

# **The Relationship Between Internationalization And Firm Performance**

Meta-Analysis on theoretical models and previous empirical research

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**Key words:** Internationalization, Performance, Multinationality, Degree of Internationalization (DOI), Country of Origin

**Purpose:** To illuminate various crucial aspects of internationalization by systematically contrasting the different models of the multinationality-performance relationship and searching for underlying reasons.

**Methodology:** Meta-analysis on previous theoretical and empirical research. Our emphasis in this paper has been put on the qualitative aspects of the previous research unlike many other conventional meta-analyses that focus on the comparison of the empirical data.

**Theoretical perspectives:** Five main models have been developed by earlier studies to describe the relationship between internationalization and performance: positive linear, no or ambiguous relation, inverted U-shaped, standard U-shaped and S-shaped curve. In this paper, we have identified six areas that reveal valuable learning points about multinationality and performance: the conceptualization and measurement of internationalization and corporate performance, the control variables applied in the research, the investigated time period, the country of origin and the relation with product diversification.

**Empirical foundation:** We have not conducted an empirical research. Instead, we have synthesised the empirical studies of 13 articles.

**Conclusions:** There is no generally applicable model to describe the relationship between internationalization and performance. There are a number of factors that influence this relationship and each company has an idiosyncratic position in the matrix of the factors. Knowing these factors can help managers in the strategic planning of the international development of their companies.

## Table of Contents

<b>INTRODUCTION .....</b>	<b>4</b>
PROBLEMATIZATION .....	6
PURPOSE .....	9
<b>METHODOLOGY .....</b>	<b>9</b>
Sources .....	9
Meta-Analysis .....	10
Terminology .....	11
<b>ANALYSIS .....</b>	<b>12</b>
Positive linear model .....	13
No or ambiguous relation .....	15
Inverted U-shaped model .....	17
Standard U-shaped model .....	21
S-shaped model .....	22
Theoretical discussion and dilemmas .....	25
Internationalization .....	27
Performance .....	33
Control variables .....	37
Time period .....	40
Country of origin .....	43
Product diversification .....	49
<b>DISCUSSION .....</b>	<b>53</b>
<b>CONCLUSIONS AND IMPLICATIONS .....</b>	<b>58</b>
For academic researchers .....	58
For practicing managers .....	59
<b>Abbreviation Index .....</b>	<b>60</b>
<b>REFERENCES .....</b>	<b>61</b>

## INTRODUCTION

International trade has accelerated at an unprecedented rate in the last fifty years. Since the Second World War, there has been a continuous global effort to reduce protectionist elements of the world economy and to create a free trade network. There has been a promotion of easier international trade by reducing or eliminating trade barriers, tariffs, quotas and other protectionist measures to encourage the free movement of goods and services. The General Agreement on Tariffs and Trade (GATT) and later the World Trade Organization (WTO) had a particularly great role in lowering of the trade barriers. Even though it cannot be claimed that trade is free around the whole world, it is incomparably more liberal than fifty years ago. Moreover, there are several examples of large, regional free trade agreements; the best example is the European Union which has gone so far that each member country considers all other members as their home markets. Besides the EU, good examples are ASEAN, the free trade agreement among several Asian countries; NAFTA which includes Mexico, the USA and Canada.

This global trend has speeded up even more in the last twenty years. The economic restructuring of former socialist countries and their opening to the Western markets in the 1990's expanded the geographical and economic areas involved in global trade. Foreign companies did not only find new, large markets for their products and services but also potential locations for their production units. Furthermore, the dynamic economic growth of developing countries also contributed to the emergence of a more united global market. Companies from developed countries pay more and more attention to huge rising markets like China and India. At the same time, Chinese and Indian firms are also expanding to foreign markets.

Besides the elimination of the barriers of free trade, technological advancement has played a great role in the emergence of a global market and the increased intensity of international trade. Communication is faster, easier and more efficient than ever before. The improvement of the physical infrastructure and modern means of transportation facilitates a fast movement of goods around the world. Financial and technological resources are more available on a global scale. "The development of the Internet, the World Wide Web, and E-commerce has increased foreign governments' and organizations' access to enormous information resources and fuelled growth and development. [...] Information technology, in

particular, is making the world “smaller” and more interdependent” (Cummings and Worley, 2005, p. 535).

These changes in the global settings have created great opportunities for companies to carry out more and more export and import activities. Furthermore, companies tend to establish subsidiaries in foreign countries in order to represent the mother-company on those markets in terms of sales, production etc. Indeed, nowadays, there are grand prospects for companies to choose the locations of their various activities around the globe. Several companies start diversifying their markets parallel to their domestic expansion. Other companies face challenges when they reach a certain point in their development where the borders of their country constitute the greatest obstacle in their further growth. Also, globalization has brought about a global competitive pressure on all market players. Many companies start internationalizing not only to explore greater market opportunities than what their domestic market can offer, but also to withstand growing competition from foreign players. It is also quite often that foreign companies enter their home market and in response to this international competition they are forced to conquer bits of foreign markets. The process of international diversification involves an integration of cultures and markets, systematic coordination and creating a structure of the firm in relation to geographical and social differences.

Generally, the need to expand to foreign markets is taken for granted: the bigger the better; the more markets the more opportunities. In many cases, companies do not have a choice whether or not to internationalize due to the limits of their home markets. However, lots of companies fail during their process of internationalization. The success of the international development cannot be guaranteed.

In this regards, one of the questions that arises is how internationalization influences the performance of companies. Is it always beneficial to promote international development? Or is there an optimal level of multinationality after which further internationalization does not bring about enhanced performance? There are numerous reasons supporting the positive relationship between multinationality and corporate performance. Companies can expand their sales to foreign markets, avoid tough domestic competition, get access to a wider range of resources including a more varied work force, leverage economies of scale and so on. However, the link between internationalization and performance is not so unequivocal. Several researchers have investigated this relationship in the last forty years with a wide variety of conflicting theories and empirical results. At this point of time, there is no widely accepted description on how internationalization influences performance.

In this paper we are first going explain why the internationalization-performance relation is a relevant topic to study, and elaborate on what is problematic with this issue. This discussion is going to result in the formulation of the purpose of this paper. In the Methodology section we are going to explain what sources we used, how we conducted the research and define some of the key terms of the topic. We start the Analysis by introducing the different models that researchers have developed in attempts to grasp the nature of the internationalization-performance relation. We are going to elaborate on the theoretical background of each model. Each model has been approached in a variety of ways by researchers; we are going to present the most relevant literature and those articles that give the most notable insight into the topic. Then we are going to look into the potential reasons for the discrepancy in the earlier literature. By elaborating on the reasons, we are also going to analyse different factors that are involved in the process of internationalization and performance. We are going to summarize our findings and examine pertinent overall issues in the Discussion and then draw conclusions and make implications in the Conclusion and Implications section.

## **PROBLEMATIZATION**

Internationalization is one of the most important research areas today, due to the global trends explained in the Introduction. Millions of companies around the world seek to develop efficiently and eventually successfully into foreign markets. There is an immense variety of challenges these companies face depending on a multitude of factors such as the industry, the phase of internationalization they are in, the markets they are targeting and so on. Nevertheless, investigating the overall nature of internationalization may contribute with valuable learning points for all of them.

This is particularly true for companies from Sweden, where this paper has been written, as they are very active in the global arena. Especially compared to the size of the country an impressively great number of companies have successfully expanded to international markets. Moreover, this topic is relevant for companies from Hungary and Taiwan, where the authors of this paper come from. In Hungary, roughly twenty years have passed since the transformation from a socialist economy to a market based one. A large number of companies, which were established between 1990 and 1995, have by now reached the point when they start their international expansion to foreign markets, especially the

neighbouring countries like Slovakia and Romania. Taiwanese companies, such as manufacturing and semi-conductor firms, have widely expanded to mainland China. Despite the sanctions by the government about ten years ago, these Taiwanese companies allocated their production lines and research development units to China in order to keep up with the pace of the global market. Both expanding to new markets and reducing production costs have for long been the main goals for Taiwanese companies in the process of internationalization.

Increasing performance is one of the high priorities for companies, regardless whether they are domestic or international. Researchers and managers are interested in finding ways to enhance efficiency, profitability and eventually corporate performance. Therefore, investigating what influence internationalization has on performance is a relevant topic to research. By studying this relationship and enlightening important features of the process of internationalization we might conclude in practical implications for managers. Also, it can be very useful for managers to understand the curve of performance during internationalization so that they know what kind of challenges they should expect, what costs these challenges might entail and how they should allocate the resources of the company.

From an academic point of view, the internationalization-performance relationship is a pertinent research field due to the unresolved inconsistency of earlier studies. This means that there are several issues that have not been addressed or not been properly dealt with. Furthermore, managers who would like to get an understanding of the nature of internationalization and see what they should expect on the way cannot rely on the conclusions of academic research. They get mixed implications, which do not help them in decision making, thus the practical value of the studies is questionable. All this calls for further analysis, which synthesises earlier work and gives valuable implications.

But how is it possible that there is still no generally accepted notion about the relationship between internationalization and performance? The issue has been in the focus of numerous studies in the last four decades. Researchers of the topic have created a wide range of theories on how international development affects performance. They have gathered an extensive list of potential benefits associated with multinationality such as a greater exploitation of intangible assets, economies of scale and scope, superior financial power, monopolistic advantages, strong bargaining power, lower risk, broader market opportunities, lower costs in manufacturing, product diversification, extension of product life-cycle, exploitation of

comparative advantages of different international regions, intelligence gathering, operational flexibility and stability, tax arbitrage, organizational advantages. With these advantages in mind, one would expect a strong, positive impact of internationalization on company performance. Several studies have shown empirical proof for such a positive, linear relationship.

However, many authors claim that there are various costs that internationalization might entail, including costly entry barriers, organizational complexity, heavy bureaucracy, difficulties in communication, cross-cultural issues, financial and political risks, and exchange rate risks. Taking the costs into account, many researchers came to the conclusion that multinationality has no or negative effect on performance. Other researchers concluded that the relationship forms a U – first decreasing performance due to entry barriers and unfamiliar markets, then increasing as the company adapts to the new environment – whereas others depict an inverted U-shaped curve claiming that performance increases in the initial phase because companies first enter similar markets where they can rely on their home-based skills, and performance declines when they venture to geographically and culturally further markets. Finally, some studies state that over a longer period of time, the curve forms an S and there are several peaks and valleys in the performance of a company during its international expansion.

The most interesting aspect of this never-ending academic debate is that all of these theories are backed up with thoroughly established empirical research. This exceptionally wide variety of empirical results is very surprising.

There are several explanations on the contradicting outcomes of the empirical studies. Many of them draw on the difference in the statistical methods. There are also conflicting conceptualizations of the key terms “multinationality” and “performance”, which can potentially lead to different empirical results. Another issue is how to measure these terms. Many authors point out the importance of the time period that is investigated – whether it is shorter or longer time, or a “snapshot”. More and more researchers attribute significance to the country of origin of the multinational companies. They might experience different development of their performance depending on the size of their home-country, its similarity to neighbouring countries etc. It is also useful to ask how performance is affected by the relationship between international diversification and product diversification.



## **PURPOSE**

Our main goal is not to construct or select the best model for the internationalization-performance relation nor to identify the most likely explanation for the inconsistency among previous theories and empirical research. Nevertheless, we are going to present several potential explanations, and we make an attempt to reveal some aspects that have not been uncovered yet.

*The central idea of this paper is that by systematically contrasting the different models and searching for underlying reasons we are going to illuminate various crucial aspects of internationalization.*

Therefore, even though we are going to investigate the potential statistical and methodological causes, our main focus will be on different theoretical explanations which might lead to a thorough and comprehensive understanding of the factors involved in the process of internationalization.

## **METHODOLOGY**

### **Sources**

In our paper, we relied entirely on secondary sources, i.e. previous studies in the field. The literature on the internationalization-performance relationship is abundant and offers a great variety of theoretical and empirical studies, authors, journals, as well as wide a geographical and industrial range of sample companies. We used ELIN (Electronic Library Information Navigator), which integrates data from several publishers and databases, and it has proved to be a rich source for our topic as we could find almost all the articles that we looked for. However, we had difficulties in finding the full text version of some older articles, typically from the 1970's or earlier. Initially, we searched for the words "internationalization", "multinationality" and "performance" and combinations of these words. Then we screened the articles according to their relevance for our study. After reading a number of articles, we could follow up the referenced articles found in those. Some of the articles were outstandingly often referenced – for example Grant (1987) – which indicated that those were likely to be the most relevant ones. A few articles gave an overview of previous research in the

internationalization-performance field, such as Annavarjula and Beldona (2000) and Thomas and Eden (2004); these articles were especially helpful in compiling our literature selection.

We checked the Association of Business Schools (ABS) Journal Ranking in order to see how highly ranked the journals of our selected articles were. All the journals that we used scored high, more than 4.0 and some more than 5.0, except for two journals that accounts for three of our articles. One of them is the *Multinational Business Review*, which we have not found among the ranked journals; this journal published Han *et al.* (1998) and Thomas and Eden (2004). However, we found that both of these articles have highly contributed to the literature of this field and they could add valuable insight to our study topic, therefore, we eventually kept them. The other journal is the *Asia Pacific Journal of Management*, which scored only 2.0, with Wan (1998). The reason why we still included this article is that it studied a sample of Hong-Kong companies and found some idiosyncratic characteristics of these companies and the Hong-Kong market. Since most of the articles used samples of US companies, Wan's work gave an interesting new angle to our study (see more in the Country of origin section). Nevertheless, we excluded some articles that we did not find valuable, relevant or they did not add anything new to our study. We also decided to reject other articles that were published in journals that scored low in the ABS Journal Ranking.

We used 14 articles to introduce the five models of the multinationality-performance relationship. Each article presents a theoretical framework pointing to the model, and an empirical research that supports, or in some cases conflicts with, the theory. There is one exception, Hitt *et al.* (1994), which lacks an empirical study, but it is presented together with another article from the same authors, Hitt *et al.* (1997), which includes an empirical research to test the theory in both articles. These 14 articles are the core of our study. We used seven additional articles in the second part of the Analysis where we examine the key issues of the internationalization and performance relationship.

## **Meta-Analysis**

We did not conduct an empirical research because we had a different focus in our study. As we mentioned earlier, the purpose of this paper is not to find the ultimate model for the multinationality-performance relationship and prove it with empirical results. We rather aimed at synthesising the work of respected researchers and point out important aspects of their studies. Moreover, the robustness of a decent empirical research would exceed the limits

of a master thesis. Nevertheless, our conclusions also have implications for future academic research including propositions for useful empirical studies.

