

# RISK MANAGEMENT IN SMALL AND MEDIUM-SIZED ENTERPRISES: A GENDER-SENSITIVE APPROACH

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## Abstract

*Risk is inherent in all business functions and in every kind of activity. Small and medium-sized enterprises (SMEs) are particularly vulnerable to continuously daily internal and external undesirable events that adversely affect business performance. To deal with many risk determinants effectively, SMEs need a systemic method of approach to risk management. One of the factors of company risk management approach is gender of the owners or top executives. Especially from a managerial perspective, the link between risk-taking and gender has been examined through a wide range of approaches, such as entrepreneurial orientation and leadership related literatures. Some researchers point that male SME owners appear to show a greater risk appetite than female SME owners. The leading question in the undertaken research was to determine whether the gender of the firm's owners or top executives are reflected in the approach to risk management. The focal point of the research is identification of differences in risk taking and risk management in Polish SMEs companies from a gender perspective.*

**Key words:** risk management, small and medium enterprises (SMEs), gender differences in risk management.

## Introduction

Recently, a number of studies have raised the question of whether the increasing risk in the company environment distinguishes entrepreneurs due to their demographic characteristics, including gender. This interest was largely motivated by the well-documented importance of risk-taking for the creation and subsequent performance of firms.

The issue of risk management in organizations, although extensively discussed on the international level (Beasley et al. 2005; Chapman, 2007; Economist Intelligence Unit, 2010; The Federation of European Risk Management Associations FERMA, 2010; Liebenberg et al. 2003), is an insufficiently discussed and recognized area in Poland, particularly in economic practice (Gorzeń-Mitka, 2007, 2013). World business practice shows that risk management has now become an integral part of business activities undertaken by the company, builds value to the organization, shaping the effectiveness of undertaken actions (Hopkin, 2010; Lam, 2003; Ziółkowska, 2012).

Among the many approaches to risk, enterprise risk management is the leading concept. Lindberg (2010) research identifies the term Enterprise Risk Management (ERM) as synonymous with integrated risk management, holistic risk management and strategic risk management. They argue that an enterprise-wide integrated approach to corporate risk management delivers additional benefits to the firm by preventing aggregation of risk across different sources (Seamer et al. 2012). As confirmed by Verena Kraus and Othmar M. Lehner (2012) the integrated or

enterprise-wide approach has advantage over the traditional risk management (TRM) approach, because it's not managing one risk at a time on a decentralized basis, which creates inefficiencies because of the lack of coordination between the various risk management departments, but in a systematically and consistently way. Additionally, ERM enables to identify interdependencies between risks across different sources, enhancing it from the TRM known focus on market and credit risk to operational, reputational and strategic risk, optimizes the trade-off between risk and return and strengthens the company's ability to carry out its strategic plan.

The idea of ERM is to implement the risk management process across the organisation and ensure that it is carried out by people at every level of organisation. Its main objective is to create a complete picture of all internal and external threats and to develop strategies that determine the response to so called key risks. The process should be anchored in the main strategy of the organization as well as in the strategies of its individual units. The effectiveness of risk management process in an integrated approach depends on its clear definition and communication to all levels of an organisation (Gorzeń-Mitka, Wieczorek-Kosmala 2013, Mesjasz-Lech 2012).

Risk management becomes a necessity and requires a systematic consideration in decision-making processes of the businesses. SME is the category of companies particularly exposed to the impact of risk factors. The diagnosis of their awareness of the factors determining the efficiency of activities in the field of risk management seems to be a legitimate. When identifying determinants of the efficiency of ERM implementation, it is worth mentioning the demographic environment. The size and structure of the population by sex and age of the country, the birth rate, population density and the structure of households, are all factors with a broad influence affecting the activities of all economic entities present on the relevant market in a similar way (Skibiński 2012).

Due to the importance of SMEs for the national economy, it is vital to continuously develop the knowledge in the field of the functioning of small and medium-sized enterprises as well as building and modifying a set of micro- and macro-economic tools to be used to effectively carry out management processes, strengthening and stabilizing the sector analysed. (Okręglika, Lemańska-Majdzik 2015).

