economic freedom and economic creativity must be possible. Extensive production, hierarchical systems, large organizations and technocratic behavior puts large restrictions on entrepreneurial activities, which highly depend on productive activities (innovation). This extensive production, hierarchical systems, large organizations and technocratic behavior are common in monopolistic economies. Before the transition to a free market, Russian entrepreneurship was very limited due to economics and politics. Economically the state was the only one who could exploit the economic and creative freedom. Politically the Party monopolized the position for economic transformations (Ageev et al., 1994)

As mentioned, Russia has a well educated, low-cost workforce and is rich in natural resources (Fey & Denison, 2003), which provide possibilities for a production company and its possible economic creativity. However, Ageev et al (1994) show that education is not a necessary factor for success of entrepreneurs in Russia. A startup production company does not necessarily need a highly-educated workforce, but it does need natural resources. Therefore in the transition from the monopolistic economy to the free market economy Russia has not reached its full economic potential (Fey & Denison, 2003). This means that there are sufficient resources available for a startup production company

Most entrepreneurs finance their own businesses (Ageev et al., 1994; Pissarides et al. 2003). This seems necessary, since external financing is highly restricted in countries with less developed financial markets (Pissarides et al., 2003). However, important factors include infrastructure, government regulations, and institutions of enforcement and the presence of a legal framework (Pissarides et al., 2003). In the case that this does not support start-up production companies, it will have a negative effect on entrepreneurial activity.

Another important restriction for entrepreneurs in formerly monopolistic economies, are the state-owned firms. Initially, in the start-up phase, such a firm has the advantage of being established in the infrastructure, economy, technology knowledge and other factors (Pissarides et al., 2003). However, Pissarides et al, (2003) also show that newly created private firms eventually even perform better than firms which are state-owned. This performance includes growth, amounts invested, employment expansion and levels of capacity utilization. While this might have similarities with the concept of creative destruction of Schumpeter (1950), there is no proof of continuous innovation in this context. Hence, this seems more an example of the original concept of creative destruction as derived from the Marxist economic theory (Marx, Engels, 2005 [1848])

When reflecting on the definition of Oviatt and McDougal (2005) considering the discovery, enactment, evaluation and exploitation on the previous paragraphs, the latter could be considered as the critical element. The resources are available (e.g. natural resources, well-educated workforce). Hence the fact that entrepreneurial industrial firm's perform better than the (formerly) state-owned firms provide incentives for positive evaluation of an entrepreneurial opportunity. However, the exploitation might be an issue. Foreign firms, with sufficient capital, might not have the skills or knowledge of how to deal with government regulations, institutions of enforcement and the legal framework, while local entrepreneurs might not be able to generate the necessary capital for starting a firm.

Russia is not a conventional country for entrepreneurs. One cannot apply a model wholesale to Russia and the Russian market due to Russia's individual history. Communism played a big part in how Russia does things and how the people tend to think. In the past, there has been a history of loans for shares which lead to the current big business owners in Russia today. These business owners are Russia's entrepreneurs at present. Economic reforms in the 1990s privatized most industry (CIA World Factbook). One needs to make a clear distinction between the current entrepreneurs, big businesses and small start-ups. Since the economic collapse in 1998, there

were many changes in Russia. The Russian economy is made up of state owned business verses big business verses small business. State firms are monopolies. Russia is in no way a conventional country. Some of the main barriers for entrepreneurs in Russia are the tax system, corruption and political networks. The latter two can also be seen as strengths if an entrepreneur is able to overcome these obstacles. Russia's long-term challenges include a shrinking workforce (Harding, 2009), a high level of corruption (Ranked 154/178, Transparency International 2010).

Entrepreneurs have the highest chance of being successful if they undertake a joint venture. Also in a joint venture, the political networks or a Russian partner becomes an asset in doing business. Political networks can be what makes or breaks a start-up since the government supports certain ties and entrepreneurs. In a country where a certain level of corruption still exists, entrepreneurs need inside knowledge on how to go about doing things and this will come from having a partner on the inside.

