

# *Small Firms in a Small Country: Managerial Factors, Internationalization and Performance of Slovenian SMES*

Mariola Ciszewska-Mlinarič  
Franjo Mlinarič

International activities of small and medium enterprises (SMES) constitute an important research area. To understand this phenomenon, researchers employ different theoretical perspectives. Among them, the resource-based theory has been given much attention. In this study three managerial factors: managerial attitude toward internationalization, internationalization knowledge and international experience, are seen as examples of the firm's intangible assets. The objectives of this study are twofold. First, it aims to examine the significance of the mentioned managerial resources for SMES' internationalization. Second, it verifies the relationship between the level of the firm's internationalization and performance. The study is based on a sample of highly-internationalized Slovenian companies. According to the findings, managerial attitudes towards internationalization and internationalization knowledge are significantly related to the level of SME internationalization. The statistical analysis also provides support for the relationship between the level of the firm's internationalization and performance.

*Key Words:* internationalization, managerial factors, performance,  
SMES

*JEL Classification:* M16, F23

## **Introduction**

In the last decades, the internationalization of small and medium enterprises (SMES) has become an interesting and important research subject around the world. Internationalization is defined as 'a process through which a firm moves from operating solely in its domestic marketplace to international markets' (Javalagi, Griffith and White 2003, 186). Selling outside the domestic market is an important objective for many small

*Dr Mariola Ciszewska-Mlinarič is an Assistant Professor of Strategic Management at the Kozminski University, Poland.*

*Franjo Mlinarič is a Senior Lecturer in Corporate Finance at the University of Maribor, Slovenia.*

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and medium enterprises (Reuber and Fisher 1997). This is especially true for SMEs operating in countries where the domestic market's absorption power is limited, as in the case of Slovenia. A too small domestic market cannot support much growth (Reuber and Fisher 1997), thus domestic SMEs are somehow forced to internationalize. Nonetheless, the literature claims that internationalization is still a great challenge for SMEs due to their limited skills and resources in comparison to large firms (Reuber and Fisher 1997). That is why the most common entry mode used by SMEs is export (Leonidu and Katsikeas 1996; Wolff and Pet 2000; Fernandez and Nieto 2005), since – in contrast to other modes – export does not require substantial resource commitments and is less risky (Lu and Beamish 2006). SMEs' internationalization outcomes, and the way SMEs cope with and overcome any difficulties related to internationalization, are explained by strategic capabilities and resources. This study also aims to contribute to the resource-based theory as it focuses on managerial resources and their significance for the level of firm's internationalization. Moreover, the relationship between the level of firm's internationalization and performance is examined. Therefore, two research questions are addressed:

1. Do managerial factors (such as attitude, internationalization knowledge and prior international experience) influence the level of Slovenian SMEs' internationalization?
2. Does the level of internationalization influence Slovenian SMEs' performance in terms of efficiency, profitability and/or growth?

The paper proceeds as follows. First, the relevant theory overview and the resulting hypotheses are presented. Second, the method and measures employed in the study are highlighted before discussing the results of the analysis. Finally, the paper concludes with a discussion and implications.

### **Literature Review: Research Model and Hypotheses**

Numerous studies have addressed questions on internationalization motives, outcomes and factors influencing the process (e. g. Lu and Beamish 2001; 2006; Javalagi, Griffith and White 2003). To understand this complex phenomenon, researchers have employed different theoretical perspectives (e. g. the process/stage model approach, the eclectic paradigm, the resource-based view and the behavioral theory) and among them the resource-based view (RBV) has recently gained the most attention. The importance of strategic capabilities and resources for internation-

alization has been widely recognized (Fernandez and Nieto 2005; Hitt, Hoskisson and Kim 1997). For example, Ruzzier, Antoncic and Konecnik (2006) employed the RBV to shed light on differences between internationalized and non-internationalized Slovenian SMEs in terms of resources possessed. They observed that SMEs that followed the path of international expansion had significantly greater bundles of organizational, financial and human resources than their counterparts.

Managers' knowledge and skills constitute firm-specific intangible resources and managers play a crucial role in influencing firm internationalization (Leonidou and Katsikeas 1996) regardless of its size. Yet in smaller and younger firms the skills and knowledge of the management team are likely to be even more important and influential on the firm's internationalization and performance than in larger firms (Reuber and Fisher 1997). More specifically, researchers focused on managerial attitude and perceptions about exporting (Leonidou, Katsikeas and Piercy 1998; Suarez-Ortega and Alamo-Vera 2005), international experience of managers (Reuber and Fisher 1997) and managers' knowledge and capabilities relevant to the export development process (Hadley and Wilson 2003).

