Risk perception among small and medium entrepreneurs

Summary. The main objective of this paper is an attempt to present the way the decision makers of an economic operator assess developments related to risks and to the economic risk management process. The study was conducted in 2017 among 124 economic operators based in the Poznań district. The respondents were selected using purposive sampling. The information was analyzed and described with the use of descriptive statistical methods. Also, the correlation between selected characteristics was assessed with the Pearson’s contingency coefficient (C) based on the chi-square test of independence. As shown by this study, the entrepreneurs surveyed have faced a situation threatening the continued existence of their undertaking over the last couple of years. Most respondents (61%) adhere to the negative risk concept, 17% perceive the potential risk impact as a loss or a profit, only 7% see it exclusively as an opportunity to make profits. The interviewees believe that businesses should be afraid the most of the financial risk (6.6) and of the risk related to changes in external factors (6.1).

Introduction

Decision making is one of the key aspects of economic activity because each decision may considerably affect the operator’s efficiency, performance (profit or loss) and development. When making the decision, complete and reliable information is not always available, and it is uncertain whether the objectives will be met. This gives rise to a risk which, together with uncertainty, is an inherent part of the economic decision-making process.
Because entrepreneurs are exposed to risk and uncertainty, they are unable to make optimal choices as assumed in the neoclassical model\(^1\). This perspective guided by the behavioral approach leads to the conclusion that in a context of incomplete information (resulting in risk and uncertainty), enterprise resources may be used in a sub-optimal way (Sulewski, 2014, p. 88). Therefore, the main objective of this paper is to present the way the decision makers of an economic operator assess the developments related to risks and to the economic risk management process.

1. **Essence and perception of risk in economic activities**

A highly complex term – risk is interpreted specifically for the industry concerned. The risks emerging in the banking or financial sector differ from those identified in an agricultural undertaking. Therefore, it is very difficult to clearly define risk as it represents a set of direct and indirect determinants (Rogowski, Kasiewicz, 2004).

There is a close relationship between uncertainty and risk. Uncertainty, unlike risk, concerns changes which are difficult to estimate or simply there is likelihood of happening. However, risk is a situation when at least one of the elements creating it is unknown, but the probability of its occurrence is known. This probability can be either measurable or only perceptible by a decision-maker. The essence of uncertainty and risk is the same in the case of all areas in business activity of modern societies (Dziel, 2011, p. 135).

Depending on the purpose, risks are classified by various criteria. From the perspective of potential impacts, pure risks and speculative risks are usually identified. Pure risk emerges if a loss is the only alternative to status quo. Speculative risk means that unknown future events may result either in losses or in profits (Tarczyński, Mojsiewicz, 2001, p. 19).

The literature provides many definitions of risk. When defining risk, focus may be placed either on its operational consequences or on the possible failure to meet the objective in question (Zachorowska, 2013, p. 10). Kaczmarek defines risk as “the possibility of failure, specifically the likely occurrence of events beyond the operators’ control which can be neither precisely foreseen nor fully prevented and which totally or partially reduce the efficiency or economic viability of activities by delivering smaller quantities of exploitable outcomes and/or by increasing the expenditure” (Kaczmarek, 2005, p. 171).

Kinds of risk faced by undertakings result from various sources and may be classified by various criteria. The general classification of risk includes systemic (basic) risks and non-systemic (specific) risks, and is based on a criterion referred to in various ways, e.g. as the criterion of effect, frequency of occurrence or manageability (Kulp, 1928, p. 4–7). Systemic risk emerges from general economic and fortuitous factors, e.g. changes in interest rates, inflation, tax regulations, political and economic situation, or cyclical...

\(^{1}\) The model assumes that decision makers have a complete picture of a situation; are fully aware of possible scenarios; can act effectively in a context of uncertainty; and are able to reasonably and logically assess all aspects of the relevant situation.
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factors. Meanwhile, specific (individual) risk is caused by meso- and microeconomic factors, e.g. business management, competition, availability of raw materials, liquidity, bankruptcy, level of financial and operational leverage (Ostrowska, 2002, p. 41–42). That risk is related to future events which may be partially controlled or foreseen. Note, however, that a specific economic event may affect the price of a specific asset while having no effect on other assets (Dziawgo, 1998, p. 18). Another classification identifies operational and financial risks (Zeliaś, 1998, p. 62; Szyszko, 2000, p. 31; Bielawska, 2001, p. 262; Romanowska, Kowalik, 2016). The operational risk results from insufficient internal control, human error or failure of IT systems (including the issue of computer viruses) (Chong, Brown, 2001, p. 85). In turn, the financial risk is faced by undertakings financed with borrowed capital (Smaga, 1995, p. 14).