Limitations

Limitations to this study are that most of the interesting or detailed information we do not have access to since it may only be locally accessible and in the Russian language. Furthermore, one area in Russia may be more corrupt than another since the country spans over a large area. Another limitation can be that the viewpoint is coming from outside of Russia. The information used in this paper comes from sources written in the English language. However, there might possibly be vast amounts of information about this subject in the Russian language as well. While, the articles used for this paper are mentioning Russia in general, Russian papers might be more specific about the different areas in Russia and thereby provide a much more sophisticated, in-depth view. Furthermore, the perspective creates a bias. While only facts have been used in this paper, these facts include among other comparisons between the Netherlands and Russia. When comparing the level of corruption between different countries an entrepreneur from each respective country would experience Russia completely differently. Thereby the perspective in

this paper, which is based on Western-European standards, puts limitations on the paper and the research done.

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Arjen Sietzema, Steven Gillis

Leadership in the Netherlands and Russia and its influence on entrepreneurship and innovation¹³

Abstract

The purpose of this paper is to combine a literature review with empirical studies and learn about leadership in Russia and the Netherlands, considering its influence on entrepreneurship and innovation.

The research methodology is described in the introduction. In short, this article contains a theoretical framework which provides the necessary information to find multiple relations between national culture, leadership, innovation and entrepreneurship.

Cultural differences affect the leadership's styles; the Dutch culture is more universalistic and specific and the Russian culture is more individualistic. Using the term of 'corporate cultures' of Trompenaars it is found that the power oriented family structure best fits the Russian culture which is very hierarchical and person oriented. The project oriented Guided Missile culture best fits the Dutch culture which is very egalitarian and task oriented.

Two main theories about leadership are used to find the relation between leadership and entrepreneurship/innovation. Transactional or autocratic leadership has been the predominate leadership style throughout the Soviet period, while Western leaders used a more transformational or democratic leadership style. It can be seen that successful Russian entrepreneurs adopted an open (transformational) style similar to the one of Dutch entrepreneurs because it gave them a competitive advantage in both innovative as entrepreneurial performance.

Introduction

¹³ Paper presented at the Summer school "Exploring Entrepreneurship" (Enschede – Moscow, August 2011).

The purpose of this report is to find an answer to the question: *'What are the main differences in Dutch and Russian Culture and leadership style and their effects on innovative entrepreneurship?'*

To address this issue, several sub questions have to be answered in order to provide a solid structure for the research. These questions are:

- What is the relation between national culture and entrepreneurship?
- How does national culture interact with leadership style?
- How can leadership style be linked to entrepreneurship?
- What is the relation between leadership style and innovation?

A literature review is used to formulate the theoretical framework. This framework is divided into a few chapters. The first chapter explains the cultural differences between the Netherlands and Russia and what their influence is on their entrepreneurial characteristics. Chapter two focuses on several leadership styles and what their relation is to entrepreneurship and innovation. In chapter 3 the relationships between cultural differences, leadership styles and entrepreneurship and innovation are examined. Finally, the sub questions are answered and followed by an overall conclusion to the main question.

Theoretical framework

Cultural differences

To be able to examine the effect of leadership styles in the Dutch and Russian culture understanding of the differences between these cultures is needed. In this report the cultural differences are explained by the theory of Trompenaars (1995) described in his book. This theory is chosen because Trompenaars linked the cultural differences to the business environment. He gave different cultures scores on different dimensions of cultures. To these dimensions he attributed characteristics on the height of the score a culture is in that dimension. Another well

known study on cultural differences are the cultural dimensions of Hofstede. Because this study doesn't have any data about the Russian culture it isn't used.

This chapter describes four selected dimensions of Trompenaars with relevant characteristics for managers which could affect entrepreneurship. The other dimensions 'Sequential vs synchronic', 'internal vs External control' and 'affective vs neutral' are of interest to managers but no data was found in relation with entrepreneurship and innovation. This chapter is concluded by a short list of these characteristics that have influence on the process of entrepreneurship. All these characteristics come directly from the book of Trompenaars.

Specific Vs. Diffuse Cultures

Trompenaars explains the public sphere of specific individuals is much larger than their private sphere. People are easily accepted into the public sphere, but it is very difficult to get into the private sphere, since each area in which two people encounter each other is considered separate from the other, a specific case. Specific individuals concentrate on hard facts, standards, and contracts.