These three managerial factors, namely: (1) managers' attitude and perceptions of internationalization, (2) management team internationalization knowledge, and (3) managers' international experience, have been included in the research model.

#### MANAGERS' ATTITUDE TOWARD INTERNATIONALIZATION

The significance of the top managers' attitude and perceptions for firms' behaviors has been argued and confirmed by many researchers (Bettis and Prahalad 1995; Prahalad and Bettis 1986; Leonidou, Katsikeas and Piercy 1998; Suarez-Ortega and Alamo-Vera 2005; Calof and Beamish 1995). Initiating and maintaining export activities represent the firm's behaviors and as such they are influenced by management attitudes and perceptions. This notion is confirmed by a growing number of research studies in the field of internationalization. For example Axinn (1998), noticed that a positive attitude toward exporting was related to the export performance in manufacturing firms. These results were confirmed also by Javalagi, Griffith and White (2003) for service firms. Also Suarez-Ortega and Alamo-Vera (2005) noticed that managerial perception that export was beneficial for their firms had an influence on export intention, although it did not influence export intensity. In congruence with the existing literature it is to be expected that:

- H1 *A favorable management attitude toward expanding internationally is positively associated with the level of SME internationalization.*

#### MANAGEMENT TEAM'S INTERNATIONALIZATION KNOWLEDGE

It is stated that knowledge itself and knowledge-based resources and capabilities exert an influence on the internationalization process of firms. For example, Autio, Sapienza and Almeida (2000) discovered that knowledge intensity was associated with a faster international growth. Also Yli-Renko, Autio and Tontti (2002) found that knowledge was a crucial resource driving firms' international growth. Hadley and Wilson (2003) confirmed that internationalization knowledge was related to the firm's internationalization. Andersen and Kheam (1998) focused on international management capabilities, however, the results of their research did not provide clear answers as to the role of these sort of capabilities in explaining international growth strategies.

In many research articles, the subject that is supposed to possess knowledge is the firm in general (Autio, Sapienza and Almeida 2000; Yli-Renko, Autio and Tontti 2002, Andersen and Kheam 1998). While it is clear that the level of knowledge is a characteristic of the firm, we focus on the top management team as a whole and its level of knowledge related to internationalization requirements, i. e. internationalization knowledge that facilitates the firm's international operations. Internationalization knowledge was proposed by Eriksson et al. (1997). They identified three components of international experiential knowledge at the level of the market (foreign business knowledge and foreign institutional knowledge) and at the level of the firm (internationalization knowledge). Hadley and Wilson (2003) proved that internationalization knowledge was related to the internationalization level. According to the authors, this sort of knowledge 'captures the "know-how" or procedural element of experiential knowledge; it is related to the firm's requirement for experiential knowledge that will facilitate its international operations, for example, adapting resources and capabilities to the international environment' (Hadley and Wilson 2003, 701). Thus:

- H2 *The level of management team's internationalization knowledge is positively associated with the level of SME internationalization.*

#### MANAGER'S INTERNATIONAL EXPERIENCE

Many studies underline the role of international experience of managers in the internationalizing activities of firms. Reuber and Fisher (1997)

