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ASSESSMENT OF RISKS CONNECTED WITH ECONOMIC ACTIVITY IN THE SME SECTOR

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Abstract

The aim of this article is to assess the level of security enjoyed by business owners operating in the SME sector. The present research identifies the sources and extent of risk, while also gauging the sense of security against the effects of this risk.

The research was conducted on a representative sample of entrepreneurs operating small and medium-sized business organizations in Poland. In order to present the results synthetically, a definition of discomfort coefficient was formulated. It has been shown that the value of that coefficient decreased strongly during the considered period. This result was interpreted as one of the causes of the increase in work efficiency.

Keywords: risk, threats, risk assessment

JEL classification: G23, D81, F40

Introduction

According to the Polish Agency of Business Development Report on the Condition of Small and Medium-Sized Enterprises (20th edition), Poland is home to more than 1.9 million companies, among which an overwhelming majority (99.8%) are micro-, small and medium-sized businesses. The share of the GDP contributed by the SME sector has been growing in recent years and now stands at above 50%. This means that employee morale within the SME workforce (i.e. their sense of and ability to plan for possible threats) has become an important impact factor for the size of economic growth.

1. Business risk

The literature offers multiple definitions of risk which considerably differ from each other. The following is a brief overview of definitions of risk, ranging from those explaining it in terms of probability only, to those in which risk is understood as the product of the probability and severity of a potential threat. The overview will end with a discussion of risk defined as the product of multiple variables dependent on the characteristics of specific event scenarios.

From a narrower perspective, two different traditions of interpreting the concept of risk predominate in management science, namely the American school and the German school. German-speaking economists interpret risk as a danger of events whose occurrence will have only a negative impact on a planned project (Buła, 1994). Such a view is also widespread in the Polish economic literature, where Z. Szyjewski proposes, for example, that “risk is the objectivized uncertainty of occurrence of an undesirable event” (Szyjewski, 2004). M. Sierpiński and T. Jachna assume in their turn that “risk is usually defined as the danger of incurring a loss. In a wider perspective, risk can be understood as the danger of failure to meet a projected objective after a specific decision has been made” (Sierpiński and Jachna, 1994; Michalak, 2004; Łazowski, 1948; Kowalewski, 1998).

American scholars put forward a different, more broadly defined concept of risk. Their understanding is that such a concept, while providing for losses, should also consider the possibility of gaining a profit. Accordingly, they study events with both negative and positive impact (Pritchard, 2002), and in that sense, they perceive risk as either a threat or a chance (Jajuga and Jajuga, 1996).

While risk is inextricably connected with decisions made by business entities, its precise meaning has not been defined so far. The interpretative differences relating to this term demonstrate themselves in a variety of ways, e.g. in the relationship between risk and uncertainty, types of deviation (one-way, multi-way), point of reference as well as measurability by means of probability calculus (Olkiewicz, 2012).

Further discussion in this article will focus on the interpretation of risk as being only the possibility of occurrence of threats to the process of working to complete a project in accordance with the planned objectives.

2. The conceptual relation of threat and risk. The awareness of threat / risk in the business operations of SME

Let us assume that a threat is an event which has a specific cause and brings about a state, in which a person’s sense of security is diminished. Many definitions encountered in management science equate risk with threat. Some scholars assume that what characterizes threats is that they originate specifically from causes external to the business entity. Also, threat is sometimes perceived as a phenomenon whose effects do not bring about any negative consequences as such for the entity in question, whereas risk may generate such consequences. In that sense, threats are those risks which affect other than the studied entity. Such definitions shift the boundaries of risk in that threats are perceived as risks but ones which do not affect a given entity. Regardless of any further examination of relations between various definitions of risk and threat, let it suffice to say that threats have been variously treated in science. There is a widespread classification of threats into political, economic, social, cultural, legal, environmental and ethnic ones.