Diffuse individuals have a large private sphere and a small public one. Newcomers are not easily accepted into either of them. But once they have been accepted, they are admitted into all layers of the individual's life.

According to Trompenaars the Dutch culture is specific whereas the Russian culture is very diffuse. This results in the following characteristics which are also found in the work of Trompenaars:

Table 1: Characteristics of Dutch and Russian Culture in Specific/Diffuse Dimension

Netherlands	Russia
Open public space, closed private space	Closed public space but once in open

	private space
Appears direct, open and extrovert	Appears indirect, closed and introvert
'To the point' often appears abrasive	Often evade issues
High mobility	Low mobility
Separate work and private live	Close link between work and private live

Batjargal (2003) studied the importance of the network of Russian entrepreneurs for their success. He concluded having many weak ties (public space) and being able to mobilize financial resources from rich and powerful contacts enables entrepreneurs to increase their revenues and profits. Combining this information with Trompenaars suggests the closed public space and closed attitude might have a negative influence on entrepreneurial performance. Further researching this suggestion is outside the scope of this assignment.

Universalism Vs. Particularism

People in universalistic cultures share the belief that general rules, codes, values and standards take precedence over particular needs and claims of friends and relations. In a universalistic society, the rules apply equally to the whole "universe" of members. Any exception weakens the rule. Particularistic cultures see the ideal culture in terms of human friendship, extraordinary achievement and situations; and in intimate relationships. The "spirit of the law" is deemed more important than the "letter of the law".

According to the score of Trompenaars (1998), the Netherlands is a very universalistic country and Russia - a very particularistic one. And this has the following effect on business areas.

Table 2: Characteristics of Dutch and Russian Culture in Universalism/Particularism Dimension

Netherlands	Russia
Focus is more on rules	Focus is more on relationships
Legal contracts are readily drawn up	Legal contracts are readily modified
A trustworthy person is one who honors their word or contract	Trustworthy is the one who honors changing circumstances
Only one truth or reality that has been agreed on	There are several perspectives on reality relative to each participant
A deal is a deal	Relationships evolve

We suggest that the focus on relationships instead of rules and the flexible look on contracts might cause insecurity for entrepreneurs.

Individualism Vs. Collectivism

In a predominantly individualistic culture people place the individual before the community. Individual happiness, fulfillment, and welfare set the pace. People are expected to decide matters largely on their own and to take care primarily of themselves and their immediate family.

In a predominantly communitarian culture people place the community before the individual. It is the responsibility of the individual to act in ways which serve society. By doing so, individual needs will be taken care of naturally.

Russia is a little bit more individualistic than the Netherlands. According to the theory of Trompenaars (1995) the following characteristics are more seen in Russia than in the Netherlands:

Table 3: Characteristics of Dutch and Russian Culture in Individualism/Collectivism Dimension

In Russia more than in the Netherlands:
Use of 'I' or 'me' instead of 'we'.
In negotiations, decisions typically made on the spot by a representative
People ideally achieve alone and assume personal responsibility

Achievement vs. Ascription

Achieved status refers to what an individual does and has accomplished. In achievement-oriented cultures, individuals derive their status from what they have accomplished. A person with achieved status has to prove what he is worth over and over again: status is accorded on the basis of his actions. Ascribed status refers to what a person is and how others relate to his or her position in the community, in society or in an organization. In an ascriptive society, individuals derive their status from birth, age, gender or wealth. A person with ascribed status does not have to achieve to retain his status: it is accorded to him on the basis of his being. Russia is more Ascription oriented than the Netherlands. So the following characteristics are more true for the Russian culture.

Table 4: Characteristics of Dutch and Russian Culture in Achievement/Ascription Dimension

In Russia more than in the Netherlands:
Use of titles to clarify status
Respect for superior. This is seen as a measure of your commitment to the company
senior managers which is are male, middle-aged and qualified by their background

The paper of May (2005) confirms how the Russian culture traditionally has a very large power distance. This results in a top-down business structure. This will be further explained in chapter 3.2 about the relation between the national culture and the corporate culture.

