Abstract. *This paper presents a descriptive, quantitative study devised in order to test hypothesis related to psychological traits of Romanian entrepreneurs and middle and top managers. The purpose of the present study is to describe the theoretical model proposed for the relationship between risk-taking and need for achievement in a business context and to test it against data gathered from Romanian business people. The sample consisted of 137 Romanian business people with managerial experience, who met at least one of the following sampling criteria: (1) founder or current owner of a Romanian company, (2) currently employed in a top management position, (3) currently employed on a position with managerial status. For testing the relation between variables we have used an independent sample test. The findings of the study reveal that it is very fruitful to consider the inclination towards risk taking as a determinant of the need for achievement, whereas most researches have considered the relationship to be the other way around*

Keywords: risk preference, need for achievement, entrepreneur, business context, independent -test, Romanian companies.

HOW DOES THE RISK PREFERENCE IMPACT THE NEED FOR ACHIEVEMENT IN BUSINESS CONTEXTS

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1. Introduction

Psychological traits have always had a certain air that allured researchers of entrepreneurship towards their study and they have managed to find a "*prominent place in the entrepreneurship literature and hence cannot be ignored*" (Kamineni 2002, p. 89). This study is concerned with the first two of the three most cited personality traits in the relevant literature: need for achievement, risk-taking propensity and locus of control.

People have different preferences for risk-taking, which may vary relative to age, gender, education, work experience, status in the organization etc. It is assumed that a younger person has a higher tolerance level to risk taking, which diminishes as the person gets older. This is explained by the fact that risk means uncertainty, and once a person advances in age, he or she prefers to secure his/ her job and live a safer and more comfortable life. But risk might mean an opportunity as well. The more risks a person takes, the more he or she stands to lose or gain. We cannot just avoid taking risks. Therefore, we cannot expect high returns without taking substantial risks.

Sometimes taking risks is a necessity to succeed in a competitive environment. History shows that great accomplishments have always involved taking significant calculated risks in one form or another (Shane, 2003; Stewart Jr. and Roth, 2007). That's why entrepreneurs are willing to take risk because they see it as opportunity or a necessity to beat competition.

Considering risk should be an integral component of our decision making process. This is true for both our social life and the professional life, alike. But the question is how much risk should one take? Also, which are the variables that one should consider before making a major business decision which involves a certain amount of risk? The answer is based on the assumption that the risk should be measured against pre-defined objectives and projected targets. Then the key success factor is to know how to manage that risk.

In the specialized literature we found multiple terms which explain one's propensity for risk taking in a business situation, such as: risk perception, risk preference, risk-taking propensity, and risk tolerance. Some definitions of these terms are given in the paper. For example, risk preference is defined as one's tendency to choose between a risky option and a safe option of an equal or lower expected value. Gardner and Steinberg (2005) define risk perception as "*the extent to which one perceives a given activity as carrying the potential for adverse consequences*" and risk preference as "*whether one believes the benefits inherent in an activity outweigh the costs, or vice versa*". Risk-taking propensity is defined as an individual's current tendency to take or avoid risks (Sitkin and Pablo, 1992; Sitkin and Weingart, 1995). Also, risk tolerance is described in the literature as the degree of uncertainty that a person can handle when making a major business decision (Weber, 2010).

On the other hand, entrepreneurs are not only opportunity-driven, but necessity-driven as well (Klein, 1990; Collins et al., 2004; Tyszka et al., 2011). Every person has a need for achievement to some extent (Jagacinski and Duda, 2001). The need for achievement is defined as one's desire and efforts to accomplish something which satisfies his or her demands and expectations or is difficult to achieve. It means also the individual's preference for success under conditions of competition (McClelland, 1961). According to McClelland, most people will put more efforts into their work if they are challenged to do better. Therefore, persons with high achievement needs tend to be motivated by difficult, challenging, either competitive and risky work situations, and not by routine and non-competitive environment. One's achievement motivation is driven by a series of factors which might include: age, education, income level, aspirations, personal contribution etc. It is demonstrated in the literature that people who experience great levels of success are motivated to strive for more success (McClelland, 1961; Matthews and Dagher, 2007; Kumul Guler and Tinar, 2009).

