The Perception of Risk Factors in the Internationalization Process by Small and Medium-sized Enterprises

MARTINA TOULOVÁ, MARCELA VOTOUPALOVÁ, LEA KUBÍČKOVÁ
Mendel University in Brno
Zemědělská 1, Brno, 613 00
Czech Republic
martina.toulova@mendelu.cz; marcela.votupalova@mendelu.cz; lea.kubickova@mendelu.cz

Abstract
Internationalization as one of the ways to increase the company's competitiveness is currently frequently discussed topic in the context of small and medium-sized enterprises (SMEs). Although these companies cannot be considered as a homogeneous group, some similar characteristics can be noticed in association with them. One common characteristic is their attitude to risk management practices in the internationalization process. Many studies conducted both for SMEs from the Czech Republic or SMEs from other European countries (e.g. Poland) suggest that these enterprises do not pay enough attention to risks associated with internationalization when they enter the foreign markets. If they ever use some risk management methodology, it is predominantly an intuitive approach, or approach based on their previous experience. However, SMEs often ignore the risks due to the lack of necessary financial resources, time or staff required for risk management. Nevertheless, if they knew which risks are perceived as key ones, they could better prepare for their possible occurrence.

This paper therefore deals with the identification of important risk factors which Czech SMEs face in their internationalization process with emphasis on the differences between micro-, small- and medium-sized enterprises. Moreover, the paper also discusses whether the subjective perception of risks, it means being risk averse or risk prone, affects the success of SMEs in the internationalization process. This paper also addresses the question whether the prior experience or information about foreign markets may affect the perception of SMEs regarding the risks related to activities in foreign markets.

Key words: Internationalization, risk factors, SMEs, success.

JEL Classification: M16

1 Introduction

Internationalization means, according to definition by Welch and Luostarinen (1988, p. 36), ‘the process of increasing involvement in international operations’. The enterprise’s success in the internationalization process depends to great extent on many risks. Yet small and medium-sized enterprises (usually abbreviated to SMEs) do not focus on risks and do not pay attention to risk management (Gorzeń-Mitka, 2013; Kubíčková and Toulová, 2013; Islam and Tedford, 2012). They predominantly rely on their own intuition when entering foreign markets. However, SMEs are unfortunately more exposed to risks resulting from lack of both financial as well as human resources (Verbano and Venturini, 2013). Although previous research mainly dealt with risk management in large enterprises (according to Henschel, 2006), few researchers also pointed to risk management in connection with internationalization of SMEs (such as Rodriguez, Barcos and Álvarez, 2010, Liesch, Welch and Buckley, 2011, or Kubíčková, 2013).
The aim of this paper is to find the key internationalization-related risks for micro, small and medium-sized enterprises. The point is to facilitate the overall process of managing risks when entering foreign markets because the identification of risks is considered as the most complicated part of risk management. The paper identifies the risks which SMEs may be exposed to in foreign markets and thus it can prepare SMEs for a potential occurrence of these risks. The contribution of the paper also lies in verification of hypothesis about the relation between risk perception and the success in foreign markets and between risk perception and the previous experience or information.

2 Literature Review

Researchers have focused on international risks connected with internationalization since 1970s when the progressive internationalization theory appeared. As many authors agreed, the enterprises operating in foreign markets inevitably face many risks (e.g. Xu, Wan and Pei, 2008). Moreover Ku, Wan and Pei (2008) concluded that the international risks are complex and interconnected and thus they cannot be studied separately. According to these authors, each stage of internationalization is connected with different key risks although some of them may influence the whole internationalization process. Turpin (2002), for example, identified 5 key risks for SMEs from Europe. They were the ‘increased competition, loss of key staff to competitors, changes in customer demands, wrong strategy due to lack of market data, and staff absenteeism’ (Turpin, 2002, p. 12). Yet many studies about SMEs proved that SMEs are not very interested in risk management and do not take enough care about risks not only when entering foreign markets, for example study focused on SMEs from Poland (Gorzeń-Mitka, 2013), Czech Republic (Kubičková and Toulová, 2013), New Zealand (Islam and Tedford, 2012) or England (Virdi, 2005). Also Henschel (2006) found that German SMEs do not pay enough attention neither to risk management, nor to business planning – according to this author, these areas should be interconnected. It implies that not much has changed since 1998 when Brouthers, Andriessen and Nicolaes published their finding that SMEs made decisions rather intuitively, without using supportive quantitative methods, which was proved also for Czech SMEs (see Kubičková, 2013).