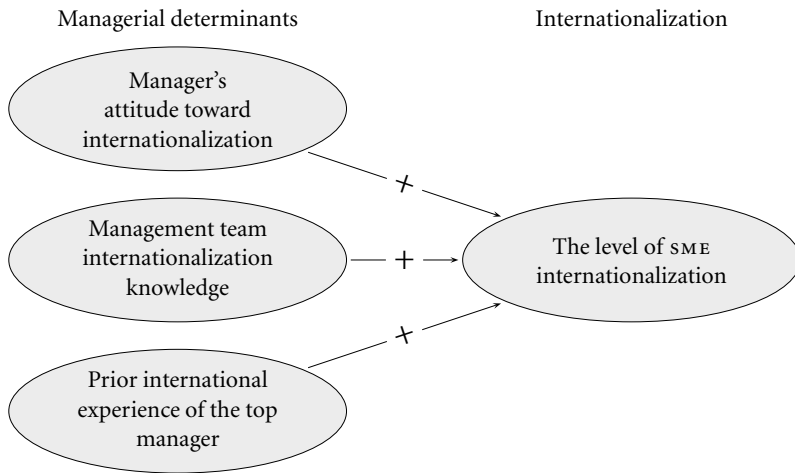


FIGURE 1 Research model of managerial factors and internationalization

found that management teams possessing international experience (like working abroad or having experience in selling to foreign markets) impacted international behaviors of firms. Firms with internationally experienced managers more often developed foreign strategic partnerships and delayed less in obtaining foreign sales (Reuber and Fisher 1997). Such behaviors resulted in a higher level of firms' internationalization. Similar findings were presented by Suarez-Ortega and Alamo-Vera (2005) who observed that export intensity was positively associated with managers' international experience. And in the line with Leonidou, Katsikeas and Piercy's (1998) findings, they stated that managers' exposure to foreign cultures increases experiential knowledge about foreign markets. Also, Athanassiou and Nigh (2002) discovered a positive relationship between the top management team's international experience and the extent of firms' internationalization. This observation was valid regardless of whether the team was considered as an entity or was disaggregated into the CEO and the rest of the team. Sapienza et al. (2006) in their theoretical work also suggested that managerial experience with internationalization would moderate the relationship between internationalization and firms' growth by reinforcing a positive influence of internationalization on firms' growth. Therefore it is proposed that:

- H3 *The international experience of the top manager is positively associated with the level of SME internationalization.*

## INTERNATIONALIZATION AND PERFORMANCE

The relationship between internationalization and performance has been examined by numerous researchers. Westhead et al. (2002) found that internationally oriented SMEs were older, manufacturing, rural and larger, but they did not observe a higher level of performance in terms of enhanced business survival, current profit relative to competition or employment growth of exporting firms in comparison to non-exporting ones. McDougall and Oviatt (1996) discovered that new ventures that increased their level of internationalization exhibited superior performance measured by relative market share and return on investment. They also observed that early internationalization by new ventures was associated with a higher relative market share two years later, but a direct relationship between the level of internationalization and return on investment was not observed. Riahi-Belkaoui (1998) argued that the relationship between the degree of internationalization (measured as foreign revenues to total revenues) and performance (ROA) is non-monotonic – ‘it is negative at a low range of DOI (0–14%), positive at a higher range (14–47%), and negative at levels superior to 47%’ (p. 319). The cited research was based on a sample of large companies (USA) and therefore it is hard to transform these results to Slovenian SMEs. Lu and Beamish (2001) observed that in the examined Japanese SMEs export had a positive effect on growth (in terms of net sales and total assets) but a negative one on profitability (measured by return on sales).

Research evidence indicates that the relationship between internationalization and performance is still unclear, i. e. there are different findings stating that it is either positive, negative or both (depending on the degree of internationalization). In spite of this we hypothesize that the level of internationalization is positively associated with SMEs’ performance, due to the fact that Slovenia (the domestic market for the sampled firms) is a small country and offers limited growth opportunities. In such a context international orientation is a ‘must’ for ambitious firms. Besides, direct comparisons of findings on the internationalization–performance relationship have their important limitations, as either performance was measured in numerous ways and most often using one or two measurement items (e. g. ROA, ROI, ROS), or else the examined companies were of a substantially different size. Following Murphy, Trailer and Hill’s (1996) recommendations, performance measurement should clearly identify the dimension of performance under investigation, it

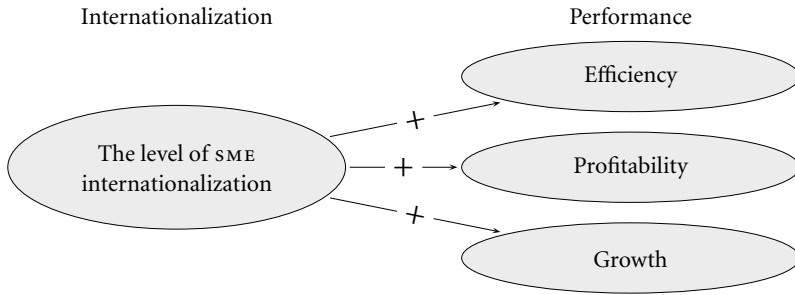


FIGURE 2 Research model of the internationalization–performance relationship

should cover multiple dimensions and within each dimension several measures should be used where possible. In this study three dimensions of performance are used: efficiency, profitability and growth. Thus, we hypothesize:

- H4A *The level of internationalization is positively associated with the level of SME performance in terms of efficiency.*
- H4B *The level of internationalization is positively associated with the level of SME performance in terms of profitability.*
- H4C *The level of internationalization is positively associated with the level of SME performance in terms of growth.*

## Methodology

### QUESTIONNAIRE DEVELOPMENT

A questionnaire was developed on the basis of items used in previous research in order to increase the validity and reliability of examined constructs' measures. The included questions were pretested on a small sample of managers in one of the targeted industries to check their clarity. The questionnaire contained also other measurement items than those reported in this paper (as it was used in our large-scale research project on the internationalization of Slovenian SMEs).