Unlike primary research, the data in the meta-analysis is obtained from several previous studies which allow us to examine the consistency of all the prior findings. By cross-examining similar characteristics of different empirical studies, meta-analysis lets researchers integrate results. “This allows meta-analysis to pool all existing literature on a given topic, not only the most influential and best-known studies” (Stewart and Roth, 2001; 2004, in Song *et al.*, 2008). However, the conventional meta-analysis is based on statistical findings from previous research, yet the primary focus of our study is the on qualitative side of results in which we mainly focus on systematically compiling variables and synthesising the conclusions of previous empirical studies. Instead of emphasizing the comparison of quantitative data, we believe that, by using qualitative method, we can explore the unprecedented relationship among the variables and results in order to get an in-depth understanding on the phenomenon.

For our Analysis, we first studied the articles thoroughly in order for us to get an overview on the previous work in the field. We got an understanding on the key concepts, correlations, the logic of the theoretical frameworks and methods used in the empirical studies. By contrasting and comparing the findings, we integrated the possible variables in terms of the similarities and differences. Some authors came to different conclusions from similar theoretical foundations, whereas others came to the same conclusion from different theoretical angles. We tried to reveal the potential reasons for the consistencies and inconsistencies of the theories and the empirical studies. Eventually, we identified certain issues that have influence on the dynamics of the internationalization-performance relationship. We organized our Analysis according to these issues and investigated each of them individually as well as comprehensively. By doing so, we have come to conclusions about underlying reasons of the inconsistencies and about the key questions of internationalization.

## **Terminology**

We frequently use the terms “internationalization” and “multinationality”. In this paper, we do not use internationalization as a synonym for globalization and to denote a general phenomenon. Rather, with this term we refer to the process of international development of individual companies. This process has several dimensions and includes all the activities that

take place in foreign countries, such as exporting, importing – directly or through partner companies –, establishing subsidiaries in foreign countries with the purpose of selling, buying, outsourcing manufacturing, R&D or services (e.g. call centers). Multinationality is the state of a company when it has presence or activities in other countries than its home country. We do not set a limit on how many countries a company needs to be present in, or to what extent of internationalization it needs to engage in, in order for it to be called a multinational company. It is rather a question of the degrees of internationalization. Furthermore, we do not distinguish among international, multinational and transnational companies, and we typically use the first two terms. We are also going to use the abbreviations MNE, which stands for Multinational Enterprise, and MNC, which stands for Multinational Company, as they are frequently used in the academic literature. MNE and MNC are interchangeable. Even though internationalization refers to a *process* whereas multinationality refers to a *state*, we use the terms “internationalization-performance” and “multinationality-performance” interchangeably, which is in accordance with the practice of researchers in the field. By “domestic firms” we mean companies that have no or negligible activities outside their home markets. We do not define the exact upper limit of international activities of domestic companies since each research study uses individual definitions. Investigating the definitions and the nature of internationalization and multinationality is one of the key elements of this paper, and it is going to be elaborated on in the Analysis section.

Performance generally indicates how well a company carries out its business. It often refers to efficiency and profitability, however, it is a too complex concept to give a brief definition here. There are different ways to conceptualize and measure performance, which we are going to investigate in the Performance section of the Analysis.

## **ANALYSIS**

In the first part of the analysis we are going to present the five models that have been developed by researchers. According to the “Positive linear model”, international development has a positive effect on corporate performance at all degrees of multinationality. It supposes that the benefits of internationalization always outweigh the costs. Researchers that have found “No or ambiguous relation” between multinationality and performance could not empirically prove that internationalization has a significant positive or negative influence

on performance. The “Inverted U-shaped model” states that performance increases at low levels of internationalization but after a certain threshold it declines. There are two reasons for the decrease of performance after the threshold: firstly because the organization becomes complex and difficult to manage, and secondly because at this stage the companies enter geographically and culturally more distant markets which entail significant costs. The fourth model is the “Standard U-shaped model”, according to which performance decreases in the beginning of internationalization because companies meet entry barriers when starting their international expansion. Once they adapt to the new market conditions their performance increases, thus forming a U. The “S-shaped model” has two versions. According to the first one, performance increases first, like in case of the inverted U-shaped model, then declines due to distant and unfamiliar markets, and finally catches up again when the company adapts to the new conditions. According to the second version, there is an initial drop in performance, similarly to the standard U-shaped curve, then it increases, and finally decreases again due to the negative effects of the extreme degrees of internationalization (“over-internationalization”).

Each of these five models is going to be described by introducing some of the most pertinent research articles that have been published in the field. It is useful to present the models through the work of various researchers because in a number of cases authors with different theoretical foundations have concluded in the same model. This means that there might be several angles to approach one particular model. Also, authors might put the emphasis on different parts even within the same theoretical framework.

In the second part of the Analysis, we are going to elaborate on the issues that we have found essential. These issues highlight important aspects of internationalization, performance and their relationship as well as some central elements of the research methods. Therefore, the second part is a comparison of the articles (and the models) along these issues, as well as an analysis of the issues themselves.

### **Positive linear model**

One of the most significant studies of the relationship between internationalization and performance was carried out by Robert M. Grant, in 1987. In his study he hypothesised four main reasons for increased performance by internationalization. First of all, multinationals can exploit intangible assets, such as technological know-how, ownership of brand names, and various managerial and organisational skills. The idea that international companies tend

to earn higher return on assets than single-country companies is supported by earlier empirical research. Presence on numerous markets can give companies superior financial power compared to their local competitors. Market diversity also allows firms to undertake higher risks on some markets because the overall risk is mitigated by activities in lower-risk markets. Higher-risk ventures tend to promise higher returns in case of positive outcomes, consequently these companies can benefit more from these risky activities. Finally, Grant argued that due to their wide geographical coverage multinational companies can exploit a broader range of investment opportunities.

In his empirical research Grant analysed 304 quoted, British-owned, manufacturing companies taken from *The Times* 500 list of Britain's largest companies. Although, for statistical reasons, he could not test each of his hypotheses, his empirical findings supported the overall notion that internationalization increases performance. He found that multinationality was positively associated with superior profitability over a period of 13 years at these manufacturing companies.

One of the most recent studies that show a strong positive impact of internationalization on performance was conducted by Hsu and Pereira in 2006. In the development of their hypotheses, building on earlier findings of other researchers, they listed numerous reasons why performance is enhanced by international expansion: increased sales in foreign markets, more diverse risk, lower costs through economies of scale in manufacturing, lower costs through economies of scope in R&D, marketing, and distribution systems, leveraging intangible resources; exploiting relationships among business segments and geographic areas, and exploiting differences in factor markets (p. 193). These authors introduced the notion of organizational learning in connection with performance and internationalization. They developed the hypothesis that the increase in performance during international expansion is moderated by social, market and technological learning of the organization.

Their study of 110 multinational enterprises (MNEs) confirmed that social and market learning activities have a positive effect on the internationalization-performance link. However, they did not find any proof on the effect of technological learning. They claimed that "one possible explanation is that market and social ties may be more sensitive to the geographical and cultural diversity created by internationalization, whereas technology is less so" (p. 201).

A decade after Grant's study, and a decade before Hsu's and Pereira's study, Han *et al.* (1998) came to similar conclusions about the positive relationship between internationalization and performance, however, their results were less straightforward. Following the ideas of Buckley and Casson (1976, in Han *et al.*, 1998), they based their explanation of the expected increased corporate performance on two main reasons. First, multinationals can choose the lowest cost location for their production and operation. Second, international companies might be able to satisfy local demand for certain kinds of (foreign) products or services than their local competitors.

These authors investigated a great number (2643) of large, manufacturing companies from seven countries, namely Canada, France, Germany, Italy, Japan, the U.K. and the U.S. Their findings indicated a rather weak but positive relation between multinationality and performance.

One of the earliest research was carried out by Hughes, Logue and Sweeney in 1975. They took a different angle in their study and looked at multinationality from a financial perspective and focused on risk diversification as a core function of internationalization. They built on the notion that companies expand to foreign markets in order to diversify their real asset portfolio and thus spread risk, and to exploit the benefits of economies of scale.

They compared 46 substantially multinational companies with 50 purely domestic firms taken from *Financial Analyst Journal* and *Fortune 500*. They found that multinationals have lower risks (both systematic and unsystematic), however, their results did not support a strong link between multinationality and performance.

### **No or ambiguous relation**

In 1996, Stephen Tallman and Jiatao Li did not only investigate the impact of multinationality on performance but also that of product diversity and geographical scope. They based their theory on the idea that if companies can diversify into products and markets where they can reap their already existing idiosyncratic "strategic" resources, they will be able to benefit from economies of scope. However, if these companies go beyond the scope of these unique resources, diversification will have a reverse effect on performance. Furthermore, after a certain point governance costs will reduce profits. Previous empirical findings on product diversification and performance had been conflicting. The authors drew on the "theory of the multinational", when discussing international diversification, which suggests that

“multinational firms have opportunities to gain greater returns to intangible resources, to use market power, to spread their market risks, and to seek less expensive inputs and less price-sensitive markets” (p. 181). Thus, their hypotheses claimed, among others, that product diversification would have a positive effect on performance up to a certain point, whereas the multinationality-performance relationship would form a positive linear curve.

In their empirical study, they examined 192 large American multinationals taken from the *Directory of Multinationals*. The results confirmed their hypothesis on product diversification, showing a nonlinear relationship with performance where the curve increases up to a point from which it declines. It was also proved that the country scope – the number of countries where the company has subsidiaries – is significantly correlated with performance. However, their results rejected the positive linear effect of multinationality – measured by the ratio of foreign sales to total sales – on performance, as they indicated no significant such effect. International diversity – combination of country scope and multinationality – has a positive but weak relationship with corporate performance.

In his study of Hong-Kong firms, Wan (1998) hypothesised that internationalization would have a positive effect on performance. He drew on earlier research that concluded that the underlying reason is the benefits of economies of scale, greater market opportunities, extension of core skills and exploitation of comparative advantages of different international regions, international diversification, a comparative advantage through locating operations in less costly regions as well as a competitive advantage in market development (p. 205-206). In his study the main focus, also in the empirical research later on, was put on international diversification. However, he also acknowledged that after a certain point in the international development incurring costs might outweigh the benefits. Therefore, he expected that performance would be positively related to international diversification but the curve would flatten and then drop, thus forming an inverted U-shape.

In the empirical research Wan compared the performance of 47 Hong-Kong MNEs with a total of 81 companies. His findings did not confirm his hypothesis as they showed that internationalized companies did not perform better than domestic companies. Nevertheless, the author did not generalize from his findings and he drew conclusions regarding Hong-Kong companies only. He held that there might be two explanations for this phenomenon. Firstly, domestic firms can benefit from their market knowledge and experience in their home country whereas MNEs need to learn about the market, and their costs are likely to be higher.



Secondly, fast growing economies, like Hong-Kong, give opportunities for domestic firms to increase their profitability without going abroad.

J. Markham Collins (1990) wanted to compare the performance of multinationals active in developed and developing countries and purely domestic companies. He established his theoretical framework on the potential benefits of portfolio diversification, which derive from market imperfections. “Such market imperfections and segmentations may result in advantages of cost saving, ease of market entry, tax arbitrage, or other specific competitive advantages. Any of these will result in enhanced cash flows” (p. 271).

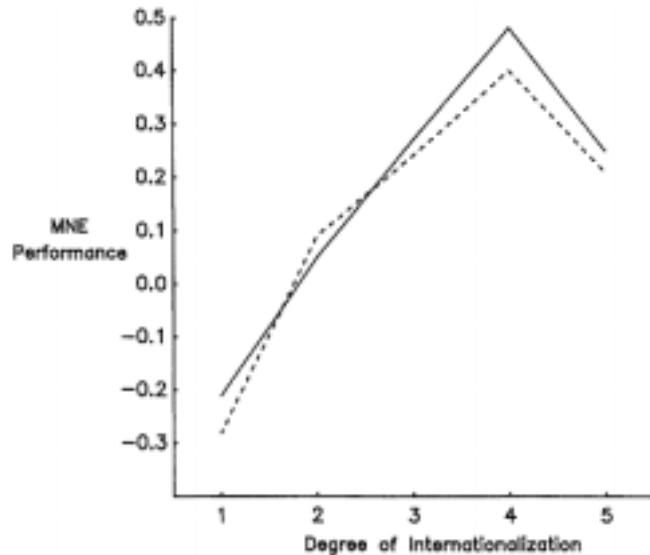
In the empirical study, Collins investigated 150 companies from *Fortune 500* (76-225) to see the relationship of performance and the kind of market companies are active on. He found that performance and risk measures were better in case of domestic companies and developed-country companies than in case of developing-country companies. Therefore, diversification to developing countries actually has a negative effect on performance.

### **Inverted U-shaped model**

In 1989 Geringer, Beamish and daCosta made a study on the diversification strategies of multinational corporations. They built their theory around the concept of competitive advantage. “Competitive advantage, sometimes termed firm-specific advantage, refers to some tangible or intangible characteristic of an organization which rivals cannot imitate without incurring substantial cost and uncertainty” (p. 109). In order for companies to be successful and competitive, they need to exploit such advantages in a way that they yield the maximum possible benefits. According to the authors, there are two main elements of such a successful strategy: product diversification and international diversification. Obviously, for the purpose of the present paper, the latter is of more importance (however, we are going to discuss product diversification in the Control variables section). Geringer *et al.* attributed the following benefits to international diversification: more internal activities, synergy effects of activities in different segments, geographical areas and industries, economies of scale and scope. On the other hand, they recognize the costs of an expansive international diversity: costs of complex operations and coordination, cultural difficulties and less focus on individual target segments.

In their empirical research they investigated the 100 largest US and the 100 largest European firms, taken from *World Directory of Multinational Enterprises*, over the period

between 1977 and 1981. Their results show an increase in the performance of the companies up to a certain point, “threshold”, after which performance declines, thus forming an inverted U-shape.

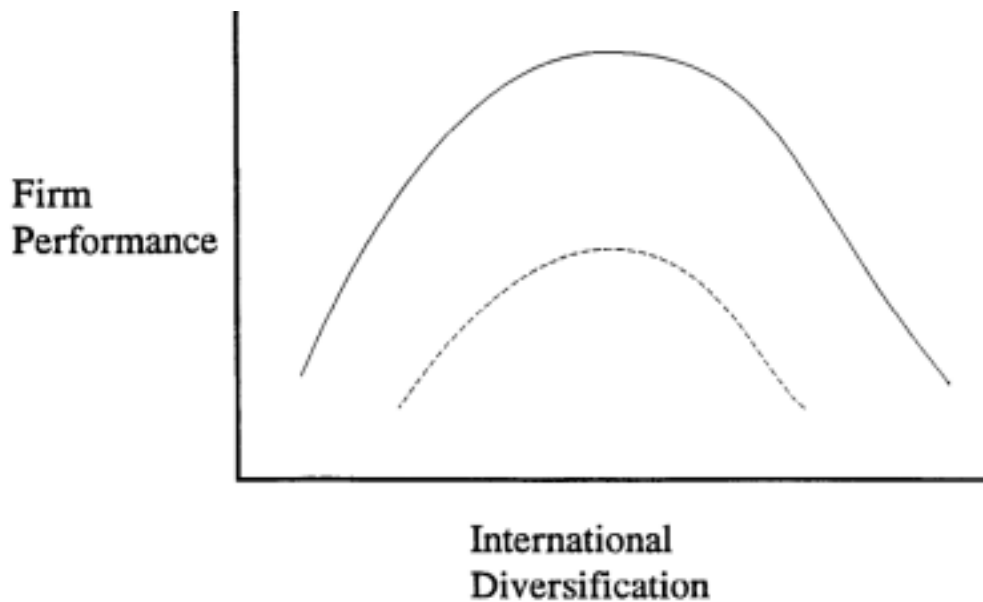


**Figure 1.** Relationship Between Degree of Internationalization and MNE Performance. Profit-to-Sales, --- Profit-to-Total Assets, ----, Note: Graph is Compiled Using Standardized (Z-score) Data Controlling for Effects of Continent-of-Origin (Geringer, Beamish, and daCosta, 1989, p. 117.).