Risk management in small companies is highly influenced by the personal attitudes and characteristics of the entrepreneurs (Henschel, 2006). Liesch, Welch and Buckley (2011) stated that perception of uncertainty and risk assessment are highly influenced by a manager’s personality together with available resources. As the internationalization means taking many risks, the decision to enter foreign markets is highly affected by the global mindset of entrepreneurs (a wish to grow beyond borders). Kyvik et al. (2013) found out that the global mindset is in strong relationship with internationalization and is influenced by the decision maker’s characteristics. It means that the decision to take part in internationalization is affected by the manager’s personality and his attitude towards risks. The concept of global mindset stems from Chetty’s and Campbell-Hunt’s (2003) findings that the key driving forces in internationalization are risk propensity of an enterprise’s decision maker, his determination and networking skills.
Unless the perceived risks are below the level acceptable by the decision-maker, the enterprise will probably not get involved in internationalization (Liesch, Welch and Buckley, 2011). Another ‘inhibitor’ of export is, according to Leonidou (1995), the lack of information about foreign markets. Also the international experience is an important factor in internationalization. Although research studies usually point out the positive relation between international experience, the firm’s performance, and perception of lower risks, Liesch, Welch and Buckley (2011) stated that the relation may become also negative, it means that with more experience in internationalization the perceived risks may increase, which may sometimes even lead to de-internationalization.

Liesch, Welch and Buckley (2011) also pointed out that risk is sometimes confused with uncertainty. According to Knight’s early definition of both terms from 1921, a risk can be characterized as a situation with possibly different outcome from the estimated result when the probability of each result is known. On the contrary, the probability of results in situation of uncertainty is unknown (Knight, 1921 in Liesch, Welch, Buckley, 2011). With uncertainty in internationalization from the perspective of an enterprise’s perception dealt for example Miller (1992) who already in 1992 distinguished general environmental uncertainty, industrial uncertainty, and corporate uncertainty. This division embraces the uncertainty coming both from external as well as internal environment of an enterprise. As stated by Ku, Wan and Pei (2008), the Miller’s uncertainty framework was deeply developed later on by Kate Brouthers, Lance Brouthers and Steve Werner who recognized six categories of uncertainty, namely the uncertainty of government policy, macroeconomic uncertainty, the uncertainty of corporate resources and services, the uncertainty of demand for products, competitive uncertainties, industry-related and technology uncertainty.

With regards to risks, the common classification of risks in international trade comprises market risks, commercial risks, foreign exchange risks, transportation risks and territorial risks (Machková, Santo, Zamykalová et al., 2002). However, some authors focus on common categories of risks for SMEs (Yurievna, 2013), risks connected with globalization (Yurievna, 2013) or internationalization (Rodriguez, Barcos and Álvarez, 2010). In the context of globalization risks, Yurievna (2013) stated that SMEs are more vulnerable than large multinational enterprises to effects of these risks. Rodriguez, Barcos and Álvarez (2010) added that SMEs are not able to predict risks in internationalization and therefore they are not able to transform their internationalization into a sustainable competitive advantage. It is essential for SMEs to deal with risks when entering foreign markets in order to prevent potential losses, increase profit, and achieve the overall success measured, according to Bonaccorsi (1992), for example by export intensity (defined as export sales to total sales ratio). The success of SMEs in internationalization was later on scrutinized also by Kubíčová, Peprný, and Nováková (2010) who introduced a model for assessing the success of SMEs’ internationalization.
3 Methodology

