

**Suggested citation:**

A.S. Gubik, Z. Bartha (2014). The Significant Elements of Business Knowledge in the Internationalisation Process of the Visegrad Group Corporations (chapter 2) In: N. Daszkiewicz & K. Wach (Eds.). *Firm-Level Internationalisation and Its Business Environment: Knowledge-Based and Entrepreneurial Approach*. Gdańsk: Gdańsk University of Technology Publishing House, pp. 19-33.

# THE SIGNIFICANT ELEMENTS OF BUSINESS KNOWLEDGE IN THE INTERNATIONALISATION PROCESS OF THE VISEGRAD GROUP CORPORATIONS

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## Abstract

The aim of this chapter is to identify the knowledge elements that are crucial in the internationalisation process of the Visegrad Group firms. It uses a two-dimensional model of business knowledge, which separates business knowledge along two dimensions: the tacit or explicit nature; and the codified or uncodified one. This model tells us that tacit and codified knowledge is the most difficult to transfer, while the explicit-uncodified part is the easiest. The five types of business knowledge were measured with a questionnaire conducted among 1124 firms from the V4 countries, including 240 Polish, 597 Czech, 113 Hungarian and 144 Slovak firms. It was found that knowledge is significantly related to the internationalisation process. The most important knowledge elements in both the decision of going international, and the intensity of internationalisation are the tacit and codified parts.

**Key words:** Internationalisation, business knowledge, Visegrad countries

**JEL classification:** M16, L20, L21

## 2.1. Introduction

Government support to smaller or larger local corporations is a standard structural policy instrument in the Visegrad countries. The support can come as a direct subsidy (for creating extra jobs, engaging in innovation, exporting goods etc.), or it can come in some indirect form as well (providing key infrastructure, information, consultancy services etc.). Apart from the fact that standard economic models discourage from the use of any form of government subsidy (with the small exception of market failure remedies) as they claim that such transfers inevitably distorts efficiency, deciding on the correct form of government support is a major economic policy dilemma. The dilemma is related to the question of whether it is resources (capital, energy), infrastructure (financial, transportation,

telecommunication) or information and knowledge (qualified labour, market information, experience) that are in the scarcest supply.

The OECD published its report on knowledge-based economies in 1996, stating: “The OECD members’ economy is based more and more on knowledge and information. It is widely accepted that only through knowledge can productivity and economic growth be increased, and as a result of it, information, technology and learning play a central role in economic performance” (OECD, 1996, p. 3). The main message put forward by the report almost 20 years ago is now a reality. Knowledge has become the key success factor on the micro and the macro level as well. Knowledge is also very important in the internationalisation process of the firms. It is therefore essential to identify which kind of knowledge is most needed in an internationalised firm.

For the reasons mentioned above this chapter focuses on business knowledge, and its role in the internationalisation process of the V4 corporations. Using a questionnaire conducted among 1124 firms from V4 countries, obtained through the support of IVF Standard Grant no. 21310034 we identify which knowledge elements are most closely related to the international activities of the surveyed firms. The pattern uncovered can be used to determine the areas which government sponsored consultancy services should concentrate at. As, depending on the stickiness, business knowledge can be rather easy but also extremely difficult to transfer, our research can enlighten why some consultancy efforts seem to lack efficiency.

The chapter is made up of four sections. Theories on the connection between internationalisation and knowledge are presented first. The literature review is followed by the introduction of a model of business knowledge, which shows which parts of knowledge are easy, and which ones are difficult to transfer. An analysis of the survey data follows in the next section, pointing out the key correlation relationships among business knowledge parts and international activities. Finally, the conclusion sections points out the main lessons to be learnt from the analysis.

The research presented in this chapter is a direct follow-up to the analysis conducted on Hungarian survey data in Bartha-Gubik, 2014. The current results are more reliable, compared to the previous paper, because of the much larger sample. Although the companies in the current, extended sample come from different countries, the V4 share a common historical, cultural and geopolitical background, which allows us to aggregate the experience coming from Czech, Hungarian, Polish and Slovak firms. As a result, the recommendations put forward are better based as well.

