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KATARZYNA MROCZEK-DĄBROWSKA \*

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## Transaction Costs And Export Intensification – The Cases Of Poland And Hungary

### Abstract

*The purpose of this paper is to explain if and how foreign sales are affected by the level of transaction costs within industries in Poland and Hungary. The main hypotheses reflect the potential correlation for different types of industries. The paper attempts to transfer the notion of transaction costs, originally applied at the micro-perspective level, to the analysis of industries using a mesoeconomic perspective. We argue that transactions cost levels influence the overall willingness to expand abroad. While there has been much research carried out in the area of export intensification of particular companies, few empirical studies can be found concerning entire industries.*

**Keywords:** *export intensification, industry transaction costs, Poland, Hungary, degree of industry internationalization*

### 1. Introduction

Over the years, the process of globalization has definitively impacted the intensity of export practices all over the world. A number of articles have studied the potential motives for such international activities (Leonidou 1995;

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\* Ph.D., Poznan University of Economics, Department of the International Competitiveness, e-mail: [katarzyna.mroczek-dabrowska@ue.poznan.pl](mailto:katarzyna.mroczek-dabrowska@ue.poznan.pl)

Katsikeas 1996) and why exporting can be a route to success (Aaby and Slater 1989; Cavusgil and Zou 1994). Exports are often seen as an essential step for a company's growth, profitability, or in some cases – survival (Albaum and Peterson 1984; Douglas and Craig 1992; Karniouchina et al., 2013). Depending on the industry, companies tend to see international markets differently – as a desirable way to develop by deciding upon equitable entry modes; or as a necessity with the lowest possible level of investment. Either way, internationalization remains an irrevocable path for most industries.

Buckley and Ghauri (2004) suggest that globalization has altered the conditions in which companies (and therefore industries) internationalize. According to some research papers (Ghauri, Hadjikhani and Johanson 2005; Pla-Barber and Ghauri 2012), service industries tend to be more advanced in terms of foreign expansion than manufacturing ones. Others go further and suggest that this phenomenon is directly linked to industries' internationalization abilities and their life cycle (Gabrielsson and Gabrielsson 2011; Vahlne, Ivarsoon and Johanson 2011). Service industries, due to their more intense contractual relationships (rather than foreign direct investments), are often keener to establish international networks.

An area that remains currently under-researched relates to the degree of industry internationalization. Much attention has been devoted to the development path of companies, but few studies have referred to entire industries. So far the only empirical analyses conducted have been partial investigations, taking into consideration only selected dimensions of internationalisation or only selected industries. This area of research should, however, be considered in all its aspects.

Thus this paper aims at changing the perspective of these studies by highlighting the necessity of analysing the mesoeconomic perspective. The analysis of industry is not limited only to the transaction costs approach. Researching the degree of industry internationalisation may verify many of the existing doubts – how the patterns visible in a particular industry can prolong an industry's life cycle, or how they interrelate with a country's development level. This should provide an answer to the question of whether the degree of industrial internationalisation matters for a country's GDP or, to the contrary, has little effect on it.

## **2. Mesoeconomics and its significance**

The economy constitutes a system of entities that interact and are mutually interdependent (Gorynia 1995a). In the neoclassical view, microeconomic entities – namely companies – were deserving of special attention and were analyzed

regardless of the relationships they were involved in. Defining the economic system in wider terms would have to include both the real sphere (market transactions) and the regulatory sphere (decisions and laws regulating the markets). In this vein, the understanding of the economy is very broad, and it raises the problem of a proper demarcation that would enable researchers to establish a cause and effect chain.

Although micro- and macroeconomics constitute the most commonly recognized levels of economic analysis, some researchers (e.g. Perroux, Perrin, Peters) claim that for a better understanding of economic processes we also need to focus on the so-called mesoeconomics. This term links the gap between micro- and macroeconomics and mostly refers to industries, regions, and social groups (Gorynia, Jankowska and Maślak 2000; Górka 2013). Mesoanalysis is characterized by a few features that are specifically adapted to the analysis of industry (Gorynia 1993; Gorynia 1995b; Janasz 1997), being:

- a dynamic approach, which is adaptable to environmental changes;
- a practical approach, which abandons traditional logic and a dogmatic view of a company and claims there are no fully pre-determined structures in an economy;
- a cooperative approach, by which entities are no longer viewed as competitors only. Mesoconomics is regulated by cooperation.