There are only a few studies in the literature which investigate the relationship between individuals' preferences for risk-taking and the need for achievement (for example, Atkinson, 1957; Rim, 1963; Weinstein, 1969; Tang and Tang, 2007; Tyszka et al., 2011). The goal of the present study is to demonstrate that one's inclination towards risk-taking influences majorly his or her need for achievement in a business context. Also, this correlation is moderated by various factors, such as: age, managing experience, education, position/ status in the company or organization size.

2. Risk preference and achievement motivation

All the major theorists of risk taking and achievement motivation start from the premise that achievement comes first and it then influences the individual's preferences for risky or safe situations. For example, Atkinson (1957) in his *Theory of Achievement Motivation* held that achievement oriented individuals who were also inclined towards risk seeking preferred situations involving medium difficulty problems as these provided them with the best chance of success, while also testing their abilities, which low difficulty problems would not have provided. Those who are risk avoiders prefer the situations laying at the low end or the high end of the difficulty continuum because of their fear of failure and the excuse that the hard problems give them in case they are unsuccessful. The problem with this approach is that it has created many controversies amongst empirical researchers. These preferences were demonstrated by some empirical researchers (Littig, 1959; Litwin, 1958; Rim, 1963), but have been contested by others. Wienstein (1969) set out to test the Atkinson model relating need for achievement and risk preference and found that it was confirmed only for risk preferences in vocational choices.

However, if we spin the logic around, we could hypothesize that those individuals who are capable of handling risks will also have high need for

achievement, because risk taking has no meaning without the goal of obtaining a certain desired state of affairs. We posit that the ability to take risks allows the individual to be more goal oriented and to strive for achievement, whereas a low preference for risk forces the individual to lower his/her expectations of himself/herself.

This supposition is grounded in the theory of cognitive dissonance (Festinger, 1956) which states that individuals will change their attitudes, beliefs and ideas when they are faced with a problem induced by them wanting something and not being able to act upon it, such as would be the case with individuals with a high need for achievement and low risk preference.

Our model is based on the assumption that achieving something always implies taking a certain amount of risk, whether it is in business or in personal life. We are also making the supposition that risk preference is somewhat fixed and the need for achievement is much more volatile. In business, events that may occur are not certain and there is always a degree of uncertainty which the business people should deal with. Brătianu et al. (2011) found that there is a clear dominance of the deterministic thinking and an attitude of avoiding uncertainties among business students from Romania. This means that they do prefer to have things and events well defined and determined in their life before they happen (Brătianu, 2007).

There are some studies which have shown that risk is related to age, gender and race (Barsky et al., 1997; Byrnes et al., 1999; Donkers et al., 2001 cited in Fox and Tannenbaum, 2011; Gardner and Steinberg, 2005), implying that there may be cultural and biological determinants, which we consider hard to change or to escape from. On the other hand, risk preference can be influenced by past experience, status in the organization, age and level of education and these are included in the model presented in Figure 1.

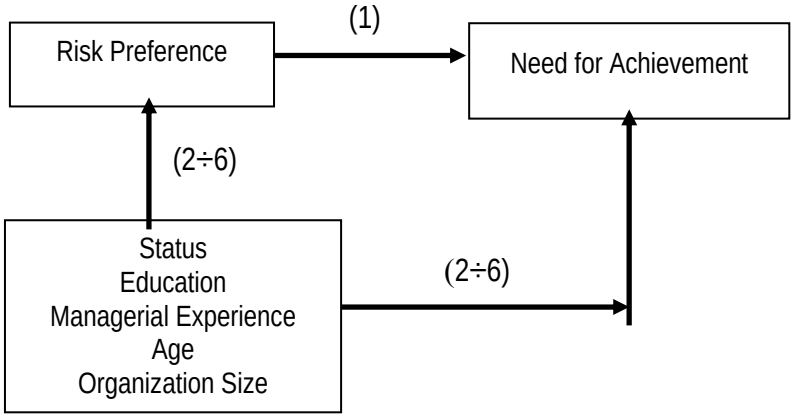


Figure 1. **Conceptual Model**

Tang and Tang (2007) have studied risk taking propensity and need for achievement in relation to entrepreneurial munificence, defined by them as the scarcity or abundance of critical resources needed by entrepreneurial firms. Their theoretical model was based on the premises that entrepreneurs' achievement motivation influences their risk-taking propensity as well as new venture performance (p. 452). They explained the positive influence of achievement motivation on risk taking behavior by focusing on the individual's need for self-actualization even if he is faced with uncertain and unpredictable situations. Their research showed a positive correlation between achievement motivation and risk taking propensity. However, these two personality characteristics were linked with business performance in a positive and negative way, respectively. Thus, although achievement increases performance, it also increases the risks taken, which, in turn, decrease performance. This only happened in contexts of low entrepreneurial munificence, because when there are enough resources for businesses to flourish, risk taking behavior is neither related to business performance, nor to achievement orientation.