Concluding, risk management may help SME managers to identify significant risks that could jeopardize the success or existence of the company in time to efficiently cope with them (Falkner Hiebl 2015). The specificity of this scale companies shows that most of the functions (in the micro- and small firms all), concentrated in the person of the entrepreneur, being the manager and the owner at the same time (Sipa 2011).

#### *Problem of Research*

Especially, the lack of research of risk behavior of SMEs owners by gender. According M. Powell and D. Ansic (1997) and Booth and Nolen (2012) based on a review of the specific literature on gender differences in business decision-making, argue that the research findings before 1980 were instrumental in establishing a dominant view that substantial gender trait differences exist in the nature and outcomes of management decisions involving risk. These studies suggest that women are more cautious, less confident, less aggressive, easier to persuade, and have inferior leadership and problem solving abilities when making decisions under risk compared to men, reinforcing stereotypical views that women are less able managers.

Nowadays, research in this area conclude that the evidence on gender differences is no longer clear cut. No significant gender differences are found in studies which examine management decision-making values or styles (Powell and Ansic 1997), and more similarities than differences in personality traits are found in studies of male and female entrepreneurs. Males and females are found to be equally capable of performing in terms of achieving desired

outcomes from decision-making under risk (Johnson and Powell 1994, Booth and Nolen 2012, Eckel and Grossman 2008).

## Methodology of Research

### *General Background of Research*

As indicated by E.M. Falkner and M. R.W. Hiebl (2015) in their studies Risk Finance Risk management in SMEs: a systematic review of available evidence, there is multiple evidence that the individual characteristics of SME owners and SME ownership structure have a significant impact on the business direction of an organization and also on risk management practices. The scientific literature indicates several factors that influence on risk behaviour of SME owners. Among them, three are identified as leaders: gender, age, education.

The research by Watson and Newby (2005) of 673 SMEs in West Australia reported that male SME owners appear to show a greater risk appetite than female SME owners. Acar and Göc (2011) presented evidence that younger SME managers have higher risk appetites than older ones. Their research based on 32 survey responses from Turkey showed that the perception of risk is associated negatively with the risk appetite in health and finance, while the risk is positively linked with organizational size. Owners of SMEs emerge from this research as tending to have a higher perception of risks. A possible explanation for the relationship between age and risk appetite was given by Gilmore et al. (2004). In their research, SME managers with deeper knowledge (which may be related to their greater age) perceived risky situations more critically, took more informed decisions, and could be regarded overall as more risk-averse. In addition to age and gender, owner education also seems to play a role in SME risk management. As Kim and Vonortas (2014) showed, higher SME owner education is positively related to adopting risk mitigation strategies, such as networking, and strategic actions to mitigate technological financial and operational risks.

This research examines whether the gender of the firm's owners or top executives are reflected in the approach to risk management.

### *Sample of Research*

The research was conducted in the January and February of 2014 on a sample of 299 companies. The study was conducted using a mixed survey-monographic method. The main research technique was use of questionnaires. The survey questionnaire was addressed to both manufacturing and service enterprises. The collected data has a qualitative character. The sample was not fully representative, thus the research should be regarded as a pilot project, to further explore the subject, and facilitate future research on representative samples.

Small businesses, employing between 10 and 49 workers dominated the sample, accounting for 73% of all surveyed companies. The second-largest group consisted of medium-sized enterprises, employing between 50 and 249 people, which accounted for 27% of all respondents. The largest group of companies, at 64.3%, have been operating in the market for more than 10 years, 12.3% of the businesses have been active for 5 to 10 years, with the rest of the respondents operating for 1 to 5 years.

Identification of the ways to cope with risks and risk management practices by gender was performed during the research which aimed to identify and analyze business processes in small, medium and large enterprises in Poland. A purposive sample was used for the research. The main objective of the research is to identify whether there are differences in the gender approach to risk management in SMEs. The following detailed research questions were proposed:

Q1- Does the level of knowledge of risk factors in the SME sector depend on knowledge of entrepreneurs and management board by gender?

Q2 – Does the level of knowledge on relationship of risk management and other business processes depend on knowledge of entrepreneurs and management board by gender?;

Q3 – Does the effectiveness assessment of the risk management depend by gender?