## 2.2. Literature Review

### **The Role of Knowledge in Internationalisation**

Besides geographic distance other dimensions like cultural differences, language barriers, differences in educational and political systems (Johanson, Wiedersheim, 2006) has to be overcome during the internationalisation process. Different internationalisation theories emphasise different knowledge elements in the process, but there’s no consensus which of them are crucial.

One group of models emphasize the gradualism in the internationalisation process. This perspective is included in the Uppsala model (Johanson, Vahlne, 1977, 1990) according to which the engagement in international activities evolves gradually. In the first stage, when a company has insufficient knowledge of the market and the partners operating in it, it chooses a simple form of appearance in the market (for example, export). Later, due to its

accumulated experience, the company transforms in a more complex form (for example, sets up a subsidiary).

In this model knowledge is based on previous experience, obtaining it in a learning-by-doing process. As a result this knowledge is embedded in individuals. According to the model as the employees' knowledge increases, their international involvement of the company increases as well. Knowledge can be embedded not only in individuals, but also in teams and company organisations. Organizational learning is viewed as routine-based, history-dependent, and target-oriented (March, Levitt, 1988).

The export development models, such as the Reid export behaviour model (Reid, 1981), also emphasize the gradual character of the company's internationalisation process. However, they primarily analyse decision-making processes in terms of export activities and main factors related to this. This model pays far more attention to individual characteristics and how these influence export behaviour.

In the 1990s a new group of companies emerged, which rapidly broke into international markets (born-global enterprises). Their common characteristics are that the entrepreneur has a strong international entrepreneurial orientation, he is proactive and aggressive during the internationalisation (Cavusgil, Knight, 2009).

There is a general consensus that apart from personal experience and professional knowledge of company managers, social and economic networks created around companies also play a key role in decision-making processes. Network theory (Johanson, Mattsson, 1987) highlights the firm's business context as a crucial factor in companies operation. It emphasizes the role of long term relationships and the role of the individual's personal networks in firms' successful operation.

See Wach (2014a) for further details on the topic.

### **Knowledge typologies, the relevant knowledge for businesses**

In order to set up a model of business knowledge that can be used to explain the internationalisation process, we need to distinguish between relevant and irrelevant elements of knowledge. During the literature discussion we follow the logic of Bartha, 2011.

'We are drowning in information, but starved for knowledge' – wrote John Naisbitt in his famous book, *Megatrends*, written in 1982. The dual nature of knowledge and information is clearly shown by this quote, and this duality affects the transferability of knowledge quite significantly. Statistical data, for example, are quite easy to transfer. It can be made available online, in easy to process format, but in order to make profitable decisions based on it, one has to be able to understand the pattern behind raw data, which can be rather difficult and time consuming. On the other hand, if one possesses adequate data processing skills that make it possible to crunch big chunks of data, the previous problem can be solved within hours, however if that knowledge is not available inside the company, the transfer (learning) can take years. The tacit or explicit nature of knowledge is one dimension along which different elements of it can be sorted.

Some elements of knowledge may only be valuable within a certain firm or industry (e.g. experience on whom you have to contact to successfully push through a cost cutting plan; who are the most valuable partners in a given sector). Others can be widely used across many firms and industries (e.g. knowledge on how to avoid taxes through offshoring). The codified/uncodified nature of knowledge is the other dimension that greatly influences the success rate of knowledge transfers. Our model incorporates these two dimensions into the analysis.

Polanyi (1966) was the first one to distinguish tacit and explicit knowledge. Knowledge can be publicly available and private at the same time. It is this duality of

knowledge that is reflected in the different categories of Polanyi. A smaller part of our knowledge is public and for that reason explicit, consisting of factual knowledge and knowledge of rules and regulations. Tacit knowledge on the other hand forms the basis of all our explicit one, it can be regarded as tool that helps us in acquiring and creating new knowledge. Usually we would not even call it knowledge, and use expressions like intuition, logic, associative skills, experience, traditions or apprehension instead. These are the skills that are used to identify and understand new knowledge, and help us integrating into the community.