Indeed, the concept of risk may inspire many scientific studies. The principal theme of such studies would be the occurrence of an event which may result in danger for people as well as their livelihood. In the first view, risk is – in a sense – the reason why fortuitous events occur, but it does in no way prove that a danger is actually present. Fortuitous events are evidence for the occurrence of risk even though they do not have to constitute an actual danger (Kowalewski, 2005; Jaworski and Micał, 2013).

When examining the sense of threat among people working in the SME sector, it is necessary to realize how business owners understand this term. The question that suggests itself is: how do people operating a business perceive and evaluate the size of threats? It turns out that business owners do not distinguish risk from threat. Additionally, if we take into account that any assessment of the size of a threat is subjective, as it is always made on the basis of personal judgment, the outcomes of such an assessment cannot be applied to any analysis operating on values expressed in absolute terms.

In view of the above-mentioned considerations, the authors of this article have assumed that to entrepreneurs operating a business in the SME sector, the concepts of threat and risk are identical. In the research outlined below, it was decided to ask entrepreneurs about threats. This was done due to the fact that the word 'threat' has a stronger connotation in everyday language.

3. Methodology of research on the sense of threat felt by entrepreneurs

The paper-and-pencil interview method was used to collect information from entrepreneurs representing the SME sector. The sample size is stated in Table 1.

Table 1. Size of sample

Year	Total SMEs	Micro (0-9 employees)	Small (10-49 employees)	Medium-sized (50-249 employees)
2012	1094	n = 612	n = 318	n = 164
2013	1094	n = 603	n = 300	n = 200
2014	1100	n = 600	n = 300	n = 200
2015	1100	n = 600	n = 300	n = 200

Source: Quaklifct. Market Research and Analysis, 2012, 2013, 2014, 2015.

The survey was conducted on the following dates: 9.03.2012-30.03.2012; 12.04.2013-12.05.2013; 20.03.2014-11.04.2014; 5.03.2015 - 26.03.2015. The paper-and-pencil interview (PAPI) method was used.

The samples are each representative of their pertinent groups. To represent the results in such a way not affected by the volume of employment shown in the report, i.e. under the single heading of Total SME (total weighted data), a system of weights was developed to yield results applicable across the entire market.

The research was carried out in 16 provinces of Poland: mazowieckie, śląskie, wielkopolskie, małopolskie, dolnośląskie, łódzkie, kujawsko-pomorskie, pomorskie, lubelskie, podkarpackie, zachodnio-pomorskie, opolskie, lubuskie, świętokrzyskie, warmińsko-mazurskie and podlaskie.

The samples were collected randomly from a list of enterprises prepared by the Main Statistical Office. The sampling algorithm to select the businesses representing the SME sector was developed by a team of experts from Qualifact company.

Systematic sampling was applied to choose the enterprises to be approached for research. The sampled population was stratified by sector (production, construction, trade, hospitality/dining, transport, financial agency, real estate agency, education and other) as well as by province. Enterprises representing each of the economic sectors were selected in due proportions.

4. Identification of threats appearing in connection with operating a business – test results

The respondents provided ratings for the threats related to operating a business and the level of protection against such threats. The ratings were awarded on a scale of 1 to 6, where 1 meant insignificant risk / no protection undertaken against the risk and 6 meant the highest severity level of a risk / highest level of protection.

Table 2. Risk severity assessment and the level of protection against threats related to operating a business (Total SME)