The adoption of a mesoeconomic perspective is a necessity not because of the need to find an in-between-analysis-level, but because of the new organizational modes of economic reality (Anderson 2003, Rojo Garcia 2007). Mesoconomics reveals patterns and truths which micro- and macroeconomics do not embrace. Mesoconomics is therefore, without doubt, a holistic concept (Carrassus 2000). Although it focuses on a particular aspect of an economic system, such as industry, it touches upon structures, relationships, institutional regulations, and other pertinent factors.

### **3. Internationalization of an industry**

In a globalized world many take it for granted that a company is destined, sooner or later, to undertake international activities. Theories of internationalisation tend to highlight that, given the increasing intensity of foreign ventures, one may observe a switch from a slow and incremental international expansion to a boom of the so-called *born global* companies, which undertake international trade right from the beginning of their existence (Karlsen 2003; Sharma and Blomstermo 2002; Dominginhos and Simões 2004). However, not all companies are destined

to follow this path. Depending on their activity profile, domestic demand, financial outcomes, and other factors, some companies may prefer to limit their focus only to the local market. Although this matter is particularly interesting, little research has so far been conducted to establish how common this phenomenon is among different industries.

Although the degree of industry internationalization is a commonly known and used term, little detail can be found on the specific indices used for its operationalization. This is because the degree of internationalization is rarely treated as a primary focus of study, instead constituting a complementary variable providing additional information. The degree of internationalization, regardless of whether it concerns a single company or an industry, can be viewed either as a multidimensional factor (Fischer and Reuber 2008; Sullivan 1994) or a single measure (Shearmur, Doloreux and Laperriere 2015). As a single measure the degree of internationalization frequently assesses the relative value of foreign sales to overall total sales (Knight, Cavusgil 2004). In a multidimensional perspective it is often an aggregated measure of the previously mentioned sales factor, dominant entry modes, and the number of foreign sales locations.

The degree of internationalization in an industry is commonly seen as an approximation of what happens in an entire industry. Unlike the degree of internationalization for a company, the degree of internationalization for an industry can be seen in two ways: either as internal or external (Ratajczak-Mrozek 2014). The external aspect refers to all the activities conducted by national companies outside their domestic markets. This explores the extent to which home-based companies are dependent on foreign activities. Similarly, the internal aspect also focuses on the number and extent of foreign ventures, but on the domestic market.

Regardless of how one defines the degree of internationalisation, several research studies (Asakawa and Rose 2013; Thai, Chong 2008) suggest that it may have a significant impact on a country's development. Therefore, it is essential to determine what triggers the decision to undertake international ventures. After analysing various publications in the entry mode field and the process of internationalisation, Canabal and White (2008) suggested that the notion most commonly adopted for such studies is the concept of transaction costs. However, in our review of the recent literature we have not so far come upon a publication that would implicitly link transaction costs and the degree of internationalisation, although there seem to be no grounds for excluding the possibility that these two concepts are interrelated. Therefore, in this study we attempt to assess whether transaction costs and foreign sales are interdependent; and, additionally, how they differ between a relatively small and large European country.

#### 4. Transaction costs – definition and measurement

Without doubt an overview of the literature demonstrates that defining the concept of transaction costs constitutes a problematic issue, which has no obvious solution (Allen 2006; Hardt 2006). Researchers argue about what constitutes the core element of the term, but most commonly invoke such concepts as property rights or the Williamsonian dimensions of a transaction. Depending on the approach taken, they all seem accurate because transaction costs are beyond doubt aligned with the transfer of property rights from the seller to the buyer (Demsetz 1964, 1966, 1967, 1968), and at the same time can be described using asset specificity, transaction frequency and uncertainty (Williamson 1985). However, the clear challenge is the operationalization of the term. While this task has been approached in different ways in various research papers, by far the most common approach is the use of the Likert scale. Another measurement was proposed by Wang (2003), where transaction costs are determined as “the difference between the prices paid by the buyer and received by the seller.”