One of the first attempts at the classification of business knowledge (knowledge relevant for companies) was done by Lundvall (Lundvall, Johnson, 1994). He set up four categories:

1. Know what: it basically is equal to information. It comprises of knowledge that is easily recorded and stored in forms of bits.
2. Know why: includes the knowledge of scientific rules.
3. Know how: it comprises skills and experiences that help the solving of certain problems. Know how usually is acquired when doing things. Because of that we tend to think that know how is rather a practical than a theoretical category, but this is far from the truth. We not only need know how to carry out practical tasks, but theoreticians also heavily rely on it. It was Polanyi (1966) who pointed out that the mind schemes used to help in understanding complicated situations, are key to theoreticians as well.
4. Know who: consists of information and experience about who knows things about certain problems. As organisations become more and more complicated, coordination becomes more and more important. When we have to coordinate in a large organisation, know who is of key importance.

This classification is quite similar to Polanyi's. The first two, know what and know why can be called explicit knowledge, while the second two, know how and know who are tacit knowledge.

The market value and the book value of public companies often is very different, with the market value being a lot higher than the book value. It was pointed out long ago that the difference is largely thanks to the accumulation of intangible assets. The intangible part is called goodwill, the intellectual value of business. Opinions differ on what exact types of intangible assets does goodwill comprise of. Sveiby (1997) attempts to detect the intangible assets of the company, and distinguishes among three types of so called invisible assets: external structure, internal structure and competence.

Sveiby's classification was driven by the will to separate intangible assets linked to individuals from the ones linked to the organisation. Personal knowledge is shown by the competencies of the employees, structural knowledge on the other hand by the inside and outside structure. The competencies of the employees mean the ability of employees to create physical and intellectual value. Into the inside structure category fall the patents, theories, models, IT and administration systems either created by the company or purchased by it, and also the corporate culture, and the organisational atmosphere. All the links formed with clients and sellers, are part of the outside structure, and also the signs that help distinguishing the company and its products from the competitors: trade marks and corporate image.

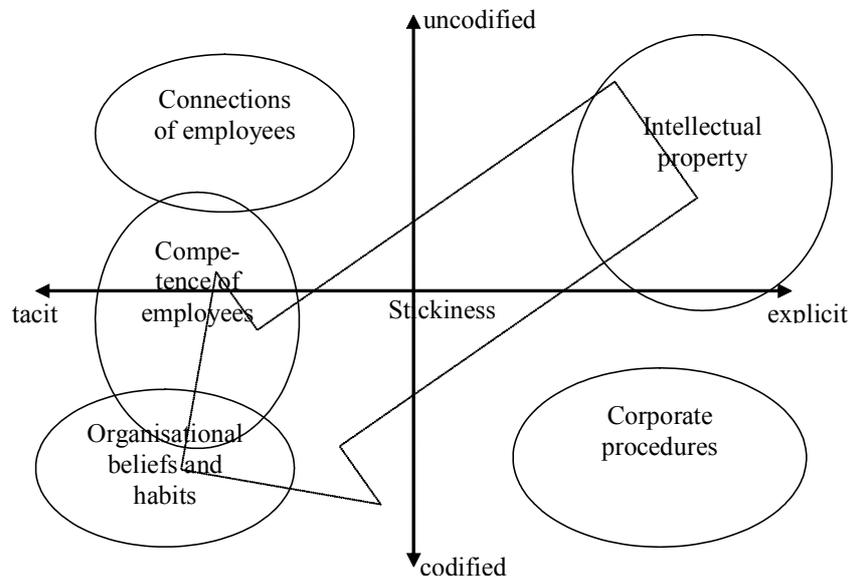
The idea behind Sveiby's three categories was used to formulate our own model, however the structure had to be rearranged and complemented with another dimension (complexity or the specific nature of knowledge) to better suit the purposes of our analysis. Specific nature means the rate at which the knowledge is linked to the organisation, and we consider a certain body of business knowledge more and more specific if it is linked more and more

to the inside systems of the organisation. Specific business knowledge is deeply coded in the routines of the organisation, and without knowing these routines it is impossible to interpret it. We can also distinguish between specific knowledge coded into employees (Starbuck, 1992) and organisational routines (March, Levitt, 1988). While in case of availability we have explicit and tacit on the two ends of the scale, in case of specific nature we can talk about codified and non-codified knowledge. The latter is also in line with Kuwada's typology of corporate strategic knowledge (Kuwada, Asaba, 1989), separating corporate level knowledge from industry level knowledge.