According to the authors, above this threshold of internationalization, the maintenance of the profitability rate is more challenging. One reason for this is that the necessity of building organizational structures and mechanisms entails significant costs which erode profit margins.

Hitt Michael A, Hoskisson Robert and Ireland R. Duane (1994) also looked at international diversification including product diversification in connection with firms’ performance and innovation. They suggested that international diversification is positively related to both innovation and firm performance. However, they also proposed that the relationship between diversification and firm performance is nonlinear. Since coordination among related businesses increases information processing geometrically, Hitt *et al.* expected the relationship between international diversification and performance initially to be positive, however, the slope would turn to negative as other factors come in to the process of diversification. Therefore, similarly to Geringer *et. al.* (1989), they hypothesised an inverted U-shape. The factors which affect the steepness and height of slope derive from the size of the company, geographical location, country of origin in relation to its new market, as well as its

product diversification. The figure below indicates the extent of diversification in similar and unrelated host-country cultures.



Notes: ----- Unrelated Product Diversified Firms  
 \_\_\_\_\_ Internationally Diversified into Nonhostile Countries with Similar Cultures

**Figure 2.** Alternative Relationships Between International Diversification and Firm Performance

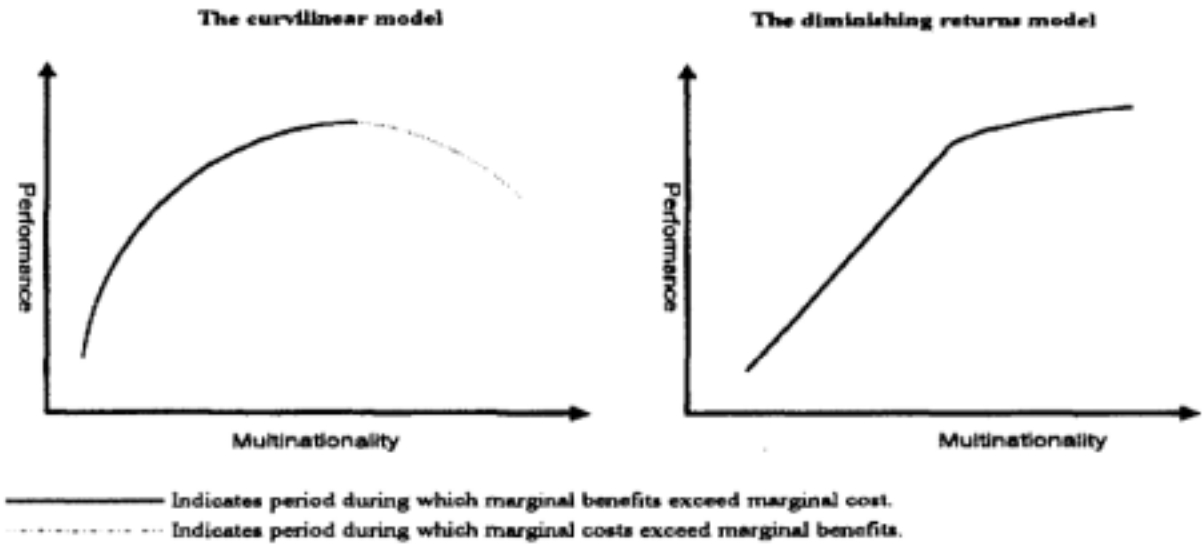
(Hitt, Hoskisson, and Ireland, 1994, p. 313).

They did not only make the point that the differing markets, seen from cultural perspective, can be a great barrier, but also that in the process of international diversification the issue of centralized coordination and integration with local country operations can be a setback. Further, the apex of the slope is idiosyncratic to each company, which is influenced by the company's transnational capability (managerial skill, structure, etc.) and its product market, culture, and international diversification environment. Therefore, the complexity of the relationship between in international diversification and performance and the transnational capability of a firm is once again raised its important role for this field.

Three years later, Hitt *et al.* (1997) further looked at the factors which have impacts on relationship between international diversification and firm's performance. They suggested that international diversification influences performance positively in case of product-diversified firms, but negatively in case of non-diversified firms. The nonlinear relationship between international diversification and performance is closely related to product diversification. Their research suggests that "the slope and shape of this nonlinear relationship varies with the level of product diversification" (p. 793).

They took a sample of 295 large, manufacturing firms demonstrating product or international diversification or both, and analysed them in the period 1988-1990. The results also supported the idea of an inverted U-shaped relationship between international diversity and performance. The conclusion of their study shows the importance of international diversification for a competitive advantage, however, it points out the complexity of the process to implement it. Therefore, the transnational capability is also emphasized in order to achieve a great result for international management.

In 1999, Lenn Gomes and Kannan Ramaswamy also undertook on an empirical study of the curvilinear model that was based on a sample of U.S. multinational firms spread over four industries spanning a period of six years between 1990 and 1995. They hypothesized that the relationship between multinationality and performance will be nonlinear with performance increasing up to an optimal level beyond which levels of multinationality lead to performance decline. They based this hypothesis on similar grounds as previous studies. They claimed that the benefits of internationalization derive from “the ability to leverage scale economies (Grant, 1987; Porter, 1985), the potential to take advantage of arbitrage opportunities in factor cost differentials across multiple locations (Kogut, 1985), and the ability to hasten new product development and introduction (Bartlett and Ghoshal, 1989)” (Gomes and Ramaswamy, 1999, p.174). These benefits overweigh the associated costs in the initial phase, when the company handles its foreign operations as an extension of domestic operations. After that, they need to invest in the new structure.



**Figure 3.** Alternative Forms of the Relationship Between Multinationality and Performance  
 (Gomes and Ramaswamy, 1999, p. 175)

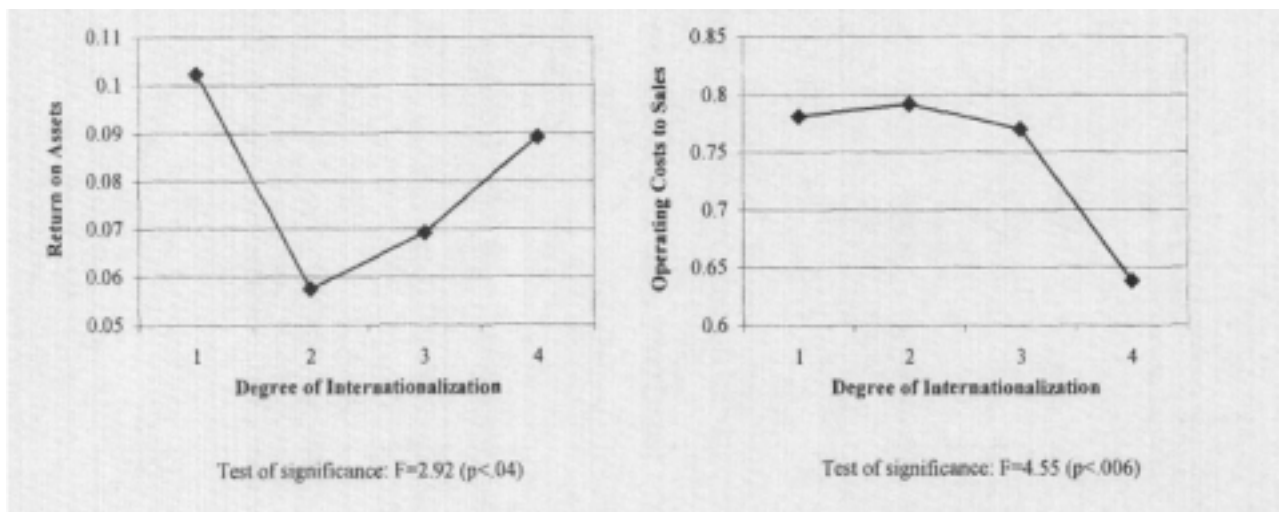
The results supported their hypothesis in both cost and benefit measurement. Increasing multinationality only entails benefits to a certain point, beyond which benefits start to decline as costs go up.

### **Standard U-shaped model**

In their 2003 study, Winfried Ruigrok and Hardy Wagner thoroughly analysed previous research in order to create a fundament for their hypothesis and empirical research. They compiled the benefits that are generally attributed to internationalization along two main theoretical directions: theories of foreign direct investment (FDI) and theories of the multinational firm. The former refers to the exploitation of external opportunities such as new markets, lower cost countries for production etc. The latter points in the direction of the exhaustion of the intra-firm comparative advantages. Creating a global organizational structure allows companies to develop competencies and acquire resources that domestic firms cannot. Furthermore, MNEs can better promote organizational learning and knowledge development. On the other hand, Ruigrok and Wagner also acknowledged the costs of internationalization. Difficulties arise from organizational complexity, cumbersome bureaucracy, heavy information transfer, cross-cultural issues such as motivation, coordination and communication. External factors are financial and political risks that multinational companies have to undertake. When it comes to the interplay between benefits and costs, the authors also identified two main theoretical streams. The central element of the first one is the notion of a “threshold of internationalization”. In the initial stage of the international development of the firms, the corporate performance increases along with the expansion, up to a certain threshold, from which point performance decreases with further internationalization. The explanation of this phenomenon is that at low degrees of internationalization, companies can rely on and effectively make use of their home based skills and resources. Later on, when they enter culturally and/or geographically distant markets, their costs increase significantly and eventually exceed the benefits. The second theoretical stream focuses on organizational learning and emphasises the dynamic nature of the threshold. According to this set of ideas, companies are not doomed to deteriorating performance after reaching the threshold because they adapt their organizational knowledge and structure. Thus this latter theoretical stream is less deterministic than the former one because it supposes that the management of the firms have influence on the internationalization-performance relationship.

Although Ruigrok and Wagner also built on organizational learning when forming their hypothesis, they follow a somewhat different logic. They claim that organization performance is high when companies enter new markets where they can use their home based skills and resources and then it decreases as the companies venture to unfamiliar markets. When these companies learn how to adapt to the new market conditions their performance starts to increase again. Therefore, the curve of the internationalization-performance relationship will be standard U-shaped, according to their hypothesis.

In their empirical research, they investigated the development of 84 medium to large, German manufacturing firms over a five-year period. The results supported their hypothesis as they “unambiguously indicate a significant non-linear relationship between companies’ degree of internationalization and performance”, forming a U-shaped curve (p. 74).



**Figure 4.** Results Obtained Through ANOVA Techniques (N=84)  
(Ruigrok and Wagner, 2003, p. 76)

### S-shaped model

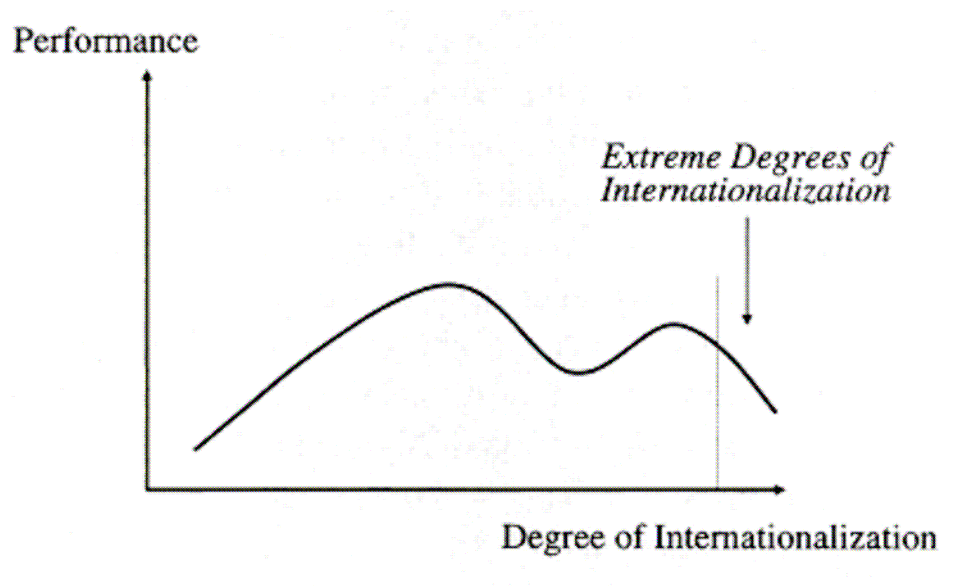
In 1998 Ahmed Riahi-Belkaoui, made a research to examine the nature of the internationalization-performance relationship. He rejected a simple linear relationship and argued for a nonmonotonic curve. Based on a series of earlier studies, he listed a wide range of advantages of internationalization. He argued that multinational companies benefit from monopolistic advantages, volume economies, intelligence gathering, product improvement, operational flexibility and stability, tax arbitrage, organizational advantages, stabilization of profits through diversification across national boundaries, arbitrage profits, better financing

bargains, capital availability and exploitation of interrelationships between different segments, geographical areas, or related industries (p. 316). Nevertheless, he also held that entering new markets is costly in the beginning, therefore performance will drop initially. Then it increases when companies start to reap the above mentioned benefits, however after an optimal point of multinationality, performance drops again. Therefore his hypothesis claimed the curve of the internationalization-performance relationship would be S-shaped (or sigmoid).

In the sample of his empirical study he included all the firms in Forbes' classification from 1987 to 1993, resulting in 612 firm year observations. The results were very specific and determined the threshold for each stage in terms of the foreign revenues-total revenues ratio. It was concluded that performance decreases between 0-14%, increases between 14 and 47%, and declines again above 47%. According to the author, the practical implications of his study for managers is that the thesis of 'More Multinationality is Better' is not always valid and that an optimum combination of domestic to foreign operations should be kept.