Type of threat	Severity level				Protection level			
	2012	2013	2014	2015	2012	2013	2014	2015
Fire	3.99	3.79	3.66	3.73	3.66	3.76	3.44	3.60
Flood	2.84	3.04	2.56	2.52	2.81	2.71	2.79	2.75
Flooding (by water supply and sewage fittings)	3.36	3.12	3.14	3.18	3.15	3.25	3.15	3.16
Other elements	3.01	2.61	2.78	2.70	2.89	2.83	2.85	2.78
Employee theft	-	-	2.37	2.35	-	-	2.57	2.55
Theft by a third party / vandalism	4.16	4.29	3.33	3.38	3.62	3.72	3.13	3.13
Property damage	4.02	4.12	3.35	3.41	3.47	3.55	3.17	3.20
Bodily harm	3.35	3.45	2.93	3.01	3.14	3.27	2.92	2.97
Service interruptions (for example, as a result of power failure, emergencies, etc.)	2.94	2.97	2.66	2.62	2.59	2.68	2.52	2.58
Debtor insolvency; money owed by debtors	2.94	2.74	2.86	2.82	2.63	2.83	2.54	2.57
Death / illness of owner / partner	3.41	3.24	3.07	3.00	3.13	3.03	2.95	3.00

Source: Quaklift. Market Research and Analysis, 2012, 2013, 2014, 2015.

Table 2 indicates that in 2012 the most significant of the surveyed threat was presented by theft and vandalism (4.16 points), followed by property damage (4.02 points) and fire (3.99 points). The lowest ratings were assigned to such threats to operating a business as flood (2.84 points), debtor insolvency / money owed by debtors (2.94 points) and service interruptions (for example, as a result of power failure, emergency, etc. – 2.94 points). The respondents rated the level of protection lower than that of the threats.

However, in 2013, of all the surveyed threats, the most serious ones were found to be theft and vandalism (4.29 points), followed by property damage (4.12 points) and fire (3.79 points). The least significance was attributed to flood (3.04 points), debtor insolvency / money owed by debtors (2.74 points) and service interruptions (for example, as a result of power failure, emergency, etc. – 2.97 points).

In 2014, the most significant threats were found to be posed by fire (3.66 points), property damage (3.35 points) and theft by a third party and vandalism (3.33 points). The threats with the least impact on operating a business were found to be employee theft (2.37 points) and flood (2.56 points), followed by service interruptions (for example, as a result of power failure, emergency, etc. – 2.66 points).

In 2015, the threats rated highest on the significance scale included fire (3.73 points), followed by property damage (3.41 points) and theft by a third party and vandalism (3.38 points). The threats with the least impact on operating a business included employee theft (2.35 points), flood (2.52 points) and service interruptions (for example, as a result of power failure, emergency, etc. – 2.62 points).

The discomfort coefficient was defined for the needs of this article. This is calculated as the rating difference between threat severity and protection level. The value of the coefficient usually oscillates around zero. Negative values mean that protection level assessment is higher than of the threat severity. This is the case when the respondent believes that any losses arising from a materialized threat can be fully offset by the level of protection available. This situation is builds a sense of comfort, stability and may lead, as a consequence, to improved efficiency. Where the discomfort coefficient turns out positive, this means that the existing level of protection is considered by the questioned business owner to be insufficient to cover the losses arising from a materialized threat. Such a situation may give rise to feelings of insecurity, lack of confidence and a heightened sense of discomfort, resulting possibly in employees showing less commitment to their duties and working less efficiently.

Table 3. Specification of detailed discomfort coefficients for all tested threats.

Type of threat	Detailed discomfort coefficient			
	2012	2013	2014	2015
Fire	0.33	0.03	0.22	0.13
Flood	0.03	0.33	-0.23	-0.23
Flooding (by water supply and sewage fitting)	0.21	-0.13	-0.01	0.02
Other elements	0.12	-0.22	-0.07	-0.08
Employee theft		0	-0.2	-0.2
Theft by a third party / vandalism	0.54	0.57	0.2	0.25
Property damage	0.55	0.57	0.18	0.21
Bodily harm	0.21	0.18	0.01	0.04
Service interruptions (for example, as a result of power failure, emergencies, etc.)	0.35	0.29	0.14	0.04
Debtor insolvency, money owed by debtors	0.31	-0.09	0.32	0.25
Death / illness of owner / partner	0.28	0.21	0.12	0

Source: Author's own work.