### 2.3. The Dual Knowledge Model

We use the dual knowledge model to analyse the connection between internationalisation and business knowledge. It was first suggested in 2006 (Bartha, 2006), and made available in English in 2011. Most of this section follows the ideas put forward in Bartha, 2011. The dual typology makes it possible to separate individual-bound knowledge from explicit one, and also corporate-bound knowledge from more general one, that can be easily interpreted in all circumstances. So the specific and tacit part of business knowledge is very sticky, it is difficult to copy or transfer, while the explicit-non-specific part of business knowledge can get easily out of control.

We now proceed by discussing all five elements in Figure 2.1 one by one, and we also list the questions posed in our survey that may be used as a proxy to measure them.



**Fig. 2.1.** The dual or two-dimensional knowledge model

Source: (Bartha, 2011, p. 4.4)

### **Competence of Employees**

The first category of Sveiby, the competency of employees is directly transferred to our model. But we will not only include the competency of employees into this category, but also those of the entrepreneur or owner-manager. This first group of business knowledge therefore reflects the ability of people to create new physical or intellectual value through interactions. What abilities are we talking about? The know what and know why of all the employees, the experience and logical models applied by them.

While the competency of employees is evidently tacit, the specific nature of it is unclear. Some elements are non-specific, like know what or know why. Other elements however are highly codified, they cannot be learnt in school (unlike the previous, non-specific parts), and can only be acquired and increased after joining the company.

### **Organisational Beliefs and Habits**

The competency of employees is a unanimous category because the organisational beliefs and habits integrate the employees working on the managerial level with the ones working lower down the organisational hierarchy. These beliefs and habits are integrated into the minds of the employees, and so they contribute to the efficient cooperation. The organisational beliefs and habits form the common knowledge of all of the employees, so they are the common knowledge of the whole organisation. As a result they are tacit and specific in nature. They can only be learnt after joining the organisation, and when an employee changes a job, loses this part of his business knowledge.

### **Connections of Employees**

The cooperation among parties taking part in the creation and diffusion of knowledge is crucial for success. Those who have a lot of friends, and know a lot of people who are willing to help them, can learn faster, and so they can solve problems at a quicker pace. That is why the know who of individuals is part of business knowledge, and it will be called the connections of employees. The basis of the connections of employees is trust, the belief in the fact that the help given will result in help received when needed. The trust is linked to persons, so it is tacit, but it is mostly unrelated to organisations, so it is non-specific. Its value is not decreased if someone leaves an organisation, and is not necessarily increased when joining a new firm.

### **Corporate Procedures**

Most of the explicit knowledge that is possessed by the company at a given time was created by the tacit knowledge of the company. A smaller part comes for procurements, or some other forms of non-commercial transfer. Obviously there are some companies which get most of their explicit knowledge from transfers (like franchise firms, for example), but they cannot be called typical for an average company. The explicit knowledge base of the enterprise can be divided into two main categories. The factor of division is whether the explicit knowledge can be patented or not, more precisely whether there is any reason to patent the knowledge. Patented explicit business knowledge can be regarded as a product as well, the commercial transfer of it is more or less possible. Those elements of business knowledge that cannot be patented (or for some practical reasons there is not much point in patenting them) on the other hand, embody the most quickly evaporating resources of the company. As they were already recorded, there are low cognitive barriers during the learning process, so the competitors can copy them with relative ease. These unpatented explicit elements of business knowledge are called corporate procedures.

Despite the above statements corporate procedures have elements that are relatively difficult to copy. The reason for that is the fact that many of these procedures are highly

codified. Many elements of the corporate procedures are only efficient if some other conditions also apply, like a certain type of corporate culture, organisational hierarchy etc. These bodies of knowledge are not patented, still, the fact that they are hard coded into the organisation, makes it difficult for other companies to mimic and copy them.

#### **Intellectual Property**

All other parts of explicit knowledge that are patented fall into the category of intellectual property. These bodies of business knowledge are very general, and the least coded into the organisational specifications. The two main subcategories here are patents coding technological instructions and copyrights protecting the intellectual property of individuals. Patents usually represent a high value for corporations, copyrights on the other hand only if the copyrighted material is relevant to the main profile of the company.