The paper is based on primary data obtained by questionnaire survey among Czech SMEs conducted between 2013 and 2014. The authors processed data from 799 respondents including 363 micro enterprises (from 0 to 9 employees), 353 small enterprises (from 10 to 49 employees), and 83 medium-sized enterprises (from 50 to 249 employees). The definition of SMEs comes from the European Commission (EC, 2003). The identification of key risks was performed by using a risk matrix, as Jansone and Voronova (2013) recommend for risk assessment in SMEs. The horizontal axis expresses the intensity of risks (the intensity of negative impacts that the risk may pose) with the values from 1 (weak intensity) to 4 (high intensity). The vertical axis expresses the probability of occurrence of a risk because it shows how many respondents encountered the risk when operating in foreign markets. The axis values start from 30% because no risk was perceived by less than 30% of respondents. The matrix is divided by two lines into 4 fields. The vertical line divides the risks into those with a lower intensity (on the left side) and those with a higher intensity (on the right side). The horizontal line divides the risks into those that are very probable (the upper part of the chart) and those that are less probable (in the bottom part of the chart). The dividing points were set according to subjective evaluation of various factors which influence the perception of risks. The dividing point for the risk intensity was set at 2.5 and for the probability of risk occurrence at 75% which means that the risk is perceived by more than three quarters of respondents. So the matrix included the field with very intense risks that had a low probability of occurrence (bottom right field), the field with not very intense and not very probable risks (bottom left field), the field with very probable risks and a weak intensity (top left field), and finally the field with very probable as well as very intense risks (top right field). As the last field includes the risks that are both probable and intense, it is the field containing the key risks. Nevertheless, it is also important to focus on risks in top left and bottom right fields (Kubíčková and Toulová, 2013).

In this paper, a risk-prone or risk-tolerant enterprise is understood the enterprise that perceives the risks in average as weak (close to risk intensity 1). A risk-averse enterprise, on the contrary, is understood the enterprise that perceives the risks in average as high (close to intensity 4). In the next part of the paper, we tried to find the relation between risk perception and the success in internationalization and the relation between gathering information before entering a foreign market and risk perception. We used Spearman’s rank correlation because the risk perception was expressed in intervals and intervals are not expected to have a normal distribution. If the values of Spearman’s correlation approach zero, the ranking is rather randomly jumbled and there is no dependence is between variables. But if the values approach 1 or -1, there is a strong positive or negative dependence between variables. Then we tested the independence between variables. The null hypothesis was rejected and the alternative one (about dependence between variables) accepted when p-value exceeded 5% level of significance.

Pearson’s Chi-Square test for independence between qualitative variables was employed for testing the independence between gathering information about foreign business partners and the level of prior experience with foreign trade and between the level of prior experience and risk perception. The strength of dependence was measured by contingency coefficient. The values close to 0 indicate no dependence and close to 1 indicate a strong dependence between variables.
4 Results

The identification of important risk factors in the internationalization process of micro, small and medium-sized enterprises was performed by using risk matrixes. The horizontal axis measures the intensity of risks, in other words the intensity of the negative impact that the risk may pose. The vertical axis represents the probability of risk occurrence because it shows how many respondents encountered the risk when operating in foreign markets. When dealing with risks it is necessary to follow both, their intensity as well as the probability of their occurrence. However, the enterprise should definitely concentrate on such risks that are very probable and moreover may cause huge negative effects (are very intense). In this paper, these risks are called the key or the most important risk factors and are located in the top right quadrant of risk matrixes shown in Figure 1.

The first assumption was that the perception of the key risks would differ with the different size of enterprise. Nevertheless, the risk matrix analysis shows that for micro enterprises, small enterprises, and medium-sized enterprises the key risks are almost identical. The difference is in the strength of perceived intensity and in the probability of occurrence. Overall, the results revealed that medium-sized enterprises perceive the risk factors as more intense and more probable than micro and small enterprises.

Among the key risks in internationalization that are common for all three categories of enterprises count: insolvency of business partner (R7), withdrawal of business partner from contract (R6), foreign exchange risk (R13), default on a contract by supplier (R8), deterioration in economic situation in the target market (R11), decline in foreign demand (R10), and legislative changes (R4). In addition, micro enterprises perceive as the key factors also changes in tax policy (R5) and non-acceptance of consigned goods (R9). On the contrary, micro enterprises perceive more moderately the possibility of entry of new competitors in the market (R16) which falls among key risks for both small and medium-sized enterprises but not for micro enterprises. Moreover, customs policy and restrictions (R3) fall among key risks in internationalization only in medium-sized enterprises but still small and micro enterprises perceive them as a quite probable risk factor (see Figure 1).
Fig. 1 Risk matrixes for micro, small and medium-sized enterprises

Source: author’s results

Explanatory notes: transportation risks (R14), language barrier (R15), poor access to information (R17), the risk of seasonality (R19), the risk of replacement by substitutes (R20), the risk of government interventions (R21).
Apart from the key risks, some other differences arose from the comparison of risk perception among these three categories of enterprises. With regard to the risk of natural disasters in foreign markets (R1), it is a more probable risk according to medium-sized enterprises (45%) than according to micro and small enterprises (35%). A quite significant difference can be also found in perception of possible deterioration in economic situation in the target market (R11) because medium-sized enterprises perceive it more intensively (3.2 out of 4), i.e. as a risk posing greater negative effect, than micro and small enterprises (2.7 out of 4). The perception of the risk of withdrawal of business partner from contract (R6) is also interesting, as all medium-sized enterprises admit the possibility of the enterprise’s exposure to the risk when operating in foreign markets whereas only for about 85% of micro and small enterprises this risk plays a vital role. In addition, medium-sized enterprises perceive it as a more intense risk (3.25 out of 4) in comparison with other enterprises (3.0 out of 4).