Four years after their study that had shown a standard U-shaped curve, Ruigrok and Wagner together with Wolfgang Amann made another research (2007), with different results. When constructing the theoretical framework of their study they relied on previous research, among others by Riahi-Belkaoui that had concluded that the curve of the internationalization-performance relationship forms an S. This is based on a three-stage model, which argues that "multinational companies experience a performance downturn at low degrees of foreign expansion, increasing performance levels at moderate degrees of internationalization (DOIs), and eventually a second and final performance downturn at high DOIs" (p. 350). Thus, this model introduces two "thresholds of internationalization" where performance starts to drop. More specifically, the second stage is claimed to be located between 40-70% of foreign-sales-to-total sales ratio. The explanation of the model holds that in an early phase of internationalization (stage one) companies encounter entry barriers, such as new legal and cultural circumstances, therefore initially the costs outweigh the benefits. Then (stage two) companies adapt to the new settings and start operating efficiently, but then (stage three), due to organizational and environmental complexity, they reach the threshold and their performance decreases again. However, in their particular empirical research they introduced a "stage zero" (although they do not call it like that), due to the specificities of their sample companies. They examined companies from Switzerland, and they claimed that Swiss companies do not experience an initial downturn in their performance because the entry

barriers are much lower. This is due to the cultural and geographical proximity of large foreign markets like Italy, France and Germany and Austria. Therefore, they hypothesised the following curve:



**Figure 5.** The Hypothesized Sinus-Shaped Internationalization-Performance Link  
(Ruigrok, Wagner, and Amann, 2007, p.356).

They examined 87 Swiss companies over an 8-year period in their empirical research and the results confirmed their hypothesis about the S-shaped curve that is “shifted to the right, and preceded by an initial stage of increasing performance” (p. 349).

Douglas E. Thomas and Lorraine Eden (2004) also investigated the influence of internationalization on performance, and came to similar conclusions. First, they examined previous research in the field, with different outcomes: positive effect, positive but diminishing effect, U-shaped and inverted U-shaped relationship as well as sigmoid (S-shaped) relationship. They also recited the advantages of internationalization: moving from high-income markets to low-income markets in order to prolong product life-cycle; locating production to countries of favourable conditions; acquisition of knowledge-based assets; taking advantage of differences in government regulations, such as taxes, subsidies etc.; multinational flexibility; and strong bargaining power. On the other hand, the authors acknowledged the costs: exchange rate risks; higher cross-border transaction costs and higher costs of interaction with various governments; and costs of greater cultural diversity.

In the empirical part of their study, the authors investigated 151 US-based companies over the period between 1990 and '94. Similarly to Riahi-Belkaoui (1998) and Ruigrok *et al.*



(2007), they found evidence of a sigmoid, three-stage relationship between multinationality and performance. “Initially, multinationality has a positive impact on performance, however, in time, the costs of multinationality outweigh the benefits. But in the long-run, multinationality leads to positive performance” (p. 104). Thus, the curve have multiple “peaks and valleys” over time. Consequently, an important question is how long it takes for benefits to outweigh costs.

### **Theoretical discussion and dilemmas**

Above we could see that our selected literature presents a wide variety of theoretical frameworks. Once again, what is most surprising is the fact that all of them are supported by empirical research. However, in some cases, authors came to different empirical results even though their theoretical foundations were the same. So what does the multinationality-performance relationship depend on? What are the crucial factors in order to succeed in the process of internationalization, and what are the methodological differences which lead to different outcomes of the empirical research?

All authors list the advantages of internationalization. Nevertheless, many of them approach the benefits from different angles. We have categorized these advantages into two groups: external and internal benefits. External benefits derive from the new markets which the companies enter, whereas, internal benefits occur within the company during the process. External benefits can be sales oriented: new customers, economies of scale in marketing, better ability to satisfy local demand for certain products or services than their local competitors, extending product life-cycle by selling products to less advanced markets; risk-oriented: more diverse and lower risks; production oriented: economies of scale in manufacturing and R&D, optimal and low-cost locations for production; and other benefits such as favourable tax and subsidy systems. Internal benefits, in our categorization, refer to the optimal use of the company resources and skills and to further developing organization knowledge: extending the core corporate competences and exploiting intangible assets (technological know-how, ownership of brand names, and various managerial and organisational skills), enhancing innovation, gathering intelligence, taking advantage of synergy effects.

We have found that one of the key differences among the theories is the way they look at the costs. We argue that how the researchers treat the costs can explain, for example, why some authors hypothesized a U-shaped curve whereas others expected an inverted U-shape.

There are authors who simply disregarded the costs of internationalization or suppose that the benefits are always higher. We have identified two ways to theoretically explain why some authors expect an increase whereas others expect a decrease in performance in the beginning of the process. The first explanation is founded on the notion of organizational learning, and it categorizes costs into two groups based on when they arise during the internationalization process. One part of the costs occurs in the initial period of the internationalization process. Entering new markets can be very costly for companies. They need to adapt to the local norms, legal framework and need to learn about the market characteristics. They also have to deal with cultural issues. The other part of the costs emerge when the company becomes highly international and the growing bureaucracy as well as the complexity of the corporate structure, mechanisms and communication entail significant costs. The authors in the literature review are divided in treating the costs. Some of them claim that companies tend to expand to familiar markets initially, therefore the above mentioned entry barriers are not significant. They expect that the multinationality-performance relationship will be positive in the early phase. They believe that the entry barriers (cultural issues, different market norms) occur only when the companies go geographically and/or culturally distant markets. The second group of costs come later, at high or “extreme” degrees of internationalization. This is one of the theoretical explanations for the differences between the standard U and the inverted U-shaped curves, and the sigmoid models whether performance increases or decreases first. The other explanation simply builds on the fact that the costs are expected to occur before the benefits. Investments (on foreign markets) will only yield benefits after a certain period of time. Even if companies enter familiar markets first, it is costly to establish a subsidiary or production unit and it takes time to profit from them.

Market familiarity raises the question of the home-country and host-country effects. Is there a difference between companies from different countries? We argue that there might be differences deriving from the organization cultures which were developed in the home-countries. Furthermore, companies from small markets might need to start their internationalization process earlier than companies from countries with large domestic markets. In our opinion, it is reasonable to suppose that their development line will be different. Wan (1998) claimed that his results might be different from earlier studies in the West due to idiosyncratic market characteristics in Hong-Kong. Similarly, Collins investigated the effects of the differences in the target (or host) countries. We are going to examine this issue more thoroughly in the second part of the Analysis.

We find it important to look into the issue of diversification. From our selected literature Geringer *et al.* (1989), Tallman and Li (1996) and Hitt *et al.* (1994, 1997) dealt with diversification in their studies. The diversification strategy of companies has several dimensions. The two most pertinent dimensions from the point of view of our paper are product and international diversification. The question emerges: is international diversification just another dimension of the diversification strategy or is it fundamentally different in nature from other forms of diversification? Furthermore, what is the interplay between product diversification and international diversification?

The ultimate question in our study is whether the benefits outweigh the costs. And if so, are benefits always higher than costs or is it different at different phases of the process? In other words, is there a threshold of internationalization? And is it more or less constant or is it dynamic? Does the place of the threshold depend on the external conditions or on managerial skills? What are the different factors that are involved?

We make an attempt to answer these questions in the following section. In order to find out underlying reasons of this surprisingly contradictory variety of theoretical and empirical studies, and to highlight important aspects of internationalization, we are going to examine the definitions for the key terms “internationalization” and “firm performance”, and investigate their characteristics and various potential interpretations; look at the control variables in the studies and their influence on performance; see the different time periods the authors used for their research and their significance; look into the questions of country of origin; and investigate the relationship among internationalization, product diversification and performance.

## **Internationalization**

The use of the term has not been consistent in all studies, and authors often refer to the same phenomenon with different words. To determine how international a company is the phrases “degree of internationalization (DOI)”, “multinationality”, “international diversification” etc. have been used. Therefore, by synthesising these terms we conceptualize multinationality, try to find explanations for the discrepancy of the earlier studies, and reveal crucial factors in the process of internationalization.

“Multinational companies” are widely discussed nowadays, even in everyday conversations. Everyone seems to understand what it means to be multinational but from an

academic point of view it is not that easy to define “multinationality”. Note that we are going to use “multinational” and “international” companies as interchangeable terms, and we do not undertake the widely used distinction by the orientation of the companies such as global, transnational, international and multinational (see Cumings and Worley, 2005). “Multinationality refers to the extent to which firms operate internationally by investing in assets and/or controlling activities outside their home country” (Cant-well & Sanna-Randaccio, 1992; Teece, 1981, *in* Annavarjula and Beldona, 2000). There are several layers and dimensions of international activities such as exporting and importing directly or through local partner companies, establishing subsidiaries either for sales or other functions like manufacturing, R&D, or service (e.g. customer-service) etc. But to what extent does a company need to be engaged in the above activities in order to be called multinational? And what dimensions of multinationality must be taken into account in order to best grasp the concept?

In the earlier studies, researchers tended to undertake a unidimensional view on multinationality. Among many other studies Grant (1987), Geringer *et al.* (1989) and Han *et al.* (1998) used Foreign Sales to Total Sales ratio (FSTS) to determine the degree of internationalization. Even though various academics pointed out the deficiencies of this single-dimensional approach later, many more studies were based on the FSTS ratio even up till recently, for example Ruigrok *et al.* (2003, 2007 – although they excluded only exporting companies), and Riahi-Belkaoui (1998). There are several attractive benefits to use this measurement. First of all, even though it is unidimensional it grasps the most important element of multinationality, i.e. foreign sales. It tells much about companies whether they are engaged in foreign sales up to 10% or 80%. FSTS is also simple to use and to compare. Another advantage is that FSTS is easily available from various databases. Indeed, Ruigrok and Wagner (2003) admit that FSTS represents only one side of internationalization; they claim that “reliable and complete internationalization data for the five-year period under study was obtainable only in FSTS form; we therefore had to depend on the financial dimension of the degree of internationalization” (p. 72). Nevertheless, they also point out that it is a core dimension of the firms’ foreign activity.

On the other hand, we argue that this approach conceptualizes the nature internationalization in a simplistic manner. It does not take into consideration how diversified this foreign sales is. If a company has 50% FSTS ratio but all the foreign sales goes to one country, for example a Canadian company selling to the US, or a Swedish company selling to Denmark, it cannot truly be categorized as a multinational company. Also, a company might

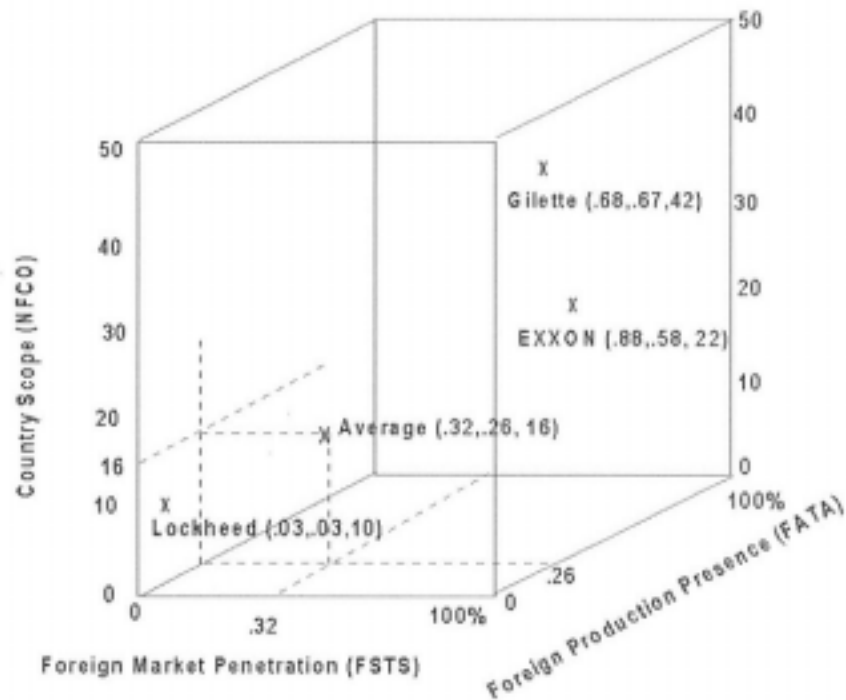
be engaged in a lot of exports through its foreign sales partners in other countries without actually knowing much about or being involved in those markets, because the partner companies do all the foreign activities. However, it has to be noted that in a part of the studies, only the revenues of the foreign subsidiaries are included in “foreign sales”, exports through partners is not. Furthermore, exports is not the only direction of international trade; the import rate also has the merit to be involved in the measurement of multinationality. Moreover, this unidimensional approach is vulnerable to the risk that conceptually irrelevant factors might significantly influence it, especially in the short run.

There are other studies that include one more dimension besides the foreign sales-total sales ratio. Hughes (1975) relies on FSTS but completes it with the Foreign Assets to Total Assets (FATA, assets = liabilities + equities) when measuring multinationality. This helps in getting a more inclusive picture of multi/international companies. Others, such as Collins (1990) or Tallman and Li (1996), use the number of subsidiaries as a complementary measure to the foreign sales ratio. Collins put the thresholds at 25% of foreign sales compared to total sales, and at least eight subsidiaries in foreign countries (in his study he makes a difference between developed and developing regions). However, it is not clear from his study how he counted several subsidiaries in the same country, unlike Tallman and Li who made it clear by phrasing it as the “number of foreign countries with subsidiaries”. Introducing the number of countries where the companies are present is the most crucial additional dimension, in our opinion, because it indicates the geographical variety of multinationality. Still, the mere number of countries with daughter-companies can also be somewhat misleading in certain cases. An extreme example is of two countries with activities in the same number of foreign countries: one in Hungary with subsidiaries in the seven surrounding countries, Austria, Slovakia, Ukraine, Romania, Serbia, Croatia and Slovenia; whereas the other one, for instance in Germany, with subsidiaries in the US, Brazil, Russia, China, India, Australia and South Africa. It is quite hard to claim that these two hypothetical companies are equally multinational.

Wan (1998), besides FSTS, used the number of international regions instead of countries. Furthermore, Kim and his co-authors (1989) introduced a weighing method to fine-tune the country scope. They suggested to investigate the number of employees in the subsidiaries in each country in order to get a more complete picture. However, they admitted that their method is not always practically useful since this information is often unavailable from databases. As a combination of the regional approach and weighing of the geographical units, Hitt *et al.* (1997) developed a model for measuring multinationality. They used regions

instead of countries for two reasons: firstly because the necessary data is not always available on a country level, and secondly because of the emerging importance of regional economies. They divided the globe into regions that they claim relatively homogeneous: Africa, Asia and Pacific, Americas and Europe. They weighed the importance of the regions by sales directed to the regions. According to the authors “the measure considers both the number of global market regions in which a firm operated and the relative importance of each global market region to total sales” (p. 780). We found that the disadvantage of the model is that taking these regions as homogeneous is oversimplifying and can also lead to deficiencies.