### Data Analysis

Analysis of the survey results has allowed for a full or partial verification of the research questions. To evaluate the data, the analysis of frequency is used.

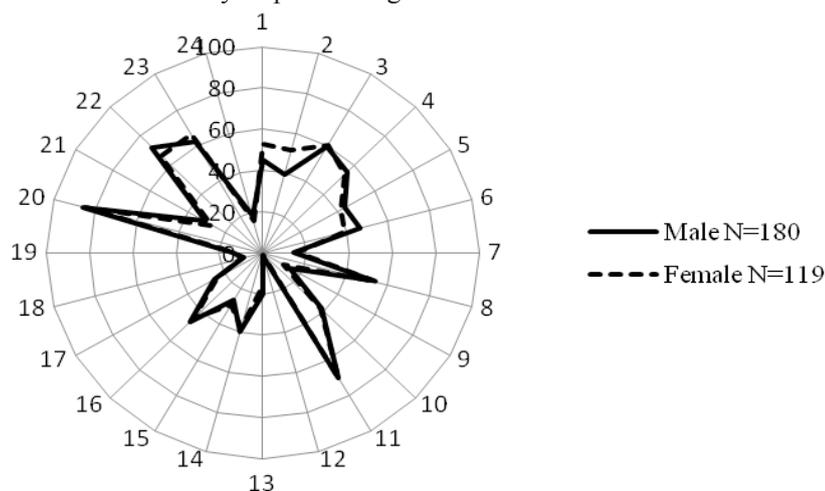
This research examines SMEs gender behavior by testing three questions related to SMEs risk management. These questions examine, whether gender that differs due to the risk management. This evidence is important for future research, examining the firm's decision to implement risk management.

## Results of Research

### *Owner-manager Gender and Knowledge of Risk Factors in SMEs*

The analysis of the perception of the gender of risk management in SMEs began with the assessment of the level of knowledge of the respondents with respect to the key risks in organization. Awareness of the factors that may interfere with the carried out activities is an essential element of the approach to the issue of risk in organizations. In the questionnaire presented to companies, the subjects had to indicate the key areas of risk relevant to their businesses.

Respondents answered on a broad spectrum of risks relating to their activities. Respondents from the catalog of potential threats (24 areas of risk), indicated 10, which are crucial for their activities. Factors have helped to identify the registry key risks specific to the business. Catalog of variables was development based on studies conducted by Słobosz (2009). Figure 1 presents the key risk factors for SMEs by respondents' gender.



1. Embezzlement / theft; 2. Technological failure; 3. Noise (breaks) in the supply chain; 4. Contractors-trade receivables; 5. Business interruption; 6. Availability of capital; 7. Currency fluctuations; 8. Acquisition / merger / restructuring; 9. Loss of key staff; 10. Increasing demands of corporate governance; 11. Lack of innovation; 12. Loss of reputation; 13. Strike / labor disturbances; 14. Liability / claim; 15. Natural disasters / extreme weather conditions; 16. Changes in the legal / regulatory; 17. Political instability/ political risk; 18. Pandemic / health crisis; 19. Scarcity of natural resources; 20. Increasing competition; 21. Globalization; 22. Economic downturn; 23. Fluctuations in commodity prices; 24. Climate change.

**Figure 1: Key risk in organization – gender approach.**

Analysis of the results presented in Figure 1 allows to draw the following conclusions:

- For most of the distinguished risk types there were no significant differences in their perceptions by the respondents with regard to sex;
- Out of 24 risk types, significant differences (i.e. more than 5%) with regard to the gender of the respondents have been noted in the answers regarding 5 key risk types;
- From among key risks, women have identified the risk of fraud and theft (difference in indications — 7.94), technological failure (difference in indications — 11.82) and price volatility (difference in indications — 5.16) to be more important for the activities of their organization in relation to the indications of men;
- Men, in turn, have identified the risk of capital availability (difference in indications — 7.17) and economic slowdown (difference in indications — 5.84) as more important.

The author believes it can be argued that women have a higher sensitivity to risk in the area of operations of the company.

These findings allow to partially test question Q1. In the light of the present research it can be concluded that the level of knowledge on key risk factors in small and medium-sized enterprises is not significantly different due to the sex of the owner (general manager); however, women have a higher sensitivity to operational risks.