Leadership Styles

Bennis gave an interesting definition for leadership: *"The first job of a leader is to define a vision for the organization.... Leadership of the capacity to translate vision into reality"*. A successful manager should be able to lead properly. This section will discuss which types of leadership there are.

Basically, there are two main theories about leadership: transactional, transformational and charismatic leadership (Burns, 1978) *or* autocratic, democratic and situational leadership (Bass, 1998).

Transactional, transformational and charismatic leadership

Since World War II, *transactional leadership* was been very popular. This leadership theory describes the interaction between leaders and followers by a series of bargains or ‘transactions’. The leader provides rewards for their subordinates in exchange for effort, or can take corrective action (punishment) to achieve goals. Transactional leaders may react immediately (live monitoring) or after the subordinate has reached his role requirements.

Transformational leadership can cause change in individual and social systems, e.g. attitudes and beliefs. The purpose of this leadership is to enhance the motivation, performance and moral of workers by a set of mechanisms. A few of these mechanisms are: Linking the identity of the subordinate to the identity of the organization, being a role model, understanding strengths and weaknesses and constantly challenging followers for greater ownership of their work. Unlike transactional leadership, this concept is not based on give and take but more on a personal relationship between the leader and the follower. Transformational leadership is known to be positively correlated with satisfaction of the followers towards their leader.

A *charismatic leader* provides an environment full of energy and can inspire or encourage others to do their best. This theory is a relatively new one, and is best used in situations where there is high level of anxiety.

According to Burns, there is no better leadership style. Certain leadership styles fit better or worse with certain situation and personalities of the leader. Strong leaders know to match a leadership style with an environment.

Autocratic, democratic and situational leadership

The other theory is about Autocratic, democratic and situational leadership (Bass, 1998). An autocratic or authoritarian leader is highly directive and barely allows input from group members. Reasons why decisions are made are rarely revealed, followers should do as they are told to do. Especially early theoretical models emphasized this approach, firm control on the group is necessary and this is expressed by an autocratic way of leading.

On the contrary, democratic leadership emphasized the need for group members to participate in decision making. Unlike autocratic leadership, where all decisions are made by one person, the group may vote on decisions so the majority opinion is represented.

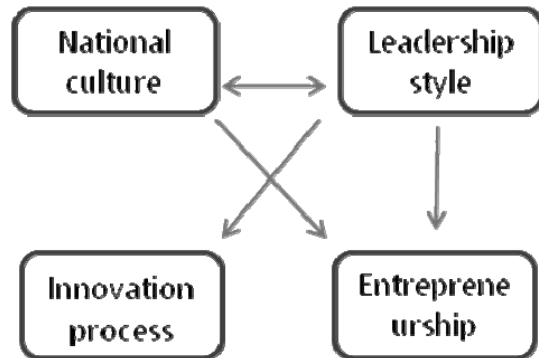
Situational leadership style sets the group members free and allows them to operate on their own. The function of the leader is to provide information but stay out of the group process. Depending on the situation, the group may require a leader who is process-directed (relationship and means) or product-directed (tasks and ends). The situational theory also states that leaders emerge as a result of social, cultural and economic conditions.

Relations

Many characteristics of national culture and leadership are mentioned in the theoretical framework previously described. In this section, relations between the theoretical framework and the empirical studies of entrepreneurship and innovation process will be given. Figure 1 is a

graphical presentation of this research, where the blue arrows represent the relations (these are the sub questions) discussed in this section.