The rating difference between protection level and threat severity was found to oscillate between -0.23 and -0.1. Business owners are confident that their protections are more than equal to address threats such as flood in 2014 and 2015 (discomfort coefficient equal to -0.23),

flooding by water supply and sewage fittings in 2013 and 2015 (discomfort coefficient equal to 0.13 and -0.01, respectively), employee theft in 2014 and 2015 (discomfort coefficient equal to -0.2) and threats listed as other elements in 2013 and 2015 (discomfort coefficient equal to -0.22, -0.07 and -0.08, respectively). The remaining threats did not score less than zero on the discomfort coefficient scale, which means that business owners are convinced that the existing protections provide adequate coverage against these threats.

Peak values for the discomfort coefficient were recorded for theft by a third party / vandalism as well as property damage, reaching 0.57 points in 2013. This means that, in these particular areas, business owners fail to provide protections that would have the capability to fully offset the negative effects of the risks. The reasons for this will be discussed in the next article.

Table 4. Discomfort assessment

	2012	2013	2014	2015
Severity levels combined	34.02	33.37	32.71	32.72
Protection levels combined	31.09	31.63	32.02	32.29
Total discomfort level	2.93	1.74	0.68	0.43

Source: Author's own work.

A consolidated tabulation of individual discomfort coefficient values broken down by types of threat and year was presented in Table 3. The value of the discomfort coefficient has been observed to drop steadily from 2.93 in 2012 to 0.45 in 2015. This is attributable to the business owners' perception that the SME sector is applying increasingly better protections against threats.

Conclusions

Everyone wants to feel safe, both at home and in the workplace. A general sense of comfort can only be built on a feeling of security. Security in the workplace in its turn is conditional upon a good atmosphere, contributing to improved efficiency. Following this logic, it is advisable that employers seek to improve their workers' sense of security. This recommendation applies fully to the SME sector.

The research presented in this article proves that persons operating a business in the form of a small or medium-size enterprise are well aware of the existing threats. This awareness is the very reason for implementing adequate protections. However, respondents do not believe that such protections will always be able to cover potential losses.

Undoubtedly, the most important conclusion flowing from this argument is that a sense of security felt by the employees of the SME sector, as measured by the consolidated value of the discomfort coefficient in the years 2013 to 2015, is decidedly on the decline. This is an optimistic outlook.

Insurance against the effects of a fortuitous event is related not only to financial but also to behavioural aspects of the operation of a business. The bulk of research focuses mainly on consumer behaviour which supplies the most information for marketing purposes. However, few of them show the same amount of attention to the choice of insurance coverage protecting effectively against the effects of fortuitous events. Further research will attempt to answer what protections are used by business owners against threats that appear in the course of operating a business in the SME sector.

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OCENA ZAGROŻEŃ WYSTĘPUJĄCYCH PODCZAS PROWADZENIA DZIAŁALNOŚCI GOSPODARCZEJ W SEKTORZE MŚP

Streszczenie

Celem artykułu jest ocena poziomu poczucia bezpieczeństwa osób pracujących w sektorze MŚP. Opisanie badania obejmowały identyfikację źródeł zagrożenia, ocenę ich wielkości oraz ocenę poczucia zabezpieczenia przed skutkami materializacji tych, że zagrożenia. Badania przeprowadzono na reprezentatywnej próbie przedsiębiorców pracujących w małych i średnich organizacjach gospodarczych na terenie Polski. W celu syntetycznej prezentacji wyników zaproponowano definicję współczynnika dyskomfortu. Wykazano że wielkość tego współczynnika w okresie badanym zdecydowanie maleje. Wynik ten zinterpretowano jako jedno ze źródeł będących przyczyną wzrostu wydajności pracy.

Słowa kluczowe: ryzyko, zagrożenia, ocena ryzyka, sektor MŚP

Klasyfikacja JEL: G23, D81, F40

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