There are researchers who have taken three factors into account in order to get a more complete picture on internationalization and to avoid wrong interpretation of the results of their empirical research. Gomes and Ramaswamy (1999), similarly to the above mentioned measures but in a more complete manner, used the ratio of Foreign Sales to Total Sales, the ratio of Foreign Assets to Total Assets and the number of foreign countries in which a firm has subsidiaries. Hsu and Pereira (2006) also used Foreign Sales to Total Sales and Foreign Assets to Total Assets but selected the ratio of Foreign Profit to Total Profit (FPTP) as the third. Even though both studies use three dimensions, Gomes and Ramaswamy’s measures are probably closer to capture the nature of multinationality because the Foreign Profit to Total Profit ratio reveals similar aspects of multinationality as FSTS, whereas the country scope is truly a different dimension. Thomas and Eden (2004) have developed a similar model to that of Gomes and Ramaswamy. They also claimed that multinationality has three key components: 1. foreign market penetration, 2. foreign production presence and 3. country scope (p. 92). Foreign market penetration refers to the dependence of the company on foreign activities and it can be measured by Foreign Sales to Total Sales. Foreign production presence is the production-based activities of the companies in foreign countries and can be measured with Foreign Assets to Total Assets and employees in foreign countries to total employees. According to the model, these two dimensions are the “depth” of multinationality and “together they answer the question: What percent of the MNE’s activities are conducted outside the home country?” (p. 92). Country scope shows the geographic range of the activities of the firm, and it represents the “breadth” of multinationality and “addresses the question: How wide is the global reach of the multinational enterprise?” (p. 92). The three dimensions construct the complete model, which is visualised below together with some examples of American manufacturing multinationals.



**Figure 6.** Dimentions of Multinationality  
(Thomas and Eden, 2004, p. 93)

Thomas and Eden hypothesized and confirmed by the empirical results that the breadth of multinationality, i.e. country scope, would have a stronger positive impact on performance. Drawing on an earlier study by Allen and Pantzalis (1996) they explained this phenomenon by the notion that companies might overinvest within one country without expanding across countries.

A different kind of three-dimensional model was developed by Sullivan (1994). The three dimensions are structural, financial and psychological. The structural dimension refers to the Foreign Asset to Total Asset ratio, the number of subsidiaries and the ratio of Foreign Employees to Total Employees. The financial dimension regards monetary and/or revenue dependence of foreign markets, with measurements like Foreign Sales to Total Sales and Foreign Profit to Total Profit. The psychological dimension shows the international disposition of the companies' top management team, such as education and experience in foreign countries, national and cultural diversity in the management. Although this last dimension is the most novel one, it is also difficult to measure, especially on the large scale. Furthermore, we find it questionable whether the composition of the management is truly relevant for the activities of the company. It might rather be looked at as a *cause* for multinationality or international expansion and not as a *measure*. As an overall critique, Annavarjula and Beldona (2000) claim that "this method, while addressing the important

issue of multidimensionality, seems to overlook one fundamental constituent of empirical analysis: The performance, structural, and attitudinal aspects of multinationality as described by Sullivan (1994) represent conceptually distinct dimensions. Therefore, combining them into one index through an item-total-analysis method can not claim any theoretical support” (p. 55).

Annavarjula and Beldona developed their own three-dimensional model where the dimensions are operations, ownership, and orientation. The operations dimension refers to the phenomenon when the companies allocate their “physical and intellectual inputs”, sales or service activities to or establish production facilities in other countries. Examples to measure the operations dimension of multinationality are the proportion of Foreign Sales to Total Sales, Foreign Subsidiaries to Total Subsidiaries and Foreign Employees to Total Employees. The ownership dimension deals with assets the company owns abroad, and the international constitution of its owners, e.g. individuals and institutions abroad. “A MNC (multinational company) might own assets abroad, such as land or real estate, or hold stock in another company that may result in a controlling interest in that foreign company. On the other hand, foreign individual or institutional investors could own an MNC; its stocks may be traded in multiple stock exchanges both at home and abroad” (p. 50). Finally, orientation indicates the future direction of the company in terms of its vision, strategy and structure.

From our analysis of the concept it seems obvious that multinationality is hardly an easy-to-measure factor. The process of internationalization involves development in multiple dimensions, all of which should be taken into account. We argue that it makes sense to group the measures according to the dimensions they represent. For example, Foreign Sales to Total Sales and Foreign Profit to Total Profit are categorized as Financial measures. The Operational dimension can be measured by Foreign Assets to Total Assets, Foreign Subsidiaries to Total Subsidiaries or Foreign Employees to Total Employees. The country or regional scope indicate the geographic range (or “breadth” according to Thomas and Eden, 2004), and construct an equally important dimension. Additional dimensions can be created, such as psychological (Sullivan, 1994), but we have found that these three dimensions are the key to capture the nature of multinationality. We believe that it is useful to combine them in order to create a complete measure for an empirical study. Moreover, it could be valuable to assess them separately to see if they result in different outcomes from which conclusions can be drawn regarding their individual importance within multinationality. For example, Thomas



and Eden (2004) found that country scope is more positively related to performance than FSTS or FATA.

## **Performance**

Another key issue in our investigation of the relation between internationalization and performance is how to define and measure corporate performance. Also, understanding the dynamics of performance is one of the most interesting practical implications for managers. The researchers of the field have used various different measurements, sometimes only one, sometimes several at the same time, in order to eliminate statistical errors and to see if the different measurements of the very same data give different results. However, it is interesting to note that the authors often give no reason for why they used those particular measures. The two main dimensions of performance measurement are financial and operational.

The most common way of assessing performance is by financial measurements. Return on Assets (ROA) shows how many units of revenues a company can generate from one unit of assets. It is often used to show profitability and it is considered to be one of the best indicators of economic success of a firm. This measure was used by many authors, such as Grant (1987), Gomes and Ramaswamy (1999), Thomas and Eden (2004), Geringer *et al.* (1989), Ruigrok and Wagner (2003) and in some cases it was used as the only indicator of performance, for example Hitt *et al.* (1997), Riahi-Belkaoui (1998) and Ruigrok *et al.* (2007). Another common, also financial measure is Return on Equity (ROE) which shows the rate of return for the owners, i.e. the shareholders' equities. It is widely used to see how efficiently a company utilizes its investment funds. It is very similar to ROA (equity = assets – liabilities) and it measures performance from the same angle. ROE was used by Grant (1987), Thomas and Eden (2004), Hsu and Pereira (2006), Han *et al.* (1998) and Wan (1998). Less frequently, authors use Return on Investment (ROI) to assess efficiency and performance. Hsu and Pereira (2006) used ROI in their study along with other measures.

Another financial measure, although somewhat different in nature than ROE and ROA, is Return on Sales (ROS), which basically shows the profit margin of the company. Geringer *et al.* (1989) strongly argues against ROA in favour of ROS claiming that “accounting ratios derived from asset-based values tend to hinder inter-company performance comparison because they display greater distortion than do operating-based measures. Thus, results from different methods of depreciation, local tax regulations, domestic inflation, and foreign exchange fluctuations, *inter alia*, can seriously hamper comparison of data” (p. 113).

Furthermore, new investments might not yield revenues in the short-term, for example during the research period, which might lead to misinterpretation of the data. Nevertheless, Geringer *et al.* applied both ROS and ROA in their study in order to get more balanced, unbiased results. Besides Geringer *et al.*, ROS was also used by Grant (1987), Hsu and Pereira (2006) as well as Tallman and Li (1996).

The above mentioned financial measures are similar in nature, thus one would expect a strong correlation among them. For example, Hitt *et al.* (1997) found that “both ROA and ROS generated similar findings and were highly correlated ( $r = .91$ )” p. (778). On the other hand, it might be difficult to use them for inter-study comparisons because “in the international arena, where accounting methods, standards, and interpretations vary, accounting methods such as return on investment (ROI), ROA, or ROS may lack consistency” (Annavaarjula and Beldona, 2000, p. 56).

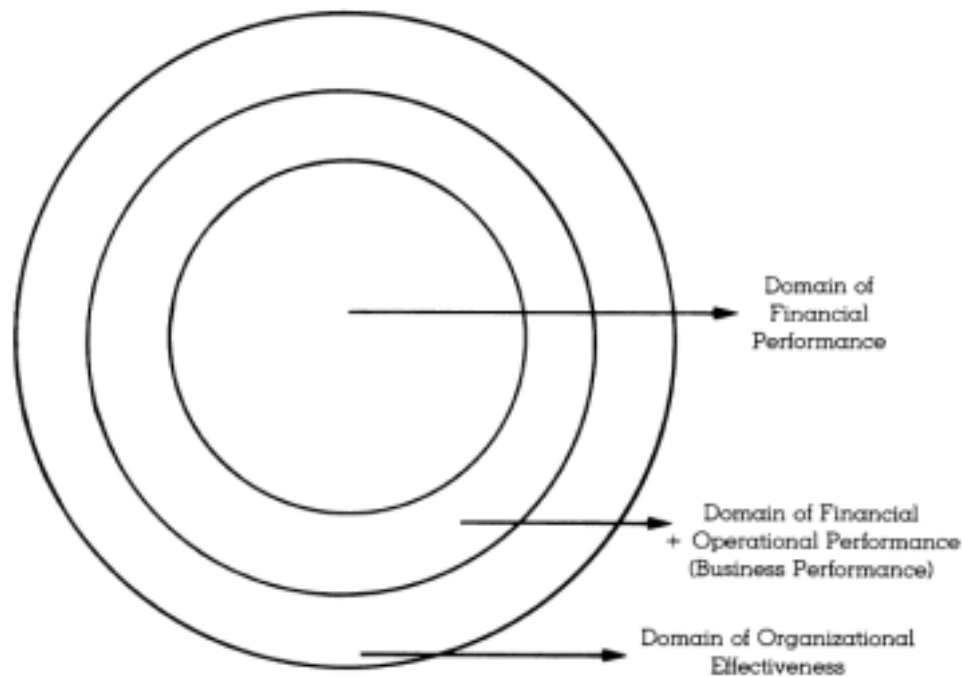
Within the financial dimension of performance, some authors used alternative ways to measure performance. Grant (1987) also used growth of sales and profit as indicators of firm success. Wan (1998) did similarly, measuring the growth of sales (SALEG); moreover, he further completed the measurement with the stability of profitability, for which he applied the standard deviation of ROE (SDROE). Likewise, Ruigrok *et al.* (2007) used the standard deviation of ROA.

We find it interesting to note that most of the authors took the average of the different measurements (ROA, ROA, ROS etc.) for a given period, for example a couple of years. This helps to eliminate short-term alterations in the date. However, Han *et al.* (1998) looked at the data in only one year, 1994. It seems reasonable to investigate a more balanced average value than a one year “snapshot”, but often there are practical limitations. Tallman and Li (1996), for example, claimed that some of the necessary information was only available for 1987, therefore they chose to balance that out with a large sample of companies. We are going to investigate the time periods in the Time section.

Drawing on earlier research, Thomas and Eden (2004) made an attempt to broaden the conceptualization of performance. Besides the two traditional, financial measures, ROA and ROE, they used two “value-based” measures, excess market value and average market value. They categorize the first two measures into “short-run financial performance”, together with ROS and Earnings Per Share, etc., whereas they put the second two into the category of “long-run expected market performance”. “Excess Market Value (EMV) is the ratio of market value plus the book value of debt minus total assets, all divided by total net total sales (Allen and Pantzalis, 1996). It measures the excess market valuation of the firm over and above the

value of its physical assets. High ratios suggest the existence of intangible assets (e.g., technology, brand loyalty, superior managerial skills) and the implicit assessment of the firm's ability to capture the benefits of these intangibles in its long-run performance. Average Market Value (AMV), measured as market value divided by total assets, similarly focuses on market valuation" (p. 98). These additional two measures seem to balance performance assessment with intangible and long-run factors. However, Venkataraman and Ramanujam (1986) criticize them by stating that "this approach remains very much financial in its orientation and assumes the dominance and legitimacy of *financial* goals in a firm's system of goals" (p. 804).

Deriving from this criticism Venkataraman and Ramanujam developed a new model to measure performance, which constructs the other main framework of performance measures: the operational approach. "Under this framework, it would be logical to treat such measures as market-share, new product introduction, product quality, marketing effectiveness, manufacturing value-added, and other measures of technological efficiency within the domain of business performance" (p. 804). In other words, the operational dimension deals with measures that do not yield financial benefits directly, but they ultimately enhance performance. Therefore, applying operational performance measures can result in a better grasp of how well multinational companies achieve their objectives.



Financial Performance	— The domain of performance construct in most strategy research.
Financial + Operational Performance	— The enlarged domain reflected in recent strategy research.
Organizational Effectiveness	— The broader domain reflected in most conceptual literature in strategic management and organization theory.

**Figure 7.** Circumscribing the domain of business performance  
(Venkataraman and Ramanujam, 1986, p. 803).

Some of the authors did undertake the operational approach as well. For example, Gomes and Ramaswamy (1999) used the ratio of Operating Cost to Total Sales (OPSAL or OCTS) claiming that “multinationals stand to achieve significant cost benefits because they access cheaper labor and material inputs overseas, this indicator was used to capture such benefits” (p. 181). Similarly, Ruigrok and Wagner (2003) applied OCTS to involve a broader meaning of corporate performance. They claimed that OCTS can measure material and labour cost efficiency, which are widely looked upon as major benefits of internationalization.

Above, we have presented the multiple dimensions of the concept of performance. We argue that it is a mistake to assess performance only with financial measures. Return on

Assets, Return on Equity and Return on Investment capture the same side of the nature of performance. They measure short-term results, which is an important aspect of internationalization. Return on Sales is another financial measure that indicates profitability. Although, ROA, ROE, ROI and ROS are normally correlated, it might be a good idea to treat them separately because it might reveal valuable aspects of the profitability of internationalization. It could also be useful to look at the change in these measures, e.g. sales growth. However, it is not enough to use these financial measures. Excess Market Value and Average Market Value can help in assessing intangible and long-term benefits of internationalization. Using operational measures is also crucial to get a comprehensive understanding of the multinationality-performance relationship. Operational Costs to Total Sales, for example, is a good indicator of corporate efficiency. However, even with the operational measures, it is difficult to capture some of the crucial intangible assets or tacit competitive advantages of the company, such as organizational culture.

### **Control variables**

We have found that one of the problems with conducting academic research on performance is that potential confounding variables may interfere with the relationship between international diversification and firm performance. By controlling for such variables researchers attempt to eliminate third factors that might influence the relationship thus distort the results of the study. Grant (1987) noted that the research results without control variables cannot be the basis for describing the internationalization-performance relationship, for two reasons. First, a third factor might have effect on both internationalization and performance. “Second, causation may operate in either direction, i.e., rather than overseas production leading to higher profitability, profits might be financing overseas investment” (p. 85). By definition the control variables potentially have influence on performance, therefore, they can reveal important aspects of the concept of performance. By investigating the control variables we can not only find further explanations for the inconsistency of the studies but we can also learn more about the internationalization-performance relationship.

