

# CAN UPPSALA MODEL EXPLAIN THE INTERNATIONALISATION OF CENTRAL EUROPEAN SMES?

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## ABSTRACT

The aim of this paper is to scrutinize some aspects of the Uppsala model whose applicability for SMEs' internationalisation is often questioned. This model explains internationalisation as a sequential process based on learning in which an enterprise increases its international commitment in incremental steps (Johanson and Vahlne, 1977). The assumptions of Uppsala model are discussed in conditions of SMEs from different countries, namely the Czech Republic, Slovakia, Poland, Austria and Germany. The paper is based on primary data obtained by questionnaire survey performed in 2014. Respondents were small and medium-sized firms from the above mentioned countries. Following assumptions are scrutinized: SMEs start internationalisation by exporting to neighbouring markets, SMEs behave in internationalisation according to the establishment chain, SMEs' risk perception regarding foreign markets with different psychic distance changes with the obtained knowledge and SMEs' risk perception regarding particular foreign markets differs depending on the country which the enterprise comes from.

## KEY WORDS

Uppsala model, risk perception, psychic distance, SMEs, internationalisation

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## 1 INTRODUCTION

Many different models of internationalisation have already been developed, however, they were more often focused on explaining the internationalisation process of big multinational enterprises and therefore their suitability to

explain the internationalisation behaviour of resource-constrained SMEs is often questioned. The traditional and most often discussed model is the Uppsala model which belongs among the stage models of internationalisation. This

model explains internationalisation as a sequential process based on learning in which an enterprise increases its international commitment in incremental and successive steps while shift between individual steps is driven by the knowledge obtained in the previous step (Johanson and Vahlne, 1977). Therefore the question arises whether it is possible to explain the internationalisation of Czech SMEs and SMEs from other Central European countries by this traditional internationalisation model which is considered as one of the most suitable models for explanation of internationalisation behaviour of smaller firms.

Thus, the aim of this paper is to scrutinize some aspects of one of the traditional stage models of internationalisation, namely the Uppsala model, whose applicability for the specific conditions of SMEs is often an often discussed topic in the international business literature. First, some assumptions were formulated based on the literature review and these are then discussed in conditions of SMEs from 5 different countries (the Czech Republic, Slovakia, Poland, Austria and Germany).

Recently, many studies (see for example Child and Hsieh, 2014; Laufs and Schwens, 2014; Fernández-Ortiz et al., 2015; Beleska-Spasova and Glaister, 2011) in the field of internationalisation dealt with SMEs while they discussed primarily SMEs' ability to engage in internationalisation process regarding their specific features. In comparison with large enterprises, SMEs are more flexible, thus their

reaction to changes in their environment can be faster (Gunasekaran et al., 2011; Stanculescu et al., 2010). Nevertheless, they have limited information access, lack of financial or personnel resources and individualised leadership (Fernández-Ortiz et al., 2015), whereas also their organizational hierarchy is simpler and they tend to easily create networks with suitable enterprises (Paunovič and Prebežac, 2010; Svetličič et al., 2007). Therefore, these specific features can influence their internationalisation behaviour as well as the suitable model for its explanation.

For example D'Angelo et al. (2013) and Majocchi et al. (2005) explained that exporting to foreign countries is a frequently used mode of entry by SMEs because it is the quickest, simplest and least resource-demanding entry mode. However, it is also connected with a level of uncertainty and therefore it presents a risk-taking activity for which SMEs need some resources that are necessary to overcome the constraints to their international development. In this context, Cui et al. (2011) found out that although SMEs focus rather on countries that are similar (from the cultural, social and economic point of view) to their home country in order to minimise such risks, it is not automatically successful. Authors suppose that markets in such 'similar' countries may be saturated and pressure of competition may be quite intense for resource-limited SMEs. Still, the selection of a target country represents an important decision for SMEs (Cui et al., 2014).

## 2 THEORETICAL FRAMEWORK

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The internationalisation theory of SMEs has its roots in 1970s when the first models emerged. In the beginning, stage models were considered appropriate to explain a firm's behaviour when crossing the borders of its home market, i.e. when internationalising. Stage models considered the overall internationalisation process of a firm as the gradual learning process in which the firms increases its international commitment in incremental and successive steps. The most cited stage models include Uppsala model,

which has its roots in 1975 when Johanson and Wiedersheim-Paul presented its basic assumptions and whose mechanism was introduced two years later, in 1977, by Johanson and Vahlne, and so called I-models elaborated for example by Bilkey and Tesar (1977) or Cavusgil (1980). The difference between the Uppsala model and the I-models lies in the driver of the subsequent step in internationalisation. Whereas I-models see each step as a new innovation decision, Uppsala model states that

each step in internationalisation is driven by the knowledge obtained in the previous step. However, both types correspond to each other in the gradual increasing commitment of firm's resources in the internationalisation.

