
Safe Business in a Pandemic Risk Environment

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Abstract:

Purpose: Defining the concept of safe business by identifying the risks of SME business in a pandemic environment.

Design/Methodology/Approach: The research was based on a deductive approach and was conducted in the first months of the pandemic in 2020 in the Lower Silesia. The research technique used GOOGLE electronic survey questionnaire and the collected data was statistically processed (SPSS). The study used sample, which allowed to select a set of population elements and determine the representativeness and reliability of the research sample. The thesis and hypothesis presented were verified based on the data collected in the quantitative study. The specificity of the distributions of the variables was established. Nonparametric tests were used to analyze the data. Correlations between variables were tested using Spearman's test.

Findings: The conclusions of the study confirmed the mutual correlation between the "new" pandemic risk and the other "old" risk classes. This may indicate the impact of a rare "nuclear swan" phenomenon, the effects of which have not been and are not yet described in the literature.

Practical Implications: The analysis of the results obtained in the study is partially consistent with the literature studies on the impact of the environment and the risks associated with it on micro and small enterprises conducted before the pandemic. Nevertheless, the assumptions made at the stage of selecting the research sample, allow to formulate a thesis about the broader universality of the confirmed regularities, which should be confirmed in extended research. Which is an important contribution to further discussion.

Originality/value: The paper describes the diagnosed competence gap in the area of SME enterprise management in the current economic conditions of the pandemic. Which is an extremely complicated task due to the lack of precedents giving guidance to enterprises resulting from history and literature on the subject. In view of this, the identification of risk and definition of the concept of safe business in such unusual conditions, which are at the same time adequate to the dynamically changing environment under pandemic conditions, is a desirable goal to achieve in scientific and practical aspects.

Keywords: SME enterprises, risk.

JEL classification: D81, G32, L32, P12, P42.

Paper Type: A research study.

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1. Introduction

SME companies operate in a state of constant risk that they have to deal with when making management decisions. The sources of this risk change depending on the dynamics of the environment and the management activities of the company (Górski and Czarnecka, 2017). The risk of business entities arises because of the unpredictability of the probability of a future event that has its financial consequences (Hadyniak, 2010). As economic practice shows, SME companies are more exposed than large ones to numerous risks (Donnellan-Fernandez, 2011) which are of diverse nature (Wierzbicka, 2015) in particular in the turbulent environment that pandemic causes. Should managers buy into the concept and implement strategic choices and understand the trade-off between risk and knowledge, they will become adept at addressing and prioritizing key problems in the business and plotting a path forward based on efficient risk analysis ("Doing the knowledge: Risky business and known unknowns," 2017). There is obviously potential for businesses to be much better prepared. However, flood preparation is often a low priority on the agenda of small and medium-sized businesses (Lamond and Bhattacharya-Mis, 2016).

Therefore, the purpose of this paper is to define the concept of safe business by identifying the risks of the ongoing activities of SME businesses under pandemic conditions.

2. Literature Review

The concept of safe business is a very broad one, which is not easy to define. Safe business on the economic market may occur in different areas of a company's operation due to the individual nature of its activities and the specifics of the surrounding market. The safe business of an SME is often limited to operational risk in the broad sense, namely the risk of the income direct loss, which results from internal events (Anghelache, Olteanu, and Radu, 2010; Monkiewicz and Gąsioriewicz, 2010) profitability of sales (Ghatak and Seale, 2001), current liquidity, timeliness of deliveries and prices of goods (Risman, Salim, Sumiati, and Indrawati, 2017), and exchange rates (Dinenis and Staikouras, 2000), and export risk (Breckova, 2016), tax and accounting compliance, fair remuneration and the company's reputation in the market (Grafova, Skorev, Andreeva, and Kirischeeva, 2017) and thus the absence of economic mandates and controls. In the view of safe business, the owner's experience is the guarantor of safe company management (Dvorský, Kljucnikov, and Polách, 2020).