Figure 1: Relationship between national culture and entrepreneurship

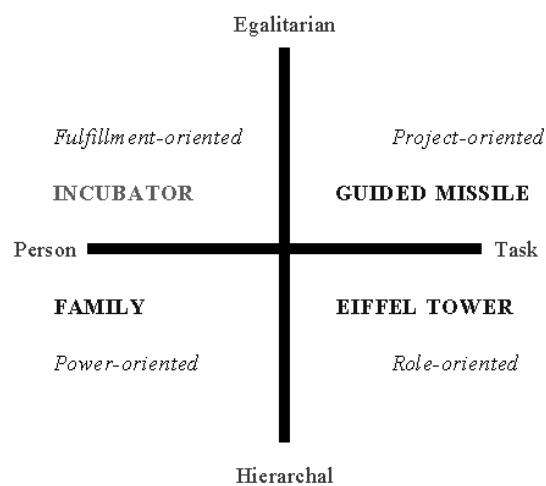


A list of the different characteristics according to Trompenaars is found in the appendices. In this table the reader can identify which characteristic affects entrepreneurship. The universalistic characteristics of the Dutch managers positively affect entrepreneurship. It is common to respect contracts and even in changing situations a past agreement stays valid. This gives more security to the environment which improves entrepreneurship. According to Trompenaars, in Russia agreements are based on the relationship between managers and befriended managers are expected to change the agreement if a situation changes. The more individualistic nature of Russian managers makes them more effective in making decisions which improves the speed in which innovations can be realised. However, more focus on the individual decreases the willingness to work with more different persons and organizations which decreases the amount of innovation and entrepreneurship. Dutch managers have a bigger public space which gives more room for a large network which encourages entrepreneurship. Dutch managers are more mobile than their Russian colleagues, which makes them more flexible and less narrow minded which improves entrepreneurship.

Interaction between national culture and leadership style

The study of Weber (2007) concluded that as far as entrepreneurial activity is concerned, formal institutions (political, financial and regulating structures) contribute to creating opportunities, whereas informal institutions (values and cultural norms thus national culture) shape society's and individuals' perceptions of these opportunities. To research the interaction between national culture and leadership style we use the corporate culture theory of Trompenaars. In the corporate culture theory cultures are divided in four segments over two axes as seen in the figure. In this section we try to put the Dutch and Russian culture in one of these segments.

Figure 2: Corporate Cultures of Trompenaars



May (2005) describes how Russians still prefer strong leader and top-down control techniques. In the same article is found that the Russian culture isn't very task or performance oriented. Because of these two examples from May (2005) we can conclude that Russia has a Power-oriented family culture. The Dutch culture is very egalitarian and task oriented.

The Dutch guided missile culture is oriented to tasks undertaken by teams or project groups. The focus is on tasks instead of persons and is very egalitarian. This Anglo-Saxon corporate culture is based on strategy, management by objectives and people are paid by performance. Groups have leaders but they treat experts with the same respect.

The Russian culture is called the family structure. According to the corporate culture theory the leaders are seen 'as a kind of father'. Leaders get a sense of power and confidence from their

followers. These leaders avoid the depersonalization of management by objectives. Who is doing something is more important than what is being done. The family model gives low priority to efficiency but high priority to effectiveness. The task oriented culture and rewarding by performance positively affects entrepreneurship. Successful innovations are often realized in project groups. This model is best fit with the Dutch guided missile culture.

Link between leadership style and entrepreneurship

Empirical evidence shows that transactional or autocratic leadership has been seen as the common leadership style in Russia during the Soviet period and beyond. Russians were expected to accept and admire their leaders (family culture of Trompenaars) which were able to provide all answers needed and could move the organisation towards the right direction. A top-down decision making through a strict hierarchy ensured leaders would know more than their subordinates. Also historically, leaders had a strong commanding and authoritarian way of leading and even generating fear amongst subordinates.

Given the context mentioned in the theoretical framework, it is interesting to learn about how a leadership style in these challenging circumstances nowadays affects entrepreneurial development and activities in Russia, compared with the Western countries. A recent study noted that much entrepreneurial cognition is similar between Russian and American entrepreneurs and are substantially different from Russian non-entrepreneurs. (Seawright, Mitchell, & Smith, 2008). This study was conducted amongst the most successful Russian entrepreneurs. Other studies found that Russian entrepreneurs possessed characteristics which you would attribute to entrepreneurs elsewhere. They possess the core competencies of an entrepreneur.