The author is aware of the fact that none of the existing or proposed approaches to the operationalization and measurement of transaction costs is ideal. However, in this research we would like to use Wang’s (2003) proposal as the departure point for our operationalization. For a company it certainly is not easy to measure the transaction costs of a single transaction. It is, however, reasonable to look at the overall activities of a company as shown in its profit and loss statements to assess the overall level of transaction costs that a company bears. As we are not interested in any particular company in this paper, but in the functioning of entire industries, it is necessary to combine information derived from multiple statements.

The profit and loss statement consists of four main parts that partially cover transaction costs: gross profit, operating profit, profit before tax, and net profit. The starting point for the calculation is gross profit, which expresses the difference between revenues and sales costs. In this case we exclude the costs associated with the production or purchase of the goods sold. However, gross profit also embraces costs that cannot be declared as transaction costs since they do not refer to the company’s core activities. These are non-operating income and expenses; which include, among other things, the interest rates of financial instruments and dividends. Income tax expenses would only partially be transaction costs as they are dependent on both operating and non-operating income as well as the expenses of the company. Thus these can only partially be seen as transaction costs.

For research purposes we divide the transaction costs into two categories: net income and other transaction costs. Net income measures all “immeasurable”

costs, like the transaction risk premium (see also Verbeke 2003; Tepexpa Solís, 2011; Verbeke and Greidanus 2009). In other words, although the statement sees this as an income, it is a cost the buyer has to bear in order for the transaction to be carried out. Other transaction costs will be indicated by the differences in income and expenses associated with the company's operations and tax expenses. These represent all the expenses needed to sell the goods and manage the company. Both categories are expressed as a percentage of revenue.

The author is well aware that the proposed measure does not entirely follow the most commonly-known definitions. It is more an approximation rather than an accurate value of transaction costs. Moreover, as it is simply impossible to analyse each and every section of companies' detailed expenses, the only feasible means of assessing the transaction costs is using the companies' income statements. This excludes some of the costs from our analysis,<sup>1</sup> but at the same time it allows us to draw a quite distinctive line between the costs needed for operational purposes and other costs.

The researchers' rationale behind applying transaction costs analysis to the field of international business has mostly been the assumption that these costs should be minimized. This is of course a rational and logical assumption because cost efficiency should, at least theoretically, contribute to greater foreign expansion (de Villa, Rajwani and Lawton 2015). However, over time it has become evident that with regard to certain specific research areas (e.g. entry modes), it is worth altering the approach by including some new factors (Madhok 1997; Brouthers 2002). Similarly, we feel that in this case it would be an oversimplification of the issue to state that "the lower the transaction costs within an industry the higher are the industry's sales abroad." The Polish economy runs contrary to this assumption, as while experiencing extensive international trade its level of transaction costs seems to have increased, not decreased. It has been assessed that in Poland they increased by 18% between 1996 and 2002 (Sulejewicz and Graca 2005). Therefore, we feel that for a better understanding of the problem the distinction between net income and other transaction costs should be introduced. We argue that it is not the level of the costs itself that reflects the dependence on the level of foreign sales, but the difference in these costs. Accordingly, we pose the following hypotheses:

*H1: The difference between net income and other transaction costs is positively related to non-service industry foreign sales.*

*H2: The difference between net income and other transaction costs is negatively related to service industry foreign sales.*

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<sup>1</sup> For instance some part of the exchange rate difference can be directly linked to the execution of transactions.

## 5. Data and research methodology

### *Geographical scope of research*

The aim of this research paper is to compare the dependencies between industry transaction cost levels and the export intensity of industries in Poland and Hungary. The geographical scope of the analysis was chosen owing to a number of factors. Firstly, Poland and Hungary share a common success in building well-performing, democratic market economies. They both belong to the East-Central Europe periphery zone and have entered a convergence path to reach Western European economic levels (Greskovits and Bohle 2001). At the same time, both countries differ in terms of size and GDP structure. This leads to the questions: How do economies that experience different levels of internal demand perceive internationalization? And, How are their cost structures divided with respect to particular industries?

Since the 1990s Hungary and Poland have varied greatly in their methods for achieving Western integration. Hungarian capitalism has been first and foremost orientated towards foreign markets and capital. This has been true with respect to both external and internal internationalization. Unlike Hungary, Poland has adopted a much less export-orientated approach. Some strategic industries were state-owned and experienced no domestic pressure to expand abroad (Greskovits and Bohle 2001). However, as these patterns concern the beginning of 1990s it is unwise to presume this approach prevailed for more than a decade. Therefore, we do not make any pre-analysis assumptions regarding this issue, as the literature review proved inconclusive.