#### *Relationship of Risk Management with other Business Processes*

Another area of analysis was the diagnosis of the respondents' knowledge on the relationship between risk management and other business processes in the company (the research distinguishes between 11 processes). The results are shown in the table 1 (for each of the responses).

**Table 1. Relationship of risk management with other business processes [%].**

| Relationship of risk management with: |                | Male N=180 |      | Female N=119 |      | Total |      |
|---------------------------------------|----------------|------------|------|--------------|------|-------|------|
|                                       |                | n          | %    | n            | %    | n     | %    |
| Strategic planning                    | Definitely not | 17         | 5.7  | 9            | 3.0  | 26    | 8.7  |
|                                       | No             | 53         | 17.7 | 34           | 11.4 | 87    | 29.1 |
|                                       | I do not know  | 37         | 12.4 | 19           | 6.4  | 56    | 18.7 |
|                                       | Yes            | 63         | 21.1 | 46           | 15.4 | 109   | 36.5 |
|                                       | Definitely yes | 10         | 3.3  | 11           | 3.7  | 21    | 7.0  |
| Annual planning                       | Definitely not | 4          | 1.3  | 4            | 1.3  | 8     | 2.7  |
|                                       | No             | 43         | 14.4 | 21           | 7.0  | 64    | 21.4 |
|                                       | I do not know  | 16         | 5.4  | 12           | 4.0  | 28    | 9.4  |
|                                       | Yes            | 94         | 31.4 | 66           | 22.1 | 160   | 53.5 |
|                                       | Definitely yes | 23         | 7.7  | 16           | 5.4  | 39    | 13.0 |

|                                     |                |     |      |    |      |     |      |
|-------------------------------------|----------------|-----|------|----|------|-----|------|
| Selected areas of planning          | Definitely not | 15  | 5.0  | 11 | 3.7  | 26  | 8.7  |
|                                     | No             | 57  | 19.1 | 36 | 12.0 | 93  | 31.1 |
|                                     | I do not know  | 29  | 9.7  | 19 | 6.4  | 48  | 16.1 |
|                                     | Yes            | 73  | 24.4 | 51 | 17.1 | 124 | 41.5 |
|                                     | Definitely yes | 6   | 2.0  | 2  | 0.7  | 8   | 2.7  |
| Investment planning                 | Definitely not | 5   | 1.7  | 2  | 0.7  | 7   | 2.3  |
|                                     | No             | 40  | 13.4 | 22 | 7.4  | 62  | 20.7 |
|                                     | I do not know  | 12  | 4.0  | 14 | 4.7  | 26  | 8.7  |
|                                     | Yes            | 106 | 35.5 | 66 | 22.1 | 172 | 57.5 |
|                                     | Definitely yes | 17  | 5.7  | 15 | 5.0  | 32  | 10.7 |
| Audit                               | Definitely not | 7   | 2.3  | 2  | 0.7  | 9   | 3.0  |
|                                     | No             | 64  | 21.4 | 45 | 15.1 | 109 | 36.5 |
|                                     | I do not know  | 50  | 16.7 | 27 | 9.0  | 77  | 25.8 |
|                                     | Yes            | 50  | 16.7 | 35 | 11.7 | 85  | 28.4 |
|                                     | Definitely yes | 9   | 3.0  | 10 | 3.3  | 19  | 6.4  |
| Annual budget planning              | Definitely not | 5   | 1.7  | 5  | 1.7  | 10  | 3.3  |
|                                     | No             | 47  | 15.7 | 15 | 5.0  | 62  | 20.7 |
|                                     | I do not know  | 22  | 7.4  | 10 | 3.3  | 32  | 10.7 |
|                                     | Yes            | 84  | 28.1 | 72 | 24.1 | 156 | 52.2 |
|                                     | Definitely yes | 22  | 7.4  | 17 | 5.7  | 39  | 13.0 |
| Budgeting selected business areas   | Definitely not | 6   | 2.0  | 2  | 0.7  | 8   | 2.7  |
|                                     | No             | 53  | 17.7 | 39 | 13.0 | 92  | 30.8 |
|                                     | I do not know  | 31  | 10.4 | 22 | 7.4  | 53  | 17.7 |
|                                     | Yes            | 77  | 25.8 | 52 | 17.4 | 129 | 43.1 |
|                                     | Definitely yes | 13  | 4.3  | 4  | 1.3  | 17  | 5.7  |
| Reporting to the board              | Definitely not | 15  | 5.0  | 10 | 3.3  | 25  | 8.4  |
|                                     | No             | 72  | 24.1 | 49 | 16.4 | 121 | 40.5 |
|                                     | I do not know  | 26  | 8.7  | 20 | 6.7  | 46  | 15.4 |
|                                     | Yes            | 50  | 16.7 | 30 | 10.0 | 80  | 26.8 |
|                                     | Definitely yes | 17  | 5.7  | 10 | 3.3  | 27  | 9.0  |
| Reporting for external institutions | Definitely not | 7   | 2.3  | 10 | 3.3  | 17  | 5.7  |
|                                     | No             | 72  | 24.1 | 50 | 16.7 | 122 | 40.8 |
|                                     | I do not know  | 29  | 9.7  | 21 | 7.0  | 50  | 16.7 |
|                                     | Yes            | 55  | 18.4 | 27 | 9.0  | 82  | 27.4 |
|                                     | Definitely yes | 17  | 5.7  | 11 | 3.7  | 28  | 9.4  |