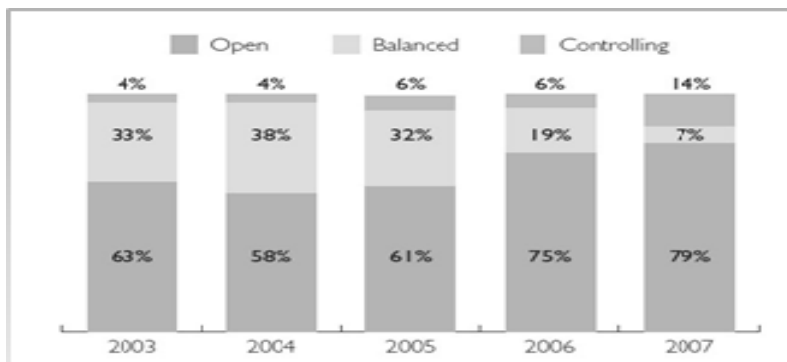
In these western countries (Europe, U.S.) transformational or democratic leadership has been prominent. It embodies the way of doing business and seeking employee inclusion in important decisions and delegation of authority.

Instead of using the traditional terms as transactional or authoritarian, McCarthy et al defined three new leadership style categories: open, balanced and controlling.

- Open: characteristics of transformational leadership (educating, inspiring, energizing) and encouraging creativity, self-functioning structures, freedom of spirit, friendship, democracy etc.
- Controlling: Centralized decision making, military-like discipline. Elements of transactional leadership.
- Balanced: Similar to situational leadership, consider employee input but make decisions at the top. They employ both positive as negative motivation. Sometimes an authoritarian leadership style is needed, sometimes a democratic one.

After an extensive survey, McCarthy et al found came up with Figure 3. This figure presents a comparison (by year) of the percentage of entrepreneurs within each leadership style.

Figure 3: Comparison of Entrepreneurs and Leadership Style



As can be derived from the figure, the majority of entrepreneurs use an 'open' leadership style. Open or transformational leadership style can, according to the author, encourage new ventures to unconventional thinking that can lead to innovative products or processes. This open leadership style is most favoured among Russian entrepreneurs in highly volatile and uncertain environments. They also recognize that open leadership style is necessary to pursue growth and profit. According to a study, business growth depends on the willingness to delegate authority

and it has been seen that autocratic entrepreneurs find it difficult to take their business to the next level (Scase & Goffee, 1980):

Hence, entrepreneurs who use an open leadership style realized that Russia is more and more progressing towards a market economy so the old way of leading had to change. Open leadership style is seen as a competitive advantage, bonding your employees and fostering growth are a consequent result of this.

Also, controlling leadership is practiced by 14 % of the entrepreneurs. The effectiveness of this style varies by industry or type of company. Finally, the balanced style is a style where prior controlling managers indicated they were changing towards a more open style.

Relation between leadership style and innovation

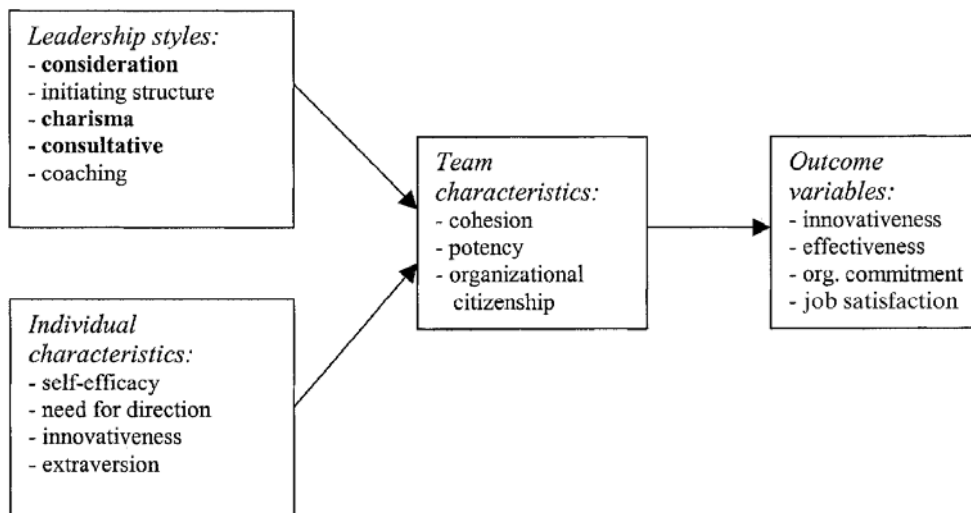
Prior studies have suggested that leadership styles have a significant effect upon the motivation, choice and ability of knowledge sharing and innovation. (Lu et al., 2006)

Duanxu et al, 2009 conducted a research (in china) on the link between leadership style on innovation. He found that authoritarian leadership had a negative effect on the team innovation (trough less eagerness to share knowledge). Transformational leadership had directly and indirectly positive effect on it.