The same pattern in risk perception can be seen regarding the risk of reduction in credit availability (R12). Although it doesn’t fall among the key risks, with the increasing size of the enterprise, this risk becomes perceived as a more intense and more probable one as about 55% of micro enterprises, 65% of small enterprises, and, finally, about 70% of medium-sized enterprises admit the internationalization-related exposure to this risk. Also the risk of changes in technologies (R18) is more important for medium-sized enterprises than for micro or small enterprises. Finally, the fact that SMEs perceive only few risks as not very probable but quite intense is also noteworthy. In Figure 1, it can be seen in the right bottom quadrant which includes only the risk of political instability (R2). However, it is quite near the border line dividing the risks into very probable and less probable. It means that according to SMEs’ perception and experience, the risks may be very often encountered in internationalization.

The findings regarding SMEs’ risk perception rose the question whether the enterprises gather enough necessary information prior to foreign market entry and whether gathering the information influences the enterprise’s attitude towards risks. Gathering information is considered as one way how to reduce probability and negative effects of risks. Figure 2 shows what kind of information gather Czech micro, small and medium-sized enterprises prior to engaging in internationalization.
Medium-sized enterprises gather more information in comparison with micro and small ones. As shown in Figure 2, SMEs are interested mainly in information about their foreign business partners, competitors’ price policy, and the market potential. On the other hand, they are not much interested in trends in sales. Only 6% of medium-sized enterprises didn’t gain any information prior to foreign market entry. As for the micro enterprises, on the other hand, about 18% of them didn’t search for any information. This is an alarming number if we take into account how vulnerable micro enterprises are in strong competition in global markets.

Surprisingly, no relation was found between gathering information prior to foreign market entry and perception of internationalization-related risks (being risk tolerant or risk averse) (see Table 1). The hypotheses were set as follows: $H_{01}^a$: There is no dependence between gathering specific information and a SME’s attitude towards risks. $H_{A1}^a$: There is dependence between gathering specific information and a SME’s attitude towards risks.

### Tab. 1 Hypothesis: Gathering information prior to internationalization X Risk perception

<table>
<thead>
<tr>
<th>Type of information about foreign market</th>
<th>Spearman’s correlation</th>
<th>p-value</th>
<th>Can be $H_0$ rejected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about business partner</td>
<td>0.057</td>
<td>0.093</td>
<td>No</td>
</tr>
<tr>
<td>Information about market development</td>
<td>0.017</td>
<td>0.621</td>
<td>No</td>
</tr>
<tr>
<td>Information about market share</td>
<td>0.050</td>
<td>0.141</td>
<td>No</td>
</tr>
<tr>
<td>Information about market potential</td>
<td>0.042</td>
<td>0.218</td>
<td>No</td>
</tr>
<tr>
<td>Information about competitor’s supply</td>
<td>-0.012</td>
<td>0.718</td>
<td>No</td>
</tr>
<tr>
<td>Information about competitor’s price policy</td>
<td>0.010</td>
<td>0.774</td>
<td>No</td>
</tr>
<tr>
<td>Information about customer’s preferences</td>
<td>0.034</td>
<td>0.321</td>
<td>No</td>
</tr>
<tr>
<td>Information about trends in sales</td>
<td>0.056</td>
<td>0.103</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: author’s results
Because most key risks fall among commercial risks which are in close relation to business partners, we also set the hypothesis regarding the relation between the perception of commercial risks and gathering information about foreign business partners prior to internationalization:

- $H_0^2$: There is no dependence between gathering information about foreign business partners and a SME’s perception of commercial risks.
- $H_A^2$: There is dependence between gathering information about foreign business partners and a SME’s perception of commercial risks.

Although Spearman’s rank correlation is quite low (0.0901, p-value 0.0085), $H_0^2$ can be rejected and $H_A^2$ about relation between both variables accepted.