### POPULATION AND SAMPLE

Due to its size, Slovenia represents an interesting context in which to study SMEs' internationalization as domestic growth of firms is limited. Export is extremely important in the Slovenian economy, representing 70% of gross domestic product (see table 1).

TABLE 1 Export of goods and services share in Slovenian GDP

Item	2003	2004	2005	2006	2007
GDP*	25 114	27 073	28 704	31 008	34 471
Export of goods and services*	13 554	15 704	17 860	20 661	24 187
Export as % of GDP	54.0%	58.0%	62.2%	66.6%	70.2%

NOTES \* In million €. Source: www.stat.si.

TABLE 2 Five industries with the highest share in Slovenian export

Code	2003	2004	2005	2006	2007	Average
DK29	14.9%	15.4%	15.5%	15.5%	15.5%	15.3%
DM34	11.5%	12.5%	15.2%	13.7%	16.1%	13.8%
DG24	13.8%	13.4%	13.1%	13.7%	13.7%	13.5%
DJ27	6.8%	7.8%	8.6%	9.8%	9.7%	8.6%
DN36	7.9%	8.0%	6.9%	6.1%	5.1%	6.8%

NOTES DK29 manufacture of machinery and equipment; DM34 – manufacture of motor vehicles, trailers, etc.; DG24 – manufacture of chemicals and chemical products; DJ27 – manufacture of basic metals; DN36 – manufacture of furniture. Source: www.stat.si.

The selection of industries included in the research was based on their significance for total export of Slovenia from 2003 to 2007 (see table 2).

We have chosen the following five industries with the highest average share in export: manufacture of machinery and equipment (15.3%); manufacture of motor vehicles, trailers, etc. (13.8%); manufacture of chemicals and chemical products (13.5%); manufacture of basic metals (8.6%); and manufacture of furniture (6.8%). The average share of all selected industries in the Slovenian export was 58.0% in the last five years (2003–2007). Using the electronic database GVIN, all firms within each of the selected industries were identified, but only firms that met the legal criteria of SMEs were included into the research sample. According to the Slovenian companies act from 2006, a small or medium enterprise is the one that fulfills two out of three criteria: (1) the number of employees is between 11 and 250; (2) the level of net sales amounts from 2 000 001 to 29 200 000 Euro; (3) the level of assets equals from 2 000 001 to 14 600 000 Euro. Other categories of firms are either micro or large enterprises.

Finally, 291 firms in the five selected industries met the mentioned criteria. It is worth emphasising that this number represented the total population of SMEs in the chosen sectors. Next, all the firms were approached in order to arrange a telephone interview with the top man-



TABLE 3 Characteristics of firms in the sample

Item	Average	Std. dev.	Range
Age of firm (years)	15.91	7.09	2–34
Number of employees	79.95	59.51	13–278
Foreign sales to total sales (%)	57.78	27.64	3–100
Net sales (mln Euro)	7.48	5.65	2.02–33.22

NOTES  $N = 67$ .

ager/owner. In this first approach, it was checked whether the firm was not a subsidiary of another company, whether it was an exporter and whether it was assigned to the right industry. In the result, 50 firms were excluded from the study, leaving the eligible sample of 241 firms. From the end of 2008 till April 2009, 67 telephone interviews were conducted with chief manager/CEO, that constituted 27.8% of the population. SMEs in the sample are described in table 3.

The electronic database GVIN also provided financial and some non-financial information about each firm's performance (such as the number of employees or firm age) for the period 2003–2007.

## Measures

### MANAGER'S ATTITUDE TOWARD INTERNATIONALIZATION

The manager's attitude toward internationalization was measured by eight items, two of which were derived from Javalgi, Griffith and White (2003) and an additional six were connected with perceived export advantages used by Suarez-Ortega and Alamo-Vera (2005), who followed Axinn (1985). More specifically, respondents were asked to indicate on a five-point scale (1) the strength of their desire to expand internationally and (2) the perceived strength of their ability to internationalize their product/service offering. With regard to the perception of export advantages in comparison to domestic sales, managers were asked to indicate also on a five-point Likert-type scale, the extent to which they agreed with each of the following statements: (3) export improves the firm's profit, (4) export offers more opportunities for growth, (5) export helps improve product competitiveness, (6) export improves return on equity, (7) export allows the firm to diversify the product line, (8) export improves market position in the domestic market (Slovenia). In order to create one variable (ATTITUDE) the factor analysis and scale reliability analysis were conducted. Employing the principal component analysis as

an extraction method resulted in rejecting items number 1 (the strength of the desire to expand internationally) and number 7 (export allows the firm to diversify the product line), as their loadings were below 0.4. The loadings of the other six items were between 0.518 and 0.846. The construct ATTITUDE (comprising six items, number 2, 3, 4, 5, 6 and 8) has a Cronbach's Alpha of 0.809 indicating good reliability.