O'Regan (2006) examines the relationship between innovation, leadership and performance. His results suggest that the level of innovation and success are influenced by leadership style. He found that transformational leadership style is more conducive to innovation and the introduction of new products (innovative). Transactional leadership tends to be associated with the modification of existing products (non-innovative).

Fischer and Stoker (2001) also researched the relationship between leadership styles and innovation. Their model suggests that leadership styles that positively influence innovation are consideration, charisma and consultation.

Figure 4: Model of Fischer and Stoker (2001).



Translating these different definitions of leadership styles makes the result of Fischer and Stoker is in line with Lu et al. suggesting that transformational leadership is best for innovation.

Conclusions

In the theoretical framework the cultural differences and leadership styles were explained. In chapter three the sub questions or 'relations' between this framework and entrepreneurship and innovation are given. Answers to the sub questions are used to find an answer to the main question: *'What are the main differences in Dutch and Russian Culture and leadership style and their effects on innovative entrepreneurship?'*

Studies of Seawright, Mitchell & Smith (2008) suggest that most successful Russian entrepreneurs use the open western leadership style instead of the traditional Russian leadership style. They recognize that the open leadership style is necessary to pursue growth and profit and is a competitive advantage.

Thus, transformational leadership style encouraging unconventional thinking, universalistic cultural characteristics, and the easier acceptance of new people in the open network to faster grow a manager's network is similar to the Dutch management style. It can be seen that both National Culture and leadership style affect entrepreneurship and innovation.

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List of contributors

Albutova Alyona – BA student, Sociology, HSE Moscow

Alimova Tatiana – Ass. Prof., Chair of Economic Sociology, leading researcher, Laboratory of Entrepreneurship Research, HSE Moscow

Bos Marc - MA student, Twente university, Enschede

Chenina Anastasiya – MA in Sociology, graduate of the HSE Moscow

Chepurenko Alexander – Prof., Chair of Economic Sociology, Scientific head, Laboratory of Entrepreneurship Research, HSE Moscow

de Wit Maarten - BA student, Twente university, Enschede

Dinaully Aneeqah - MA student, Technical university, Berlin / Twente university, Enschede

Frank Paula – MA student, Twente university, Enschede

Gillis Steven – BA student, Twente university, Enschede

Golubova Svetlana – MA student, Twente university, Enschede

Gudov Artyom - BA student, Economics, research fellow, Laboratory of Entrepreneurship Research, HSE Moscow

Konobeeva Elena – BA student, Sociology, HSE Moscow

Lopatina Olga – PhD student, Economics, research fellow, Laboratory of Entrepreneurship Research, HSE Moscow

Martchenko Olesya - MA student, Twente university, Enschede

Murzacheva Ekaterina – research fellow, Laboratory of Entrepreneurship Research, HSE Moscow

Neuvazhaeva Maria - BA student, Sociology, research fellow, Laboratory of Entrepreneurship Research, HSE Moscow

Peeva Maria – MA student, Technical university, Berlin / Twente university, Enschede

Ryabtsev Nikolay – PhD student, Management, HSE Moscow

Serpinskaya Marina - BA student, Economics, research fellow, Laboratory of Entrepreneurship Research, HSE Moscow

Sietzema Arjen - BA student, Twente university, Enschede

ten Hove Niek – MA student, Twente university, Enschede

Zabelova Tatiana - BA student, Economics, research fellow, Laboratory of Entrepreneurship Research, HSE

ⁱNecessity driven entrepreneurs – people starting businesses because they feel they have no other choice.