This leads us to the following research hypotheses which are stated as follows.

H1: People who are risk seeking/loving tend to be more achievement oriented/ motivated than people who avoid taking risks.

H2: People who think of themselves as entrepreneurs and are risk loving will have a greater need for achievement than people who consider themselves as managers and are risk loving.

H3a: People who completed a doctoral or post-doctoral program and who are risk loving are more achievement oriented than people who graduated a university or a post-university program and are risk loving.

H3b: People who completed only high school studies and are risk avoiding are less achievement oriented than people who graduated a master program and are risk avoiding.

H4: People above the age of 35, with a master's degree, at least three years of managerial experience and who are risk neutral will want to achieve more than people of the same age and similar work experience and risk orientation for whom high school is the highest level of education.

H5: People in middle management positions who are risk neutral have a lower need for achievement than people in the same position but with a risk seeking attitude.
H6: People who are risk seeking and employed in a medium enterprise will have lower need for achievement than people who are risk seeking and working in a large enterprise.

3. Research method and measurement

3.1. Sample and data collection

The sample consisted of 137 Romanian business people with managerial experience, who met at least one of the following sampling criteria: (1) founder or current owner of a Romanian company, (2) currently employed in a top management position, (3) currently employed on a position with managerial status. The companies included in the sample where mainly based in Bucharest (53.3%) or in Ilfov county (5.8%), but the sample also covered other areas of the country (macroregion 1 – 5.8%, macroregion 2 – 12.4, macroregion 3 without Bucharest and Ilfov – 8.6% and macroregion 4 – 12.3%). The respondents also represented a large range of industries, including construction (n = 13), importing/exporting commerce (n = 7), manufacturing (n = 15), media (n = 9), services (n = 43), retail (n = 15), information technology (n = 4), pharmacology (n = 2), food manufacturing (n = 6), and others (n = 25). The sample consisted of 85 men (62%) and 52 women (38%), while the mean age was 43.6 years (s.d. = 10.53). The managers' companies had been in operation for a significant number of years (mean = 11.69, s.d. = 6.55) and included an average of 131 employees. The educational background of the respondents consisted of the following: high school diploma (n = 21, 15.3%), undergraduate degree (n = 76, 55.5%), some graduate level coursework (n = 9, 6.6%), master's level graduate degree (n = 25, 18.2%), and doctoral or post-doctoral level graduate degree (n = 6, 4.4%). According to the data, 45 (32.8%) respondents considered themselves entrepreneurs, 43 (31.4%) worked in top managerial positions and 49 (35.8) in middle management positions and they had had a managerial status for more than three years, 38% of them having had more than 10 years of managerial experience.

The questionnaires were collected by students who attended an entrepreneurship course and a business quality management course at the Faculty of Business Administration at Bucharest Academy of Economic Studies. As part of the course requirements, 124 students conducted interviews with Romanian entrepreneurs and managers. The interview consisted of a series of self-report scale items that are detailed in the following sub-section. Of the 152 Romanian business people who were asked to participate in the study, 137 agree to meet with the students and complete the interview for a 90% response rate.

3.2. Measures

Risk preference. Risk preference has been studied under a lot of names and definitions, but, in general, it means that a person has a propensity towards taking chances in situations driven by uncertainty (Koh 1996; Campbell, 2006; Shupp and Williams, 2008; Weber, 2010).

In the context of our research, we can adopt Chell at al.'s (1991) definition for risk-taking propensity such as follows: a risk taker is someone "who in the context of a business venture, pursues a business idea when the probability of succeeding is low" (p.42). There is, however, a major drawback from using a general risk measurement, as Schwer and Yucelt (1984) have shown that risk taking propensities varied among different types of risk: general, business, personal, career and trivial risk situations. They also found significant differences in risk taking behavior caused by the respondent's age, years of managerial experience, level of education and size and type of their business. In the present research we are interested to look at economic risks, risks in social relations and risks in career development that people with managerial experience are tempted to take in order to fulfill their needs for achievement in the business environment.