## **2.4. Material and methods**

The chapter presents the results of the research project no. StG-21310034 (Patterns of Business Internationalization in Visegrad Countries – In Search for Regional Specifics) financed by the International Visegrad Fund in the years 2013-2014. The data was obtained from a survey (an e-mail or a telephone conversation request followed by an online password protected questionnaire) conducted among 1124 firms from V4 countries, including 270 Polish firms, 597 Czech firms, 113 Hungarian firms and 144 Slovak firms (Gubik, Karajz, 2014; Wach, 2014b; Daszkiewicz, Wach, 2014; Duréndez, Wach, 2014; Gubik, Wach, 2014).

The sample does not represent the Visegrad Group companies since this was not the purpose of the data collection. A sample with the same ratio of different company size groups would have encompassed mainly micro-sized enterprises, which were less active internationally and would have been less suitable for achieving the goals of the research. The purpose of this survey was to include an approximately similar amount of companies of different sizes in the research, that's why large and internationally active companies are over-represented in the sample. When evaluating the results of this paper this fact has to be considered because it may affect the generalizability and applicability of the results. Company size is especially important, because the larger the firm, the higher the chance that it uses some sort of business information system (Sasvari, 2012), and such systems can form the backbone of the corporate-level business knowledge.

#### **Sample characteristics**

As for company size, approximately 24.5% of companies were micro-sized enterprises, 42.1% were small-sized enterprises, 21% were middle-sized companies and 12.5% were large companies. Most companies were founded after 1990, less than 10.8% had a longer lifespan than 25 years. Only 47.2% of companies reported that the business was a family business. According to our definition they are firms that are solely (or dominantly) owned by the same family, employ family members or are active in supporting the business processes of the family members. In our database 684 (61%) of companies are owned by domestic investors and 131 (11.7%) of companies are in foreign ownership with 100% share.

As for the business activities of the surveyed companies, the ratio of industrial companies are 39.6%, 40.2% are service providers, 16.5% are trade companies and 3.5% are involved in agricultural activities. Within the industrial firms, construction and manufacturing were the most often mentioned economic activities. Besides them companies with professional,

scientific and technical activities and information and communication technology firms are also above the average.

#### Questions used to assess the business knowledge of firms

The proxy variables used to measure the five elements of business knowledge come from the IVF survey conducted during 2014. Some of these knowledge elements will only be measured by one variable, while a combination of two or more variables is used to operationalize others. Table 2.1 summarises the proxies of our analysis.

In case of the competence of employees we rely on the answers given to the following three questions:

1. Evaluate the internal resources of your firm for the internationalization process, please. Human resources for internationalisation (e.g. staff members fluent in foreign languages, experienced with foreign markets and different cultures).
2. Evaluate the attitude of the owner/entrepreneur/manager of your firm for the internationalisation process, please. Experience on international markets.
3. Evaluate the attitude of the owner/entrepreneur/manager of your firm for the internationalisation process, please. Professional business experience in general.

**Table 2.1.**

Proxies used to measure the five elements of business knowledge

Business knowledge element	Proxy	Measurement method
Competence of employees	1. Human resources for internationalization 2. Experience on international markets 3. Professional business experience in general	1-5 Likert scale
Organisational beliefs and habits	1. Motivation to go international 2. Cosmopolitanism and international openness	1-5 Likert scale
Connections of employees	Cooperation methods	Multiple choice question
Corporate procedures	1. Planned strategy 2. Knowledge on international markets	Multiple choice question 1-5 Likert scale
Intellectual property	Innovations implemented	Multiple choice question

*Source:* own elaboration

Organisational beliefs and habits are measured using the answers given to questions:

1. Evaluate the attitude of the owner/entrepreneur/manager of your firm for the internationalisation process, please. Motivation to go international
2. Evaluate the attitude of the owner/entrepreneur/manager of your firm for the internationalisation process, please. Cosmopolitanism and international openness.

The following question measured the connections of employees:

While going international, do you operate in any formal or at least informal networks? (we do not cooperate in any international and/or national networks for internationalisation / we operate in at least one informal network, which helps us in the internationalisation process / we operate in at least one formal network, which helps us in the internationalisation process).