Two concepts of risk perception (the defensive and offensive concept) prevail in the relevant literature. The defensive risk is regarded as the likelihood of damage or loss, i.e. an adverse development (Philipp, 1967; Szymański, 1961; Bruhwiler, 1980; Gup, 1992).

According to the offensive risk concept, risk is considered to be an inherent part of economic activity, and is regarded not only as a source of losses but also as a source of potential profits (Drucker, 1976; Osiatyński, 1963; Grzybowski, 1976).

Some scientific papers refer to yet another concept of risk perception: the psychological analysis of risk, an approach focusing directly on the decision maker. The decision maker subjectively specifies the likelihood of a specific risk situation and takes specific steps, having considered the amount of risk and his/her preferences in this area (Kozielecki, Kietliński, 1972; Kozielecki, Kotarbiński, 1965).

People perceive risks differently because they draw different cognitive problem spaces where they search for solution – not because risk is an objective attribute of decisions and events (Sarasvathy, Simon, Lave, 1998, p. 208; Zielonka, 2003). Some psychological studies (Slovic, 2000) point out the fact that risk perception may be strongly influenced by the context in which individuals are when they take their decisions. Context can take different forms: it can correspond to past experience (relevant, for instance, in insurance decisions, as noticed in Kunreuther (1996) and Browne and Hoyt (2000) and in stock markets behavior as noticed in Hirshleifer, Shumway (2003)), it can also correspond to anticipatory feelings about some future state (Caplin, Leahy, 2001), it can be also related to the decision effect pointed out by Tversky and Kahneman (1986) (Cohen, Etnet, Jeleva, 2007, p. 173).

Taking the risk is not the objective of economic activities; it is only a way to attain the economic goals. Using the risk management process, the undertakings pursue their business strategy at the acceptable risk level (Zawarska, 2012, p. 66). The issue of risk perception is extremely important in the context of economic activity. This is because the resources of knowledge, analytical thinking skills, the ability to associate facts, decision-making processes and risk-taking attitudes are factors that affect the operator’s financial performance.
2. Materials and methodology of studies

The study was conducted in 2017 among 124 economic operators based in the Poznań district. The respondents were selected using purposive sampling. All of the interviewees were required to be SMEs economically active for no less than 5 years. In this study, micro-entrepreneurs had the largest share (74%) in the population surveyed, followed by small enterprises (23%) and medium enterprises (3%). The interviewees declared to be engaged in trading activities (54%), service activities (36%) and production activities (10%). The study was based on personal interviews with the use of an interview questionnaire which included both open-ended and closed-ended questions. The questions were also asked with the use of the rank scale and the Likert scale. Once collected, the information was analyzed and described with the use of descriptive statistics methods. Also, the correlation between selected characteristics was assessed with the Pearson’s contingency coefficient (C) based on the chi-square test of independence.

The survey covered 60 women and 64 men engaged in an economic activity. The largest group was composed of persons aged 35–44 (68%). There were 74 (60%), 32 (26%) and 18 (14%) persons with tertiary, secondary and vocational education, respectively. Tertiary and secondary education levels were declared by 67% and 23% of women, respectively; and by 53% and 28% of men, respectively.

3. Results of the study

Risks are an inherent part of economic activity and are associated with all actions taken by a company. Economic operators must make decisions and forecast future economic conditions but are unable to tell precisely whether their decisions will prove to be right or wrong.

As shown by the study, a situation threatening continued existence of their business was faced within the last 5 years by 42% of the research sample. In most cases, the unfavorable market situation, loss of liquidity, fluctuation of currency exchange rates and changing legal regulations were cited as the risk factors.

The risk involved in each activity needs to be perceived in two ways. On the one hand, it means the possible failure to attain the expected outcome (negative perception, defensive concept); but on the other hand, it provides an opportunity to deliver an outcome other than expected (i.e. a threat or opportunity, offensive concept).

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2 1. The category of medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million. 2. Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million. 3. Within the SME category, a microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003H0361).
In the view of the above, the interviewees were asked to associate the potential risk impacts with one of the following answers: “only a potential loss,” “only a potential profit,” or “a loss or a profit” (fig. 1).