The most frequently used control variable is firm size. It is assumed that the size of the companies is a determinant variable of the expected returns. “As firm size grows, it becomes more difficult to sustain impressive performance. Presumably, this is the rationale behind the “firm size effect (Banz, 1981). Thus when firm size is larger, ROE is expected to be lower” (Han *et. al.*, 1998, p. 65). It is logical to expect that as the firm grows more international, it

also grows in size, thus its performance curve flattens. Therefore, it is crucial to control for firm size in order to avoid statistical biases. Tallman and Li (1996) stated in their article that “the significant results imply that any tests that do not control for such inputs are likely to show spurious results” (p.188). It is not surprising that all the authors in our literature collection controlled for firm size except Hughes *et al.* (1975), Collins (1990), Geringer *et al.* (1989). It is also possible, that these authors also controlled for company size but they were not explicit about it in their articles. From a methodological perspective, firm size can be measured by (the natural logarithm of) total assets, total sales or number of employees.

Although the effect of firm size on performance seems obvious, it is not always empirically supported. Han *et al.* (1998), for example, got mixed results. They carried out their empirical research with a sample of companies from Canada, France, Germany, Italy, Japan, the UK and the US, and found that asset size only had effects on ROE in case of American and Japanese companies. On the other hand, in accordance with their predictions, they also experienced that “firm size is inversely related to asset turnover for each nation. This indicates that as the firm grows, it becomes more difficult to manage assets efficiently” (p. 66). They found no significant relation between firm size and net profit margin, except for the United States, where they are positively related contrary to the theory. Despite the mixed empirical findings on the relationship between firm size and performance, it is imperative for researchers of the multinationality-performance field to control for firm size to avoid potential biases.

The other most frequent control variable in the internationalization-performance studies is the industry effects. Different industries offer different market opportunities, development paths, profit margins etc., therefore, companies operating in different industries can expect different performance results. In other words, “firms in the same industry share the same fate in their performance” (Han *et al.*, 1998, p.65). Therefore, either a single-industry sample should be selected for an empirical research or the industry effect should be controlled for. However, a single-industry sample can only result in implications for the internationalization of companies in that particular industry, therefore, it limits the scope and thus the relevance of the study. From our selected study Grant (1987), Han *et al.* (1998), Hitt *et al.* (1997), Tallman and Li (1996) – they particularly controlled for industry growth –, Wan (1998), Gomes and Ramaswamy (1999), Ruigrok and Wagner (2003) and Ruigrok *et al.* (2007) used this control variable.

Hsu and Pereira (2006) introduced the unique notions of “technology uncertainty” and “market uncertainty”, which together construct the industry effect. Since their study focused

much on organizational learning in connection with the multinationality-performance relationship, they wanted to control for such variables that might affect the adaptability and learning skills of the companies. Technology uncertainly refers to unpredictability of changes in technology and new product launches, whereas market uncertainty reflects the speed of change in customer demand and competitor actions (p. 197). These two variables would probably not have been measurable if Hsu and Pereira had not used a survey-method, alone from our sample literature; in the survey, they asked the interviewees to scale these to dimensions of their industry. Obtaining these figures from a database would most likely be impossible.

Besides the two most frequent control variables, firm size and industry effects, many authors have used some alternative variables. Tallman and Li (1996), Han et al. (1998) found it important to control for the leverage effect. “Firm leverage can be measured as the percentage of long-term debt to total capital (debt plus equity)” (Tallman and Li, 1996, p.188). It is assumed that debt financing is more effective than equity financing, and it encourages management to improve firm performance. “Thus, the agency theory predicts that, other things held constant, higher leverage leads to better performance” (Han et. al., 1998, p. 65).

Hitt *et al.* (1997) also used unique control variables: country scope and mode of internationalization. It is interesting that Hitt *et al.* used weighted regional distribution as a measure for multinationality instead of the number of countries and included the country scope as a control variable (similarly, Geringer *et. al.*, 1989, used country of origin as a control variable instead of an independent variable). Based on earlier studies they hypothesized that the different ways of internationalization have different effects on performance, therefore, they “included as control measures the number of mergers and acquisitions (net of divestitures) and the number of strategic alliances undertaken by sample firms during the study period” (p. 781).

Han *et al.* (1998) included some control variables that no one else used from our literature collection. They controlled for the life cycle of the company, assuming that the corporate performance highly depends on the developmental phase of the company. They also controlled for “R&D expenses, which may have an effect in either direction. On the one hand, firms that invest heavily in R&D are most likely profitable firms. On the other hand, R&D expenses can hurt the firm’s net income so that it has a negative effect on ROE.

Similarly, Thomas and Eden (2004) used some unique control variables. For example, they controlled for the ownership advantages, which are one of the intangible, difficult-to-

imitate resources of the company. Furthermore, they included technology intensity (similar to the R&D expenses of Han et. al.) and administrative costs.

In this section we have added even more angles to the concept of performance, particularly in connection with internationalization. We have presented that there is a multitude of factors that affect performance and form a wide network of interconnected elements. The most important such factors are firm size and industry effect as they are fundamentally determinant in the dynamics of performance. Other variables are debt versus equity financing, R&D and administrative expenses, company life cycle, country scope and ownership advantages. It is practically impossible to include all these factors in a study and their effects are not always empirically supported. Nevertheless, it is advisable to always control for size and industry, and consider to use some more variables depending on the specific characteristics and focus of the individual studies. Otherwise, third factors can ruin the validity of the results and the study will not contribute to the understanding of the multinationality-performance relationship.

### **Time period**

We have discovered that one of the crucial factors that many of the authors did not take into account is time. The process of internationalization is by no means a short-term process. It is a gradually and continuously proceeding activity that has both short-term and long-term costs as well as benefits. The authors in our literature collection used different methods to involve time, if they considered it at all, therefore, it could be one of the main causes of the great discrepancy among the research outcomes.

Like in case of any kind of investment, the costs occur before the revenues during internationalization. For example, a newly established subsidiary of a company might yield income and profit after several years. Therefore, in the short-run performance is going to decline before it shows the benefits. Geringer *et al.* (1989), for example, noted that “major new investments undertaken during the period [...], but not yet generating sales to their full potential, could [...] distort asset-based performance measures” (p. 113). Moreover, both costs and benefits can have different effects in the short run than in the long-run. Thomas and Eden (2004) claimed that “investments in R&D, particularly in basic research, have a negative impact on short-run performance because costs are incurred well in advance of benefits. The



anticipated returns from investments in intangible assets are better reflected in long-run performance” (p. 97).

However, one could argue that time is always included in the empirical research because it is substituted by the measure of degree of multinationality. In case of a one-time sample of companies at different degrees of internationalization, even though the companies are not followed individually for a longer period of time, by examining a variety of companies at different DOI, all parts of the internationalization process are represented. However, we argue that the scale of the degree of internationalization and the time line are not parallel because the process of internationalization is not monotonically developing, instead, it may speed up and slow down at different periods, or show a diminishing growth. Thus, we conclude that the time period must be consciously controlled for by certain means.

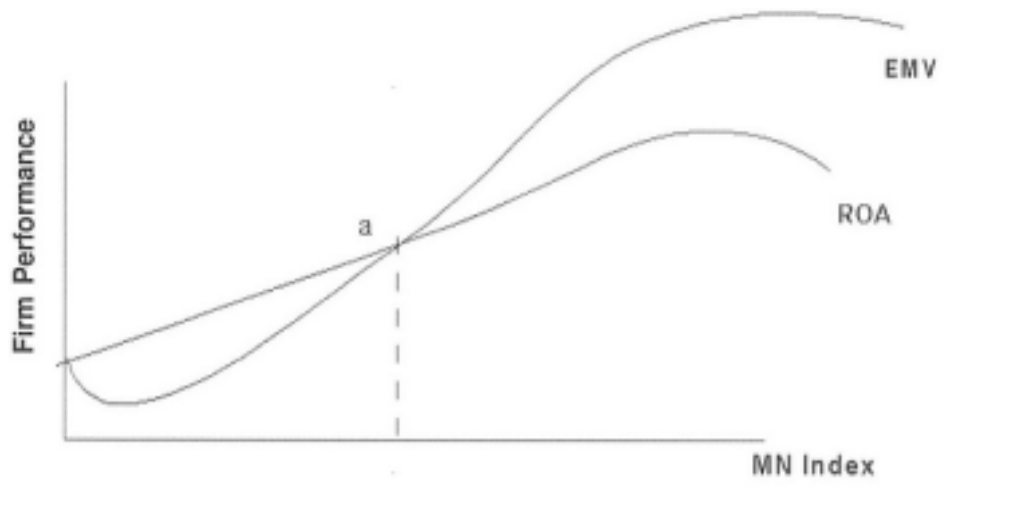
Most of the authors used data (multinationality and performance measures) from one single year, such as Hsu and Pereira (2006), Han *et al.* (1998), Tallman and Li (1996), or the average of a couple of years, like Hughes *et al.* (1975), Wan (1998), Collins (1990), Geringer *et al.* (1989), Hitt *et al.* (1997). Geringer and his co-authors acknowledged that significant performance effects arise only over time and they supported the idea that an averaged sample is adequate to counterbalance the time-lag. They strongly argued for using an averaged sample because they observed that “the degree of internationalization (DOI) measure evidenced high inter-period stability, with the individual firm’s average DOI deviating minimally over the 1977-81 period. This finding suggests that variables which could potentially distort the sales-based measure (e.g. major investments in new market or significant corporate reorganizations) tended to be quite limited, both in terms of occurrence and concomitant effects” (p. 114). On the other hand, as a criticism on the averaged samples, Ruigrok (2003) noted that “whereas this procedure may help to smooth out annual variations due to accounting practices, averaged data is also likely to disguise important tendencies or cyclical movements over time” (p. 74).

In order to avoid biases deriving from the time issue, Grant (1987) used multiple shorter and longer periods in his empirical study. He averaged the multinationality and performance measures for periods between 4 and 13 years in order to eliminate short-term influences on the data. In his static analysis, which analyses the data at a given point of time and not their change, he tested the whole research period, i.e. 1972-84, as well as three sub-periods, 1972-75, 1976-79, 1980-84. He found that the results for the sub-periods were not substantially different from the whole period. For his dynamic analysis, where he analysed the *changes* in the data, he again used two periods: 1972-75 to 1980-84 and 1976-79 to 1980-84.

By consciously involving multiple time periods in his study, Grant can be considered the author that has dealt most reliably with the time factor to date.

Nevertheless, other authors also realized the importance of time in the internationalization-performance relationship. However, instead of examining multiple time-periods to eliminate short-term effects, like Grant, they developed another statistical method to deal with the problem. As a criticism to earlier research, Gomes and Ramaswamy (1999) noted that “although several of these studies have used data relating to multiple time periods, they have not examined the stability of the multinationality-performance relationship across time” (p. 178). Therefore, Gomes and Ramaswamy, as well as Riahi-Belkaoui (1998), Ruigrok and Wagner (2003), Ruigrok *et al.* (2007) and Thomas and Eden (2004) used the cross-sectional and time-series pooling of the data from a number of consecutive years. This means that they put all the observations together, from all companies and all years, and examined them independently from the sequence of the years. For example, a sample of 50 companies over a 5 year period will give 250 independent observations. “A major strength of pooling techniques is that they enable an examination of variations among cross-sectional units simultaneously with variations within individual units over time (Bergh, 1993; Maddala, 1971). [...] Further, pooling increases the degrees of freedom since more observations are available as a result of combining cross-section and time-series data” (Gomes and Ramaswamy, 1999, p. 181).

From our selected literature, besides Grant (1987), Thomas and Eden (2004) dealt most with the issue of time. Besides applying the pooling technique, they also used different performance measures. As it was mentioned at the Performance section of this paper, these authors used ROA and ROE as well as EMV (Excess Market Value) and AMV (Average Market Value). They claimed that the former two assess short-term performance, whereas the latter two measure long-term performance. EMV indicates the intangible assets (e.g. technology, brand loyalty, superior managerial skills) and it indicates the firm’s ability to capture the benefits of these intangibles in the long-run performance. Similarly, AMV measures the market value of the company, which is also a long-term asset. Therefore, by using both long-run and short-run measures they expected to test one of their hypotheses which claimed that benefits of internationalization would be higher when measured in the long-run than in the short-run. In the empirical study they found that ROA and ROE separately show positive linear relationship with multinationality, whereas EMV and AMV draw a sigmoid curve, first negative then positive and finally negative again.



**Figure 8** Multinationality and Short and Long Run Firm Performance  
(Thomas and Eden, 2004, p. 107)

This supports the notion that the effect of internationalization on performance is different in the short-term than in the long-term. Thus, we argue that time is a factor that must be taken seriously when studying the multinationality-performance relationship. Moreover, treating the time factor differently is surely one of the underlying reasons for the discrepancy in the studies of the field.

### **Country of origin**

The overwhelming majority of the research on the relationship between multinationality and performance was carried out in the USA, therefore, most of the studies used American companies in their empirical research samples. From our literature collection, Gomes and Ramaswamy (1999), Hitt *et al.* (1997), Collins (1990), Hsu and Pereira (2006), Riahi-Belkaoui (1998), Tallman and Li (1996) and Thomas and Eden (2004) used exclusively US company samples. We see it problematic that many authors do not refer to the home country as a significant variable and compose the sample based on various other factors.

Grant (1987), who used British firms in his study, noted that the differences and similarities between the UK and the target markets represent an important issue in the process of internationalization of the British companies. He stated that the success of British companies is likely to depend on the features of the host countries such as similarities of language and culture, level of economic and business development, intensity of competition, geographical distance (p. 82). A combination of these factors determines where British

companies direct their activities and how successful they become on the local markets. The direction of the foreign direct investment in the world is determined by the comparative advantages of the countries. “Thus, the pre-eminence of the U.S. in R&D and military capability is reflected in the powerful position of the U.S multinationals in computers and telecommunications, while the strengths of the Germans and Swiss in chemistry and precision engineering is reflected in the multinationality of many German and Swiss pharmaceutical and engineering companies” (p. 88). In his conclusions, he claimed that his findings conflicted with earlier research, and he explained this with the difference of the nationality of the sampled firms. On the other hand, he noted that he did not find any significant differences in the performance of companies by the destination regions. From this, he concluded that company-level factors are probably more determinant in performance than the destination country-factors. It is interesting to note that Tallman and Li (1996) chose large American industrial firms for their study in order to be comparable with Grant’s sample. This means that they did not find the country of origin effect as significant as the industrial and size effects, or they considered US firms ultimately similar to British firms. However, they acknowledged that “American multinationals are typically less internationalized than similar firms from smaller markets” (p. 187).