#### MANAGEMENT TEAM'S INTERNATIONALIZATION KNOWLEDGE

The management team's internationalization knowledge was operationalized by six items on a five-point scale: (1) the management team's ability to identify quickly and without problems business opportunities; (2) the management team's experience in international marketing planning and implementation; (3) the management team's ability to easily modify marketing mix elements for foreign markets; (4) the management team's level of export procedure knowledge; (5) the management team's ability to develop an international strategy; and (6) its general experience in internationalization (based on Hadley and Wilson 2003). The responses to these items were measured on a five-point scale. The factor analysis indicated that loadings of all six items were between 0.614 and 0.794. A further reliability analysis showed that the construct INT\_KNOWLEDGE had a Cronbach's alpha of 0.828 indicating a good reliability.

#### MANAGER'S INTERNATIONAL EXPERIENCE

Respondents were asked whether they possessed any international experience (resulting from either working abroad and/or from selling to foreign markets) and to indicate the number of years of their international experience. As these two items were highly and significantly correlated (0.69 at the 0.01 level), they were standardized and summed to create a single score, INT\_EXP.

#### DEGREE OF INTERNATIONALIZATION

Until now, international business researchers have not developed one widely accepted standard for measuring the level (degree) of internationalization of a firm (Sullivan 1994; Ramaswamy, Kroeck and Renforth 1996). Numerous studies used only single item measures of internationalization – most often foreign sales to total sales ratio, or the number of markets served (e. g. Verwaal and Donkers 2002; Wolff and Pett 2000; Riahi-Belkaoui 1998; Fernandez and Nieto 2006; McDougall and Oviatt

1996; Lu and Beamish 2006; Wagner 2004). 'Export intensity is a frequently used measure – higher export intensity indicates a greater DOI and is therefore a measure of the effectiveness with which a firm has internationalized its activities' (Wolff and Pett 2000, 42). However, more and more researchers indicate the inappropriateness of using single item measures for such a complex phenomenon as internationalization. It is argued that multiple item measures should be used in research in order to increase the validity level of the results (Sullivan 1994; Hadley and Wilson 2003). In this study DOI<sub>SME</sub> was operationalized as a compound measure that consists of: (1) export intensity measured as foreign sales to total sales; (2) management's satisfaction with the firm's international performance (Javalgi, Griffith and White 2003); (3) manager involvement in international activities (measured as a percentage of time spent on internationalization monthly). The factor analysis indicated that loadings of these three items were between 0.681 and 0.798. A further reliability analysis showed that construct DOI<sub>SME</sub> had a Cronbach's alpha of 0.602 that is satisfactory in exploratory studies – it is greater than 0.50 and as such it satisfies Nunnally's threshold level of acceptable reliability (Suaraz-Ortega and Alamo-Vera 2005).

#### PERFORMANCE

Following Murphy, Trailer and Hill's (1996) recommendations, the performance measurement in this study covers three dimensions of performance: efficiency, profitability and growth. Efficiency was operationalized by return on equity (ROE) and value added per employee (VA/EMPL). Growth was measured by change in sales ( $\Delta$ SALES) and change in the number of employees ( $\Delta$ EMPL). Profitability was captured by return on sales (ROS) and return on assets (ROA). All values of the performance indicators were provided by the database GVIN.

#### CONTROL VARIABLES

In order to increase the reliability of results' it is recommended to use control variables as factors other than independent variables, may affect dependent variables (i. e. the level of internationalization and performance indicators). According to Murphy, Trailer and Hill's (1996) review, the size of the firm, the age of the firm and industry are among the most often employed control variables. Numerous previous researches found these variables to be determinants of the firm's performance and the level of internationalization (Autio, Sapienza and Almeida 2000; Yli-Renko Autio and Tontti 2002; Verwaal and Donkers 2002; Wolff and Pett 2000;

Fernandez and Nieto 2005). In this study these three control variables were employed – the firm's age (*AGE*), the firm's size (*SIZE*) (controlled with the log of the total number of employees) and industry (*IND*) (controlled with dummy variables). The data for these variables were taken from the database *GVIN*. Correlations for all variables (except for the industry dummies) are shown in table 4.