Figure 1. The respondents’ perception of potential risk impacts
Source: own study based on survey data.

In accordance with the expected utility hypothesis, the decision maker assesses the risk situation by the utility and likelihood of its outcomes (Macko, Tyszka, 2005, p. 35). Most respondents (61%) adhere to the negative risk concept, i.e. equate the possible risk impacts only with a potential loss. Women (64%) declared a more pessimistic approach to risk impacts than men (cf. Tyszka, Domurat, 2004, p. 102; Byrnes, Miller, Schafer, 1999, p. 367–383). While 17% of the respondents perceive potential risk impact as a loss or a profit (neutral concept), only 7% see it exclusively as an opportunity to make profits (fig. 1), of which 70% are men and 30% are women. Considering the risk to be a threat, the undertakings may take measures to reduce it. Conversely, by taking a positive role of risks into account, the entrepreneurs are able to generate higher benefits by engaging into a risk-bearing activity. In turn, the neutral concept of risk allows to increase the benefits as a risk premium.

The study also covered the relationship between the respondents’ perception of potential risk impacts and their age, gender and education. The Pearson's contingency coefficient indicated weak or moderate links between the characteristics in question, reaching 0.55, 0.51 and 0.26 for the correlation between the perception of risk impacts and the respondents’ gender, age and education, respectively (which means weak correlation levels).
The sources of risk may be both macroeconomic (beyond the entrepreneur’s control) and microeconomic factors related to the undertaking sector. In this study, the respondents classified various risks which could affect their economic activities (tab. 1).

Table 1. Respondents’ average rating of risk perception (from 1 “negligible” to 7 “crucial”)

<table>
<thead>
<tr>
<th>Risks</th>
<th>Average rating</th>
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<tbody>
<tr>
<td>External factors</td>
<td>6.1</td>
</tr>
<tr>
<td>Enterprise management</td>
<td>5.1</td>
</tr>
<tr>
<td>Financial factors</td>
<td>6.6</td>
</tr>
<tr>
<td>Operational factors</td>
<td>4.0</td>
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<tr>
<td>Technological risk</td>
<td>1.2</td>
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<tr>
<td>Human resources</td>
<td>3.0</td>
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<tr>
<td>Crime/security</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: own study based on survey data.

The interviewees believe that businesses should be afraid the most of the financial risk (6.6) and of the risk related to changes in external factors (6.1). The entrepreneurs are mostly afraid of losing their financial liquidity which means the undertaking’s capacity to meet its liabilities. The incapacity to pay the company’s liabilities as they become due may result in the loss or confiscation of assets, or may even lead to bankruptcy (Smaga, 1995, p. 14). Another important factor threatening the respondents’ activities are unfavorable changes in interest rates and fluctuations in currency exchange rates. The variation in the level of interest rates on the money market may cause an adverse change in the receivables or interest expenses of undertaking. External factors usually cited by the respondents are the increasing competition, and fluctuations in prices of raw materials and products which are often difficult to predict and affect the undertaking’s financial performance. The respondents were afraid the least of risks related to dishonest employees and theft (2.0) and of the technological risk (1.2) involved in hardware failures and data security (cf. Kokot-Święcień, 2015, p. 533–544). In this area, staff turnover and the difficulties in finding duly qualified, competent persons were the factors most often cited by the interviewees.

In the next question, the respondents were presented with 5 statements and were asked to rate them at their own discretion depending on how much they agree with each statement (from “definitely agree,” “rather agree,” “no opinion,” “rather disagree” to “definitely disagree”).
Investments are among the key drivers of business development. The need to invest results from the increasing market competition, the changing environment or the customers’ expectations. As regards investment activities, the undertakings often make decisions to address problems they face for the first time, and are therefore exposed to risks. 53% of the respondents claim they cannot afford to take a risk in their companies while 33% disagree with that statement and 14% have no opinion. 49% of the respondents are afraid to borrow investment funds even if it could improve their company’s profitability, 15% have no opinion, and 36% are not afraid to do so. As noted by the respondents, the investments are often expensive and sometimes require the use of borrowed capital in addition to own funds. For the investors, it is extremely important and difficult to choose an investment which will generate incomes in the future. Most of the respondents (60%) disagree with the statement “I only make investments when they become strictly necessary”; 15% have no opinion while 25% agree. As shown by this study, 47% of entrepreneurs are very cautious in their financial decisions (investments or loans); 38% disagree and 15% have no opinion. Most entrepreneurs (60%) are afraid they were unable to do enough to avert the risk in their companies to the highest possible degree. The respondents were also asked to specify the investment financing method (using a loan or own funds) which requires a more detailed analysis (fig. 3).
Vast majority of decision makers (77%) stated that investing their own funds requires a more in-depth analysis. This corroborates the conclusions made by Thaler and Johnson (1990) who discovered that people are less willing to risk their own hard-earned money.