According to Iivari, 10 areas of safe business can be distinguished (Iivari, 2008) from which a list of factors that affect the continued existence of a company is derived. From the point of view of small and medium-sized organizations, the areas of system risk distinguished in the literature play a crucial role (Andreeva

and Shevchik, 2017). Where changes in risk make direct market measurement unpredictable the holistic approach must be used, which is most suitable in situations where information about the market is scattered or absent (Bhattacharya-Mis and Lamond, 2016).

However, in the face of a pandemic, the systemic risks associated with pre-enterprise operations must contend with a situation that has not been preceded to date. Further, SMEs in an emerging market such as pandemic do not have room for many mistakes (Games and Rendi, 2019). It should be emphasized that in an environment shaped by phenomena with low probability of occurrence, which suddenly and unpredictably increase the risk of activity, maintaining business security with commonly used tools is impossible, because in such conditions the existing models, theories and paradigms become outdated.

There is therefore a need to re-identify the range of risks and to check for internal correlations between risks so far described in the literature and new pandemic risks. any economies in the world are dominated by the informal sector and the SME's but many governments are still unable to adjust their economies to accommodate to this sector and nullify the impact of in the pandemic (Chirisa *et al.*, 2020). Although SME business owners are intuitively aware of the current sources of risks, they are unlikely to be aware of sources of risk they do not have direct experience with (Hudakova, Masar, Luskova, and Patak, 2018; Abbas, 2018; Bogodistov Wohlgemuth, 2017; Pietrasieński and Ślusarczyk, 2015; Kovácsné Mozsár and Michelberger, 2018) which are apparent during a pandemic.

A secure business, from the business owner's point of view, can be defined as a state that ensures the stability of a given business. It means that the business is able to identify all potential sources of risk, it is prepared for their consequence and is able to effectively counteract the adverse effects.

3. Metodology

The research was conducted by a team of researchers Parkitna and Paszkowski at the turn of April and June 2020 on the territory of Lower Silesia. The study used a non-random sample. On this basis the minimum value of a representative sample of 96 surveys was determined, with a confidence level of 95% and a maximum standard error of 10%. The study was conducted using GOOGLE electronic survey form. The survey questionnaire was based on a 5-point Likert scale. Then the data was processed using SPSS package. The research sample consists of 100 surveyed companies. Purposeful selection of the sample excluded industries temporarily suspended by law. The survey covered the owners of business entities, and was conducted in a direct manner.

The reliability of the survey questionnaire was examined using Cronbach's Alpha coefficient, which is the most commonly used among the techniques for measuring scale homogeneity used to describe the environment, which directly resulted from the literature on the subject (Table 1).

Table 1. Analysis of the reliability of the survey questionnaire

Item statistics	Item correlation	Cronbach's alpha after removal of items
Political and legal risks Alfa Cronbacha 0.890		
Changes concerning income tax	0.620	0.882
Excise tax changes	0.611	0.882
Changes in VAT	0.646	0.880
Changes in customs duties	0.746	0.872
Legal changes to how you conduct	0.665	0.878
Antimonopoly regulations	0.740	0.874
Regulations on promotion and advertising	0.566	0.885
Permits and concessions	0.696	0.876
Stability of government policy	0.555	0.887
Socio-cultural risk Alfa Cronbacha 0.888		
The level of wealth of the society	0.733	0.867
Demographic situation of the society	0.687	0.874
Progress of civilization	0.703	0.872
Lifestyle of the society	0.753	0.863
Fashion for certain goods or products	0.796	0.857
Risks arising from economic conditions Alfa Cronbacha 0.733		
Unemployment level	0.551	0.673
Personal income level	0.512	0.683
Inflation	0.582	0.665
Exchange rates	0.459	0.699
Economic growth	0.380	0.721
Support programs - e.g. 500+	0.346	0.731
Risks arising from operations Alfa Cronbacha 0.754		
Current level of my liquidity	0.509	0.744
My current level of creditworthiness	0.476	0.749
My collaboration with foreign countries	0.502	0.745
The staff that I have	0.559	0.737
Outsourcing employees from abroad	0.378	0.763
Competitive impact	0.233	0.784
Experience of my employees	0.545	0.738
Market situation	0.466	0.750
Risks associated with green-innovation activities Alfa Cronbacha 0.869		
Innovative technology	0.559	0.861
Use of electric means of transport	0.755	0.830