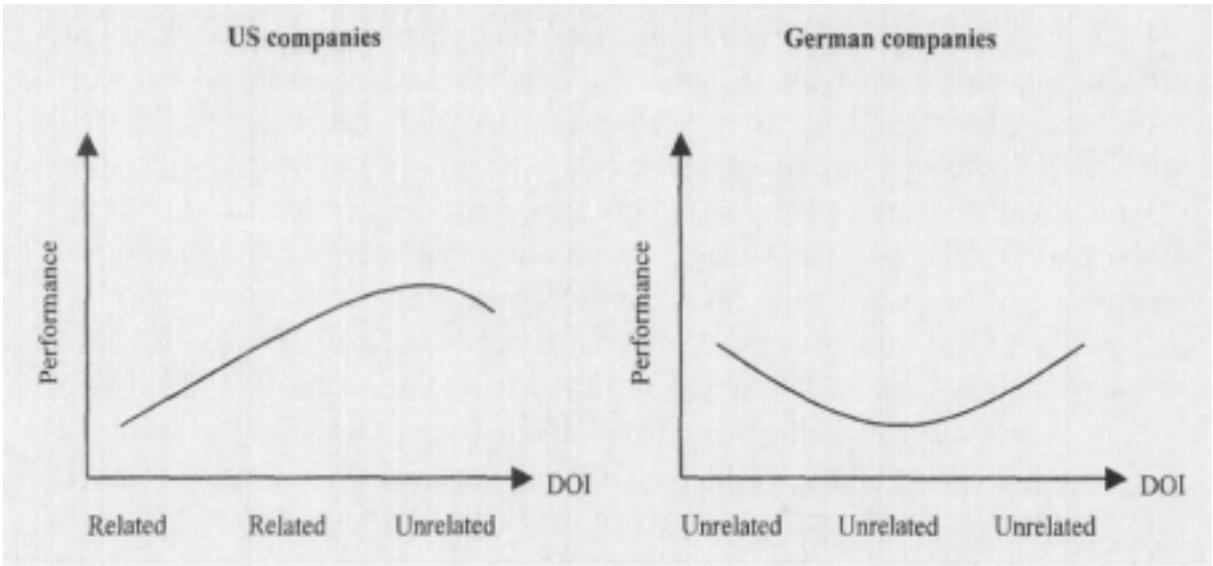
Two years later Geringer *et al.* (1989) deliberately picked 100 European and 100 US firms for his study in contrast with most of the past research that had studied single-nation samples. He found that there is an overall difference between the performance of European and American firms. “Initial analysis of the sample data revealed that the mean performance of U.S versus European MNEs differed: values being 5.16 per cent versus 1.52 per cent and 6.82 per cent versus 2.05 per cent for profit-to-sales and profit-to-total assets, respectively” (p. 114). Although the authors cited some potential reasons for this phenomenon, such as size, degree of multinationality and government ownership, they concluded that there was no fully acceptable explanation. Since it was not the focus of the study to reveal the difference between European and US companies in terms of the effects of internationalization and performance, Geringer *et al.* did not look into causes and consequences of the home country effect. Ruigrok and Wagner (2003) acknowledged that Geringer and his co-authors were the only researchers that included non-US firms in their analysis, but they “merged firms from several European countries into one aggregate sample, thus largely blurring nation-specific impacts” (p. 78). Nevertheless, Geringer *et al.* also realized this problem and concluded that this could be an interesting field for future research.

Han *et al.* (1998) also realized that the domination of American-based studies could potentially lead to biases in the results. Therefore, they examined companies from all G-7 countries: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. However, the number of companies from each country was not equally distributed because not equally many companies met the same criteria from each country. The sample was heavily weighted towards the US and Japan. Therefore, they did not pool the companies, but investigated them for individual nations. They found that the average rate of Return on Equity (ROE) was different by the countries. ROE and the net profit margins were generally low in Europe (except in the UK) and Japan. However, the purpose of the study was to find a general link between multinationality and performance and not to compare the individual countries. Also, the final results of the study are mixed between the countries and the performance measures, thus we cannot draw relevant conclusions from them regarding country-specific internationalization-performance relations.

Wan (1998) also used a non-US sample for his empirical research. Instead of American companies, he investigated Hong-Kong firms, but he did not hypothesize any significant difference from earlier Western studies. Nevertheless, he noted that “regional differences, such as economic development, ownership structure, culture, and state policy, may influence a firm’s strategic choice as well as its performance” (p. 209). He expected that the curve would form an inverted U, but his empirical findings did not show any strong difference between multinational Hong-Kong firms’ performance in comparison to domestic firms. Seeing the results Wan identified some characteristics of Hong Kong firms that might be the underlying reason for the different outcome than in Western studies. He claimed that “in high growth regions such as most developed countries in Asia, there should be ample domestic opportunities for a firm to enhance its performance. As the local economy is not yet saturated, domestic firms can utilize their established local connections for further expansion and hence profits” (p. 215).

From our selected literature, Ruigrok and Wagner (2003) were the first who consciously attributed great significance to the effect of the country of origin in their research. They themselves claimed that their “study represents one of the first single-country examinations of a curvilinear DOI-performance relationship for non-US organizations” (p. 78). They used a sample of 84 German manufacturing companies. They hypothesised that US and German companies differ in the way they expand internationally due to the different home markets. Partly in accordance with Grant’s theory, both American and German companies tend to expand first to culturally related markets. US firms mainly go to Canada,

the UK and Australia, whereas German companies start their international development in Austria and Switzerland. The obvious difference is that Austria and Switzerland represent a much smaller market than Canada, the UK and Australia. Consequently, German companies need to enter culturally less related markets, like Western Europe, North America and Asia, at an earlier phase. Since more difficulties and costs occur at lower degrees of internationalization, their performance will initially decline. Later, when they adapt to the new environment and implement the necessary structures, they start enjoying the benefits of internationalization, and their performance increases. Therefore, their performance curve will depict a U.



**Figure 9.** Degree of Internationalization and Performance: The Role of Prevailing Country-specific Type of Expansion (Culturally Related/Unrelated), (Ruigrok and Wagner, 2003, p. 79).

Four years later, Ruigrok and Wagner together with Amann (2007) carried out another study about the multinationality-performance relationship, with special focus on the country of origin effect. This time, they investigated Swiss companies and found idiosyncratic features for these firms. Unlike German companies, that meet high entry barriers at an early stage of their internationalization process because the culturally related markets are small and they need to venture to culturally more distant countries, Swiss companies have large neighbouring markets. Germany, Austria, France and Italy are not only geographically close but they are also culturally related to Switzerland. Therefore, the initial phase of their international development is not as difficult as in case of German firms, thus their corporate performance will first increase before it declines. Besides their specific implications for Swiss

companies, Ruigrok *et al.* claimed that their “findings suggest that specific contextual settings firms may lead to divergent internationalizing trajectories. Such alternative paths may result in different forms of the internationalization-performance relationship” (p. 362). They concluded that future research should focus on the internationalization of companies from similar home country conditions.

In the same year, Elango and Sethi (2007) conducted a thorough analysis on the relationship between the country of origin effect (COE) and the internationalization-performance link. They argued “that the home country environment would have an impact on a firm’s internationalization effort and outcomes, which is independent of, and in addition to, the within-firm variables” (p. 371). COE has three elements: cultural values and institutional norms, the characteristics of the national economy, e.g. physical resources and industrial capabilities, and the government’s economic policies. Companies from the same country will have similar characteristics along these three elements because they adapted to these in their local markets. Consequently, these country-specific traits create comparative advantages or disadvantages for companies from those countries. This is also in line with what Grant (1987) argued, that “the international distribution of direct investment reflects the international pattern of comparative advantage” (p. 88). Similarly to the explanation of Ruigrok *et al.* (2007) on why Swiss companies can increase their performance at the beginning of their internationalization, Elango and Sethi generally hypothesised that companies from small countries that are characterized by intense international trade will enjoy a strong positive effect of internationalization on performance. Companies from these countries do not only benefit from internationalization at an earlier stage of the process, but they also start the process earlier in their development. Thus, these companies are exposed to international competition earlier and get more prepared for an intense competition abroad. Furthermore, the authors claimed that “the lack of a large home market would serve as an enabler, as these firms would be able to adapt knowledge from their environment to existing routines, facilitating an easier evolution into diverse international markets” (p. 374). Companies from large markets with modest trade, on the other hand, can develop in their home market without being exposed to foreign competition. They also build up a considerable administrative heritage and routine mechanisms. Nevertheless, because they first expand to similar markets, they can incrementally adapt their organization to the new market requirements. But when they venture to more distant countries, they need to change the embedded structures and routines which might be cumbersome. Therefore, their multinationality-performance curve will be inverted U-shaped. They found empirical evidence for both hypotheses by testing the

internationalization-performance relation of companies of 16 developed countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom and the United States).

If we test this model with our selected studies we get mixed results. According to the model, companies from the US should have an inverted U-shaped multinationality-performance curve. It matches with the research of Gomes and Ramaswamy (1999) and Hitt *et al.* (1997) who found an inverted U-shape when examining US firms. The model is partly in accordance with Tallman and Li (1996) who found a positive but diminishing relationship between internationalization and performance (similar to the inverted U); and it does not contradict the findings Thomas and Eden (2004) either, because their curve is also inverted U-shaped but the curve curls up at the end, forming an S. Riahi-Belkaoui (1998) also found an S-shaped curve (with US companies) but in his model performance decreases until 14% of DOI and only then starts to increase. Nevertheless, Riahi-Belkaoui's findings do not contradict with the model of Elango and Sethi, but they suggest that even on familiar markets companies meet entry barriers and their performance decreases for a short period before it starts to increase. The model, however, contradicts with the research done by Collins (1990) and by Hsu and Pereira (2006), since the former found a negative relationship and the latter found a positive linear relationship when studying American companies. It is difficult to compare the model with Grant's (1987) and Ruigrok and Wagner's (2003) results because the UK and Germany are somewhere in between small markets with intense trade and large markets with modest trade. The findings of Ruigrok *et al.* (2007), however, contradict with the model because instead of a positive linear relationship, Swiss companies' multinationality-performance curve is inverted U-shaped.

Yet, it must not be forgotten that there are numerous other variables included, therefore, it is hard to conclude whether Elango and Sethi's model is truly valid. Nevertheless, we argue that it makes sense to take the country of origin effect seriously. This finding holds valuable practical implications for managers, because it encourages them to take their specific home-country effect into account. In each individual case, the match between the home country and the host country should be evaluated. The expected entry barriers and the potential effects of cultural, legal and other differences should be considered.



## **Product diversification**

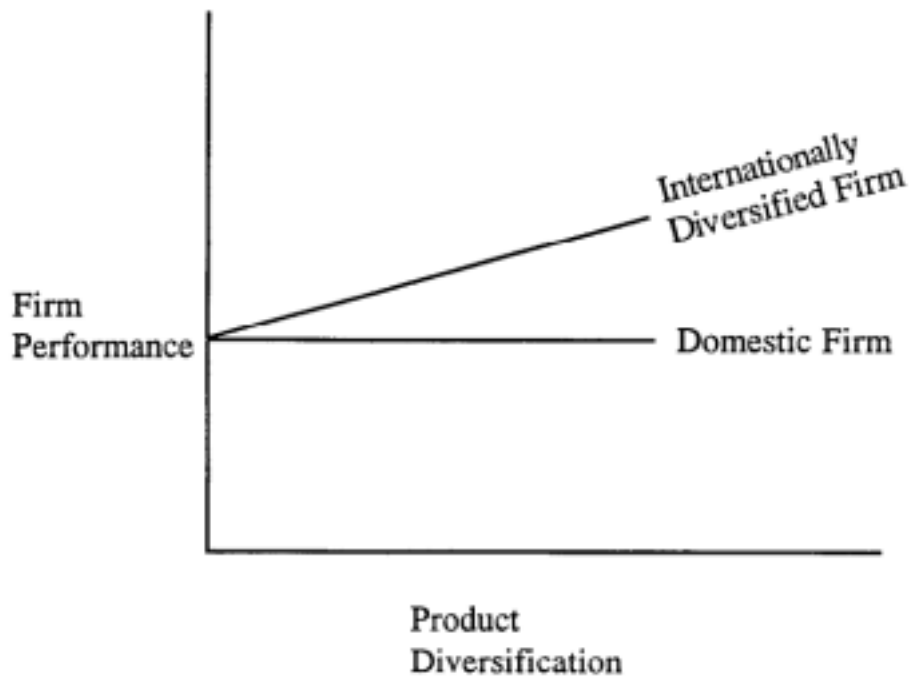
We have also found that the degree of product diversification can potentially highly confound with performance, international diversification and the multinationality-performance relationship. „The interaction between international and product diversification is important [...] and some refer to the interaction of these two types of diversification as global diversification” (Hitt *et al.*, 1994, p. 304). As the global market is tuned towards better products yet low costs, every multinational firm has to take a challenging decision on the degree of product diversification in order to successfully compete on the global market. Many researchers have investigated product diversification and international diversification separately, and some have looked into the interaction between the two variables. However, the dynamics between product diversification and international diversification are rather complex and the studies have yielded mixed results. Hitt *et al.* (1997) and Tallman and Li (1996) found that international diversification moderates relationship between product diversification and firm performance. On the other hand, Geringer *et al.* (1989) came to the conclusion that international and product diversification have influence on performance individually but they found no evidence for a joint effect.

Geringer *et al.* (1989) were among the first researchers to look into the interrelationship of product diversification, internationalization and firm performance. As we discussed earlier, they found that internationalization affects performance positively up to a point, from which performance declines due to excessive managerial tasks and complex organizational structures. When it comes to product diversification, they distinguished between related-product diversification, i.e. expansion into product markets related to the company’s core skills, and unrelated product diversification, which refers to entering product markets where the company has not been involved previously. They found that related-product diversification results in better performance than single-product strategy or nonrelated-product diversification. However, they found no joint effect of product and international diversification.

Tallman and Li (1996), drawing on Geringer *et al.* (1989) among others, hypothesised that product diversification generates superior performance as long as it stays within the limits of the core competence of the company. They also predicted that international diversification has positive effects on performance in case of unidimensional companies, no effects in case of

related-product diversified companies, and negative effects in case of unrelated-product diversified companies. They found that product diversification leads to superior performance, especially in related products, but after reaching a threshold performance decreases. The relationship is moderated by the degree of internationalization in such a way that “international diversity may exacerbate the performance effects of intermediate levels of product diversity (increase the up-and-down slopes of the curve regression line)” (p. 192). However, they also admitted that their results are not conclusive due to the lack of direct effects among some of the variables which might derive from the small size of the research sample.

We find it interesting that the hypothesis of Hitt *et al.* (1997) is highly in contrast with that of Tallman and Li (1996) as they state that “international diversification is related to performance in nondiversified firms, positively related in highly product-diversified firms, and curvilinearly related in moderately product-diversified firms” (p. 767). This is somewhat surprising since one would expect performance to drop at high degrees of internationalization combined with high product diversification due to the complexity of the organization structure and the difficulties in managing the company. Their reasoning builds on the idea that that product- and internationally diversified companies can deploy their internal structures to allocate resources efficiently. For example, transferring prices of products from different geographical units across countries enables the companies to make the maximum profit with minimum costs. One unit of the company can transfer a product with low price from one geographical region to another unit. When the other unit receives the product, it is able to maximize the price of the product in the new market. Multinational firms have more capabilities in allocating their resources from different geographical units. However, this process of exporting and importing trading requires well- planning from the management, transactional cost, internal coordination across regions, strategic marketing etc. Thus, the authors emphasise the importance of transnational capability in order to achieve potential economic performance.



