Risk Taking Propensity and Export Performance of Croatian Exporters

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Export performance is today one of the most widely used measures of a company's success, due to the globalization and market liberalization processes. The rather bad export performance of Croatian exporters can be explained by a number of factors, one of which is assumed to be the low level of risk taking propensity, which is one of the three major dimensions of entrepreneurial behavior. The aim of this paper is to analyze company age, size and type of business as determinants of risk taking propensity in Croatian exporting companies. Cluster analysis based on four variable criteria was used in order to determine risk and non-risk takers' clusters and analyze the significant differences between them in relation to their export performance. The paper is based on research of 88 Croatian exporters.

Key Words: export performance, risk taking propensity, statistical analysis, international business, entrepreneurship
JEL *Classification:* D21, M13

Introduction

Globalization and market liberalization processes determine to a large extent companies' behavior in both the domestic and the international market. Doing business internationally becomes a crucial element of company survival and growth, but it also involves higher risk. Therefore a number of studies are concerned with companies' risk taking propensity (Begley 1995; Keh, Foo, and Lim 2002; Das and Teng 2001 and others). Some of the studies of risk taking propensity deal with it specifically in the context of internationalization of business (Hisrich et al. 1996; Oviatt, Shrader, and McDougall 2004; Fernandez and Nieto 2005). This research is focused on Croatian exporting companies and analysis of their risk taking propensity.

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Out of 67,000 registered companies in Croatia there are only about 6,700 (10%) exporting companies. Among them, only 3,144 can be called active exporters that made export value of over 1 million kuna (Croatian currency equaling about 135,000 Euro) in 2003. Over 95% of Croatian exports are made by large groups or companies. At the same time, the long-term export results in Croatia are rather unsatisfactory: imports are constantly growing and exports are stagnating, thus creating a disturbing balance of trade deficit.

The research (*Izvoznik* 2004) has shown that most managers in Croatia see several reasons for such a situation:

- problems with export financing,
- non-competitive export prices,
- insufficient or bad promotion activities, and
- export products' quality.

Obviously, some of the mentioned reasons can be associated with risk taking propensity. The aim of this paper is to analyze the risk-taking propensity of Croatian managers of exporting companies and find out if and how it influences their export performance.

There are four major hypothesis tested in this paper:

H1: *Risk taking propensity is correlated with company size.*

As it was noted by Balabanis and Katiskea (2003) company size directly influences risk taking propensity; a greater pool of resources gives larger companies more space to take risks and spread them among different products and markets. It also enables larger companies to tolerate losses from unsuccessful entrepreneurial efforts. Therefore, it was expected that larger companies would have a higher level of risk taking propensity.

H2: *Risk taking propensity is correlated with company age.*

The fact that older companies are usually more bound by traditions and routines in product and market choices and therefore less willing to take additional risks made us state the hypothesis that older companies would have a lower risk taking propensity.

H3: *Risk taking propensity is correlated with type of business.*

In our research the distinction was made between traditional, i. e. labor intensive and non-traditional, i. e. technology and knowledge intensive types of businesses. The non-traditional types of businesses were expected to have the higher level of risk taking propensity, since technology,

and especially knowledge are more likely to develop learning skills for adaptation and successful growth in new environments than are companies more dependent on traditional tangible resources (Autio, Sapienza, and Almeida 2000).

H4: *Higher risk taking propensity results in better export performance.*

As export markets are by definition more hostile than domestic one, and they differ to a certain level in market dynamism and diversity, it is usually necessary to take more risks when exporting than when doing business only in the domestic market. Therefore it was expected that companies that have better export performance would also have a higher level of risk taking propensity.

In order to test this hypothesis, a sample of 88 Croatian exporters was analyzed: they were clustered into 'risk-taking' and 'non-risk taking' segments, and their differences according to sample characteristics and managers' perception of external market characteristics (environment hostility, diversity and dynamism) were analyzed. Thereafter, the two clusters were analyzed with statistical inferential analysis against different aspects (objective and subjective) of export performance. The results are presented in this paper.