## Analysis and Results<sup>1</sup>

### MANAGERIAL FACTORS AND INTERNATIONALIZATION

In order to test whether the managerial attitude toward internationalization (*ATT*), internationalization knowledge (*INT\_KNOW*) and international experience (*INT\_EXP*) are associated with the level of firms' internationalization (*DOISME*), the following equation was estimated:

$$\begin{aligned} \text{DOISME} = & \alpha + \beta_1 \text{ATT} + \beta_2 \text{INT\_KNOW} + \beta_3 \text{INT\_EXP} + \beta_4 \text{SIZE} \\ & + \beta_5 \text{AGE} + \sum_{n=1}^4 (\beta_{6n} \text{IND}_n) + \mu. \end{aligned} \quad (1)$$

Table 5 summarizes the regression analyses for Model 1, estimating the relationship between managerial resources and the level of firms' internationalization (hypotheses 1–3).

Model 1 is significant at the level of 0.01 and indicates that control variables – the firm's age, the firm's size, and industry are not significant in explaining the level of internationalization. Model 1 explains 25% of the variance of *DOISME*. Two out of three managerial factors are significant. The manager's attitude toward internationalization ( $p < 0.01$ ) and the management team's internationalization knowledge ( $p < 0.05$ ) are positively related to the level of firms' internationalization. In the case of the third variable – the manager's international experience – we did not discover the relation between that and the dependent variable. Thus,  $H_1$  and  $H_2$  are confirmed, and  $H_3$  is rejected.

### INTERNATIONALIZATION AND PERFORMANCE

The following equations were estimated to test the relationship between different performance indicators and the level of internationalization:

$$\begin{aligned} \text{ROE} = & \alpha + \beta_1 \text{DOISME} + \beta_2 \text{SIZE} + \beta_3 \text{AGE} \\ & + \sum_{n=1}^4 (\beta_{4n} \text{IND}_n) + \mu \end{aligned} \quad (2)$$

TABLE 4 Correlations and descriptive statistics

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1 ATTITUDE	1											
2 INT_KNOW	0.408***	1										
3 INT_EXP	0.236*	0.142	1									
4 DOI <sub>SME</sub>	0.482***	0.466***	0.086	1								
5 VA/EMPL	0.399***	0.342***	0.205*	0.203*	1							
6 ROE	0.096	-0.002	-0.138	0.049	0.241*	1						
7 ΔSALES	0.112	0.024	-0.006	0.059	0.293**	0.412***	1					
8 ΔEMPL	0.071	-0.208*	-0.135	0.195	0.090	0.426***	0.547***	1				
9 ROA	0.29**	0.265**	-0.013	0.208*	0.628***	0.560***	0.234*	0.065	1			
10 ROS	0.284**	0.252**	-0.124	0.217*	0.648***	0.463***	0.252**	0.172	0.870***	1		
11 AGE	0.172	0.119	0.002	0.042	0.001	-0.465***	-0.162	-0.270**	-0.247**	-0.253**	1	
12 SIZE	0.007	0.068	-0.196	0.069	-0.312**	-0.268**	-0.189	-0.027	-0.245**	-0.135	0.352***	1
Mean	24.39	21.09	0.00	0.00	4.40	14.12	0.14	0.05	3.66	2.14	15.91	1.79
Std. dev.	3.82	4.21	1.84	2.24	0.20	24.42	0.18	0.13	7.46	5.63	7.09	0.32
Min	11.00	12.00	-2.04	-5.32	3.98	-30.71	-0.20	-0.28	-12.02	-18.01	2.00	1.11
Max	30.00	30.00	3.75	5.00	5.02	116.70	0.72	0.54	36.96	19.41	34.00	2.44

NOTES \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

TABLE 5 Estimates for the regression model with DOI<sub>SME</sub> as a dependent variable (model 1)

Independent variables	$\beta$	<i>t</i> -value	Sig.
ATTITUDE	0.404***	3.198	0.002
INT_KNOWLEDGE	0.345**	2.641	0.011
INT_EXP	-0.047	-0.405	0.687
SIZE	0.038	0.321	0.749
AGE	-0.061	-0.508	0.613
IND 1	0.152	1.265	0.211
IND 2	-0.015	-0.122	0.903
IND 3	0.050	0.421	0.676
IND 4	0.105	0.835	0.407
Adjusted R <sup>2</sup>	0.250		
<i>F</i>	3.449***		