In the present study risk preference was measured by a ten-item scale created based on Groves and Păunescu (2009). The measurement scale is shown in Table 1. The measure was comprised of four pairs of forced-choice statements describing alternative behaviors associated with risk tolerance. Using a Likert-type scale (3 = "very often", 2 = "moderately often", 1 = "occasionally", and 0 = "rarely or never"), respondents were asked to allocate exactly three points across each pair of alternative statements according to how frequently they perform such behaviors. The measure consisted also of another pair of statements (5A and 5B), which were rated by participants on a scale from 1 to 7 according to which statement best describes their risk-taking orientation.

Table 1

Questions used to measure risk preference

Questions reflecting risk seeking behavior	Questions reflecting risk avoiding behavior
1A I am of the opinion that risks should be taken only by top management.	1B I am of the opinion that risks should be taken by all company levels.
2A I value the courage demonstrated in decisions and actions even in uncertain conditions.	2B In uncertain conditions, I prefer to be passive and reactive.
3A I have a strong inclination towards projects with low risk (with normal and certain rates of return).	3B I have a strong inclination towards projects with high risk (with high and uncertain rates of return).
4A In general, I am of the opinion that, taking into consideration the environment, it is best to examine gradually and with prudence the environment and act accordingly.	4B In general, I am of the opinion that, given the characteristics of the business environment, courage and grand actions are needed in order to achieve the company's objectives.
5A Under uncertain market conditions, in the decision making process, my company usually adopts a cautious positions, "wait and see" in the idea of diminishing the probability of taking costly decisions.	5B Under uncertain market conditions, in the decision making process, my company usually adopts a brave attitude in the idea of maximizing the probability of exploiting the potential opportunities

We have interpreted the answers according to the following rule: for the positive questions (1B, 2A, 3B, 4B and 5B), 3 meant risk loving, 1 and 2 risk neutral and 0 risk avoiding, whereas for the negative questions (1A, 2B, 3A, 4A and 5A), 3 meant risk avoiding, 1 and 2 risk neutral and 0 risk loving, and considered as having a negative sign for the following computations (Barsky et al., 1997; Kimball et al., 2008). In order to check the reliability of the scale we have computed Cronbach's alpha, which was 0.504 for the questions reflecting risk aversion, and 0.560 for the questions related to risk seeking behaviors.

In order to obtain the final scale for risk preference we have summed up the answers to all of the above questions taking into consideration the positive and negative signs. Consequently, we have measured risk preference on a discrete scale from -15 to + 15. We have split the continuum into three categories of attitudes toward risk as follows: risk avoidance which was measured between –15 and –1, risk neutral going from 0 to 9, and risk seeking ranging from 10 to 15. In total, each category held 36, 79 and 22 respondents respectively.

Need for achievement. The concept of need for achievement introduced by McClelland (1961) is defined as the tendency to choose and persist at activities that hold a moderate chance of success or a maximum opportunity of personal achievement satisfaction without the undue risk of failure. Tang and Tang (2007) suggested that it is better to study achievement motivation as a situationally specific concept which is task oriented rather than general. They cite the example of Miner et al. (1994) who measured achievement motivation based on the emphasis placed on the stated role requirements rather than the single achievement motive and found that entrepreneurs were more task motivated than managers. For our present study, need for achievement is defined as the inclination towards behaviors valuable for achieving current and future business goals.

Need for achievement was measured by an eighteen-item scale self-report created for the purpose of the present study by using Ray's (1979) measure of achievement motivation. Participants were provided with nine pairs of statements (eighteen total items, see Table 2) that describe their individual need for achievement, and asked to indicate on a scale from 1 to 7 according to which statement best describes their achievement motivation. A seven-point scale was placed between each pair of statements as participants were asked to circle the number that best described need for achievement. The questions closer to 1 reflected a smaller need for achievement, whereas those situated near the other end of the scale referred to a greater need for achievement. By doing this we have obtained a scale with an internal consistency measured by Cronbach's alpha of 0.783, which is deemed by general acceptance as acceptable for sociological analyses (George and Mallery, 2003).