Stosowanie opakowań biodegradowalnych	0.574	0.853
Innovative products	0.698	0.836
Consequences of CO2 emissions	0.727	0.834
Consequences of wastewater emissions	0.768	0.831
Risks associated with the impact of a pandemic on the business Alfa Cronbacha 0.897		
Deferred repayment of liabilities	0.418	0.882
Deferral of ZUS contributions	0.796	0.859
Deferment of lease repayment	0.776	0.859
Possibility of loan repayment deferment	0.766	0.860
Government financial support	0.824	0.856
Tax credits	0.831	0.856
Change of fuel prices	0.762	0.861
Temporary suspension of activities	0.710	0.863
Inability to provide services on a full-time basis	0.386	0.883
Restricting my product exports	0.322	0.885

Source: Original research results.

In all scales corresponding to classes of identified risks, this coefficient obtained a value above 0.8, which proves the reliability of the research tool. Analyzing the reliability of the sample in terms of correlation of total items, it was noted that in the case of responses for the risk classes: Political and legal risks Cronbach's alpha, socio-cultural risks and risks associated with green-innovation activities all responses obtained had a correlation level above 0.4 which strengthened the value of the obtained Cronbach's alpha index.

Analyzing further the reliability of the sample in terms of correlation of total items, in the risk class: "risks arising from economic conditions" it was noted that two response items: economic grow and support programs - e.g. +500, did not reach the correlation threshold of 0.4, which weakened the level of Cronbach's Alpha value in this question. In practice, this means that most of the surveyed entities chose a similar answer. The value of the statistic for this scale of the survey questionnaire is 0, 733.

In the "risks arising from operations" class we have a similar situation, two response items: outsourcing employees from abroad and competitive impact weakened the level of Cronbach's alpha in this question. Which puts the level of the statistic for this scale of the survey questionnaire at 0.754.

Similar situation occurred in "risks associated with the impact of a pandemic on the business" class, two positions: inability to provide services on a full-time basis and restricting product exports weaken the level of Cronbrach's value in

question. Which puts the level of the statistic for this scale of the survey questionnaire at 0,897 and attests the great similarity of respondents' opinions. On this basis, the construction of the research tool can be considered reliable. The conducted empirical exploration aimed to find answers to the research questions posed:

Q1: How do different risk areas correlate with pandemic risk?

Q2: What type of risk do entrepreneurs identify as the most burdensome in the current pandemic era?

Table 2. Pairwise correlations

rho Spearmana **. Correlation significant at the level of (two-sided). *. Correlation significant at the level of 0.05 (two-sided). N= 100 R- correlation coefficient, p- two-sided statistical significance		Political and legal risks	Socio-cultural risk	Risks arising from economic conditions	Risks arising from operations	Risks associated with green-innovation activities	Risks associated with the impact of a pandemic on the business
Political and legal risks	R	1.000	0.233*	0.354**	0.286**	0.311**	0.376**
	p		0.020	0.000	0.004	0.002	0.000
Socio-cultural risk	R	0.233*	1.000	0.411**	0.407**	0.394**	0.498**
	p	0.020	.	0.000	0.000	0.000	0.000
Risks arising from economic conditions	R	0.354**	0.411**	1.000	0.473**	0.277**	0.399**
	p	0.000	0.000	.	0.000	0.005	0.000
Risks arising from operations	R	0.286**	0.407**	0.473**	1.000	0.325**	0.498**
	p	0.004	0.000	0.000	.	0.001	0.000
Risks associated with green-innovation activities	R	0.311**	0.394**	0.277**	0.325**	1.000	0.423**
	p	0.002	0.000	0.005	0.001	.	0.000
Risks associated with the impact of a pandemic on the business	R	0.376**	0.498**	0.399**	0.498**	0.423**	1.000
	p	0.000	0.000	0.000	0.000	0.000	.