NOTES Standardized regression coefficients are shown. \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

$$\frac{VA}{EMPL} = \alpha + \beta_1 DOI_{SME} + \beta_2 SIZE + \beta_3 AGE + \sum_{n=1}^4 (\beta_{4n} IND_n) + \mu \quad (3)$$

$$ROA = \alpha + \beta_1 DOI_{SME} + \beta_2 SIZE + \beta_3 AGE + \sum_{n=1}^4 (\beta_{4n} IND_n) + \mu \quad (4)$$

$$ROS = \alpha + \beta_1 DOI_{SME} + \beta_2 SIZE + \beta_3 AGE + \sum_{n=1}^4 (\beta_{4n} IND_n) + \mu \quad (5)$$

$$\Delta SALES = \alpha + \beta_1 DOI_{SME} + \beta_2 SIZE + \beta_3 AGE + \sum_{n=1}^4 (\beta_{4n} IND_n) + \mu \quad (6)$$

$$\Delta EMPL = \alpha + \beta_1 DOI_{SME} + \beta_2 SIZE + \beta_3 AGE + \sum_{n=1}^4 (\beta_{4n} IND_n) + \mu \quad (7)$$

All of the six models examining the influence of DOI<sub>SME</sub> on performance are statistically significant (see table 6).

TABLE 6 Estimates for the linear regression models with different performance indicators as dependent variables

Variable	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Dependent variable</i>	ROE	VA/EMPL	ROA	ROS	ΔSALES	ΔEMPL
<i>Independent variables</i>						
DOISME	0.073	0.198*	0.201*	0.199*	0.067	0.211*
SIZE	-0.156	-0.325**	-0.199	-0.059	-0.199	0.035
AGE	-0.360***	0.107	-0.119	-0.182	-0.049	-0.278**
IND 1	0.165	-0.115	-0.012	-0.063	0.364***	0.353***
IND 2	-0.168	0.011	-0.107	-0.083	-0.078	-0.108
IND 3	0.026	0.030	0.250**	0.253**	-0.013	-0.185
IND 4	-0.198	-0.272**	-0.232*	-0.278**	-0.157	-0.146
Adjusted R <sup>2</sup>	0.258	0.139	0.187	0.188	0.153	0.263
F	4.279***	2.498**	3.174***	3.183***	2.680**	4.315***

NOTES Standardized regression coefficients are shown. \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

Models 2 and 3 estimate the assumption that the firm's efficiency (measured respectively by ROE and value added per employee) grows together with the level of firms' internationalization. However, the impact of DOISME is significant and positive only in case of VA/EMPL (Model 3), although at the lower level of statistical significance ( $p < 0.10$ ). Thus, the hypothesis H4A is partially confirmed.

Models 4 and 5 test the hypothesis H4B – that an increase in the level of a firm's internationalization is associated with an increase in the firm's profitability (measured respectively by ROA and ROS). In both models the independent variable DOISME is positively related to the firm's profitability, at the lower level of significance ( $p < 0.1$ ). Therefore, hypothesis H4B is confirmed.

Models 6 and 7 estimate the assumption that a firm grows (in terms of sales volume or number of employees) together with the level of internationalization. This assumption is confirmed only in the case of Model 7, indicating that an increase in the level of internationalization is associated with an increase in employment ( $p < 0.1$ ). Therefore, hypothesis H4C is partially confirmed.

Control variable effects. In congruence with the results of previous studies (Reuber and Fisher 1997), neither firm size nor age were significant in explaining the level of firm internationalization, but it emerged

that they did have an impact on the firm's performance. First, the firm's size (measured as the log of number of employees) had a negative influence on the firm's efficiency (measured as value added per employee ratio). It is clear that bigger firms in terms of employment are less efficient in creating additional firm value. Second, firm age negatively influences the firm's growth (measured as a change in employment) and efficiency (ROE), which indicates that with age firms grow more slowly and less efficiently. With regard to the third control variable, some industry effects were observed only in the case of performance-based models.

### **Discussion and Conclusions**

In this study we aimed to explore the relationship between managerial resources and the level of SMEs' internationalization, as well as the relationship between the level of internationalization and the firm's performance in terms of efficiency, profitability and growth.

Ruzzier, Antoncic and Konecnik (2006) stated that human resources are significantly differentiating internationalized and non-internationalized SMEs. We may further develop this argument by adding that human resources play also an important role in determining the degree of the firm's internationalization. With respect to this, managerial attitude and internationalization knowledge (both refer strictly to human resources of SMEs) proved to be related to the level of the firm's internationalization. In line with the findings of Javalagi, Griffith and White (2003), favorable managerial attitudes toward internationalization and perceptions about export advantages are positively associated with the level of SMEs' internationalization. This supports the notion that managers with a more favorable attitude become less concerned with the complexities of international expansion (Axinn 1998). This finding confirms the growing significance of the cognitive approach in IB that focuses on managerial cognition and 'mindset' (Nadkarni and Perez 2007; Levy et al. 2007), underlining their role in the decision making process and subsequent behaviors of internationalized firms.