Table 2

Question used to measure need for achievement

Questions reflecting low need for achievement	Questions reflecting high need for achievement
1A. For me the feel good state of comfort attained at one point is the most important.	1B. For me it is more important to aim higher and higher.
2A. I am interested in cultivating relations with people who might be useful in my future professional career.	2B. I cultivate relations with people who could become my business partners in the future.
3A. I give the necessary attention to small, insignificant things even if this means a waste of time.	3B.I am uncomfortable when I feel I am wasting time with insignificant things.
4A. I prefer to work just enough to keep my current status.	4B. I am willing to work hard to become the best in my branch.
5A. I prefer to work with agreeable partners, even if they are incompetent.	5B. I prefer to work with difficult partners, but who are very competent.
6A.I tend to live by reading other people's success stories.	6B. I work with dedication to transform my life into a success story.
7A. I am a person who enjoys comfort.	7B. I am an ambitious person.
8A. Usually days go pass me without doing nothing.	8B. Not a day goes by without having done something.
9A. I take life as it is without much planning.	9B. I plan most of the things that happen in my life.

The variable measuring the score for need of achievement was computed by summing up the answers to all 9 pairs of questions and SPSS was used in order to split the resulting variable into three clusters with the following means: cluster 1 (25% of the respondents included) mean = 37.4 (min = 12 and max = 43), cluster 2 (45.6% of the respondents) mean = 49.1 (min = 44 and max = 53) and cluster 3 (29.4% of the respondents) mean = 48.6 (min = 54 and max = 63). We interpret the clusters as low achievement oriented, medium achievement oriented and high achievement oriented, respectively.

4. Research findings and results

This section of our study presents the research methods used for investigation and the results we have reached after testing the research hypotheses.

H1: People who are risk seeking/loving tend to be more achievement oriented/ motivated than people who avoid taking risks.

For testing the relation between risk preference and need for achievement we have used an independent sample test for the categories of respondents that were included in the risk clusters 1 (risk avoiding) and 3 (risk seeking). The test has shown that the hypothesis regarding the difference in need for achievement scores for the two groups was correct (sig. = 0.012). Table 3 presents the group statistics and it can be seen that those who are risk avoidant also have a lower need for achievement, whereas those oriented towards taking risks also have a greater desire to achieve. Surprisingly, the hypothesis was confirmed only for male business people, but not for women.

Table 3

Achievement scores for risk avoiding and risk seeking

	Risk cluster	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	1 – avoiding	36	47.44	9.25649	1.54275
	3 – seeking	22	53.36	6.86985	1.46466

Certain researchers have found that people with high achievement motivation tend to take moderate risk, while those with low level of achievement motivation have fewer problems with assuming responsibility in uncertain situations (McClelland, 1961, Schwer and Yucelt, 1984).

The difference in achievement orientation remains true even when we compare those that are inclined towards taking calculated risks (risk cluster 2) and those situated in the high-end risk cluster (independent t-test, sig.= 0.002, see Table 4 for group statistics). On the other hand, there is no significant difference related to achievement orientation between those who are clearly risk adverse and those taking only moderate risks.

Table 4

Achievement scores for risk neutral and risk seeking

	Risk cluster	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	2 – neutral	78	47.67	7.47723	0.84663
	3 – seeking	22	53.36	6.86985	1.46466

The hypothesis is correct even when we take into consideration the influence of the need for achievement on the behavior related to risk (sig. = 0.002), showing that even a medium orientation towards success brings with it an easiness of handling risky situations. In fact, the two variables, risk preference and need for achievement have a coefficient of correlation of 0.239 (Pearson, sig. = 0.005). This means that the first hypothesis on which the model is based is correct and now we can move on to finding out how age, position, managerial experience and company size moderate the influence that risk taking propensity has on need for achievement. It also proves that, due to the low correlation between the two variables, risk taking propensity is not the only explanatory factor for need for achievement and other variables should be introduced in the model as well, ideas which we will explore further in the last section of the article.

H2: People who think of themselves as entrepreneurs and are risk loving will have a greater need for achievement than people who consider themselves as managers and are risk loving.

The second hypothesis has not been confirmed by the data. In fact, the position held in the company appeared to have no influence on the need for achievement of people inclined towards risk taking. Although the relevant literature posits that there should be an observable difference between the risk propensity of entrepreneurs and managers, our data did not support this finding. We also did not find a difference in risk preference for top and middle managers, proving that either in Romania, all business people need a certain inclination for risk irrespective of whether they run their own company or not, or that the sample was biased towards managers who enjoyed risk taking. We also have to take into account the economic environment in which the study was performed and that all companies were facing some sort of financial problems due to the worldwide economic crisis, situation which might mean that the business population adopted the same view over risk taking.