|  |                |     |      |    |      |     |      |
|--|----------------|-----|------|----|------|-----|------|
| Reporting<br>implemented<br>investment | Definitely not | 9   | 3.0  | 10 | 3.3  | 19  | 6.4  |
|  | No             | 60  | 20.1 | 42 | 14.0 | 102 | 34.1 |
|  | I do not know  | 24  | 8.0  | 17 | 5.7  | 41  | 13.7 |
|  | Yes            | 71  | 23.7 | 40 | 13.4 | 111 | 37.1 |
|  | Definitely yes | 16  | 5.4  | 10 | 3.3  | 26  | 8.7  |
| Performance<br>reporting               | Definitely not | 4   | 1.3  | 4  | 1.3  | 8   | 2.7  |
|  | No             | 38  | 12.7 | 32 | 10.7 | 70  | 23.4 |
|  | I do not know  | 15  | 5.0  | 11 | 3.7  | 26  | 8.7  |
|  | Yes            | 104 | 34.8 | 60 | 20.1 | 164 | 54.8 |
|  | Definitely yes | 19  | 6.4  | 12 | 4.0  | 31  | 10.4 |

Analysis of the data presented in Table 1 allows to draw the following conclusions:

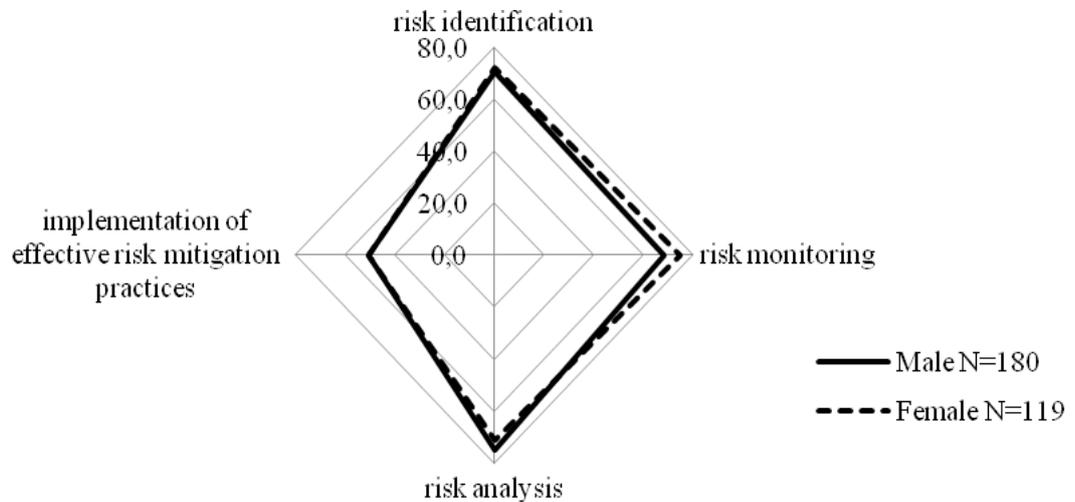
- For most of the distinguished business processes there are significant differences in their perceptions by the respondents with regard to sex;
- The respondents' knowledge on the relationship between risk management and other business processes in the enterprise is low (as evidenced by the high percentage of 'I do not know').
- Of 11 processes, significant differences (i.e. more than 5 %), with regard to the gender of the respondents have been noted in the answers regarding 7 processes;
- From among the distinguished processes, women have shown a higher level of recognition of the relationship of risk management with strategic planning (difference in indications – 7.3), annual planning (difference in indications – 5.6), audit (difference in indications – 5.0) and planning of the annual budget (difference in indications – 15.9) as compared to men;
- In turn, men have more often recognized the relationship of risk management with reporting for external institutions (difference in indications – 8.1), reporting on current investments (difference in indications – 6.3) and performance reporting (difference in indications – 7.8) in comparison to women.