### *Data sources*

To test the hypotheses data was collected from three different studies. For the Polish companies the Info-Gospodarka database was used. It is based on data gathered by the Central Statistical Office in Poland. The database provides all the information essential for the analysis – industry, total sales, ratio of foreign sales to total sales, gross and net income, as well as the division of company costs. The data was afterwards cross-compared with the data available in the Amadeus database. The Amadeus database provides relatively more up-to-date information, which enabled us to enrich the scope of the analysis. For Hungary, data from the Central Statistical Office was used. Similarly, the data obtained was once again compared with the Amadeus database.

### *Sample selection*

Our initial population consisted of all the active industries in Poland and Hungary. An industry is defined according to the concept that it provides all the products and services which fulfil customer's expectations and which are obtained through the implementation of a similar technology (Jankowska 2002, Marshall 1972). However, this definition is hard to implement explicitly since the statistical databases do not define industries in the same way. In statistical terms they are mostly reflected by the use of NACE codes up to the third or fourth level of detail. To avoid mixing the levels, we adopt the approach of understanding business activities as widely as possible, which means we refer to the fourth level of detail.

When developing the NACE coding some distinguishing criteria were taken into consideration. Firstly, the Eurostat methodology for classes is consistent with the supply-approach to the definition of industry. Economic activities are grouped together if a common process of producing goods and services is shared (Eurostat 2008). Therefore, the NACE classes are consistent with the use of similar technology criteria. The groups and divisions of the NACE classifications are more aggregated, but still refer to the character and usage of the goods and services produced. The structure is consistent, complete and exhaustive, with mutually exclusive categories. In some cases (e.g. Poland), national classifications were derived on the basis of the NACE coding, to complement European structures.

For the selection of the final sample we imposed several restrictions in order to ensure the logicity of the analysis:

1. In industry allocations only primary NACE codes are taken into consideration;
2. In industry allocations companies having multiple primary codes that do not provide unconsolidated financial statements are excluded;
3. Industries having a specificity that does not provide for the possibility of international activities are excluded;
4. Only companies with an active status are taken into consideration.

The data refers to the 2013 financial statements, as more recent information was in large part incomplete. The final sample of those included is given in Table 1.



**Table 1. Breakdown of the sample selected according to the main NACE Rev. 2 sections**

| Sections according to NACE Rev.2 | Research sample Yes/No | Poland  | Hungary | Poland   | Hungary |
|----------------------------------|------------------------|---|---------|--|---------|
|                                  |                        | Number of industries that have actively operating and reporting companies |         | % of companies without unconsolidated statements |         |
| A                                | Yes                    | 23  | 26      | 0.44   | 0.53    |
| B                                | Yes                    | 12  | 9       | 0.67   | 0.71    |
| C                                | Yes                    | 189   | 214     | 0.29   | 0.18    |
| D                                | Yes                    | 6   | 5       | 0.29   | 0.19    |
| E                                | Yes                    | 9   | 9       | 0.35   | 0.74    |
| F                                | Yes                    | 22  | 15      | 0.13   | 0.32    |
| G                                | Yes                    | 87  | 91      | 0.37   | 0.09    |
| H                                | Yes                    | 7   | 28      | 0.12   | 0.51    |
| I                                | Yes                    | 5   | 8       | 0.12   | 0.10    |
| J                                | Yes                    | 19  | 19      | 0.33   | 0.63    |
| K                                | Yes                    | 10  | 7       | 0.16   | 0.11    |
| L                                | Yes                    | 4   | 3       | 0.68   | 0.05    |
| M                                | Yes                    | 19  | 17      | 0.17   | 0.21    |
| N                                | Yes                    | 31  | 29      | 0.25   | 0.24    |
| O                                | No                     | 4   | 6       | 0.07   | 0.34    |
| P                                | No                     | 6   | 11      | 0.10   | 0.09    |
| Q                                | Yes                    | 11  | 5       | 0.15   | 0.71    |
| R                                | Yes                    | 14  | 12      | 0.14   | 0.41    |
| S                                | Yes                    | 13  | 13      | 0.06   | 0.02    |
| T                                | No                     | 0   | 0       | 0  | 0       |
| U                                | No                     | 0   | 0       | 0  | 0       |
| Σ                                | -                      | 491   | 527     | -  | -       |