H3a: People who completed a doctoral or post-doctoral program and who are risk loving are more achievement oriented than people who graduated a university or a post-university program and are risk loving.

The achievement scores for respondents who hold a doctoral and a postdoctoral level of education degree are presented in Table 5.

Table 5

Achievement scores for doctoral and postdoctoral levels of education

	Education	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	Doctorate	3	56.00	1.00000	0.57735
	Post-doctorate	2	50.50	2.12132	1.50000

This was the only significant difference (sig. = 0.026) among those oriented towards risk taking when we compared different educational backgrounds. Moreover, apparently those with the highest amount of studies are less oriented towards achievement than those which have only doctoral studies. Thus, the hypothesis was not supported by the collected data, implying that the level of education might not have a positive relation to the type of need for achievement that a person has. This has led us to investigate the relation between studies and need for achievement in the other risk clusters as well and we have created hypothesis H3b.

H3b: People who completed only high school studies and are risk avoiding are less achievement oriented than people who graduated a master program and are risk avoiding.

An independent sample test has shown that there is a significant difference (sig. = 0.033) between the two groups reflected in their different orientations towards achievement, those in the high-school category having a lower need for achievement than those with master studies (see Table 6). Thus, probably there is a certain threshold above which education has no impact or a negative impact on the need for achievement for those that have a lower propensity towards risk taking.

Table 6

Achievement scores for high school and master levels of education

	Education	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	High school	8	44.12	8.69216	3.07314
	Masters	17	51.41	6.92873	1.68046

In trying to show that the level of education influences the relationship between psychological traits and entrepreneurial orientation, Okhmina (2010) has also shown that the level of education is positively correlated with the need for achievement of used car entrepreneurs. On the other hand, Kumbul Guler and Tinar (2009) have found that the businessmen with the lowest level of education also had the lowest inclination towards risk-taking, while those with the highest degree in education also had the highest degree of risk taking behavior, implying that education increases lead to more risk taking. Other studies have also confirmed that education and new venture creation that involves a certain amount of risks are positively and significantly correlated (Mushtaq et al., 2011).

However, our results show that the influence the level of education has on need for achievement depends on the level or risk a person is willing to take, suggesting that risk avoiders might become more achievement oriented by increasing their education and risk lover might temper there need for achievement by pursuing post-doctoral studies.

H4: People above the age of 35, with a master's degree, at least three years of managerial experience and who are risk neutral will want to achieve more than people of the same age and similar work experience and risk orientation for whom high school is the highest level of education.

The group statistics are presented in Table 7.

Table 7

Achievement scores for high school and master levels of education (more than three years of managerial experience and risk neutral orientation)

	Education	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	High school	7	44.42	9.34268	3.53120
	Masters	11	53.18	5.54650	1.67233

Kumbul Guler and Tinar (2009) state that the age groups of businessmen being younger than 40 (nAch = 2.41), between 41 and 50 (nAch = 2.51) and older than 51 (nAch = 2.46) are significantly different in terms of their need for achievement. According to our results (sig. = 0.0034), the moderating effect of level of education remains the same even for people with at least three years of managerial experience which are over 35, meaning that for those who are risk neutral, increasing the years of education implies also increasing the need for achievement.

Until now our hypothesis had only analyzed people who were either risk seeking or risk avoiding, but this result shows that education has an impact also in the case of those people who are likely to take only calculated risks. It also shows that the impact of education depends also on the age and the managerial experience of the respondent, making the model more complicated as it implies that the moderating factors also have an influence on each other.

H5: People in middle management positions which are risk neutral have a lower need for achievement than people in the same position but with a risk seeking attitude.

The achievement scores for respondents holding a middle management position in the company and who have risk neutral and risk loving orientation are presented in Table 8.

Table 8

Achievement scores for risk neutral and risk seeking, middle management position

	Risk cluster	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	2 – neutral	26	46.26	8.07246	1.58314
	3 – seeking	10	55.90	5.25885	1.66300

The hypothesis was sustained by the empirical data (sig. = 0.001) and it contradicts past research which have linked a high need for achievement with a propensity towards taking only calculated risks. The same results are obtained by comparing the means for need of achievement for those which are risk adverse (mean = 45) and risk seeking (mean = 55.9) (sig. = 0.021), but not between those which are risk neutral and risk adverse (see Table 9).