For the measurement of corporate procedures two questions were used:

1. Do you have a planned strategy for internationalisation of your firm? (no / partially, but the strategy is not formalised / yes, we have the international strategy).
2. Evaluate the attitude of the owner/entrepreneur/manager of your firm for the internationalisation process, please. Knowledge on international markets.  
Finally, the intellectual property of firms was evaluated with this question:  
Has your firms implemented any innovation for the last 3 years (yes/no)? If yes, what type of innovation was it and what was the scope of innovation?

### **Hypotheses**

Based on the literature review, and the results of our previous study on the topic (Bartha-Gubik, 2014) three hypotheses were formulated. We assume that the most difficult decision in the internationalisation process is made in the beginning, when a firm first decides on venturing to foreign markets. The attitude of the employees and the corporate culture may strongly influence this first decision.

Knowledge plays a key role in the internationalisation process of the firms.

Among the different types of knowledge that a firm may possess, the codified and tacit parts are the more important ones when the internationalisation decision is made.

Among the different types of knowledge that a firm may possess, the uncoded and explicit parts are the more important ones in the internationalisation intensity of the firm.

## **2.5. Results and Discussion**

### **Appearance in International Markets**

The relationship between each individual proxy variable and the international activity of firms was tested. The question related to measuring the international appearance was the following: Does your firm run any international activities, at least importing from other countries? Table 2.2 shows the result of the analysis. The results of the survey indicate that the decision of the firms about internationalisation depends on all the knowledge elements analysed. The strength of the relationships, however, is not the same. The two elements with the strongest influence are: competence of employees, and organisational beliefs and habits. Namely cosmopolitanism and international openness has a Cramer  $V=0.409$ , and in case of the motivation to go international the Cramer  $V=0.508$ ; the same indicator for the experience on international markets is 0.448.

The professional business experience in general (competence of employees), and the implemented innovation (intellectual property) variables are only weakly correlated with internationalisation; while the knowledge on international markets (corporate procedures) is moderately correlated. The variables measuring the connections of employees and partly the corporate procedures cannot be computed here.

The most important knowledge elements are the more embedded parts (codified and tacit), which are difficult to transfer. Internationalisation therefore is rather difficult to influence, because the key knowledge parts can hardly be changed from the outside. As the most commonly used methods of support services are concentrated on giving factual information to the firms, such methods of support are unlikely to have a considerably impact on the decision. The sample data makes it very clear that the individual knowledge element variables are not only correlated with internationalisation, but they are also correlated with each other (see Table 2.3).

Table 2.2.

## Decisive factors of going international

Business knowledge element	Proxy	Cramer V	Sig.
Competence of employees	Human resources for internationalization	0.350	0.000
	Experience on international markets	0.448	0.000
	Professional business experience in general	0.256	0.000
Organisational beliefs and habits	Motivation to go international	0.508	0.000
	Cosmopolitism and international openness	0.409	0.000
Connections of employees	While going international, do you operate in any formal or at least informal networks?	---	---
Corporate procedures	Do you have a planned strategy for internationalization of your firm?	---	---
	Knowledge on international markets	0.373	0.000
Intellectual property	Has your firms implemented any innovation for the last 3 years?	0.219	0.000

--- No statistics are computed because Does your firm run any international activities, at least importing from other countries? is a constant

Source: own elaboration based on the V4 survey results of 2014 (N=1124)

Table 2.3.

## Firm knowledge and its internationalisation

Criteria	1	2	3	4	5	6	7	8	10
1 Human resources for internationalization	1								
2 Experience on international markets	,545 (.000)	1							
3 Professional business experience in general	,344 (.000)	,531 (.000)	1						
4 Motivation to go international	,558 (.000)	,610 (.000)	,418 (.000)	1					
5 Cosmopolitism and international openness	,497 (.000)	,592 (.000)	,465 (.000)	,698 (.000)	1				
6 While going int., do you operate in any formal or at least informal networks?*	.113 (.000)	.134 (.000)	.126 (.001)	.120 (.003)	.105 (.024)	1			
7 Do you have a planned strategy for int. of your firm?*	.303 (.000)	.315 (.000)	.212 (.000)	.310 (.000)	.267 (.000)	.182 (.000)	1		
8 Knowledge on international markets	,516 (.000)	,805 (.000)	,538 (.000)	,600 (.000)	,622 (.000)	.130 (.001)	.326 (.000)	1	
9 Has your firms implemented any innovation for the last 3 years?*	.282 (.000)	.216 (.000)	.203 (.000)	.256 (.000)	.232 (.000)	.127 (.001)	.251 (.000)	.217 (.000)	1