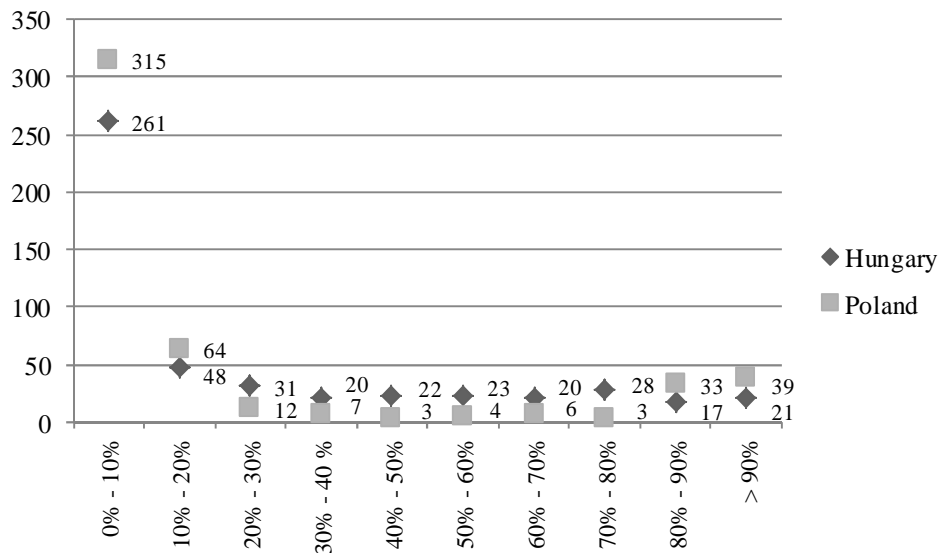
A – Agriculture, Forestry and Fishing; B – Mining and Quarrying; C – Manufacturing; D – Electricity, Gas, Steam and Air Conditioning Supply; E – Water Supply; Sewerage, Waste Management and Remediation Activities; F – Construction; G – Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H – Transportation and Storage; I – Accommodation and Food Service Activities; J – Information and Communication; K – Financial and Insurance Activities; L – Real Estate Activities; M – Professional, Scientific and Technical activities; N – Administrative and Support Service Activities; O – Public Administration and Defence; Compulsory Social Security; P – Education; Q – Human Health and Social Work Activities; R – Arts, Entertainment and Recreation; S – Other Service Activities; T – Activities of Households as Employers; Undifferentiated Goods- and Services-Producing Activities of Households for own use; U – Activities of extra Territorial Organisations and Bodies

Source: Own study based on Amadeus database.

### Sample characteristics

Non-service industries; which include manufacturing industries in section C, mining and quarrying industries in section B, and construction industries in section F; are practically as numerous as the service industries that are included in the other sections. The overall number of active industries is higher in Hungary than in Poland; however due to the unavailability of information, eventually 486 (Poland) and 470 (Hungary) industries were taken into account. The most internationalised industries in Hungary relate to section G (Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles) and C (Manufacturing). In Poland they similarly relate to section G. The number of industries according to the level of international sales is presented in Figure 1.

**Figure 1. Number of industries according to foreign sales ratio**



Source: Own study.

Most of the industries have a small ratio of foreign sales. In Poland almost 65% of industries have a level of international activities of less than 10%, while in Hungary this concerns about 55% of industries. Also, the distribution of the foreign sales ratio is similar in both countries, with a slight tendency for Poland to have more highly internationalised industries (>80% ratio).

The level of transaction costs within the main sections in Poland and Hungary is quite similar. The highest average level of overall transaction costs within the sections in Poland is in *information and communication*; whereas in

Hungary it is in *wholesale and retail trade plus repair of motor vehicles and motorcycles*. However, if we take a closer look at particular industries, in Poland *activities of holding companies* bear the highest share of transaction costs, while in Hungary the highest share of transaction costs is reflected in the *manufacturing of tobacco products*. On the other hand, it is hard to distinguish one industry that would have the lowest overall transaction costs, as in both countries there are numerous industries with a similar cost share.