We also scrutinized SMEs’ experiences with foreign markets before internationalization. Figure 3 shows what experience Czech SMEs had before entering foreign markets. It can be pointed that enough experience with foreign trade only had medium-sized enterprises whereas micro and small ones often had only a minimal experience. Hypothesis was set about experience with foreign trade and risk perception. We thought that while the enterprise is gaining confidence in doing business through experience it becomes less averse to risks. The hypothesis was set as follows:

- $H_0^3$: The risk perception is not dependent on prior experience with foreign trade.
- $H_A^3$: The risk perception is dependent on prior experience with foreign trade.

The Pearson’s chi-square is of value 11.287 (p-value 0.1860) which means that $H_0^3$ cannot be rejected. There is no relation between having experience with foreign trade and perceiving risks as low or high. However, we found out that experience influences the decision to gain information about foreign business partners prior to market entry as the following hypothesis shows:

- $H_0^4$: Gathering information about foreign business partners is not dependent on having prior experience with foreign trade.
- $H_A^4$: Gathering information about foreign business partners is dependent on having prior experience with foreign trade.

Pearson’s chi-square reaches 45.488 and the null hypothesis can be rejected at 5% significance level because p-value is 0.000. The contingency coefficient amounts to 0.22 and thus indicates a low-to-moderate dependence between both variables. It was found that 31% or 28% of enterprises which obtained information about their foreign business partner before starting with internationalization had sufficient or at least a minimal experience with foreign trade. On the contrary, 30% or 29% of enterprises which did not obtain any information about their foreign partners before internationalization had only a minimal or none experience with foreign trade.
An interesting issue arose after the previous hypotheses were tested. Each SME has a different risk perception, even though in total, regarding perceiving of individual risks, they follow a similar pattern. However, some enterprises are more risk tolerant in internationalization due to the prospect of a higher profit while others are more risk averse in order to avoid unnecessary loss. But does really the success in foreign markets (in terms of export intensity defined as foreign sales to total sales ratio) relate somehow to risk perception? To find the answer, we set the following hypothesis:

- **H₀₅**: There is no dependence between success in foreign markets and a SME’s attitude towards risks (risk perception).
- **Hₐ₅**: There is dependence between success in foreign markets and a SME’s attitude towards risks (risk perception).

The explanation for micro enterprises may lie (ironically) in their cautiousness. They rather enter foreign markets they are familiar with, which they have some experience with, and which they consider safe, such as the neighbouring markets (Slovak, Poland, Austria or Germany). Therefore, they perceive risks of operating in these markets as weaker than the risks perceived by enterprises which enter also geographically and psychologically remote markets. Moreover, micro enterprises focus more on proper utilization of capacity and skills because of their high vulnerability. If they decide to enter foreign markets, which is a risky business for them, they must be sure about it.
5 Conclusions

The results revealed that the key risks in internationalization, as perceived by Czech micro, small, and medium-sized enterprises, are almost identical although the medium-sized enterprises generally perceive these risks as more intense and more probable than micro or small enterprises. The key risks fall among commercial and market risks and also foreign exchange risk plays a vital role. The findings support the theoretical assumption that risk perception is a subjective phenomenon. This explains why no relation was found between risk perception and prior experience with foreign markets or information gained about foreign markets. It means that although some enterprises may have lot of experience, they still may perceive risks as high, whereas others may perceive the same risks as low. The same situation is with information. Despite being well informed, some enterprises are more cautious and perceive risks still as high, whereas other enterprises, not well informed but risk tolerant, may perceive the same risks as quite low. It depends on the decision-maker’s personality. The results also revealed that the relation (a weak negative correlation) between risk perception and success in foreign markets applies only to micro enterprises. In other words, the more successful micro enterprises perceive risks generally as weaker. It is in accordance with Hayward (2007 in Liesch, Welch and Buckley, 2011) who found that entrepreneurs (managers in smaller firms) are not so risk averse as managers in larger enterprises.

The limits of our paper may lie in the list of risk factors that were included in questionnaire as the list may lack some risk factors. The questionnaire contained only the most common risks. Moreover, the answers were influenced by the subjective views of respondents. On the other hand, the great advantage (when compared with other papers about the internationalization of SMEs) is the fact that the results are based on a large sample of respondents (799 enterprises). The results may facilitate SMEs’ decision-making about entering foreign markets as they show the risks the enterprises may be exposed to in internationalization.

References