Later, in 1980s, another type of internationalisation models emerged, namely the network approach. Johanson and Mattsson (1987) presented their thoughts that in order to enter new markets, i.e. to internationalise, a firm needs to establish new relationships within the network of partners in that market and that these relationships secure the access to the required resources for the firm to sell its products. That means that the firm's position in the new market depends not solely on the firm's abilities but also on the obtained position within the network and that new business relationships must be built in internationalising. Johanson and Mattsson (1988) introduced four different positions in the internationalisation that a firm can take depending on the internationalisation level of a network, member of which the firm is, and on the current level of the internationalisation of the firm itself. Also Johanson and Vahlne (1990) later incorporated the network relationships in the light of changes in the business environment into the Uppsala model.

Apart from the network approach, another internationalisation theory can be found in literature, such as the resource based view (RBV) of a firm which was elaborated mainly in 1990s, or the eclectic paradigm as a theory of different firm advantages that influence the course of its internationalisation elaborated by Dunning (1980). As opposed to the traditional stage models, a theory of rapid internationalisation arose in 1990s. This theory is connected with terms such as international new ventures or Born Global firms. In 1994, Oviatt and McDougall defined international new venture as a firm that tries to obtain a competitive advantage and sell its products in foreign markets from its very foundation (Oviatt and McDougall, 1994). According to Armario et al. (2008), Moen and Servais (2002), Camison and Villar-Lopez (2010), BGs are seen as enterprises which begin their international

activities right from their foundation or very soon after that. This theory is thus in total contradiction to the traditional Uppsala model, because Born Globals do not undergo any successive incremental steps in internationalisation, they enter the foreign market without any previous experience, i.e. acquired knowledge. Frynas and Mellahi (2012) distinguished three characteristic features of Born Globals: in most cases they are small to medium-sized companies, usually they are specialized hi-tech issues, and they are managed by a person with international experience or contacts to international networks.

## 2.1 Development and Mechanism of Uppsala Model

The first assumptions about internationalisation, as described later by the Uppsala model, were mentioned by Johanson and Wiedersheim-Paul (1975) who performed a research study on internationalisation using four Swedish companies. They assumed that the process of internationalisation occurs gradually and the commitment of firm's resources increases with gradual learning about foreign markets. As the biggest barrier to the firm's internationalisation they identified lack of resources and knowledge and assumed that firms begin with exporting to neighbouring countries that are connected with lower perceived risk, lower psychic distance and with exporting via representatives, which is connected with lower resource commitment, and only after obtaining knowledge about such market, they enter also into more distant markets in terms of psychic distance. The psychic distance involves factors such as language, culture, political systems, etc. and in most cases it is associated with geographic distance. They also presented an establishment chain, the four successive stages in internationalisation of a firm which are connected with gradually increasing commitment of firm's resources and increasing knowledge about the market. The establishment chain consists of (1) no regular export activities, (2) export via independent representatives, (3) establishment of a sales subsidiary in the foreign market and (4) pro-

duction in the foreign market (Johanson and Wiedersheim-Paul (1975).

These assumptions were the precursor of the basic mechanism of Uppsala model presented by Johanson and Vahlne (1977). The mechanism consists of two kinds of aspects – state (1) and change (2) aspects – which influence each other. The model builds on the statement that the current state of firm's internationalisation influences the successive actions performed by the firm in internationalisation. The state aspects involve the current commitment of firm's resources to foreign market and the knowledge about foreign market that the firm currently has. The change aspects comprise current activities of the firm in internationalisation and decisions about commitment of firm's resources to foreign market. Decisions about market commitments are influenced also by the propensity to keep risks at a low level. The mechanism is presented as follows: firm's current knowledge of the foreign market (both objective and experiential) influences its market commitment (amount and degree of investment committed in such market) which leads again to deepening the market knowledge and thus again increasing the firm's market commitment. Current activities of the firm also influence its market commitment and the level of foreign market knowledge affects the decisions about its particular market commitment. Furthermore, acquiring market knowledge through experience decreases the uncertainty perceived about such foreign market, thus the market risk is reduced, as mentioned by Forsgren (2002) with regard to the Uppsala model. However, a firm wants to keep the risk at a specific tolerable level, thus it commits more resources to the foreign market only after the uncertainty about the market is reduced (Johanson and Vahlne, 1977). Figueirade-Lemos et al. (2011) dealt deeply with the risk formula and propensity to risk-avoidance from the original Uppsala model and provided a graphical explanation of the Uppsala model mechanism in terms of firm's risk, uncertainty and market commitment.

Nevertheless, with the changes in business environment, also the basic mechanism has to be adjusted. Thus, Johanson and Vahlne (2009)

presented an adaption of the Uppsala model which takes into account also the network relationships as the vital factor influencing the internationalisation behaviour of a firm. In this revision of Uppsala model, authors stressed the importance of the obtained market knowledge and the firm's effort to enhance its position within the network of relationships, i.e. within the market, even more, being the driving force of internationalisation.