Businesses face many risks, therefore risk management should be a central part of any business strategic management. The literature also suggests that company owners may develop their own mechanisms for an effective protection against risks (e.g. by diversifying their investment portfolio). According to the prevailing opinion, risk management measures deployed by an undertaking may contribute to an increase in its value (Kaszuba-Perz, Perz, 2010, p. 59, after: Smithson, Smith, Wilford, 2000; Bartram, 2001; Damodaran, 2009). Risk management focuses on identifying what could go wrong, evaluating which risks should be dealt with and implementing strategies to deal with those risks. Businesses that have identified the risks will be better prepared and have a more cost-effective way of dealing with them. Therefore, this study was extended to learn the respondents’ opinion on the need to develop a risk management system in the SME sector and institutions related to its environment. The Likert scale was used to analyze the answers (fig. 4).

Most respondents (63%) find it necessary to develop such a system for the operators and their immediate environment (fig. 4). Note that the above opinion was more frequently expressed by women (75%) than men (52%). The respondents (65%) realize that risk cannot be fully eliminated, and would therefore like to gain a better understanding of the underlying mechanisms and learn to manage it. The older the respondents, the more likely they were to recognize the need for a risk management system. However, the interviewees are afraid that the development of such a system would mean an increase in costs resulting from the need to employ persons in charge of implementing and maintaining an efficient risk management system.
While risk is faced by each undertaking, not all managers realize that the adverse impacts thereof may contribute to the closure of their businesses. As shown by this study, the entrepreneurs surveyed have faced a situation threatening the continued existence of their undertaking over the last couple of years. The respondents believe that businesses should be afraid the most of the financial risk and of the risk related to changes in external factors.

This study did not enable a clear identification of the characteristics that affect different perception of risk among the respondents. Such variable as education was not a significant determinant of risk perception (0.26 – weak correlation). The results suggest there is little variation in the perception of risk by economically active persons. This is because the propensity for risk taking largely depends on the decision maker’s subjective views. To formulate more general conclusions, the research would need to be extended to cover a larger group of entrepreneurs clearly classified by size (small, medium and large operators) and by type of operations because commercial, manufacturing or financial undertakings face different kinds of risk.

**Summary**

**Figure 4.** The need to develop a risk management system for economic operators and institutions

Source: own study based on survey data.
Bibliography


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Słowa kluczowe: ryzyko, postrzeganie ryzyka, podejmowanie decyzji

Streszczenie. Głównym celem niniejszego opracowania jest próba zaprezentowania w jaki sposób osoby decyzyjne w jednostce gospodarczej postrzegają zjawiska związane z ryzykiem oraz procesem zarządzania ryzykiem w działalności gospodarczej. Badania przeprowadzono w 2017 roku wśród 124 osób prowadzących działalność gospodarczą w powiecie poznańskim. Do przeprowadzenia badań wykorzystano metodę wywiadu osobistego przy użyciu opracowanego kwestionariusza ankiet. Zebrane dane poddano szczegółowej analizie, a następnie opisano przy zastosowaniu metod statystyki opisowej. Dodatkowo przeprowadzono ocenę związku korelacyjnego między wybranymi cechami przy wykorzystaniu współczynnika kontyngencji C Pearsona, opartym na teście niezależności chi-kwadrat. Przeprowadzone badania wykazały, że 42% ankietowanych w ciągu ostatnich 5 lat, zetknęło się z sytuacją zagrażającą funkcjonowaniu ich działalności. Większość badanych respondentów (61%) jest zwolennikami nurtu negatywnej koncepcji ryzyka, 17% respondentów postrzega ewentualne skutki ryzyka ze stratą lub zyskiem, a jedynie 7% wyłącznie z możliwością osiągnięcia zysku. Według ankietowanych w prowadzonej działalności gospodarczej najbardziej należy obawiać się ryzyka finansowego (6,6) oraz ryzyka wynikającego ze zmiany czynników zewnętrznych (6,1).

Cytowanie