\*Cramer V is calculated

Source: own elaboration

This intercorrelation among the variables probably comes from the fact that the different knowledge elements together form the knowledge base of the firm, where they complement

and also substitute each other. The intercorrelation might also mean that basic information provided by support institutions can still have an impact on the internationalisation decision, as it spills over to the more complex parts of the knowledge base. Our database is not suited to test such speculative propositions; qualitative research (e.g. interviews, case studies) would be needed to get a clearer picture.

### Intensity of Internationalisation

A considerable proportion of companies are engaged in more than one international activity. An intensity indicator has been elaborated to measure internationalisation (Gubik, Karajz, 2014). It indicates how many possible foreign market entry modes a company has utilised during its international activities. The indicator ranges from 0 to 1, where 0 means that the company does not conduct activities in international markets and 1 means engagement in all activity types (import, direct export, indirect export, cooperative export, contractual modes and investment).

There are divergences in terms of size and activity areas of the companies. It is obvious, that the more resources are available, the more intensive internationalisation is. Beyond that, growing size of companies is closely correlated to the increase in motivation, knowledge and experience related to internationalisation. Beside the physical resources the importance of human resources like the employees' appropriate foreign language knowledge and experience in foreign market (Hitt et al., 2006) and experiential knowledge (Barkema et. al., 1996; Erramilli, 1991) is also indisputable.

Table 2.4 Shows the relationship between each individual proxy variable and the intensity of internationalisation.

**Table 2.4.**

Decisive factors of intensity

Category	Criterion	Spearman's Rho <sup>2</sup>	Sig.
Competence of employees	Human resources for internationalization	.322	.000
	Experience on international markets	.394	.000
	Professional business experience in general	.169	.000
Organisational beliefs and habits	Motivation to go international	.401	.000
	Cosmopolitanism and international openness	.321	.000
Connections of employees	While going international, do you operate in any formal or at least informal networks?	.100*	.016
Corporate procedures	Knowledge of international markets	.334	.000
	Do you have a planned strategy for internationalization of your firm?	.261*	.000
Intellectual property	Has your firms implemented any innovation for the last 3 years?	.225*	.000

\*In case of these variables Eta was calculated

Source: own elaboration based on the V4 survey results of 2014 ( $n = 1124$ )

The responses showed that all variables correlate with the intensity indicator. Although the decision on how to go international (intensity indicator) is a different one from the decision on whether or not going international at all, the results in Table 2.4 have a very

<sup>2</sup> As the precise measurement of these variables is not possible, an attitude scale was used, and so only rank correlation can be used (Varga, Szilagy, 2011).

similar pattern to Table 2.2. Here again, the relationship between the variables of organisational beliefs and habits knowledge element (motivation to go international, cosmopolitanism and international openness) was the strongest. The competence of employees and the corporate procedure are moderately correlated with the intensity indicator, and there is a very weak (but significant) stochastic relationship in case of the connection of employees.

As for intensity, both financial recourses and attitudes toward internationalisation seem to be important determinants. Similar to the decision about going international, the knowledge elements, which are deeply embedded into the firms' habits, are also of determining importance.

If subjective matters affecting internationalisation are taken into account and the support apart from the financial ones (coaching, consulting, etc.) is provided to promote internationalisation, companies are likely to take a more active part in different support programs.

## 2.6. Conclusion

The strongest relationship between internationalisation and the different elements of business knowledge was identified in the area of organisational beliefs and habits. It was closely followed by the competence of employees, and corporate procedures, while some significant relationship was detected in case of the intellectual property. The connections of employees has a weak, but significant effect on the internationalisation process in our sample (see Table 2.5).