**Figure 10.** Moderating Effect of International Diversification on the Relationship Between Product Diversification and Firm Performance  
(Hitt *et al.*, 1997, p. 306)

Due to the mixed conclusions of previous studies, investigating product diversification does not help us to clear the picture on the relationship between internationalization and performance, but makes it even more complex. Despite the controversial empirical results, we find it reasonable to expect that product diversification moderates the relationship between multinationality and performance and vice versa, i.e. internationalization moderates the effects of product diversification on performance. On the one hand, companies can exploit the benefits of product diversification on a larger scale and they can allocate their resources more efficiently if they operate on an international level. On the other hand, both internationalization and product diversification increase organizational complexities and make it more difficult to manage the companies, therefore, it is logical that their combined effects decrease performance after a certain level.

## Summary of the Analysis

Authors	Year	Shape of the curve	Multinationality measures	Performance measures	Control variables	Time period	Country of origin
Grant	1987	positive linear	FSTS	ROA, ROE, ROS, sales growth, profit growth	size, industry, other potential influences	averaged 1972-84, subperiods 72-75, 76-79, 80-84 and 72-75 to 80-84, 76-79 to 80-84	British
Hsu and Pereira	2006	positive linear	FSTS, FATA, FFTP	ROE, ROI, ROS	size, technology and market uncertainty	one time	US
Han et al	1998	positive linear	FSTS	ROE	size, industry, leverage, firm life cycle, R&D expenses	one time 1994	G7
Hughes et al	1975	not very strong link	FSTS, FATA	risk-free ROA	-	1970-73	US
Tallman and Li	1996	positive diminishing	FSTS, nr of countries	ROS	size, industry growth, leverage	one time 1987	US
Wan	1998	no relation	FSTS, nr of regions	ROE, sales growth, SDROE	size, industry	one time, average 1990-91	Hong-Kong
Collins	1990	no or negative	FSTS, nr of countries	ROE	-	Multinationality: 1983, Performance 1976-85	US
Geringer et al	1989	inverted U	FSTS	ROA, ROS	country of origin	one time, average 1977-81	Eu and US
Hitt et al	1997	inverted U	FSTS, regions weighed by sales	ROA	size, industry, country scope, mode of internationalization	one time, average 1988-90	US
Gomes and Ramaswamy	1999	inverted U	FSTS, FATA, nr of countries	ROA, OCTS	size, industry	1990-95, pooled cross-section and time-series data	US
Ruigrok and Wagner	2003	U	FSTS	ROA, OCTS	size, industry	5-year average and pooling	German
Riahi-Belkaoui	1998	S, first down	FSTS	ROA	size	1987-93, pooling	US
Ruigrok et al	2007	S, first up	FSTS	ROA, SDROA	size, industry	1998-2005, pooling	Swiss
Thomas and Eden	2004	S, first up	FSTS, FATA, nr of countries	ROA, ROE, EMV, AMV	size, ownership asvantages, tech intensity, admin costs	1990-94, pooling + long term performance variables	US

## DISCUSSION

In the Analysis we have presented the five dominating models to describe the relationship between internationalization and performance. Then we identified six key issues that determine this relationship and give explanations on the discrepancies of the previous studies. In the followings we are going to give a short summary on the findings and highlight and discuss the crucial areas; then we examine what implications that can be drawn from them. Finally, we are going to conclude in the key learning points of our study and give suggestions for future research.

From our literature review, four authors found a positive linear relationship between internationalization and performance. In one of the most significant studies of the field, Grant (1987) found that multinational companies have several advantages over local companies. They can exploit intangible assets, benefit from superior financial power, undertake higher risk due to risk spreading and take advantage of a broader range of investment opportunities. Based on these benefits, Grant hypothesized and empirically supported that internationalization brings about enhanced performance. Hsu and Pereira (2006) combined the theories of the multinationality-performance relationship with organizational learning. They also found that internationalization has a positive effect on performance but it is moderated by the organizational learning skills of the company. Han *et al.* (1998) explained that multinationality increases performance because companies can choose optimal locations for their operations and they can better satisfy certain local demands than domestic companies. Hughes *et al.* (1975) found that multinationals enjoy lower risk but they do not overperform their local competitors.

Tallman and Li (1996) investigated both product diversification and international diversification and hypothesized that the former would enhance performance up to a certain point whereas the latter would have a positive linear relationship with performance. Their results, however, only confirmed their hypothesis on product diversification and showed no significant connection between multinationality and performance. Wan (1998) also expected that international expansion of the Hong-Kong firms in his study would entail increased performance, but he found no difference between multinational and domestic firms. The results of Collins (1990) showed that the performance of domestic companies and

international companies involved in developed countries are similar, whereas those in developing countries perform lower.

Geringer *et al.* (1989) found that performance increases by internationalization but only up to a certain point from which it declines due to the costly construction of organizational structures. Hitt *et al.* (1997) also came to the conclusion that the multinationality-performance curve was inverted U-shaped, and called attention to the transnational capabilities of the firm in determining the apex of the slope. Similarly to Geringer *et al.*, Gomes and Ramaswamy (1999) explained the decline of performance at higher degrees of internationalization with the complexity of the organizational structure.

Ruigrok and Wagner (2003) showed an initial decrease in corporate performance because companies cannot use their home-based skills on the unfamiliar markets that they enter. Later they learn to adapt to the conditions and performance increases, thus the curve depicts a U-shape.

Riahi-Belkaoui (1998) departed from the same idea as Ruigrok and Wagner, and found that performance decreases first due to costly entry barriers and then it starts to increase. However, he completed the curve with a decline of performance at the end, above the optimal degree of multinationality. Therefore, the curve will be S-shaped. Ruigrok *et al.* (2007) found that in case of Swiss companies corporate performance increases initially because they have the possibility to enter fairly large related markets where the entry barriers are low. Then they follow a similar S-shaped curve. Thomas and Eden (2004) generally stated that performance would increase initially, then decline and finally increase again.

The conflicting theoretical and empirical outcomes call for a thorough analysis to examine the causes of the discrepancy. We found methodological differences in the studies as well as different conditions of the examined companies that can serve as explanation. We summarize the findings in the followings.

One reason for the discrepancy can be that the authors in our literature selection conceptualized and measured internationalization in various ways. There are several dimensions of multinationality and in order to get a true picture about how internationalized a company is, most of these dimensions must be taken into account. One dimension comprises of financial measures such as Foreign Sales to Total Sales (FSTS) and Foreign Profit to Total Profit (FTPT). Foreign Assets to Total Assets (FATA) and the ratio between foreign employees to total employees represent the structural or operational dimension. A third

dimension can be indicated by the number of countries or regions where the company is present.

Performance also has several dimensions which should be included in the measurement. Financial measures are Return on Assets (ROA), Return on Equities (ROE), Return on Sales and Return on Investment (ROI) as well as change in sales (SALEG) and standard deviation of ROE (SDROE). Excess Market Value (EMV) and Average Market Value (AMV) can assess intangible resources and longer-term performance of the company. To get a more balanced view on performance, operational measures can be included, such as Operating Cost to Total Sales (OPSAL or OCTS).

The fact that the authors used different control variables could possibly lead to dissimilarities in the results. The two most frequently used variables are firm size and industry effects. Alternative factors to control for are debt versus equity financing, R&D and administrative expenses, company life cycle, country scope and ownership advantages.

Time plays one of the crucial roles when assessing the impact of internationalization on performance. Costs normally precede benefits, and there are long-term and short-term benefits. In order to avoid biases deriving from the use of different time periods, researchers need to apply multiple study periods and long-term measurements of performance, e.g. EMV and AMV.

It has been proved that the multinationality-performance curve highly depends on the home country and the host country of the international company. Geographically and culturally distant markets put greater obstacles for the process of internationalization and the costs of the entry barriers are higher. Furthermore, companies from small countries with intense trade tend to internationalize earlier and easier than companies from countries with a large domestic market and modest trade.

Finally, the relationship between product and international diversification must be taken into consideration. However, research results are mixed. Some studies have concluded that the two forms of diversification enhance each other; whereas others stated that over-diversifying has a negative effect on performance.

It is obvious from the above that the relationship between internationalization and performance is highly complex, multidimensional and involves a multitude of factors. In the followings we are going to elaborate the discussion on two topics: research methodological questions and issues about the nature of internationalization.

We found it surprising that none of the previous research included qualitative methods in the empirical study. Hsu and Pereira (2006) were the only authors that contacted the companies with a survey; all other researchers analyzed data obtained from databases. To explain the phenomena and to look for underlying factors of the internationalization-performance relationship authors made up hypotheses and used widely accepted assumptions. Even if their hypotheses match the results, we cannot be sure if there really is a link between the hypothesized causes and the effects. We find this the greatest limitation of earlier studies. Interviews with managers involved in the internationalization process could reveal the nature of the problems that they encounter throughout the process. Asking open-ended questions can potentially result in explanations that break with conventional assumptions. However, we also acknowledge the two main limitations of such studies. First, their samples are small compared to the data-base studies. Second, the answers of interviewees might also be biased by their beliefs, routines, or will to show a positive picture of their company. Nevertheless, interviewing people in different organizations, positions and hierarchical levels, as well as undertaking a critical approach to their answers can eliminate those biases and the studies could contribute to the academic field with new valuable insight. Moreover, the interviews could be used as complementary research besides the conventional studies. We strongly argue that combining qualitative and quantitative research would yield conclusions of much higher validity than earlier studies.

A limitation to all studies in this field is the measurement of the factors “multinationality” and “performance”. We have presented and compared various measures, however, we see two problems with applying them. First, if researchers use all the potential measures of the terms, their study will be too complex to handle and draw relevant conclusions from. Second, even in case of a multidimensional approach of performance, some aspects of strategic internationalization will be missed. Even though some of the measures aim to assess long-term performance benefits, there are some strategic, long-term advantages of multinationality – e.g. an international diversity of the organizational culture – that cannot be measured. Furthermore, increasing performance is not the only purpose of internationalization. For instance, some companies need to expand internationally because of the limitations of their domestic markets, or due to the heavy international competition. Their strategic goal is to survive and stabilize their position; and it is impossible to measure the success of this goal with performance measures.



When it comes to the nature of internationalization, one of the major conflicts that we need to resolve is the shape of the multinationality-performance curve. The first question is whether there is a performance decline in the beginning due to costly entry barriers, or performance increases first before it decreases. Our answer is that it depends on a number of factors. The most important such factor is the country of origin and the host country. Companies from small and open countries tend to encounter smaller entry barriers. Also, if companies first expand to geographically close markets where the culture, the legal framework, the business environment etc. is similar to those in their home countries, they are also likely to have an easier path. Even so, there might be an initial decline in performance; much depends on the mode of internationalization they engage in. If they establish a subsidiary or especially a production unit, it takes time before these units yield revenues. For example, opening a sales office entails costs, like office rental, legal costs, recruiting and paying staff, establishing a network of resellers etc, but it might take several months before the office starts functioning and selling. On the other hand, if a company decides to sell directly to customers, or through an agent, the costs in the beginning will be limited and revenues might flow in immediately. Therefore, the initial way of the curve is idiosyncratic for each firm, depending on the individual conditions.

The next question is whether there is a threshold of internationalization after which organizational complexity decreases performance. It is reasonable to accept that it is more difficult to manage a larger, more complex organization that stretches into a wide geographical range. There is no doubt that keeping performance up in such a company is hard. However, we find it simplistic to conclude that a certain degree of internationalization can indicate the place of the threshold, for several reasons. First of all, a methodological reason is that the DOI might not increase even if the company continues to expand internationally if it grows domestically at the same time. Thus, organizational complexity increases and performance is likely to decrease whereas the DOI remains the same. Furthermore, managerial skills and firm's capability for organizational learning (i.e. flexibility and adaptability) can facilitate the international growth of the company and keep the performance high. Some authors have also claimed that performance drops at high DOI because companies reach more distant markets at that point of their development. However, if the international expansion happens gradually, the company can adapt its structure gradually to the new conditions and its performance is not bound to decline.

## **CONCLUSIONS AND IMPLICATIONS**

From our Analysis and Discussion, we can firmly conclude that there is no generally applicable model to describe the relationship between internationalization and performance. There are numerous factors that influence this relationship, such as how multinationality and performance are conceptualized and measured, the examined time period, the geographical and cultural distance between the home and host countries of the companies, the moderating effects of product diversification, the mode of internationalization, and third factors like the size of the company, the industry, debt versus equity financing, firm life cycle, R&D expenses. Every individual company has a combination of all these factors, which put the company into an idiosyncratic position. The curve for each company will be different; though, obviously, many of them will be similar. This makes it impossible to depict a general curve of the relationship, and the validity of every research attempting to do so is questionable.

Although it is not possible to conclude in a model that settles the academic debate about the internationalization-performance relationship and gives easy-to-follow guidelines for managers, we have concluded in valuable implications for both academic researchers and practicing managers.

### **For academic researchers**

Our main implication for future studies is that qualitative research – especially in-depth interviews – needs to be conducted in order to get a better understanding of the nature of internationalization. The limitation of such research is that it cannot undertake a broad sample, thus general conclusions cannot be drawn from them. Nevertheless, the aim would be to investigate some underlying aspects of internationalization which would complete earlier findings. Therefore, carrying out both qualitative and quantitative research could result in a more comprehensive picture. Furthermore, other research, which investigates how to facilitate the process of internationalization and develop successful strategies, could be incorporated. Combining the two areas could yield highly valuable implications for practicing managers.

### **For practicing managers**

Even though there is no general model that gives directions for managers, knowing about all the influencing factors can be practically valuable for managers. By taking all these factors into account, they can place their company in the matrix of the factors, and learn about what they can expect during the process of international development. This can help them to plan which markets to enter and how, when and in what sequence; what costs and benefits to expect at particular stages of internationalization; what resources are necessary and how to allocate them. However, it is crucial to note that the exact development course of the company cannot be predicted. Awareness and consideration of the factors only facilitate the process but it does not give a guaranteed recipe.

## Abbreviation Index

AMV	Average Market Value
COE	Country of origin effect
DOIs	Degrees of internationalization
ELIN	Electronic Library Information Navigator
EMV	Excess Market Value
FATA	Foreign Assets to Total Assets
FDI	Foreign direct investment
FSTS	Foreign Sales to Total Sales ratio
FPTP	Foreign Profit to Total Profit
GATT	General Agreement on Tariffs and Trade
MNC	Multinational Company
MNE	Multinational Enterprise
OPSAL/OCTS	Operating Cost to Total Sales
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
ROS	Return on Sales
SALEG	Measuring the growth of sales
SDROE	Standard deviation of ROE
WTO	World Trade Organization

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