## 2.2 Aspects possibly affecting the firm internationalisation

Although internationalisation models, such as the Uppsala model, have been emerging for some five decades, their general applicability is rather vague as much evidence has been found that also other variables, apart from market knowledge and market commitment, influence the course of internationalisation of SMEs. Many studies focused on the export propensity or export performance of SMEs with regard to the country or industry specifics. For example, Noorderhaven (2012) dealt with country specifics that probably influence the export and concluded that the specifics of countries strongly influence firms getting involved in exporting or not. Majocchi et al. (2005) dealt with industry specifics that influence export performance of a firm, as she has found out. For manufacturing firms, she also concluded that not only the age of the firm but also the industry experience play a significant role in export performance. Another outcome of her study was that SMEs' export performance is much more volatile than that of large companies as it is highly influenced by the occurrence and unexpected disappearance of unsolicited orders from foreign customers. Industry specifics were scrutinized also by Reis and Forte (2014) who concluded that enterprises from industries with higher productivity export to a greater extent than enterprises from industries with lower productivity. In mature industries, where the environmental change is minimal, the stage perspective on internationalisation is appropriate. Contrarily, in growing industries the born global model is rather applicable (Ar-

mario et al., 2008). Conclusions of Začlicever (2015) also weaken the general applicability of internationalisation models, as she stated that internationalisation differs among enterprises of different sizes. That implies that the same model cannot explain internationalisation of both large and small enterprises. Arteaga-Ortiz (2009) made a similar conclusion as he pointed out that there is a significant relation between company size and level of its exports.

The core variable in the Uppsala model, as introduced by Johanson and Wiedersheim-Paul (1975), is the psychic distance. Impact of psychic distance on the SMEs' behaviour in internationalisation was scrutinized in more depth by Ojala and Tyrväinen (2009) who concluded that traditional influence of psychic distance on internationalisation, as described in the Uppsala model, cannot be applied to knowledge-intensive SMEs which can obtain knowledge not only by experience (learning) but also by recruiting. However, study by Child and Wong (2002) conducted using a sample of Hong-Kong companies confirmed the traditional impact of psychic distance, as described in the Uppsala model, although they pointed out that the importance of national culture in the psychic distance concept is overestimated.

Forsgren (2002) mentioned that the Uppsala model advantage is its simplicity because it manages to explain internationalisation behaviour of a considerable number of firms by applying only few variables. However, he argues that the model has certain limitations, for example in terms of explanation of organizational learning in internationalisation. Forsgren (2002) stated that learning can occur also through other means than by obtaining experience.

### 2.3 Studies on Uppsala Model Applicability

Many research studies discuss validity of the Uppsala model (see for example Moen and Servais, 2002; Kubíčková, 2013; Barkema and Drogendijk, 2007; Ocampo Figueroa et al., 2014). Study conducted by Moen and Servais (2002) dealt with examination of the key assumption of the Uppsala model, e.g. gradual development

pattern in internationalisation process of an enterprise. They focused on SMEs from three European countries, namely France, Norway and Denmark. They found out that their results are not in line with the assumption of the Uppsala model but their data rather supported the existence of Born Global enterprises. Therefore they questioned general applicability of the Uppsala model and its ability to explain internationalisation behaviour of all enterprises and they rather supposed that new theories should be developed.

These results are in contrast to findings of research conducted by Barkema and Drogendijk (2007) using a sample of Dutch enterprises. Their study also dealt with verifying validity of the Uppsala model and they realised that the stage model of internationalisation is still valid. They mainly dealt with the entry modes in internationalisation (from the theoretical point of view, the entry mode is connected with market commitment). Barkema and Drogendijk (2007) found out that performance of using more resource-demanding modes (such as foreign direct investments) is higher when enterprises already have some experience gained from exploiting less resource-demanding modes, such as contractual modes (e.g. sales agent, franchising, licensing), i.e. their findings supported the fact that internationalisation happens in incremental steps. Moreover, they also highlighted the importance of understanding the foreign cultural environment as a significant condition for success in internationalisation. A comprehensive review of literature on foreign market entry mode choice was performed by Laufs and Schwens (2014) who, regarding the relation between entry mode choice and the psychic distance, pointed out that SMEs tend to prefer less resource-demanding modes when psychic distance is high, because they want to reduce the risk and avoid resources loss in case of failure.

Another research performed by Musso and Francioni (2012) was focused on analysing the internationalisation process in relation to international market choice. This study was conducted among SMEs from Italy and it revealed that geographic and cultural/psychic

distance did not play such significant role in selecting the international market as implied by other studies (see for example Johanson and Vahlne, 1977). Musso and Francioni (2012) supposed that the reason for their findings may be the fact that Italian SMEs use indirect entry modes when expanding abroad and therefore the distance and culture differences become their external partner's problem. Regarding the psychic distance, Nordman and Tolstoy (2014) added (based on their research conducted among Swedish SMEs) that psychic distance plays an important role in enterprise's ongoing foreign operations rather than in their decisions about market selection. They also highlighted the importance of knowledge about foreign environment in which the enterprise operates and also the importance of manager's international experience, because when management lacks this international experience, they can undervalue the psychic distance between home and foreign settings of business operations.

Other findings brought by Ocampo Figueroa et al. (2014) revealed that internationalisation of Mexican SMEs can be explained by the sequential internationalisation model rather than

by the born global model. Differences which can affect how an enterprise internationalises, e.g. whether the enterprise undertakes the sequential process of internationalisation or the accelerated one (born global), were the key point of the study conducted by Petersen and Pedersen (1999). They distinguished six factors which can influence the way of an enterprise internationalising. These factors include (1) production of the enterprise – physical (manufactures) or services, (2) motives to foreign market entry, (3) size of the enterprise, (4) stability of foreign market, (5) experience with foreign markets which are similar to the to-be-entered one, (6) degree of industry globalization. Based on their research, they confirmed that almost every one of the mentioned factors plays a role except for the previous experience with similar markets. They suggest that enterprises which are rather large, provide services (not physical products), operate in a global industry, are motivated to go abroad by motives other than market seeking, and whose target market is stable, follow rather the fast/accelerated model of internationalisation.