Theoretical Framework

RISK TAKING PROPENSITY AND RISK PERCEPTION

Risk propensity can be defined as a tendency to take or avoid risks. It is a relatively stable characteristic but can be modified through experience. Although it is viewed as an individual characteristic, the positive association between risk propensity and risky decision-making by individuals is expected to translate to organizations through top management teams (Panzano and Billings 2005).

Risk perception is the perceived degree of risk inherent in a certain situation.

Risk taking is defined as one of the three dimensions of entrepreneurial orientation of a company and refers to the willingness of the management to commit significant resources to opportunities that might be uncertain (Junehed and Davidsson 1998). Risk taking depends on risk propensity and risk perception. The higher the risk propensity and the lower the risk perception, the more likely it is that risky decisions will be made. Hostile environments, as are most international markets in comparison to the domestic one, speak in favor of using the en-

trepreneurial strategy (involving higher risk-taking willingness). Therefore, risk-taking initiatives should be more necessary in order to achieve good results in hostile markets. Or, in other words, mangers who dare to take more risks, take actions that are more suitable and perform better.

Abby and Slater (1989) found that management which has an international vision, favorable perception and attitudes toward exports, is willing to take risk and has the capacity to engage positively in export activities is likely to lead a company to export success.

In order to reduce risks, managers need to know which variables influence their export performance. If they have a higher risk-taking propensity, they positively affect export performance.

EXPORT PERFORMANCE

Export performance is today one of the most widely used measures of a company's success, due to the globalization and market liberalization processes. As a result of these processes, an increasing number of Croatian companies have opted to engage in export activities. However, their exporting results are far from satisfactory.

Over the years, researchers have generated numerous studies on exports many of which focus on the determinants of performance. Although it is difficult to make generalizations, as much depends on the companies' business position and the environment they operate in, some determinants of export performance can be identified as general (Lefebvre, Lefebvre, and Bourgault 1995): company's characteristics that include size and experience on international markets; competencies of a company, i. e. how it organizes and uses its resources (management capabilities, information gathering activities and specific products or technologies); environment of the company, or what the company is influenced by (characteristics of the industry, markets, government activities); and moderating factors which include strategy related variables, such as marketing mix elements and the like.

The Appalachian Resource Centre Report (1997, see www.arc.gov) on SME export performance includes the following findings:

- the farther in the supply chain a company is situated, the lower its value added, and the more closely it works with its customers, the less likely it is to be an exporter;
- company size is directly related to the probability that it exports, but not necessarily to its success in exporting;

- management is a key factor in export performance: the greater a manager's innovativeness and knowledge, the greater the export performance.

RISK TAKING PROPENSITY AND EXPORT PERFORMANCE RELATIONSHIP

Internationalization process theories are rooted in behavioral models of uncertainty avoidance. These models posit that internationalization progresses in a gradual and carefully controlled manner (Andersen 1993), in that companies choose to export to countries that are physically and culturally close to the home country and therefore require less resource intensive investments and are perceived as lower risk. However, these conventional theories on internationalization, where a period of domestic growth is expected prior to a gradual expansion into foreign markets, are being more and more contradicted today with a new term of global entrepreneurship. Global entrepreneurship indicates an emergence of mainly small companies that internationalize immediately or rapidly (Jones and Coviello 2002). Its emergence is due to the following:

- deregulation of international business,
- improvement in transportation and information technology, and
- emergence of knowledge based industries.

It seems that a lack of resources or appropriate knowledge is a lesser barrier to these companies, and that they appear to recognize and accept challenges and inherent risks in internationalization, and overcome them in innovative and entrepreneurial ways.

The internationalization process and consequently the export performance are influenced by the entrepreneurial behavior of the company owner/manager and of the company itself. Individuals, i. e. entrepreneurs with their mindset and attitudes towards internationalization, as well as with the social capital they bring to the company, their social networks, experience and general characteristics (for example, perception of risk and their risk tolerance) affect organizational culture and behavior. Beside that, company level behavior may be influenced by other internal factors (organizational structure, strategy, resource availability, etc.) and external factors (environment hostility and diversity, competition, legal framework, government support, etc.).