According to the researcher, it can be argued that women have a higher level of recognition of links between risk management and planning, whereas men have a higher level of recognition of links between risk management and reporting.

These findings allow to test question Q2. In the light of the present research it can be concluded that the level of recognition of the links between risk management and other business processes in small and medium-sized enterprises varies considerably with regard to the sex of the owner (general manager).

#### *Owner-manager Gender and Effectiveness of Risk Management Steps*

The last area of the analysis was to assess the effectiveness of selected risk management stages (the research distinguishes 4 stages). The results are shown in the Figure 2.



**Figure 2: The effectiveness of risk management steps [%].**

Analysis of the data presented in Figure 5 allows to draw the following findings:

- The respondents declare knowledge of the effectiveness of various stages of risk management in their companies (average indications in all selected areas: over 50 %);
- From among the distinguished stages, significant differences (i.e. more than 5 %), with regard to the gender of the respondents have been noted in answers regarding risk monitoring;
- Women have rated the level of effectiveness of risk monitoring in their companies higher than men (difference in indications 6.5);
- There were no significant gender-related differences in the assessment of effectiveness of risk monitoring, risk analysis and ways of risk mitigation.

These findings help to partially test question Q3. In the light of the present research it can be concluded that the assessment of the effectiveness of various stages of risk management in small and medium-sized enterprises is not significantly different with regard to the gender of the owner (general manager).

## Discussion

It should be noted that the conclusions drawn on gender differences in this paper as well as other papers are not final. This study posits that there is very little discussion about perception of risk by gender in risk management literature (particularly with respect to SMEs.). The studies had seed character and constitute the basis for the preparation of the extended research in the future.

The results of this research are consistent with the selected research in this area as e.g. Johnson and Powell (1994), Booth and Nolen (2012) and Eckel and Grossman (2008). There is still a lot of research questions in this area, as for example: how to adjust risk management processes by gender. But, how indicated Verbano and Venturini (2013), the impression is that risk management for SMEs is still a “spot” subject, despite their wide diffusion and importance from an economic and social perspective, and the fact that they are structurally weaker and exposed to the danger of failure when facing unexpected risks. It should be noted that the literature clearly indicates that risk management is still in the early stages of development. In particular, this applies to SMEs sector.

## Conclusions

Risk management also becomes present in the actions taken by small and medium-sized enterprises and not just large ones. The literature on the determinants of the efficiency of this process shows that one of them is the gender of the person responsible for the risk management process. In case of enterprises, however, there is unfortunately no clarity in the assessment of this factor. The research undertaken by the author has endeavored to deliver a partial answer in this regard. In the light of the present study it can be concluded that the level of knowledge on key risk factors in small and medium-sized enterprises is not significantly different due to the sex of the owner (general manager); however, women have a higher sensitivity to operational risks.

Additionally, it can be concluded that the level of recognition of the links between risk management and other business processes in small and medium-sized enterprises varies considerably with regard to the sex of the owner (general manager). Regardless of that the assessment of the effectiveness of various stages of risk management in small and medium-sized enterprises is not significantly different with regard to the gender of the owner (general manager).

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*Advised by Naglis Švickus, SMC “Scientia Educologica”, Lithuania*

Received: *November 15, 2015*

Accepted: *December 18, 2015*

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