### 3 METHODOLOGY AND DATA

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This paper is based mainly on primary data. The data were obtained by electronic questionnaire survey that took place in 2014. Respondents were enterprises from the Czech Republic, Slovakia, Germany, Austria and Poland, whereas only small and medium-sized enterprises were involved in the survey. We included these countries because they are our neighbouring countries and thus many Czech SMEs do business with enterprises from there. Therefore we suppose that the business environment in these countries would be more similar to Czech conditions than in more remote countries. Moreover, the research began by questioning SMEs from neighbouring countries (thus this data are now available) but in future research also other countries are about to be included. Thus, the questionnaire was translated into four different languages in order to obtain

responses also from enterprises established in our neighbouring countries. The response rates for individual countries differ, however, the overall average response rate was approximately 1%. The low response rate can be explained by the fact that enterprises outside the Czech Republic were not willing to participate in a survey for a Czech university, moreover, many e-mails returned as undelivered due to antispam filters of recipients' e-mails. Likewise, the problem could be the electronic form of the questionnaire which is not so expensive and time-consuming as a paper copy, but it neither enables to attract as high attention of the respondent as for example personal filling in a questionnaire. The total numbers of respondents from each country are presented in Tab. 1. The differences in number of respondents from particular countries could be explained by the

Tab. 1: Numbers of respondents from selected countries

Category of respondents	Czech Republic	Slovakia	Poland	Austria	Germany
Micro enterprises	21	39	22	41	10
Small enterprises	72	53	38	33	8
Medium enterprises	109	30	29	9	26
<b>Total number of SMEs</b>	<b>202</b>	<b>122</b>	<b>89</b>	<b>83</b>	<b>44</b>

different number of contacts in each country available in the database Amadeus which collect data on business entities from Europe. It means that in each country not the same number of potential respondents were contacted.

To process the data acquired, relative frequencies, arithmetic average and contingency tables, which clearly illustrate the relationship between two statistical features, were applied. Moreover, other conclusions are drawn on the basis of hypothesis testing. In order to find out whether there is a relation between two statistical features, the Chi-square test was intended to be applied. However, the contingency tables did not enable to apply this test as not all fields contained at least 5 respondents. In order to identify the differences between groups of respondents, Kruskal-Wallis test was applied. The null hypothesis says that there do not exist any differences in means between the groups

we want to compare (Dodge, 2010). The null hypothesis was rejected when the calculated p-value was lower than the significance level. The level of significance was set to 0.05, or 0.1 in some cases. To identify which groups of respondents differ, multiple p-values were used.

The following assumptions connected with the Uppsala model mechanism were set prior to data processing and addressed in this paper:

- (a) *SMEs start internationalisation by exporting to neighbouring markets.*
- (b) *In internationalisation, SMEs behave according to the establishment chain.*
- (c) *SMEs' risk perception regarding foreign markets with different psychic distance changes with the obtained knowledge in internationalisation.*
- (d) *SMEs' risk perception regarding particular foreign markets differs depending on the country which the enterprise comes from.*

## 4 RESULTS

The first set assumption that we wanted to analyse using our data was that *SMEs start internationalisation by exporting to neighbouring markets (a)*. For the selected countries involved in our survey, the most important exporting partners are the neighbouring countries (with a slight exception of German SMEs). Majority of SMEs from the Czech Republic export to Germany (nearly 30%) or Slovakia (almost 20%). Majority of Slovak SMEs export to the Czech Republic (about 40%). For both, Polish and Austrian SMEs involved in the survey, the most important export country is Germany (almost 30% and about 43% respectively). Finally, for German SMEs, the most important export markets are Netherlands (12%), France (almost

10%) and China (almost 10%). Although these results do not enable us to definitely decide whether the assumption is valid for SMEs from the selected countries, it indicates that the psychic distance matters to some extent in the internationalisation.

The basic assumption of the Uppsala model was that firms behave in internationalisation in accordance with the establishment chain introduced by Johanson and Wiedersheim-Paul (1975), meaning, with the rise in knowledge about foreign markets they tend to apply more capital demanding forms of market entry. In order to verify the assumption for SMEs from 5 countries of Central Europe, the relation between their market knowledge and form of

market entry applied in their internationalisation was scrutinized. We wanted to test the assumption: *In internationalisation, SMEs behave in accordance with the establishment chain (b)*. We set the corresponding hypotheses as follows:

- $H_{0b}$ : *There is no relation between the market knowledge and the applied form of market entry.*
- $H_{1b}$ : *There is a relation between the market knowledge and the applied form of market entry.*

Because market knowledge increases with experience obtained in such foreign market, we assumed that the length of enterprise's activities in foreign markets can be considered the obtained experience. We divided the respondents into 5 groups by their foreign market experience. The lowest experience, i.e. market knowledge, was connected to enterprises which operate in foreign markets under 5 years, better levels of experience were assigned to enterprises which operate in foreign markets for 6–10 years, 11–15 years, 16–20 years and the highest experience about foreign market, thus market knowledge, was attributed to enterprises which operate in foreign markets for more than 20 years. Regarding the form of market entry, respondents were divided into three groups: enterprises which use exporting, enterprises which enter foreign markets via licencing and enterprises which apply more capital demanding form – foreign direct investments.