### ***Variables and measurements***

Firstly, to test the hypothesis we need to establish the variables and measurements that will enable us to define both the transaction costs and the scope of foreign expansion. We do not attempt to verify the degree of internationalisation in an industry since the analysis is limited to the foreign sales ratio. All of the items used in the measurements are presented in Table 2.

**Table 2. Variables and their measurement**

| <b>Variable</b>         | <b>Measurement</b>  | <b>Source</b>  |
|-------------------------|---|--|
| Foreign sales ratio     | $\frac{\sum \text{export of all companies in the industry}}{\sum \text{total revenue of all companies in the industry}}$  | Info-Gospodarka, Central Statistical Office          |
| Net income              | $\frac{\sum \text{net income of all companies in the industry}}{\sum \text{total revenue of all companies in the industry}}$  | Amadeus, Info-Gospodarka, Central Statistical Office |
| Other transaction costs | $\frac{\sum (\text{gross profit} - \text{operating P/L}) + (\text{P/L before tax} - \text{P/L after tax})}{\sum \text{total revenue of all companies in the industry}}$ | Amadeus, Info-Gospodarka, Central Statistical Office |

Source: Own study.

### ***Results***

Table 3 shows how an industry's transaction costs and an industry's foreign sales correlate in different NACE sections. In both of the countries examined the statistics have the same sign, except for section D. Sections B, C and F could be classified as non-service industries and the other as service industries. Industries in section B show a significant positive correlation, which suggests that the bigger the difference between the net income and other transaction costs the higher is the industry's foreign sales. However, the correlation is not strong for manufacturing

industries in section C, and only moderately strong for section F in Hungary. Within the service industries most industries show a negative sign. This is reflected for both countries in sections E, H, J, L, M, N, P, Q, S. However, the relationship is not strong in all of the industries. The greater the difference between the net income and other transaction costs, the lower an industry's foreign sales; especially in sections E (Poland), H and P. In other sections the correlation is relatively weak. These results are statistically important at the level of  $p < 0.05$  (except for the ones indicated in Table 3).

**Table 3. Spearman's rank correlation coefficient for an industry's foreign sales and transaction costs**

| Sections according to NACE Rev.2 | Poland              |                    |                          | Hungary             |                    |                          |
|----------------------------------|---------------------|--------------------|--------------------------|---------------------|--------------------|--------------------------|
|                                  | Sample <sup>a</sup> | Spearman statistic | Significant for $p=0.05$ | Sample <sup>a</sup> | Spearman statistic | Significant for $p=0.05$ |
| A                                | 23                  | -0.395831          | Yes                      | n/a                 | n/a                | n/a                      |
| B                                | 12                  | 0.563582           | Yes                      | 9                   | 0.523810           | Yes                      |
| C                                | 189                 | 0.035222           | Yes                      | 214                 | 0.113280           | Yes                      |
| D                                | 6                   | -0.576818          | Yes                      | 5                   | 0.007649           | Yes                      |
| E                                | 9                   | -0.644160          | Yes                      | 9                   | -0.169811          | Yes                      |
| F                                | 22                  | 0.157419           | Yes                      | 15                  | 0.360444           | Yes                      |
| G                                | 87                  | 0.050007           | Yes                      | 91                  | 0.297284           | No                       |
| H                                | 7                   | -0.472866          | Yes                      | 28                  | -0.337170          | Yes                      |
| J                                | 19                  | -0.129830          | Yes                      | 8                   | -0.177705          | Yes                      |
| K                                | 10                  | 0.601253           | Yes                      | n/a                 | n/a                | n/a                      |
| L                                | 4                   | -0.210819          | Yes                      | 3                   | -0.500000          | Yes                      |
| M                                | 19                  | -0.115426          | Yes                      | 17                  | -0.204124          | Yes                      |
| N                                | 31                  | -0.001765          | Yes                      | 30                  | -0.030703          | Yes                      |
| O                                | 4                   | 0.756096           | No                       | n/a                 | n/a                | n/a                      |
| P                                | 6                   | -0.845154          | Yes                      | 11                  | -0.417855          | Yes                      |
| Q                                | 11                  | -0.289061          | Yes                      | 5                   | -0.438538          | Yes                      |
| R                                | 14                  | 0.438313           | Yes                      | 12                  | 0.426576           | Yes                      |
| S                                | 13                  | -0.244899          | Yes                      | 13                  | -0.238214          | Yes                      |

<sup>a</sup> Research sample is smaller than in Table 1 as not all information was available.

n/a – data not available

Source: own study.