Exporting, in comparison to domestic business, is considered inherently risky because it involves potential loss of profits or assets as a result

of potential changes in political, legal, economic and socio-cultural factors in foreign markets (Roth 1992). Marketing theory recognizes a whole set of so called foreign transactional risks:

- general stability risk, which refers to management uncertainty about the future viability of the host country's political system,
- ownership/control risk, which reflects the management uncertainty about host government actions affecting the entrant's ownership or control position,
- operations risk, which is defined as a possibility of sanctions that could constrain entrant's operations in the host country, and
- transfer risk that refers to the limitations of entrant's ability to transfer capital out of the host country.

All of these factors strongly influence the company's willingness and commitment to exporting and, consequently, its export performance.

Miller (1992) recognizes two broad kinds of company actions considering foreign risk management: financial and strategic. Financial involve insurance purchasing, different financial instruments, such as forward contracts, swaps, options, etc. However, financial actions require the existence of insurance and financial markets, which sometimes do not exist. Therefore, most companies are required to use strategic actions to manage some of the international risks. The most widely used strategies are: imitation, i. e. copying the actions of another successful company in market choice, marketing strategy, etc.; risk avoidance, which companies apply when they believe that operating in a particular foreign market is unacceptably uncertain; flexibility, which decreases the cost of internal organizational adaptation to changing international circumstances; cooperation with foreign or domestic partners in order to share risk, and control, usually applied through vertical and horizontal integration.

Research

We have conducted a research into Croatian exporters in the period March-May 2004. The data collection model was postal survey. A questionnaire was sent to a sample of 300 exporters, which were randomly drawn from the Croatian Chamber of Commerce database as 10% of active exporters. The sample covers the whole territory of Croatia, 25 types of businesses according to SITC, three different company size groups according to Croatian law, and five age groups ranging from 1 to 300 years. The sample structure regarding the mentioned criteria does not differ by

more than + 4% of the total Croatian exporters. The key informant approach was used and the recipients of the questionnaire were chosen to be managing directors of the companies. Four weeks after initial mailing a reminder letter and a new questionnaire was sent to non-respondents. At the end, a total of 90 questionnaires were returned and 88 of them were usable for our research (2 companies were not exporting anymore). The effective responsive rate reached 29.3%.

SAMPLE DESCRIPTION

Table 1 (see p. 320) shows the major characteristics of the sample. According to business activity the sample was divided into two groups: one that consisted of so called traditional activities that are characterized by labor intensity, and the other that is mostly technology or knowledge intensive. 46 companies (52.9% of the sample) belong to the first group and 42 (47.1% of the sample) to the second.

The most common measure of company size in entrepreneurship as well as in exporting research is the number of employees. According to this criterion, 20.5% of the sample has 100 or fewer employees. 50% of the sample employs 215 or fewer employees. Almost half (45.5%) of the sample belongs to large companies. The largest company has 3,880 employees.

According to the company age the following pattern in our sample shows: 50% of the sample is 44 years old or younger, i. e. 44 years old or older. The oldest company is 400 years old. Only 12 companies in our sample (13.6%) can be considered young (10 years or less).

Export performance was measured by objective measure of export sales ratio and subjective measure of perceived satisfaction of company managers with export performance. The analysis of exports sales ratio shows that the majority of companies (46.6%) in the sample are large exporters, selling over 50% of their products abroad. Overall export performance was marked with an average of 3.36, which is not very high. However, 47.7% of the sample marks the overall export performance with very good or excellent.

QUESTIONNAIRE

Company risk-taking propensity was tested on two levels: one is according to the sample characteristics: traditional vs. non-traditional activity, company size and age; and the other according to general managers' evaluation on a 5 point Likert scale of the following criteria:

TABLE 1 Sample description

	n	Valid percent
Type of activity		
Traditional (labor intensive) activities	46	52.9
Non-traditional (technology or knowledge intensive) activities	42	47.1
Number of employees		
Up to 50	13	14.8
50–250	35	39.8
250 and more	40	45.5
Company age		
0–10	12	13.6
10–30	24	27.3
30–50	18	20.5
50–80	18	20.4
80–300	16	18.2
Export sales ratio		
Less than 10%	9	10.2
10–25%	17	19.3
25–50%	21	23.9
Over 50%	41	46.6
Perceived satisfaction of export performance		
Unsatisfactory	4	4.7
2	10	11.6
3	31	36.0
4	33	38.4
Excellent	8	9.3
Unanswered	2	0.01

- risky business activities,
- gradual implementation of new projects,
- conservative approach to major business decisions,
- strong hold onto existing and experienced procedures and projects.