Table 9

Achievement scores for risk avoiding and risk seeking, middle management position

	Risk cluster	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	1 – avoiding	13	45.00	13.00641	3.60733
	3 – seeking	10	55.90	5.25885	1.66300

This implies that the attitude towards risk taking has a definite impact on the need for achievement for middle managers, especially when it is a strong proclivity to regard risk as opportunity and take chances. Moreover, this influence of risky behavior on achievement orientation was not encountered for the other two groups, top managers and entrepreneurs, implying that there are other factors which intervene in the case of those categories of business people.

H6: People who are risk seeking and employed in a medium enterprise will have lower need for achievement than people who are risk seeking and working in a large enterprise.

The group statistics are presented in Table 10. The hypothesis was rejected because there was a difference between the means of the scored for need for achievement of the two groups, and the difference was significant (sig. = 0.033), but the results showed that people employed in medium companies have a higher need for achievement than those from larger companies at the same level of risk taking propensity.

Table 10

Achievement scores for organization size

	Organization size	N	Mean	Std. Deviation	Std. Error Mean
Need for achievement	Large	3	47.33	5.68624	3.28295
	Medium	5	58.40	5.36656	2.40000

This result suggests that we have to take into account external factors as well, in this case institutional size, when analyzing the influence that risk taking attitude has on need for achievement.

5. Implications and research limits

There is a stream of thought that links risk taking behavior directly to entrepreneurial activity and considers this to be the most important difference between entrepreneurs and managers (Mill, 1984; Schwer and Yucelt, 1984; Mitton, 1989; Ho and Koh, 1992; Robinsons and Sexton, 1994; Kumul Guler and Tinar, 2009). However, our data clearly showed there was no difference concerning the attitude towards risk among the three categories of professionals we have interviewed, thus indicating that either risk taking is influenced by external factors or that there are common traits between being an entrepreneur or a person employed in a high management position in Romania, both implying a certain easiness with handling uncertain situations.

The moderating influence that age, level of education and managerial experience and position have on the relation between risk taking and need for

achievement depends on the level of risk a person prefers. For risk lovers, higher levels of education might lower the need for achievement, whereas for risk avoiders, increasing the level of education brings with it an increase in the need for achievement. Introducing the age and the managerial experience of the respondent into the equation has helped us prove that education level moderates the relation in the case of risk neutral people as well. Thus, level of education has different impacts for different risk clusters and further research is needed in order to discover the thresholds beyond which an increase in education has no bearing on the relation between risk and achievement.

Moreover, the position inside the company and the size of the company appear to have a certain moderating power over the relation between risk and achievement, but the results we have showed are not definitive, and the question remains to be studied further.

The statistical tests performed in order to prove our hypothesis have also shown that there are relations among the moderating factors (age, managerial experience, education, position and size of the company) that have not been taken fully into consideration and will be the subject of adjacent inquiries.

It is also necessary to recognize several of the study's limitations. It must be underlined that the respondents (Romanian companies) were not selected at random (in what concerns the geographical range) and therefore, generalization is the first limitation of the study. Furthermore, due to the large differences in the domain of activity of the samples and to the complexity of the questions, the error estimated for data collection and processing is of maximum 5%. Nevertheless, the present paper could prove a solid basis for further research in the fields it addresses. Further empirical evidence to substantiate our research findings is required.

6. Conclusions

The paper presented a descriptive, quantitative study which tested hypothesis related to risk preference and need for achievement of Romanian entrepreneurs and middle and top managers. Firstly, we described the theoretical model proposed for the relationship between risk-taking and need for achievement in a business context and then we tested the model against data gathered from Romanian business people.

The model we have proposed started from a simple assumption that risk preference influenced the need for achievement in the case of individual, and that there existed certain moderating factors. However, our results have shown that the model is not that simple, as it happens with all psychological model, and that the relation might be positive or negative depending on the moderating factors and the baseline preference for risk. As results, we contend that the field is ripe for future discoveries and that more attention should be given to the relations postulated in our model. The change of logic in the analysis of risk behavior and need for achievement

has lead us on a fruitful path to new discoveries that will have a significant impact on the literature concerning business risks. We are hopeful that this won't be the last paper using this framework in order to analyze the relation in question.

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