However, as the contingency tables (see Tab. 2) show, for SMEs from all the selected countries it is impossible to apply the Chi-square test to test the independence between market knowledge and form of market entry, as not all fields in the tables contain at least 5 respondents. Yet, it can be pointed out that SMEs from all countries prefer exporting (either indirect or direct) to other more capital demanding forms of entry regardless of the level of their experience with foreign market. Therefore the basic Uppsala model assumption cannot be verified and the  $H_{0b}$  hypothesis cannot be rejected.

Apart from the above mentioned basic Uppsala model assumption, also the other assumption was addressed: *SMEs' risk perception regarding foreign markets with different psychic distance changes with the obtained knowledge in internationalisation (c)*. According to the concept of psychic distance, as described in the Uppsala model, the perceived risk of a foreign market is in general connected with lack of information and knowledge about this market, which means that there is a negative correlation between knowledge and uncertainty which the enterprise faces in the internationalisation process. In other words, the higher market knowledge and information an enterprise has, the lower the uncertainty and risk it perceives.

Based on this assumption, we expected that there will be a difference in the perception of risks connected with particular geographical areas between enterprises with different levels of market knowledge (level of experience gained from foreign trade operation), which means the more international experience by the enterprise obtained, the less risky a particular geographical area perceived.

In order to verify the above mentioned assumption, we asked SMEs from the selected Central European countries, namely from the Czech Republic, Slovakia, Poland, Austria and Germany, with different levels of international experience how risky they perceive doing business in particular geographical areas. SMEs assessed their risk perception regarding different countries using a 6 point scale, where 0 meant the least risky area and 5 meant the most risky area. Kruskal-Wallis test was applied in order to identify differences in risk perception of a particular geographical area between SMEs with different market knowledge levels (measured by the level of international experience). The hypotheses for Kruskal-Wallis test was set as follows:

- $H_{0c}$ : *There are no differences in risk perception of particular territories between groups of SMEs with different international experience.*
- $H_{1c}$ : *There are differences in risk perception of particular territories between groups of*

Tab. 2: Contingency tables: relation between market knowledge and form of market entry

Experience (CZ)	Export	Licencing	FDI	Total	Experience (SK)	Export	Licencing	FDI	Total
1–5 years	16	2	2	<b>20</b>	1–5 years	18	4	3	<b>25</b>
6–10 years	35	6	3	<b>44</b>	6–10 years	31	3	0	<b>34</b>
11–15 years	50	2	0	<b>52</b>	11–15 years	24	6	3	<b>33</b>
16–20 years	57	2	0	<b>59</b>	16–20 years	15	2	2	<b>19</b>
> 20 years	26	1	0	<b>27</b>	> 20 years	7	1	1	<b>9</b>
<b>Total</b>	<b>184</b>	<b>13</b>	<b>5</b>		<b>Total</b>	<b>95</b>	<b>16</b>	<b>9</b>	
Experience (AT)	Export	Licencing	FDI	Total	Experience (DE)	Export	Licencing	FDI	Total
1–5 years	11	0	2	<b>13</b>	1–5 years	6	2	1	<b>9</b>
6–10 years	16	1	2	<b>19</b>	6–10 years	7	0	0	<b>7</b>
11–15 years	8	1	0	<b>9</b>	11–15 years	5	0	0	<b>5</b>
16–20 years	12	1	0	<b>13</b>	16–20 years	9	0	1	<b>10</b>
> 20 years	28	0	1	<b>29</b>	> 20 years	11	1	1	<b>13</b>
<b>Total</b>	<b>75</b>	<b>3</b>	<b>5</b>		<b>Total</b>	<b>38</b>	<b>3</b>	<b>3</b>	
Experience (PL)	Export	Licencing	FDI	Total					
1–5 years	21	0	0	<b>21</b>	Note:				
6–10 years	15	0	1	<b>16</b>	CZ = Czech Republic				
11–15 years	19	2	0	<b>21</b>	SK = Slovakia				
16–20 years	7	4	1	<b>12</b>	PL = Poland				
> 20 years	18	1	0	<b>19</b>	AT = Austria				
<b>Total</b>	<b>80</b>	<b>7</b>	<b>2</b>		DE = Germany				

Tab. 3: Kruskal-Wallis test: differences in perception of risks connected with particular foreign markets depending on the level of international experience