The results were then checked against variables describing environmental hostility (reliability of financial and material resources, possibilities for business development, competition, industry settings and general

climate for business), environmental diversity (key foreign markets and their economic and cultural diversity) and dynamism (importance and influence of political, economic and cultural changes in the key export markets).

Upon describing major differences of the defined clusters of 'Risk takers' and 'Non Risk takers', we have checked the differences in export performance of the two clusters.

Export performance was measured by the already mentioned objective measure of export sales ratio and subjective measures of perceived satisfaction of company managers with the following trends in their companies, again on a five point Likert scale:

- export growth,
- export profits growth,
- international image and corporate identity development, and
- overall export performance.

All these trends were used in order to capture both financial and non-financial aspects of export performance.

The correlation between the export sales ratio and different aspects of export performance measured by managers' satisfaction was checked, and analysis has shown that the only statistically significant correlation is between export sales ratio and mangers' satisfaction with export growth ($r = .293$; $p = 0.006$)

Analysis and Results

Cluster analysis was used on the four above-mentioned variables that define risk-taking propensity, including the managers' personal opinion on risk propensity. There are no completely satisfactory methods for determining the number of population clusters for any type of cluster analysis (Everitt 1979; 1980; Hartigan 1975; Bock 1985), but our aim was to define two stable clusters: risk-takers and non-risk-takers in order to test their differences in relation to export performance. The analysis was started with hierarchical cluster analysis to generate and profile the clusters and then nonhierarchical analysis was used to fine-tune the cluster membership. In this case, the centroids from hierarchical clustering were taken as the seeds for nonhierarchical clustering.

The dendrogram, a graph of hierarchical cluster analysis, has confirmed the existence of two clusters centers. The non-hierarchical k-means cluster analysis has segmented companies into two clusters of the

TABLE 2 Analysis of clustering criteria

Variable evaluation*	Cluster	*n*	M	SD	*t*-test	*p*
New projects are implemented gradually, step-by-step	Non-risk takers	45	3.98	.75	3.491	.001
	Risk takers	41	3.29	1.03		
We have a conservative approach to major business decisions	Non-risk takers	45	3.67	.93	8.247	.000
	Risk takers	41	2.22	.69		
We hold strongly onto known projects and procedures	Non-risk takers	45	3.78	.67	8.716	.000
	Risk takers	41	2.59	.59		

Notes: * 5-point Likert scale; M – mean; SD – standard deviation.

same size ($n = 43$). However, ANOVA has shown that managers' personal opinion on risk propensity was not statistically significant ($p = 0.388$) and it was omitted in further analysis. The second cluster analysis based on three variables resulted in two clusters that can be defined as 'Risk-takers' ($n = 41$), and 'Non-risk-takers' ($n = 45$).

Interestingly enough, no statistically significant differences were found between the two clusters in basic company characteristics: company size, age and type of business activity. Therefore, the hypothesis H1, H2 and H3 cannot be accepted. They also do not differ in their export performance measured by the export ratio and by managers' personal evaluation of different financial and non-financial measures of export performance. This means that hypothesis H4 cannot be accepted, too.

The only statistically significant difference was found in their perception of some important factors that influence their company's business: competition and industry settings, as can be seen in table 3. Industry settings in the context of this research can be defined as the level of organization and cooperation of companies within the branch on the foreign market.

The risk-takers cluster evaluates competition and industry settings as of lesser influence and importance for their international business activities.

Further on, no statistically significant differences between risk-takers and non-risk takers cluster were found in managers' evaluation of all elements of their company's environment diversity or dynamism that were subject to our analysis.

TABLE 3 Statistically significant differences between the two clusters

	Cluster	*n*	M	SD	*t*-test	*p*
Competition	Non-risk takers	45	3.98	.94	2.158	.034*
	Risk takers	40	3.48	1.18		
Industry settings	Non-risk takers	45	3.33	1.02	2.317	.023*
	Risk takers	40	2.80	1.09		

Notes: M – mean; SD – standard deviation.