Finally, we conclude that hypotheses 1 and 2 are moderately supported by the results obtained. The correlation between the net income and other transaction costs and an industry's foreign sales cannot be observed in all of the industries analysed. There are only three non-service sections; however, section C, which

includes 189 Polish manufacturing industries and 214 Hungarian manufacturing industries, shows a weak correlation. Therefore, hypothesis 1 cannot be supported in manufacturing industries. The situation among service industries is less clear as most of the sections show a negative or moderate-to-strong relationship. However, sections G and N, which include most industries, show no such effect. Consequently, we argue that hypothesis 2 is moderately supported by the data.

## 6. Conclusions

The research conducted had an exploratory purpose. It is aimed at inspiring further research, both empirical and conceptual, on the links between the degree of internationalization in industries and their transaction cost levels. To our knowledge, this is one of the first studies where transaction costs are used at a level different than that of a company.

The task undertaken was to verify to what extent industry transaction costs influence the foreign expansion of industries. To address this issue we tested two hypotheses that enabled us to take a closer look at the service and non-service sections in Poland and Hungary. The author posed the hypotheses that costs are positively correlated with the foreign sales ratio in non-service industries (H1) and negatively correlated in service industries (H2). An additional feature of our study is that we verify how internationalized industries in Poland are compared to industries in Hungary. The analysis shows only partial support for the claims made.

The results obtained carry certain limitations. Firstly, the data collected permitted only a snapshot in time to be viewed, as they represent information for one year only. The relationships evoked may evolve over time so it would be essential for further studies to compare their development over a longer period.

Secondly, as indicated previously, the degree of internationalisation in an industry is captured by a single measure, whereas it might be advisable to see it in a wider perspective. This might include, for example, entry modes, geographical scope, etc. (see also Vahlne and Nordstrom 1993; Tuselman et. al. 2008). The inclusion of entry modes would provide information on how advanced the internationalisation is, as equity investments require more control and involvement than non-equity ones. A geographical scope would indicate to the extent (e.g. one continent or more) to which companies have expanded geographically.

Thirdly, the study encompasses only one possible determinant of the foreign sales ratio. We did not take into consideration other factors that are commonly cited in the literature, such as industry life cycle and country development level. As the

literature review suggests, there is reason to believe that these factors are interdependent and might also be introduced into the analysis.

Thus the paper is definitely a first attempt to address a complex issue. We conducted an operationalization of transaction costs that is scarcely available in the literature. It permits the researchers to actually measure the costs instead of assessing them on a Likert scale. This may not precisely capture the notion of transaction costs, but it enables us to make cross-country comparisons conducted on large datasets. Perhaps a more sector-focused approach might complement the study and allow us to develop a finer-grained operationalization of the term.

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## Streszczenie

### KOSZTY TRANSAKCYJNE A INTENSYWNOŚĆ EKSPORTU – PRZYPADEK PORÓWNAWCZY POLSKI I WĘGIER

*Celem niniejszego artykułu jest zbadanie, czy i w jaki sposób koszty transakcyjne branży wpływają na wielkość zagranicznej sprzedaży. Przyjęte hipotezy dotyczą potencjalnych korelacji dla różnych rodzajów branż w Polsce i na Węgrzech. W pracy przełożono koncepcję kosztów transakcyjnych, zasadniczo stosowaną w analizie mikroekonomicznej, na poziom analizy branż (perspektywa mezoekonomiczna). Zakłada się, że poziom kosztów transakcyjnych może decydować o ogólnej chęci podjęcia internacjonalizacji przez branżę. Do tej pory kwestia ta była szeroko poruszana w odniesieniu do samych przedsiębiorstw, lecz niewiele jest badań, które podnosiłyby ją przy na wyższym poziomie agregacji, jak branże czy całe gospodarki.*

**Słowa kluczowe:** intensyfikacja eksportu, koszty transakcyjne branży, Polska, Węgry, stopień internacjonalizacji branży