Addressed SMEs from selected countries	Geographical area	<i>p</i> -value	Groups in which the differences appeared	Multiple <i>p</i> -value
Czech Republic ( <i>n</i> = 202)	Northern Europe	0.0362**	5–10 years × more than 20 years	0.036562**
	Western Europe	0.0019**	5–10 years × more than 20 years	0.002949**
			11–15 years × more than 20 years	0.036087**
Slovakia ( <i>n</i> = 113)	Eastern Europe	0.0198**	5–10 years × 11–15 years	0.056197*
	South-Eastern Europe	0.0266**	5–10 years × more than 20 years	0.098771*
Austria ( <i>n</i> = 77)	Russia	0.0118**	1–5 years × 5–10 years	0.061792*
			5–10 years × more than 20 years	0.081377*
Germany ( <i>n</i> = 31)	Northern Europe	0.0168**	No statistically significant result	
	Africa	0.0341**	11–15 years × 16–20 years	0.033770**
Poland ( <i>n</i> = 62)	No statistically significant result			

Notes: \* significant at  $\alpha = 0.10$ , \*\* significant at  $\alpha = 0.05$ .

*SMEs with different international experience.*

The hypothesis was tested for SMEs from different Central European countries separately. Results thereof revealed some differences which are shown in Tab. 3. We supposed that SMEs with less international experience (e.g. with 1 to 5 years, 5 to 10 years or 11 to 15 years) would perceive particular geographical areas as more risky than SMEs with greater international experience (e.g. 16 to 20 years or more than 20 years of experience). However, this assumption could not be proved.

According to results shown in Tab. 3, Czech SMEs perceived differently the risks connected with operating in markets of Northern Europe ( $p$ -value = 0.0362) and Western Europe ( $p$ -value = 0.0019), with regard to their international experience. Interestingly, the more international experience these SMEs have, the more risky these areas are perceived. For example SMEs with international experience 5 to 10 years perceived Northern Europe as less risky than SMEs with international experience longer than 20 years. The same situation is in case of Western Europe, SMEs with less international experience perceived doing business in this territory as less risky than SMEs with greater international experience. These findings are totally in contrast to our assumption. This may be explained by the fact, that the more experience an enterprise has, the more aware it is of various risks influencing their doing business abroad and therefore the enterprise could be more perceptive to risks which may emerge.

Regarding Slovak SMEs and their perception of risks connected with doing business in particular countries, the differences appeared in the case of Eastern Europe ( $p$ -value = 0.0198), where SMEs with shorter experience (5 to 10 years) perceived this area as more risky than SMEs with longer experience (11 to 15 years). Other differences appeared regarding the South-Eastern Europe ( $p$ -value = 0.0266), where SMEs with shorter international experience (5–10 years) perceived this area as more risky than SMEs with experience longer than 20 years. Although these results

indicate, that our assumption could be valid in case of Slovak SMEs, a deeper analysis of result indicates that with higher international experience the perception of risks connected with these countries is not decreasing, therefore even in this case the Uppsala model assumption about risk perception could not be applied.

Moreover, Kruskal-Wallis test did not prove any differences regarding the perception of risks connected with particular geographical areas in case of SMEs from Poland, e.g. their international experience does not play any significant role in their risk perception of particular foreign markets.

With regard to Austrian SMEs, differences in risk perception of enterprises with different international experience appeared in case of Russia ( $p$ -value = 0.0118). Results indicate that the more international experience an enterprise has, the less risky is Russia perceived, e.g. SMEs with more than 20 years of experience perceived this area as less risky than SMEs with 5–10 years of experience. The only exception is the group of SMEs with less than 5 years of international experience which perceived Russia as the least risky compared to perception of other groups of SMEs.

The last group of respondents, German SMEs, perceived differently Northern Europe ( $p$ -value = 0.0168) and Africa ( $p$ -value = 0.0341). The risk perception of Africa is different regarding SMEs with 11–15 years (they perceived Africa as less risky) and SMEs with 16–20 years of experience (they perceive Africa as more risky). It means that not even in this case any conclusions concerning this assumption could be drawn.

To sum up, the above results indicate that the Uppsala model assumption regarding its concept of risk perception is not valid in case of Czech, Slovak, German and even Polish SMEs. Only with small exception, the Uppsala model assumption could be applied in case of Austrian SMEs and their risk perception of Russia, e.g. the more international experience Austrian SMEs have, the less risky Russia is perceived by them. Therefore trying to create a uniform model that would be applicable in general to all countries without any modifications is not

desirable. It is more appropriate to observe a particular country separately and try to modify the model at least according to the conditions of that particular country because each country is specific concerning its political, economic and social framework, business practice and even cultural traditions.

Moreover, we tried to prove that there are some differences in risk perception of particular geographical areas depending on the country from which the enterprise comes, thus we dealt with the assumption that *SMEs' risk perception regarding particular foreign markets differs depending on the country which the enterprise comes from (d)*.

We supposed, for example, that Eastern Europe will be perceived differently by SMEs from the Czech Republic and by German SMEs. In order to find out the differences between SMEs from particular countries, Kruskal-Wallis test was used. Its results are shown in Tab. 4 (statistically significant differences only are shown in the table). We set the hypotheses as follows:

- $H_{0d}$ : *There are no differences in risk perception of particular territories between SMEs from different countries.*
- $H_{1d}$ : *There are differences in risk perception of particular territories between SMEs from different countries.*

To sum up, the above results indicate that the perception of risk connected with particular foreign markets really differs between SMEs from the selected Central European countries. Moreover, it supports our previous findings that each country has its unique business environment and conditions and therefore it is more appropriate to take these differences into account and focus more on the specific conditions in each country and adjust the models of internationalisation to these specific business environments than creating generally applicable models of internationalisation.