Discussion

The statistical analysis was based on exporters' clustering according to their evaluation of the three variables used for measurement of their risk-taking propensity in the international market. According to this, exporters were divided into two segments: the first one being 'non-risk takers' whose average score of criteria variables was 2.7, and the second one being 'risk takers' whose average score of criteria variables was 3.81. Although, this is a significant difference, we might say that Croatian exporters, according to this research, in general do not have a very high risk-taking propensity when doing business internationally. This probably can be explained by the findings of Estrin, Meyer, and Bytchkova (2005) who state that economies in ex-socialist countries are still run bureaucratically and that their previous concentration on plan economy still suppresses the appetite for risk and breeds habits of obedience and 'playing it safe' strategy. Also, the meta-analysis of Stewart and Roth (1999) found that growth oriented individuals, i. e. companies, no matter what their size or age, have a higher risk taking propensity. Due to the rather bad macroeconomic situation indicators as problems with exporting mentioned in the introductory section, many Croatian companies – including exporters – are concentrating not on growth, but on survival in either the foreign or the domestic market. The last but not least possible reason for such a situation in Croatia might also be the fact that a significantly larger proportion of entrepreneurial activities are so called 'necessity entrepreneurship' (TEA 3.09) than 'opportunity entrepreneurship' (TEA 2.92) (Singer et al. 2006), meaning that a significantly larger proportion of businesses in Croatia are started because of necessity – unemployment – than because of opportunity recognition. Therefore, it is quite understandable that such companies are trying to minimize their risks.

According to the theory, we have expected that both internal and ex-

ternal factors would influence the risk-taking propensity. Balabanis and Katiskea (2003) argue that company size and age strongly influence the risk-taking propensity of exporters: large companies have more financial and technical capabilities and resources than small ones that allow them to take risks. On the other hand, newer firms are not bound by traditions and routines and as a result have more freedom in making decisions and taking risks. We also have expected that non-traditional activities would be more risk-taking by their nature. However, all these internal factors show no significance in relation to the level of risk taking propensity of Croatian exporters.

This research shows that the only statistically significant differences between the two clusters – risk-takers and non-risk-takers – exists in their perception of the competition and industry settings as important factors of environment hostility. In both cases, the risk-takers' cluster evaluates these two factors as less important for making business decisions than the non-risk-takers' segment. Risk-takers consider competition more influential than industry settings. Other analyzed external elements that define environment hostility, dynamism and diversity show no significant differences between the two clusters.

Finally, no statistically significant differences were found in exporting results and managers' evaluation of export performance between the two clusters. This can be partly explained by the company characteristics, especially age: namely, 50% of the sample is 44 years old or more, so it could be assumed that these companies have spent a number of years doing business internationally and therefore they perceive it as less risky. Most of them probably have long-term business relations and active networks. Furthermore, the export orientation of the sample follows a specific pattern: about 1/3 of the sample has more than 50% export concentration in ex-Yugoslavian markets, which are perceived as 'quasi domestic' and, in any case, not very hostile or diverse. Also, the dynamism of changes in these markets is very similar to those in the domestic market.

Consequently, it can be presumed that Croatian exporters heavily lean on market avoidance and imitation strategies in managing foreign market risks, as is described by Miller (1992).

Limitations and Future Research

This research has some limitations. One of them surely is a relatively small sample of 88 exporting companies. However, Stewart and Roth

(1999) give a list of studies on risk propensity with samples of 50 or even fewer respondents. We also assume that the sample might have been biased to a certain extent, in a sense that only those who have recognized the research problem have taken part in the research. The other limitation is the fact that many managing directors are also company owners in Croatia, so their objectivity might be questioned. Last but not least, wide generalizations of the research results cannot be made due to the rather specific local context of the research. It would however, be interesting to do comparative research of the topic in other ex-Yugoslavia countries.

To a great extent, the results of this research were not what was, according to the theory, expected. Therefore future research might take into account the application of a statistical instrument for measuring competition and industry settings as limiting factors of risk taking propensity.

The other interesting avenue of future research might be analysis of interaction of all entrepreneurial features for exporters – innovativeness, proactiveness and risk taking propensity.

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