**Table 2.5.**

Relevant knowledge elements based on our sample

Feature	Competence of employees	Organisational beliefs and habits	Connections of employees	Corporate procedures	Intellectual property
International activities	++	+++	x	++	+
Intensity of internationalisation	++	+++	+	++	+

+: significant relationship (weak+; moderate++; strong+++), x: cannot be computed

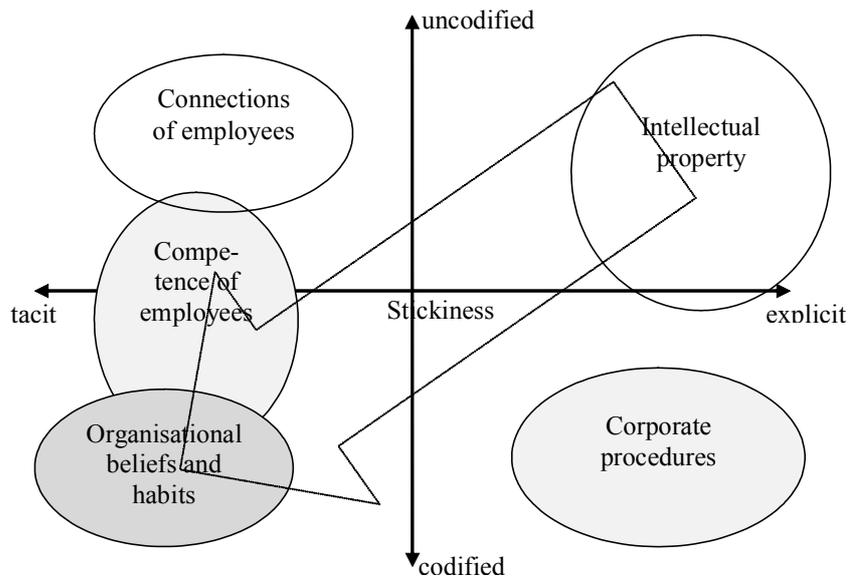
Source: own elaboration based on the V4 survey results of 2014 (n = 1124)

One of the striking features of our findings is that easily transferable business knowledge elements (explicit and uncoded ones) have little effect on internationalisation. Intellectual property, which is both explicit and uncoded, therefore the easiest to transfer, has a weak influence on the international activity of the firm. Corporate procedures on the other hand, an explicit but highly codified knowledge element, moderately affect the intensity of internationalisation.

Yet, most of the government sponsored services provide knowledge on these, easier to transfer areas. They offer market information, they try to teach young entrepreneurs how to prepare a formal strategy for the internationalisation process. They also provide information on the red tape barriers related to internationalisation.

Based on the findings above, such support is of no real help to firms looking to go international. More than that, the success would be questionable even if the government wanted to restructure its instruments, and focus on tacit and codified elements, because they

are way more difficult, and very time consuming to transfer. Organisational beliefs and habits, the knowledge element most strongly associated with internationalisation are exactly like that: tacit and codified in the same time. They are determined inside the firm, dependent on the corporate culture, and so they can barely be transferred outside.



**Fig. 2.2.** Relevant elements from the dual model

Source: own elaboration based on Bartha, 2011

One of the most common ways of transferring such sticky knowledge components is through formal and informal meetings, conversations. Meetings for exchanging experience among entrepreneurs, government institutions and researchers are not uncommon. Some government agencies regularly organise such conferences and gatherings. The other striking feature of our findings however is that connections which may easily be established at such meetings are very weakly correlated with the internationalisation process.

**Table 2.6.**

Checking the hypotheses

Hypothesis	Accepted	Rejected
Knowledge plays a key role in the internationalisation process of the firms.	✓	
Among the different types of knowledge that a firm may possess, the codified and tacit parts are the more important ones when the internationalisation decision is made.	✓	
Among the different types of knowledge that a firm may possess, the uncodified and explicit parts are the more important ones in the internationalisation intensity of the firm.		✓

Source: own elaboration

It worth noting that the intercorrelation among the variables used to measure the different knowledge elements might mean that basic information provided by support institutions can still have an impact on the internationalisation decision, as it spills over to the more complex parts of the knowledge base. Our database is not suited to test such speculative propositions; qualitative research (e.g. interviews, case studies) would be needed to get a clearer picture. In addition to that the sample is not representative wither. One has to be very cautious therefore when interpreting the results, and further research on a more representative sample is definitely needed before policy recommendations are established.

Based on the above we can accept Hypotheses 1 and 2, but we have not found evidence to support Hypothesis 3. It seems that tacit and codified knowledge is the most important in both the initial decision on internationalisation, and also in the intensity of internationalisation.

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