Differences which can be considered statistically significant according to Kruskal-Wallis test are also shown in Fig. 1 and 2. Fig. 1 depicts the differences in risk perception of European areas and Fig. 2 depicts the risk perception of other geographical areas such as Africa, Middle East, India, China and Russia.

With regard to the results shown in Fig. 1 and Fig. 2, it can be also assumed that there are territories which are perceived as more risky by respondents in general, for example Middle East, Africa, India, China, Russia (see Fig. 2) or even some parts of Europe, in particular Eastern Europe and South-Eastern Europe (see Fig. 1). On the contrary, there are also territories which are perceived generally as less risky, these are mainly the areas in Europe, for example Northern Europe, Western Europe or Central Europe (see Fig. 1).

Nevertheless, with slight simplifications, the results also indicate that SMEs from the Czech Republic, Slovakia, Poland and even Austria tend to be more similar in their perception of the level of risks connected with particular territories than SMEs from Germany. German SMEs perceived all geographical areas as less risky compared to SMEs from other Central European countries. It could be caused by the fact, that German SMEs have stronger bargaining power or greater financial capacity and therefore they manage to negotiate better terms in their contracts with foreign customers. Moreover, they also tend to use various forms of securing their international business transaction (such as insurance of international risks, various banking products, etc.) to a greater extent than SMEs from other selected countries. Hence they could perceive the lower level of risks connected with particular geographical areas, because they are experienced in doing business and therefore they could be also more 'confident' in their entrepreneurship.

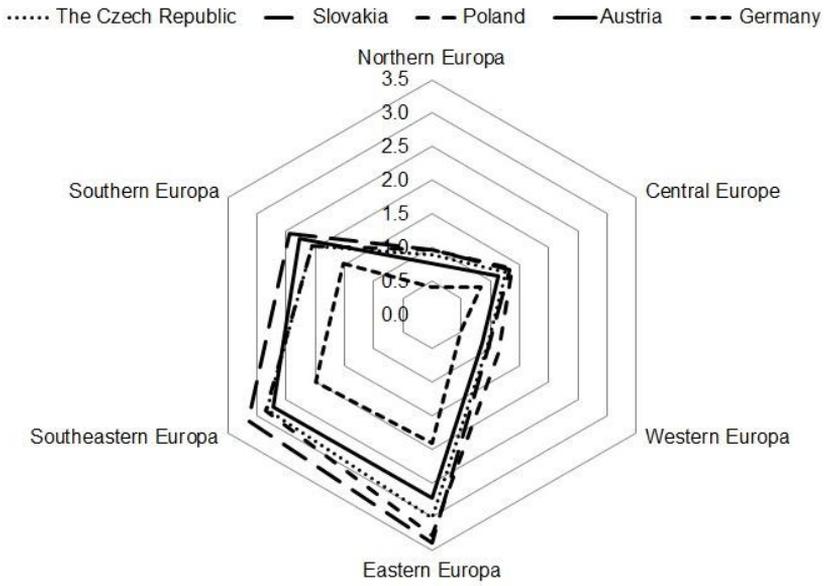


Fig. 1: Risk perception of particular European areas depending on the country of respondents' origin (SMEs)

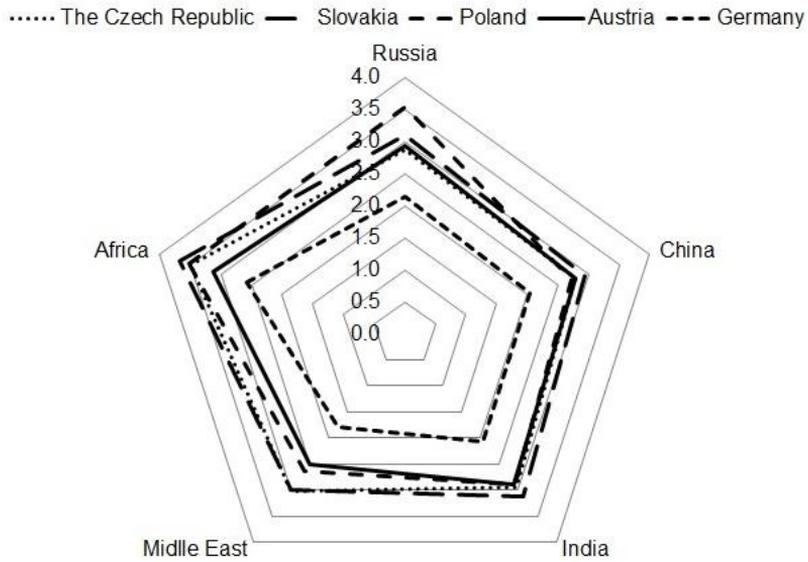


Fig. 2: Risk perception of other geographical areas depending on the country of respondents' origin

Tab. 4: Kruskal-Wallis test: differences in perception of risk connected with particular foreign markets depending on the country which the enterprise comes from