Source: Original research results

4. Empirical Results

The level of normal distributions in each separate risk class was examined. If the significance of the test is less than 0.05 then the distribution deviates in shape from the normal distribution. The analysis shows that not all variables have normal distribution. Therefore in order to verify the hypotheses Spearman rank correlation was used, which is one of the non-parametric measures of monotonic statistical dependence between random variables for independent samples. This correlation makes it possible to determine both the direction and strength of the relationship (Kendall and Maurice, 1948).

Table 3. Tests of normality of distribution of variables

df= 100	Shapiro-Wilk	
	Statistics	Significant
Political and legal risks	0.971	0.025
Socio-cultural risk	0.970	0.022
Risks arising from economic conditions	0.978	0.089
Risks arising from operations	0.985	0.298
Risks associated with green-innovation activities	0.978	0.092
Risks associated with the impact of a pandemic on the business	0.949	0.001

Source: Original research results

As the correlation coefficient between (Table 2) individual risk classes and pandemic risk showed significant correlations in almost all cases obtained $p < 0.01$ this means that we have grounds to reject hypothesis H01: There is no statistically significant relationship between pandemic risk and identified systemic risk classes. The strength of most R-pair spoliation is the domain of weak or moderate spoliation Therefore, hypothesis H01 should be rejected in favor of H1. It should therefore be assumed that. There is a statistically significant reciprocal relationship between pandemic risk and the other risk classes.

There is a statistically significant reciprocal relationship between pandemic risk and the other risk classes Among the range of risks identified from the literature, respondents identified those that have the greatest negative impact on their business in a pandemic.

Table 2. Risk factors having the greatest impact on business security

Descriptive statistics N=100	Standard deviation	
	Mean	Standard deviation
Excise tax changes	2.49	1.087
Changes in VAT	2.27	1.230
Changes in customs duties	2.46	1.251
Legal changes to how a business is conducted	2.44	1.183
Unemployment level	2.29	1.225
Inflation rate	2.27	1.196
Exchange rates	2.37	1.284
Restricting my product exports	2.45	1.209

Source: Original research results

5. Discussion and Conclusions

The construction of the research tool was found to be correct by verifying the reliability of the research sample. The sample selection also meets the assumptions of the representativeness of the research. Verification of the research hypothesis regarding the mutual correlation between the pandemic risk and the other risk classes. The conclusions of the study confirms the mutual correlation between the "new" pandemic risk and the other "old" risk classes.

This may indicate the impact of a rare "nuclear swan" phenomenon, the effects of which have not been yet described in the literature. Contrasting to exogenous crises, such as the current Covid-19, which impact on the real economies and endogenous market catastrophes as mere unknown/undiscovered black swans. Multiplication of these phenomena in the global market is already seen in literature as self-induced "nuclear swans" (Bonnet and Lehtimäki, 2020).

SMEs, according to the literature (Wolański, 2013; Kortelainen, Ratinen, and Linnanen, 2012; Kreiser, Marino, Kuratko, and Weaver, 2013) are the companies that are the fastest to adapt to the changing environment and changing market conditions, however, in pandemic conditions their survival on the market depends on their ability and skills to quickly adapt to changes in the external environment, which forces the owners of these companies to enrich the list of risks with new types and redefine the concept of safe business. Despite the achievements described above, the study has some limitations, mainly due to the methodological approach adopted. The first limitation is the main perspective that determined the theoretical reflections. First of all, the selection of the research sample was purposive, so the following results should be treated with caution, since the collected data does not include industries restricted during pandemics temporarily or permanently.

Secondly, the results of the survey were conducted at the beginning of the pandemic, so the effects felt by businesses did not predict a deepening of the crisis - which is not a temporary state.

Third, the study refers only to a limited part of reality and allows for unambiguous verification of hypotheses in a given population. Nevertheless, the assumptions made at the stage of selecting the research sample allow us to formulate a thesis of broader universality of confirmed regularities that should be confirmed in extended research. Which is an important contribution to further discussion and extended research on this topic.

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