The management team internationalization knowledge is also shown to be significantly associated with the level of internationalization. This sort of knowledge captures the procedural and technical aspect of the internationalization process. It helps to successfully enter foreign markets and therefore enhances the level of internationalization. The knowledge is coded in organizational routines, decreasing the decision-makers' uncertainty level with regard to further international expansion.

Contrary to our expectations, prior foreign experience is not related to



the internationalization level. This implies that in the content of a given country (small economy, characterized by limited absorption power of domestic market), the postulated significance of the manager's international experience is insignificant in the case of SMEs that have already decided to follow the path of international growth. Nonetheless, it might have been significant when managers were deciding whether or not a firm should go international. Such an explanation would be congruent with Ruzzier and colleagues' (2006) findings. They observed that employees of internationalized SMEs had broader international experience and foreign language skills than their non-internationalized counterparts. Unfortunately, due to the research design (focus on internationalized SMEs only), the verification of whether the international experience of managers differentiates internationalized and non-internationalized SMEs is beyond the scope of this study.

Regarding the relationship between the firm's internationalization and performance, the findings of this paper are mixed with respect to different performance dimensions (efficiency, profitability and growth). It supports Murphy, Trailer and Hill's (1996) recommendations that researchers interested in firms' performance should always clearly indicate which dimension or dimensions of performance are examined. We have observed positive relationships between the level of firms' internationalization and four indicators of performance (i. e. value added per employee; return on sales, return on assets and growth in the employee number). Therefore, the study findings indicate that following the strategy of international expansion is profitable for SMEs. In the case of other performance indicators (i. e. return on equity and growth in sales volume), the level of internationalization has not been significant. Thus, the findings concerning efficiency and growth do not allow for unambiguous conclusions. All significant relationships identified by the study are presented in figure 3.

The findings discussed broaden the understanding of SMEs internationalization in a relatively new context in IB literature (CEE, post-transition and small economy). Although Slovenia-based research on internationalization has addressed important issues regarding various internationalization modes of the Slovenian economy (Rojec and Jaklic 2002), firms' ability to innovate through international exposure or ownership (Damijan, Jaklic and Rojec 2005), we know only of one study that has touched on similar research issues (Ruzzier, Antoncic and Konecnik 2006).

The significance of managerial attitude and the management team

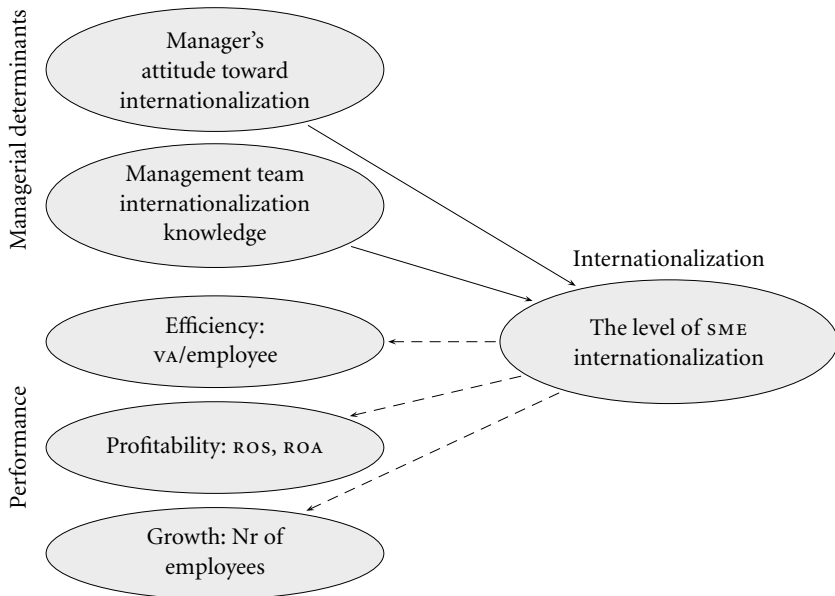


FIGURE 3 Significant relationships between variables (All shown relationships between variables are positive (+). Relationships between managerial resources and internationalization are significant at least at the level of  $p < 0.05$ , while relationships between internationalization and performance dimensions are significant only at the level of  $p < 0.10$ .)

internationalization knowledge for internationalization has been supported in this context, as well as the beneficial influence of the level of internationalization for profitability. However, the notion that managers' international experience is an important factor relating to the level of internationalization has not been confirmed. Taking into consideration that the majority of theories is built and tested in a single country context, verifying theoretical assumptions in a new environment seems not only justifiable, but also most welcome.

### Notes

- 1 An analysis of some data was earlier presented in Ciszewska-Mlinarič 2009.

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