Risk perception of geographical areas	<i>p</i> -value	Groups in which the differences appeared	Multiple <i>p</i> -value
Northern Europe	0.0218**	CZ × DE	0.0354**
		SK × DE	0.0417**
		PL × DE	0.0514*
Central Europe	0.0277**	CZ × DE	0.0623*
		SK × DE	0.0526*
		PL × DE	0.0670*
Western Europe	0.0308**	CZ × DE	0.0561*
		PL × DE	0.0398**
Eastern Europe	0.0000**	CZ × DE	0.0025**
		SK × DE	0.0000**
		PL × DE	0.0002**
South-Eastern Europe	0.0010**	SK × AT	0.0198**
		CZ × DE	0.0284**
		SK × DE	0.0005**
Southern Europe	0.0039**	PL × DE	0.0615*
		SK × DE	0.0038**
		AT × DE	0.0661*
Russia	0.0001**	CZ × PL	0.0070**
		CZ × DE	0.0789*
		SK × DE	0.0088**
		PL × DE	0.0001**
		AT × DE	0.0680*
China	0.0655*	SK × DE	0.0390**
India	0.0153**	CZ × DE	0.0289**
		SK × DE	0.0062**
		AT × DE	0.0999*
Middle East	0.0002**	CZ × DE	0.0006**
		CZ × DE	0.0017**
Africa	0.0014**	CZ × DE	0.0334**
		SK × AT	0.0974*
		SK × DE	0.0087**
		PL × DE	0.0297**

Notes: \* significant at  $\alpha = 0.10$ , \*\* significant at  $\alpha = 0.05$ , CZ = SMEs from the Czech Republic, SK = SMEs from Slovakia, AT = SMEs from Austria, PL = SMEs from Poland, DE = SMEs from Germany.

## 5 DISCUSSION AND CONCLUSIONS

The aim of this paper was to scrutinize some aspects of one of the traditional internationalisation stage models, namely the Uppsala model, which is very often discussed in literature on

international business of SMEs. Although the advantage of the Uppsala model is its simplicity and ability to explain internationalisation of a considerable number of firms, as stated for

example by Forsgren (2002), on the contrary many studies found that its assumptions are either invalid in case of some SMEs, or could be valid after with some modifications. We dealt with some basic assumptions of this model and verified them using a sample of SMEs from 5 selected European countries as we supposed that also some country specifics would emerge.

The first assumption that SMEs start their internationalisation by exporting to neighbouring markets, however, could not be clearly verified because the data enabled us to find the most important foreign markets of the addressed SMEs only. Nevertheless, it can be summarized that the most important export markets for SMEs from all the selected countries are their neighbouring countries, with the exception of German SMEs for which a more distant market, such as China, also plays its role.

The second assumption that SMEs behave in internationalisation depending on the establishment chain was not found true in case of SMEs from all the selected countries, as only a small percentage of the addressed SMEs also applied more resource-demanding modes of entry than exporting in connection with the rise in international experience (market knowledge). This conclusion is contrary to the establishment chain, as explained by Johanson and Vahlne (1975), and to Barkema and Drogendijk (2007) who verified the SMEs behaviour in internationalisation according to the establishment chain. However our conclusion is in compliance for example with Majocchi et al. (2005) or D'Angelo et al. (2013) who stated that exporting belongs among the most often used entry modes by SMEs because of its low demand on financial sources and time, e.g. it is the quickest and simplest entry mode.

The third assumption that the SMEs' risk perception regarding foreign markets with different psychic distance changes with the obtained knowledge in internationalisation was transformed into a hypothesis that there are no differences in means between groups of respondents with different international experience (thus market knowledge). Although some differences were detected, they did not indicate that the higher the international experience

obtained, the lower the perception of market risk connected with particular foreign territories. That means that the obtained market knowledge via experience does not influence the level of market risk perceived by SMEs. Only in case of Austrian SMEs, this assumption could be applied with some approximations regarding their risk perception of Russian market. The results indicate that the more international experience Austrian SMEs have, the less risky is Russia perceived by them.

The last assumption that the SMEs' risk perception regarding particular foreign markets differs depending on the country which the enterprise comes from was set because we supposed that the psychic distance plays a significant role in perception of market risks. The conclusions indicate that the perception of risks connected with particular foreign markets really differs between SMEs from different countries. That may be explained by the fact that each country has specific business, cultural, social and economic environment that influences the SMEs' perception from that country. Therefore SMEs from individual countries have different perspectives on doing business in a specific territory. It can be summarized that SMEs from the Czech Republic, Slovakia, Poland and Austria are more similar in their perception of market risks connected with particular territories than SMEs from Germany. German SMEs perceived all geographical areas as less risky compared to SMEs from the other Central European countries.

The key findings suggest that the Uppsala model is not able to describe the internationalisation of SMEs from each country properly. Only some of its assumptions can be applied to the internationalisation process. Moreover, differences between SMEs from the selected countries indicate that it is rather appropriate to adjust models to the specific business conditions in each country than to create a generally applicable model of internationalisation. It supports the conclusions of Moen and Servais (2002) who questioned the general applicability of the Uppsala model and stated that new theories of internationalisation should be developed in order to correspond to current business conditions.

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